MINNESOTA STATE BOARD OF INVESTMENT

MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
December 1, 2016

Governor Mark Dayton

State Auditor Rebecca Otto

Secretary of State Steve Simon

Attorney General Lori Swanson

This page intentionally left blank.

STATE BOARD OF INVESTMENT

AGENDA AND MINUTES

December 1, 2016

This page intentionally left blank.

AGENDA
STATE BOARD OF INVESTMENT MEETING
Thursday, December 1, 2016
10:00 A.M.
Retirement Systems Building
Room 106 – Main Floor
60 Empire Drive, St. Paul, MN

TAB

1. Approval of Minutes of September 8, 2016

2. Report from the Executive Director (Mansco Perry)

A. Quarterly Investment Review (July 1, 2016 – September 30, 2016) **A**

B. Administrative Report **B**
1. Reports on Budget and Travel
2. FY16 Audit Report
3. Draft of FY16 Annual Report
4. Meeting Dates for Calendar Year 2017
5. Sudan Update
6. Iran Update
7. Litigation Update

C. Asset Allocation Transition Update **C**

D. Report on Minnesota Achieving a Better Life Experience (ABLE) Plan **D**

3. Investment Advisory Council Report (Jeff Bailey)

A. Public Markets: Investment Manager Review, Fixed Income **E**

B. Public Markets: Investment Manager Review, International Equity **F**

C. Private Markets Report **G**

1. Review of current strategy

2. Consideration of investment commitments with four existing managers and two new managers

D. Public Markets Report **H**

1. Third Quarter Performance

2. Public Markets: Emerging Markets Manager Search **I**

4. Report from SBI Investment Consultant Review Committee (Dave Bergstrom)

5. Other items

This page intentionally left blank.

Minutes
State Board of Investment
September 8, 2016

The State Board of Investment (SBI) met at 10:05 A.M. Thursday, September 8, 2016 in Room 106, Retirement Systems Building, St. Paul, Minnesota. Governor Mark Dayton, State Auditor Rebecca Otto, Secretary of State Steve Simon, and Attorney General Lori Swanson were present. The minutes of the June 2, 2016 meeting were approved as amended.

Executive Director's Report

Executive Director Mansco Perry referred members to Tab A of the meeting materials, and he reported that the Combined Funds had outperformed its Composite Index over the ten-year period ending June 30, 2016 (Combined Funds 6.5% vs. Composite 6.3%) and had provided a real rate of return of 5.3% above inflation over the latest 20 year period (Combined Funds 7.5% vs. CPI 2.2%).

Mr. Perry stated that assets increased slightly over the quarter (Combined Funds ending value of $57.8 versus a beginning value of $57.6 billion). The Combined Funds return was 20 basis points (bps) below the benchmark for the quarter (Combined Funds 1.4% vs. Composite 1.6%) and 120 bps below for the year (Combined Funds -0.1% vs. Composite 1.1%). The underperformance extended into the three-year period but the Combined Funds outperformed its target in all other time periods reported.

Mr. Perry reported that the domestic stock manager group underperformed its target for the quarter (Domestic Stocks 2.0% vs. Domestic Equity Asset Class Target 2.6%) and for the year (Domestic Stocks 0.0% vs. Domestic Equity Asset Class Target 2.1%). He said that the international stock manager group underperformed its target for the quarter (International Stocks -0.8% vs. International Equity Asset Class Target -0.6%) and outperformed for the year and over longer time periods. Mr. Perry then stated that the bond segment outperformed its target for the quarter (Bonds 2.4% vs. Fixed Income Asset Class Target 2.2%), underperformed for the year (Bonds 5.9% vs. Fixed Income Asset Class Target 6.0%) but outperformed its target in all other time periods reported. He stated that the alternative investments detracted from performance for the quarter but was positive for the year (total return of -0.3% and 0.2%, respectively). Mr. Perry concluded his report noting that, as of June 30, 2016, the SBI was responsible for managing over $80.9 billion of assets.

Mr. Perry referred members to Tab B of the meeting materials for the administrative report. He reported that for the fiscal year the SBI finished under budget. Mr. Perry stated that Tab B contained updated information for Sudan and Iran. He noted that there is currently no litigation involving the SBI.

Jeff Bailey, Chair of the Investment Advisory Council (IAC), referred members to Tab C and provided an overview of the agenda items covered at the August 22, 2016 meeting.

Mr. Bailey reviewed the five alternative investment proposals brought to the IAC. Four of the firms are existing managers: Prudential Capital Partners V (Private Credit), Permira Fund VI (Private Equity), and Warburg Pincus China, L.P. (Private Equity); and Angelo Gordon Asia Realty Fund III (Real Estate); and one new manager Thoma Bravo Fund XII (Private Equity). Secretary of State Simon moved approval of all five recommendations in Tab C 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 Prudential Capital Partners V, 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 Prudential Capital Group upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Prudential Capital Group or reduction or termination of the commitment.**

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to €150 million, or 20% of Permira 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 Permira Advisers LLC 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 Permira Advisers LLC 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 Thoma Bravo Fund XII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Thoma Bravo, LLC 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 Thoma Bravo, LLC 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 $50 million, or 20% of Warburg Pincus China, L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the

Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Warburg Pincus LLC 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 Warburg Pincus LLC 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 $50 million, or 20% of AG Asia Realty Fund 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 Angelo, Gordon & Co., L.P. 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 Angelo, Gordon & Co., L.P. reduction or termination of the commitment. The motion passed.

Mr. Bailey referred members to Tab D, which contained a summary of the public markets performance and performance of the Board's public market managers, and to Tab E, which contained the Small-Cap Growth Manager Search recommendations.

There was discussion regarding the higher allocation to passive management within domestic equities. Mr. Simon asked about how nimble the process will be in the future to move between actively managed and passively managed mandates as opportunities may arise. Mr. Perry confirmed that the SBI is moving to a smaller active management allocation, but will continue to be invested with active managers and will be deliberate in the transition.

Secretary of State Simon moved approval of the recommendation in Tab E of the meeting materials, which reads: **"The Investment Advisory Council concurs with Staff's recommendation to retain up to four of the following small-cap growth investment managers for the Domestic Equity portfolio: Arrowpoint Asset Management LLC; Hood River Capital Management, LLC; Rice Hall James & Associates, LLC; and Wellington Management Company LLP and that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate fees and execute a contract with each firm."** The motion passed.

The meeting adjourned at 10:22 a.m.

Respectfully submitted,

Mansco Perry III
Executive Director and
Chief Investment Officer

This page intentionally left blank.

TAB

A

This page intentionally left blank.

LONG TERM OBJECTIVES
Period Ending 9/30/16

COMBINED FUNDS: $59.5 Billion	Result	Compared to Objective (2)
Match or Exceed Composite Index (10 Yr.) 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.	6.5% (1)	0.2 percentage point above the target
Provide Real Return (20 Yr.) Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.	7.6%	5.5 percentage points above CPI

(1) Performance is calculated net of fees.
(2) Differential from composite may occur due to rounding.

This page intentionally left blank.

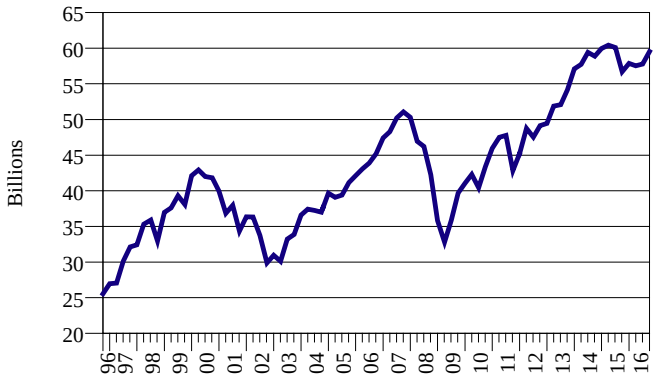
EXECUTIVE SUMMARY
Combined Funds (Net of Fees)

Asset Growth

The market value of the Combined Funds increased 3.0% during the third quarter of 2016. The negative net contributions were outweighed by positive investment returns during the quarter.

	Asset Growth During Third Quarter 2016 (Millions)
Beginning Value	$57,804
Net Contributions	-605
Investment Return	2,348
Ending Value	$59,547

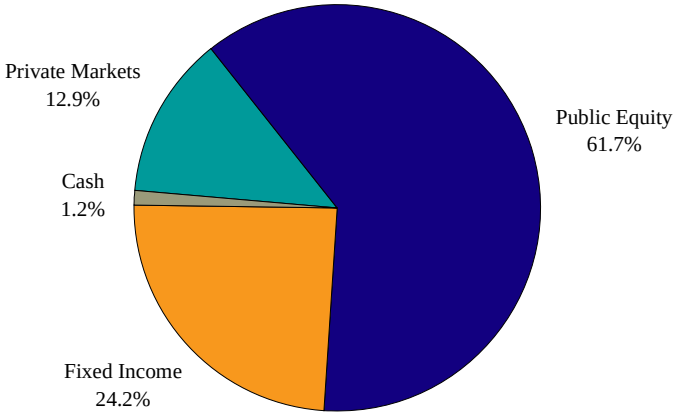
Combined Funds Market Value



Asset Mix

On July 1, 2016 the Combined Funds policy target changed as reflected below. During fiscal year 2017, assets will gradually be transitioned from Bonds to Public Equity to reflect the new policy of holding uninvested Private Markets assets in the Public Equity portfolio.

	Policy Targets	Actual Mix 9/30/16	Actual Market Value (Millions)
Public Equity	58.0%	61.7%	$36,756
Bonds	20.0%	24.2%	14,394
Private Markets*	20.0%	12.9%	7,703
Cash	2.0%	1.2%	694
	100.0%	100.0%	$59,547

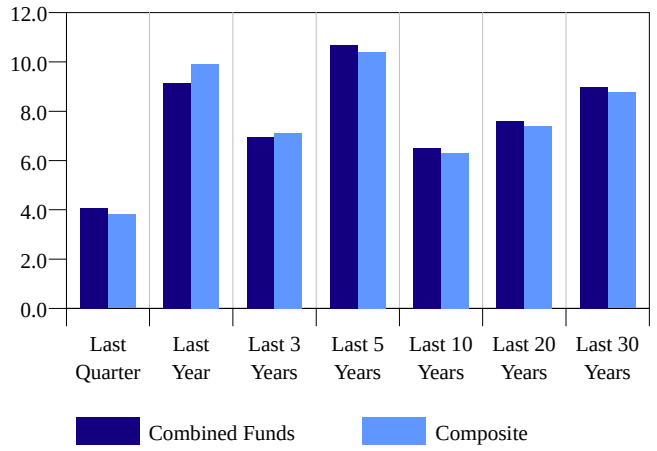


* Any uninvested allocation is held in bonds and public equity.

Fund Performance (Net of Fees)

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

	Periods Ended 9/30/16						
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
Combined Funds	**4.1%**	**9.1%**	**7.0%**	**10.7%**	**6.5%**	**7.6%**	**9.0%**
Composite	3.8%	9.9%	7.1%	10.4%	6.3%	7.4%	8.8%



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)

Public Equity

The public equity manager group (active, semi-passive and passive combined) outperformed its target for the quarter.

Public Equity Target: Effective 7/1/2016 the Public Equity Target is 75% Russell 3000/ 25% MSCI ACWI Ex-US. This target will transition over time to 67% Russell 3000/ 33% MSCI ACWI Ex-US.

	Periods Ended 9/30/16				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**
Public Equity	5.3%	12.1%	7.6%	14.0%	6.2%
Public Equity Target	**5.0%**	--	--	--	--

Domestic Stocks

The domestic stock manager group (active, semi-passive and passive combined) outperformed 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 9/30/16				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**
Dom. Stocks	**4.8%**	**13.3%**	**9.9%**	**16.3%**	**7.2%**
Asset Class Target*	4.4%	15.0%	10.4%	16.4%	7.4%

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

International Stocks

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

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

	Periods Ended 9/30/16				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**
Int'l Stocks	**6.7%**	**8.4%**	**0.9%**	**6.9%**	**2.7%**
Asset Class Target*	6.9%	9.3%	0.2%	6.0%	2.2%

* 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) outperformed its target for the quarter and the year.

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

	Periods Ended 9/30/16				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**
Bonds	**0.9%**	**6.0%**	**4.4%**	**3.9%**	**5.1%**
Asset Class Target	0.5%	5.2%	4.0%	3.1%	4.8%

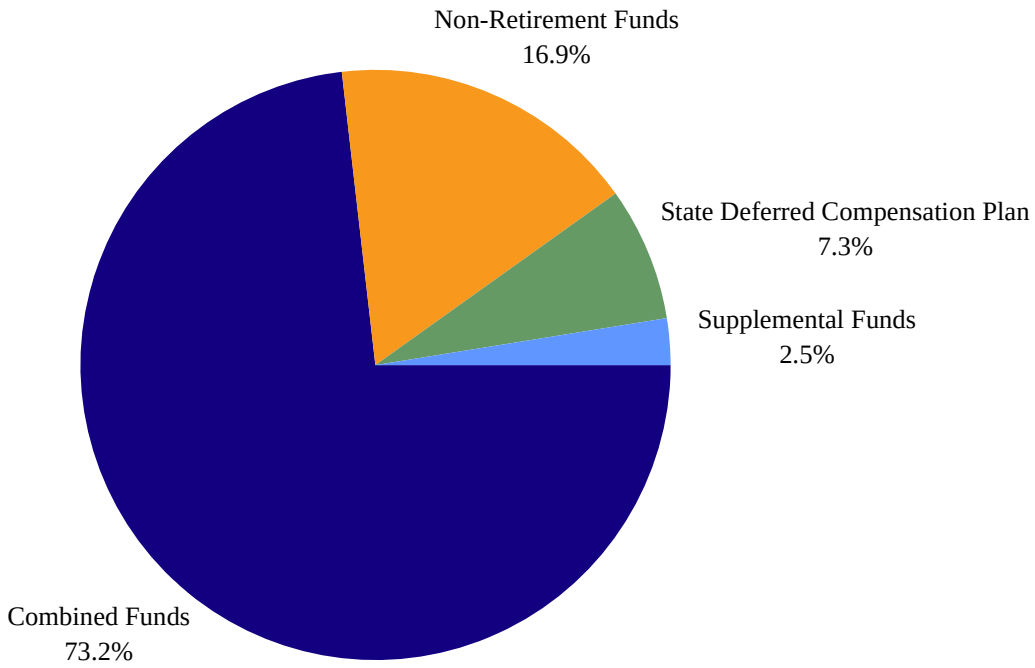
Private Markets

	Periods Ended 9/30/16				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**
Private Markets	**5.2%**	**2.5%**	**9.7%**	**9.7%**	**9.8%**

Note: All periods over one year are annualized.

EXECUTIVE SUMMARY

Funds Under Management



	9/30/16 Market Value (Billions)
Retirement Funds	
Combined Funds	$59.5
Supplemental Investment Fund	2.1
(Excluding Deferred Compensation Plan Assets)	
State Deferred Compensation Plan	6.0
Non-Retirement Funds	
Assigned Risk Plan	0.3
Permanent School Fund	1.2
Environmental Trust Fund	0.9
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.2
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	9.3
Minnesota College Savings Plan	1.2
Total	**$81.4**

Note: Amounts and percentages may not add due to rounding.

This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Third Quarter 2016
(July 1, 2016 - September 30, 2016)

Table of Contents

Page

Capital Market Indices 2

Financial Markets Review 3

Combined Funds 5

Stock and Bond Manager Pools 9

Private Markets 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 September 30, 2016					
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**	**Last 20 Years**
Domestic Equity						
Russell 3000 (broad market)	4.4%	15.0%	10.4%	16.4%	7.4%	8.0%
Russell 1000 (large cap)	4.0	14.9	10.8	16.4	7.4	8.1
Russell 2000 (small cap)	9.0	15.5	6.7	15.8	7.1	8.1
Dow Jones Wilshire Composite	4.4	14.9	10.4	16.3	7.5	8.1
Dow Jones Industrials	2.8	15.5	9.2	13.8	7.4	8.3
S&P 500	3.9	15.4	11.2	16.4	7.2	7.9
Domestic Fixed Income						
Barclays Aggregate (1)	0.5	5.2	4.0	3.1	4.8	5.6
Barclays Gov't/Credit	0.4	5.9	4.2	3.2	4.9	5.7
3 month U.S. Treasury Bills	0.1	0.3	0.1	0.1	0.9	2.4
International						
MSCI Emerging Markets Free Index (2)	9.0	16.8	-0.6	3.0	3.9	5.7
MSCI ACWI ex USA (3)	6.9	9.3	0.2	6.0	2.2	--
MSCI EAFE (4)	6.4	6.5	0.5	7.4	1.8	4.3
MSCI World ex USA (5)	6.3	7.2	0.3	6.9	1.9	4.5
Salomon Non U.S. Gov't Bond	0.6	12.6	1.2	0.2	3.9	4.3
Inflation Measure						
Consumer Price Index CPI-U (6)	0.2	1.5	1.0	1.2	1.8	2.1
Consumer Price Index CPI-W (7)	0.1	1.2	0.7	1.0	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 4.4% return for the third quarter of 2016. The market quickly shook off effects of the Brexit vote and continued to rally during the quarter. As investors regained confidence in the health of the economy and the sense of panic subsided, more volatile stocks began to recover, while the prices of many of the low volatility dividend stocks declined. Within the Russell 3000, Technology was the best performing sector with a 13.5% return while Utilities was the weakest sector with a -5.3% 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	4.6%
Large Value	Russell 1000 Value	3.5%
Small Growth	Russell 2000 Growth	9.2%
Small Value	Russell 2000 Value	8.9%

The Russell 3000 index returned 15.0% for the year ending September 30, 2016.

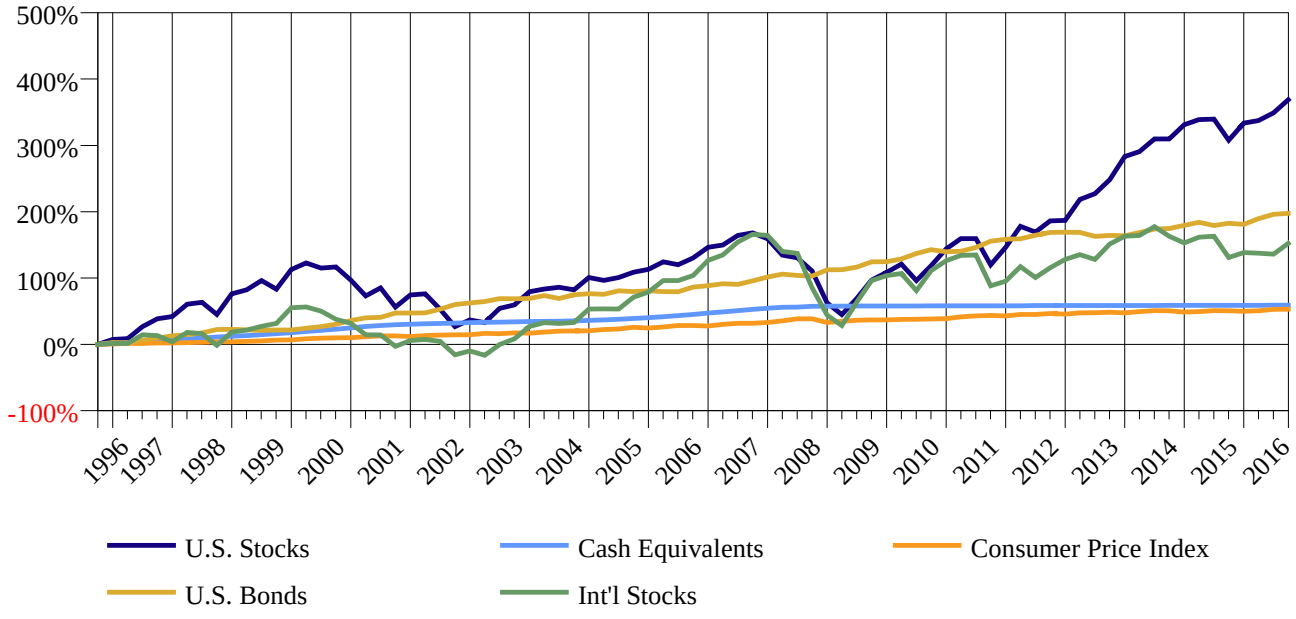
DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 0.46% for the quarter. The 2-year U.S. Treasury yield ended the quarter higher by 18 basis points at .76%, the 5-year increased by 15 basis points to 1.15%, the 10-year increased by 13 basis points to 1.60%, and the 30-year increased by 3 basis points to 2.32%. Corporate bonds were the biggest driver of performance followed by agency MBS and CMBS.

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

U.S. Treasury	-0.3%
Agency	0.3%
Corporates	1.4%
Agency MBS	0.6%
Commercial Mortgages	0.6%
Asset-Backed	0.2%

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 6.3% for the quarter. Developed markets had a positive quarter amid generally positive macroeconomic data and accommodative policies. However, uncertainty surrounding the United Kingdom vote to leave the European Union weighed on market sentiment during the quarter. The top performing sectors were Information Technology, Materials and Consumer Discretionary. The worst performing sectors were Health Care, Telecommunication Services and Utilities.

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

Japan	8.6%
United Kingdom	4.0%
France	6.4%
Canada	4.8%
Germany	10.0%
Switzerland	2.6%

The MSCI World ex USA index returned 7.2% during the last year.

EMERGING INTERNATIONAL MARKETS

Emerging markets (as measured by MSCI Emerging Market index net) provided a return of 9.0% for the quarter. Developing countries had a strong quarter as low valuations, improving fundamentals and higher yields drove fund flows into the asset class. The top performing sectors were Information Technology, Materials and Financials. The worst performing sectors were Utilities, Consumer Staples and Telecommunication Services.

The quarterly performance of the six largest stock markets, which comprise about 77% of the MSCI Emerging Markets index, is shown below:

China	13.9%
Korea	11.0%
Taiwan	11.7%
India	5.9%
Brazil	11.3%
South Africa	6.3%

The Emerging Markets Free index returned 16.8% during the last year.

REAL ESTATE

During the third quarter of 2016, private real estate achieved its 27th consecutive quarter of positive returns with the NCREIF Property Index posting a return of 1.8%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. An aggregate $19bn in private real estate funds was raised in 3Q16, with approximately 80% of the total amount focused on North American properties. Closed-end private real estate dry powder stands at $225bn, but 65% of institutional investors still plan to commit more than $50mn to the space over the next 12 months. (Sources: NCREIF; Preqin)

PRIVATE EQUITY

During the third quarter of 2016, an aggregate $62 billion in private equity funds was raised across 170 funds. Buyout funds topped the list of aggregate capital raised with $36bn and Venture Capital closed the most funds with 76. Heading into 4Q16, there are 1,807 private equity funds raising capital, targeting an aggregate $495bn. Nearly two-thirds of the capital being raised will focus on North America and Europe. (Source: Preqin)

The aggregate value of the 408 buyout exits in 3Q16 was $81bn. The aggregate exit value essentially matched the average of the previous three quarters, but is below the $90bn average of the previous five years. The largest deal announced in the quarter was the $4.4bn buyout of Playtika Ltd, which was purchased by a consortium of five buyers. (Sources: Preqin)

RESOURCE FUNDS

During the third quarter of 2016, crude oil traded between a range of $39/bbl and $49/bbl. The average price for the quarter was $45/bbl, which was $1 below the average price from the second quarter. Institutional investors appear comfortable committing to energy strategies, as 91% of the aggregate capital raised within Natural Resources in 2016 has been committed to energy strategies. (Source: Bloomberg, Preqin)

COMBINED FUNDS

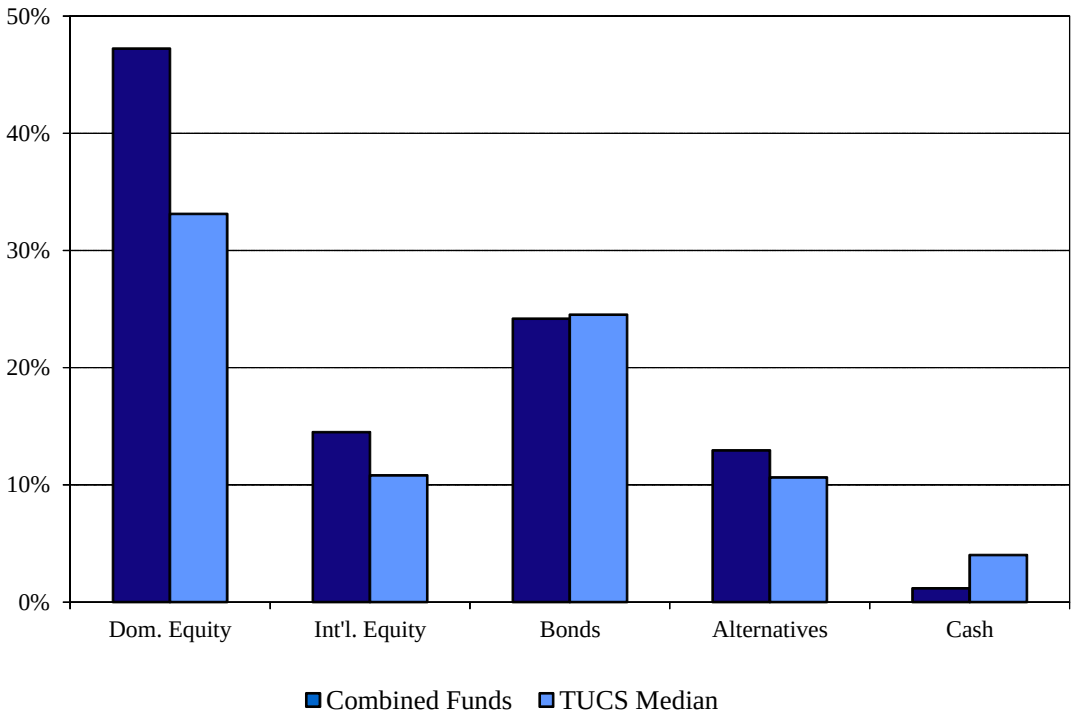
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over $1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

On 9/30/16, the asset mix of the Combined Funds was:

	$ Million	%
Public Equity	$36,756	61.7%
Bonds	14,394	24.2%
Private Markets*	7,703	12.9%
Cash	694	1.2%
Total	59,547	100.0%

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



	Domestic Equity	Int'l Equity	Bonds	Alternatives	Cash
Combined Funds	47.2%	14.5%	24.2%	12.9%	1.2%
Median Allocation in TUCS*	33.1%	10.8%	24.5%	10.6%**	4.0%

* Public and corporate plans over $1 billion.

** May include assets other than alternatives.

COMBINED FUNDS

Performance Compared to Other Pension Funds

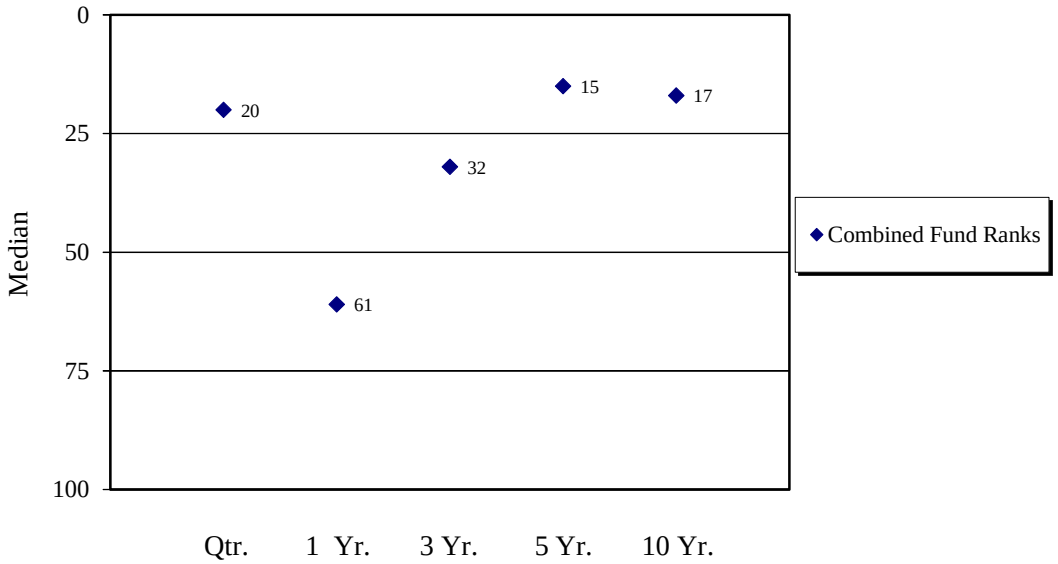
While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- **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 asset mix choices. Since asset mix will largely determine investment results, a universe ranking is not relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds in Trust Universe Comparison Service (TUCS) are shown below.

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



	Periods Ended 9/30/16				
	Quarter	1 Year	3 Years	5 Years	10 Years
Combined Funds Percentile Rank in TUCS*	20th	61st	32nd	15th	17th

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

Note: All periods over one year are annualized.

COMBINED FUNDS

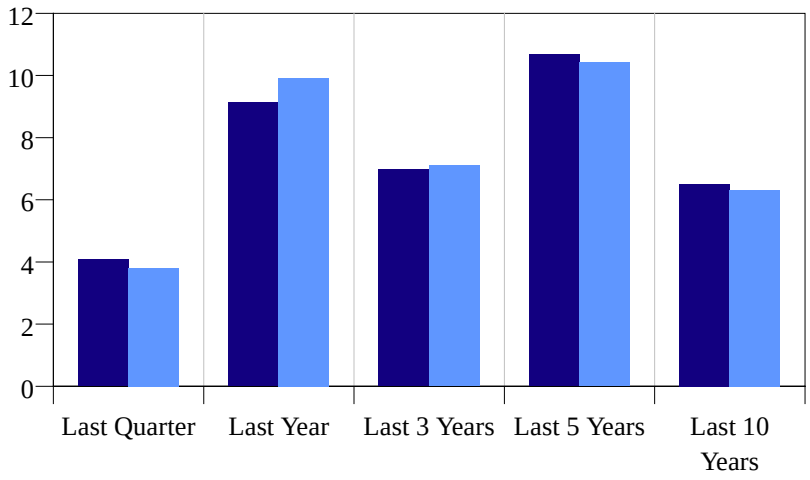
Performance Compared to Composite Index

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. Beginning July 1, 2016, the Combined Funds Composite composition entered a transition period as unfunded commitments to private markets shift from Bonds to Public Equity:

	Market Index	Combined Funds Composite 3Q16
Public Equity	75% Russell 3000/25% MSCI ACWI ex US	60.4%*
Bonds	Barclays Capital Aggregate	24.7%*
Private Markets	Private Markets	12.8%*
Unallocated Cash	3 Month T-Bills	2.1%*
		100.0%

*During the transition period all asset class weights are reset in the composite at the start of each month. The above Combined Funds Composite weighting was as of the beginning of the quarter.

Performance Comparison



Periods Ended 9/30/16

Combined Funds **		4.1%	9.1%	7.0%	10.7%	6.5%
Composite		3.8%	9.9%	7.1%	10.4%	6.3%

** Actual returns are reported net of fees.

Note: All periods over one year are annualized.

This page intentionally left blank.

STOCK AND BOND MANAGERS

Performance of Asset Pools

(Net of Fees)

Domestic Stocks

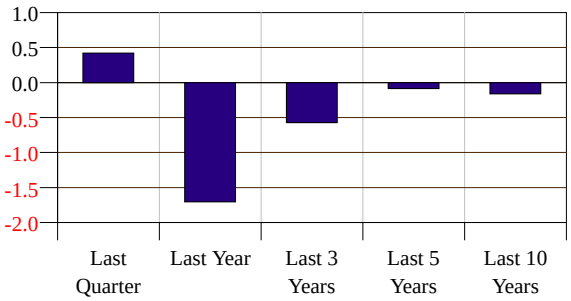
Target: Russell 3000

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Stocks	**4.8%**	**13.3%**	**9.9%**	**16.3%**	**7.2%**
Asset Class Target*	4.4%	15.0%	10.4%	16.4%	7.4%

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

Value Added to Domestic Equity Target (1)



International Stocks

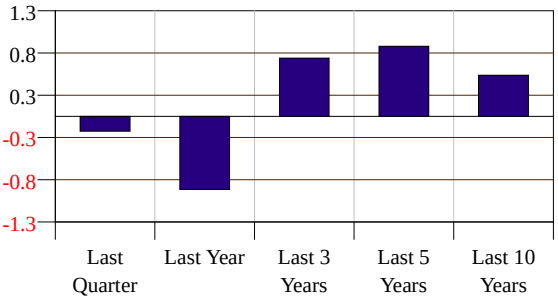
Target: Standard MSCI ACWI Free ex U.S. (net)

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Stocks	**6.7%**	**8.4%**	**0.9%**	**6.9%**	**2.7%**
Asset Class Target*	6.9%	9.3%	0.2%	6.0%	2.2%

* 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)



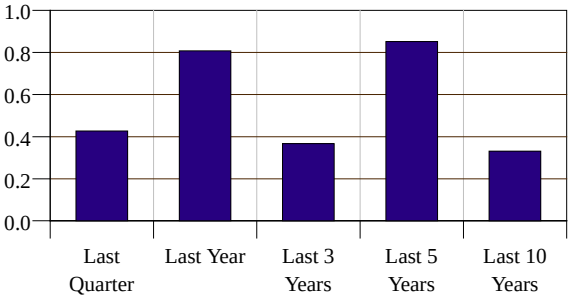
Bonds

Target: Barclays Capital Aggregate Bond Index

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bonds	**0.9%**	**6.0%**	**4.4%**	**3.9%**	**5.1%**
Asset Class Target	0.5%	5.2%	4.0%	3.1%	4.8%

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.

Private Markets

Performance of Asset Categories

(Net of Fees)

Private Markets

	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Markets	**5.2%**	**2.5%**	**9.7%**	**9.7%**	**9.8%**
Inflation	**0.2%**	**1.5%**	**1.0%**	**1.2%**	**1.8%**

Real Estate Investments (Equity emphasis)

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.

	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate	**0.8%**	**6.1%**	**14.6%**	**12.1%**	**6.0%**

Private Equity Investments (Equity emphasis)

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.

	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity	**3.9%**	**8.3%**	**13.6%**	**12.1%**	**11.7%**

Resource Investments (Equity emphasis)

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.

	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Resource	**11.9%**	**-17.8%**	**-5.1%**	**0.2%**	**6.4%**

Yield Oriented Investments (Debt emphasis)

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.

	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Yield Oriented	**5.6%**	**0.8%**	**8.5%**	**9.5%**	**10.9%**

Note: All periods over one year are annualized.

SUPPLEMENTAL INVESTMENT FUND

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

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

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

On September 30, 2016 the market value of the entire Fund was $2.1 billion.

Investment Options

	9/30/16 Market Value (In Millions)
Balanced Fund - a balanced portfolio utilizing both common stocks and bonds.	$385
U.S. Stock Actively Managed Fund - an actively managed, all common stock portfolio.	$214
U.S. Stock Index Fund- a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	$499
Broad International Stock Fund- a portfolio of non U.S. stocks that incorporates both active and passive management.	$182
Bond Fund - an actively managed, all bond portfolio.	$156
Money Market Fund - a portfolio utilizing short-term, liquid debt securities.	$368
Stable Value Fund - a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	$213
Volunteer Firefighter Account - a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	$56

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

BALANCED FUND

Investment Objective

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

Asset Mix

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

	Target	Actual
Stocks	60.0%	61.1%
Bonds	35.0%	34.3%
Cash	5.0%	4.6%
	100.0%	100.0%

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**3.0%**	**11.0%**	**7.9%**	**11.3%**	**6.8%**
Benchmark*	2.8%	10.9%	7.8%	10.9%	6.3%

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

U.S. STOCK ACTIVELY MANAGED FUND

Investment Objective

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

Asset Mix

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**5.0%**	**12.4%**	**9.6%**	**16.2%**	**7.1%**
Benchmark*	4.4%	15.0%	10.4%	16.4%	7.4%

* Russell 3000.

U.S. STOCK INDEX FUND

Investment Objective and Asset Mix

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

The Fund is invested 100% in common stock.

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**4.4%**	**15.0%**	**10.5%**	**16.4%**	**7.4%**
Benchmark*	4.4%	15.0%	10.4%	16.4%	7.4%

* Russell 3000.

Note: All periods over one year are annualized.

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

BROAD INTERNATIONAL STOCK FUND

Investment Objective and Asset Mix

The investment objective of the Broad International Stock Fund is to earn a high rate of return by investing in the stock of companies outside the U.S. At least 25% of the Fund is "passively managed" and no more than 33% of the Fund is "semi-passively managed." These portions of the Fund are designed to track and modestly outperform, respectively, the return of 23 developed markets included in the MSCI World ex USA Index. The remainder of the Fund is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value.

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**6.7%**	**8.4%**	**0.9%**	**6.9%**	**2.7%**
Benchmark*	6.9%	9.3%	0.2%	6.0%	2.2%

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

BOND FUND

Investment Objective

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

Asset Mix

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**0.9%**	**6.0%**	**4.4%**	**3.9%**	**5.1%**
Barclays Agg	0.5%	5.2%	4.0%	3.1%	4.8%

MONEY MARKET FUND

Investment Objective

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

Asset Mix

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**0.1%**	**0.5%**	**0.2%**	**0.2%**	**1.1%**
3 month T-Bills	0.1%	0.3%	0.1%	0.1%	0.9%

Note: All periods over one year are annualized.

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

STABLE VALUE FUND

Investment Objective

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

Asset Mix

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**0.5%**	**2.1%**	**1.9%**	**2.2%**	**3.3%**
Benchmark*	0.3%	1.4%	1.4%	1.2%	1.9%

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

VOLUNTEER FIREFIGHTER ACCOUNT

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

The Account is invested in a balanced portfolio:

	Target	Actual
Domestic Stocks	35.0%	35.0%
International Stocks	15.0%	15.4%
Bonds	45.0%	44.9%
Cash	5.0%	4.7%
	100.0%	100.0%

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	**2.9%**	**9.1%**	**5.8%**	**8.5%**	**--**
Benchmark*	2.8%	9.1%	5.6%	8.1%	--

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

Note: All periods over one year are annualized.

DEFERRED COMPENSATION PLAN ACCOUNTS

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

Participants choose from 4 actively managed stock and bond funds, 5 passively managed stock and bond funds and 10 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.

In the third quarter of 2016, the Janus Large-Cap Fund was replaced by the Vanguard Dividend Growth Large-Cap Fund.

On September 30, 2016, the market value of the entire Fund was $6.0 billion.

Investment Options

		9/30/16 Market Value (In Millions)
Vanguard Index Institutional Plus Shares (passive)		$1,029.3
Vanguard Dividend Growth (active)		$523.1
Vanguard Mid Cap Index Institutional Shares (passive)		$447.6
T. Rowe Price Small-Cap Stock (active)		$594.8
Fidelity Diversified International (active)		$282.8
Vanguard Total International Stock Index Institutional Plus (passive)		$144.1
Vanguard Balanced Index Institutional Shares (passive)		$715.6
Dodge & Cox Income Fund (active)		$220.3
Vanguard Total Bond Market Index Institutional Shares (passive)		$212.3
SIF Money Market Fund		$65.1
SIF Stable Value Fund		$1,349.5
State Street Global Advisors MN Target Retirement Funds		$375.6
Income Fund	$69.9	
2020 Fund	$83.6	
2025 Fund	$73.3	
2030 Fund	$46.6	
2035 Fund	$35.8	
2040 Fund	$22.7	
2045 Fund	$18.7	
2050 Fund	$13.0	
2055 Fund	$6.6	
2060 Fund	$5.4	

DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE CAP EQUITY

Vanguard Index Institutional Plus (passive)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**3.8%**	**15.4%**	**11.2%**	**16.4%**
S&P 500	3.9%	15.4%	11.2%	16.4%

Vanguard Dividend Growth (active)

A fund of large cap stocks which is expected to outperform the Nasdaq US Dividend Achievers Select Index, over time**.**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.8%**	**13.7%**	**10.1%**	**14.7%**
Nasdaq US Div	1.1%	16.2%	8.8%	14.0%

MID CAP EQUITY

Vanguard Mid Cap Index (passive)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**5.2%**	**12.6%**	**9.9%**	**16.5%**
CRSP U.S. Mid Cap	5.2%	12.7%	10.0%	16.6%

SMALL CAP EQUITY

T Rowe Price Small Cap (active)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**6.2%**	**16.1%**	**7.9%**	**17.4%**
Russell 2000	9.0%	15.5%	6.7%	15.8%

INTERNATIONAL EQUITY

Fidelity Diversified International (active)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**6.5%**	**6.0%**	**3.0%**	**9.6%**
MSCI EAFE	6.4%	6.5%	0.5%	7.4%

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	**6.7%**	**9.7%**	**0.9%**	**6.8%**
ACWI ex USA IMI	7.0%	10.2%	1.2%	6.7%

Note: All periods over one year are annualized.

DEFERRED COMPENSATION PLAN ACCOUNTS

BALANCED

Vanguard Balanced Index (passive)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**2.8%**	**11.2%**	**8.0%**	**11.0%**
Benchmark	2.8%	11.2%	8.0%	11.1%

FIXED INCOME

Dodge & Cox Income Fund (active)

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**1.8%**	**7.1%**	**4.3%**	**4.3%**
Barclays Agg	0.5%	5.2%	4.0%	3.1%

Vanguard Total Bond Market Index (passive)

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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.4%**	**5.3%**	**4.0%**	**3.0%**
Barclays Agg	0.5%	5.2%	4.0%	3.1%

SIF Money Market Fund

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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.1%**	**0.5%**	**0.2%**	**0.2%**
3-Mo. Treas.	0.1%	0.3%	0.1%	0.1%

SIF STABLE VALUE FUND

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.5%**	**2.1%**	**1.9%**	**2.2%**
Benchmark	0.3%	1.4%	1.4%	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 to provide administrative, marketing, communication, recordkeeping and investment management services.

On September 30, 2016, the market value of the entire Fund was $1.2 billion.

Investment Options

	9/30/16 Market Value (In Millions)
Age Based Managed Allocation	
Age Band 0-4 Years	$24.6
Age Band 5-8 Years	$71.9
Age Band 9-10 Years	$72.9
Age Band 11-12 Years	$101.7
Age Band 13-14 Years	$136.2
Age Band 15 Years	$65.0
Age Band 16 Years	$64.9
Age Band 17 Years	$64.4
Age Band 18 Years and over	$148.1
Risk Based Managed Allocations	
Aggressive	$10.0
Moderate	$55.0
Conservative	$4.0
Static Options:	
U.S. Large Cap Equity	$9.8
International Equity	$2.4
U.S. and International Equity	$274.1
Equity and Interest Accumulation	$1.2
100% Fixed Income	$11.7
Money Market	$8.3
Principal Plus Interest	$106.4

MN COLLEGE SAVINGS PLAN ACCOUNTS

AGE-BASED MANAGED ALLOCATIONS

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

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

RISK BASED ALLOCATIONS

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

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

U.S. LARGE CAP EQUITY INDEX

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**3.8%**	**15.2%**	**--**	**--**
S&P 500	**3.9%**	**15.4%**	**--**	**--**

INTERNATIONAL EQUITY INDEX

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**6.7%**	**8.2%**	**0.2%**	**--**
Benchmark	**7.0%**	**8.6%**	**0.3%**	**--**

U.S. AND INTERNATIONAL EQUITY INDEX

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**4.4%**	**13.2%**	**7.6%**	**13.4%**
Benchmark	**4.6%**	**13.7%**	**7.8%**	**13.6%**

Note: All periods over one year are annualized.

MN COLLEGE SAVINGS PLAN ACCOUNTS

EQUITY AND INTEREST ACCUMULATION

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**2.4%**	**7.9%**	**--**	**--**
Benchmark	**2.2%**	**7.5%**	**--**	**--**

100% FIXED INCOME

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.9%**	**5.5%**	**3.3%**	**2.4%**
Benchmark	**0.9%**	**5.8%**	**3.6%**	**2.8%**

MONEY MARKET

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.1%**	**0.1%**	**0.0%**	**0.0%**
iMoney Net Average All Taxable	**0.0%**	**0.1%**	**0.0%**	**0.0%**

PRINCIPAL PLUS INTEREST OPTION

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

Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	**0.3%**	**1.4%**	**1.3%**	**1.4%**
3-Month T-Bill	**0.1%**	**0.2%**	**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.

	9/30/16 Target	9/30/16 Actual
Stocks	20.0%	20.1%
Bonds	80.0%	79.9%
Total	100.0%	100.0%

Investment Management

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

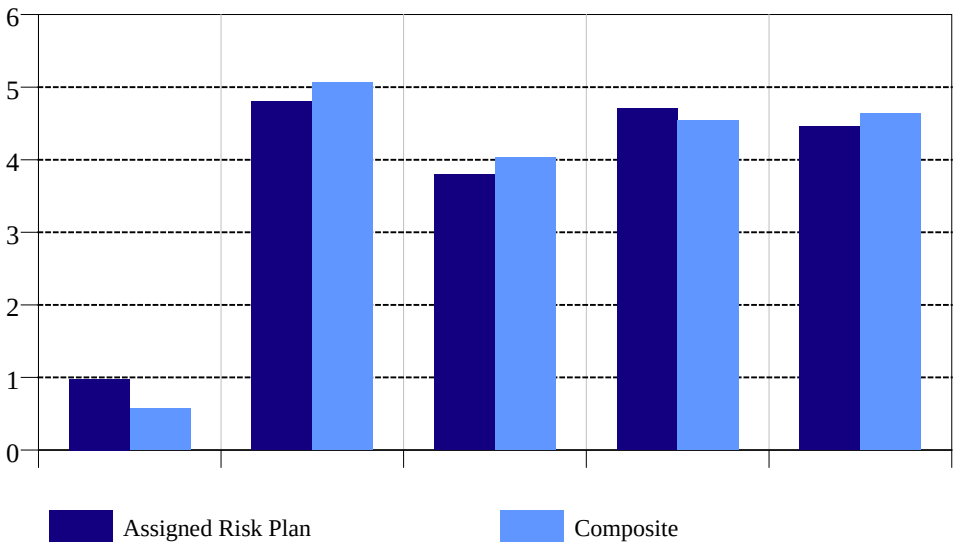
Performance Benchmarks

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

Market Value

On September 30, 2016 the market value of the Assigned Risk Plan was $311 million.

Performance Comparison



Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	**1.0%**	**4.8%**	**3.8%**	**4.7%**	**4.5%**
Composite	0.6%	5.1%	4.0%	4.5%	4.6%
Equity Segment*	**5.7%**	**13.9%**	**9.4%**	**16.0%**	**7.2%**
S&P 500	3.9%	15.4%	11.2%	16.4%	7.2%
Bond Segment*	**-0.2%**	**2.5%**	**2.2%**	**1.6%**	**3.5%**
Barclays Int Gov Index	-0.2%	2.4%	2.2%	1.6%	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.

	9/30/16 Target	9/30/16 Actual
Stocks	50.0%	51.7%
Bonds	48.0%	46.4%
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 was understood that the change in asset mix would reduce portfolio income in the short term, but enhance the value of the fund, over time.

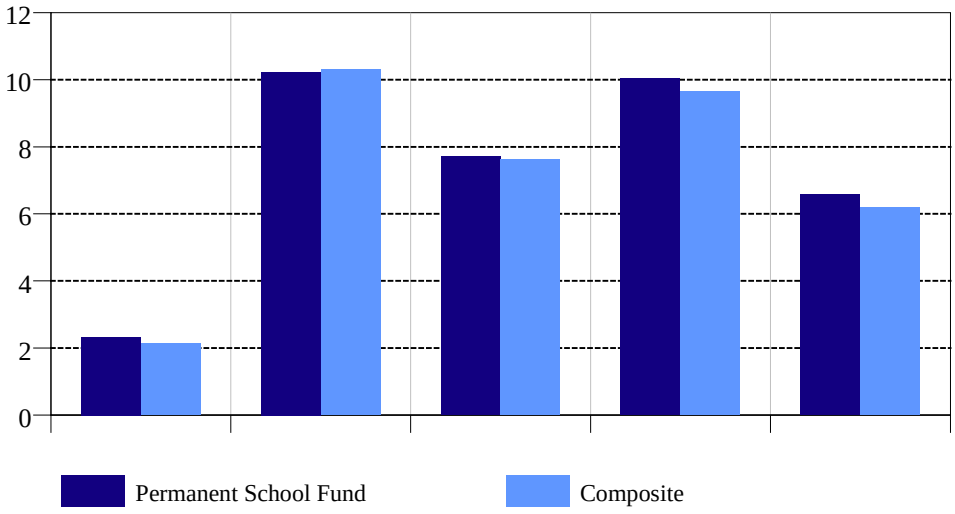
Investment Management

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

Market Value

On September 30, 2016 the market value of the Permanent School Fund was $1.2 billion**.**

Performance Comparison



Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	**2.3%**	**10.2%**	**7.7%**	**10.1%**	**6.6%**
Composite	2.1%	10.3%	7.6%	9.7%	6.2%
Equity Segment*	**3.9%**	**15.4%**	**11.2%**	**16.3%**	**7.3%**
S&P 500	3.9%	15.4%	11.2%	16.4%	7.2%
Bond Segment*	**0.8%**	**5.3%**	**4.4%**	**3.9%**	**5.3%**
Barclays Agg	0.5%	5.2%	4.0%	3.1%	4.8%

* 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 within the constraints of maintaining adequate portfolio quality and liquidity.

Asset Mix

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

	9/30/16 Target	9/30/16 Actual
Stocks	70.0%	70.5%
Bonds	28.0%	27.6%
Cash	2.0%	1.9%
Total	100.0%	100.0%

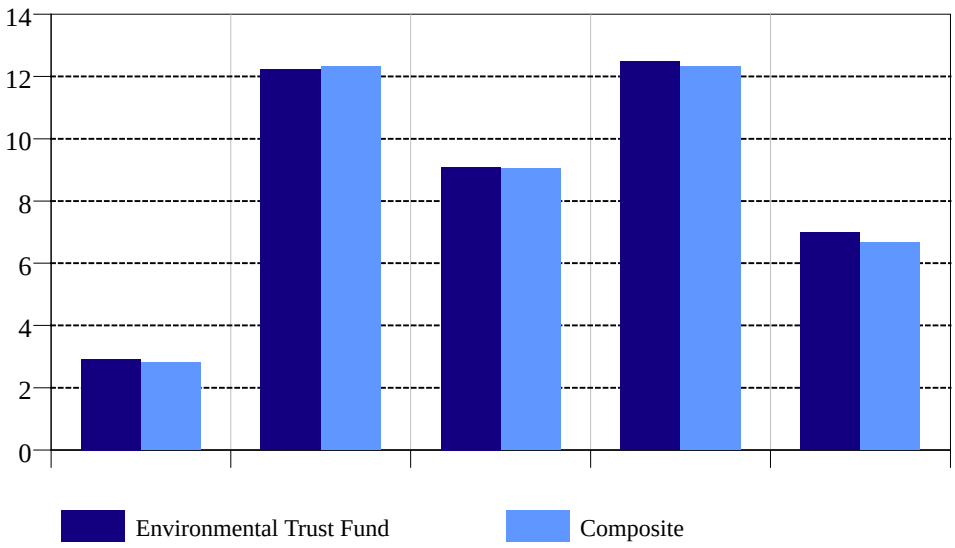
Investment Management

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

Market Value

On September 30, 2016 the market value of the Environmental Trust Fund was $949 million.

Performance Comparison



	Periods Ended 9/30/16				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	**2.9%**	**12.2%**	**9.1%**	**12.5%**	**7.0%**
Composite	2.8%	12.3%	9.0%	12.3%	6.7%
Equity Segment*	**3.9%**	**15.4%**	**11.2%**	**16.3%**	**7.3%**
S&P 500	3.9%	15.4%	11.2%	16.4%	7.2%
Bond Segment*	**0.8%**	**5.3%**	**4.4%**	**3.9%**	**5.3%**
Barclays Agg	0.5%	5.2%	4.0%	3.1%	4.8%

* 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

From July 1999 to September 2014 the Fund's target allocation was 100% domestic equities. The SBI changed the Fund allocation in 2014 to a more balanced allocation of 70% a domestic equities and 30% bonds.

	9/30/16 Target	9/30/16 Actual
Stocks	70.0%	70.1%
Bonds	30.0%	29.9%
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.

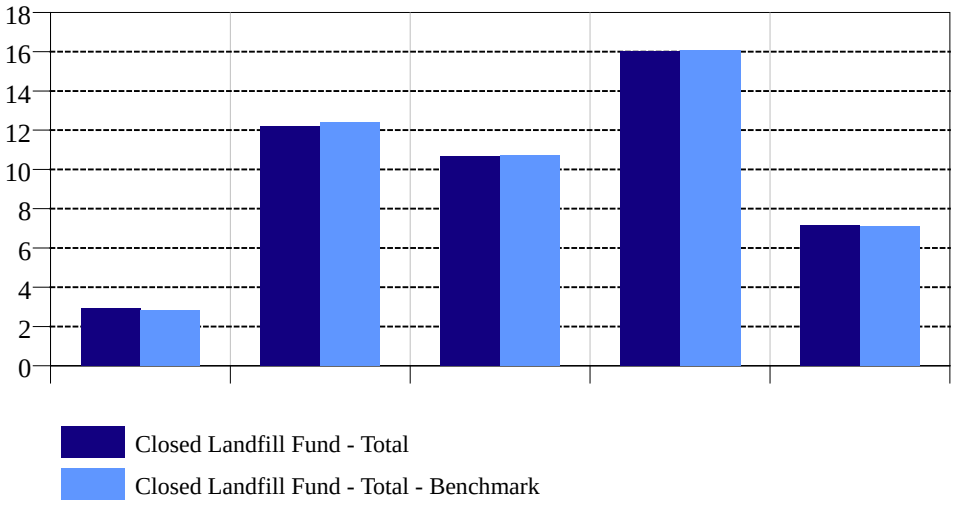
Legislation

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 principal and earnings back into the fund and in FY 2014 a repayment was made in the amount of $64.2 million. In 2015 legislation was passed which repealed any further repayments..

Market Value

On September 30, 2016, the market value of the Closed Landfill Investment Fund was $74 million.

Performance Comparison



Periods Ended 9/30/16

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund (1)	**2.9%**	**12.2%**	**10.7%**	**16.0%**	**7.1%**
Composite (3)	2.8%	12.4%	10.7%	16.1%	7.1%
Equity Segment (1)	**3.9%**	**15.4%**	**11.2%**	**16.3%**	**7.3%**
S&P 500	3.9%	15.4%	11.2%	16.4%	7.2%
Bond Segment (1,2)	**0.8%**	**5.3%**	**--**	**--**	**--**
Barclays Agg	0.5%	5.2%	--	--	--

(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 seeks to provide safety of principal by investing all cash accounts in high quality, liquid, short term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

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 9/30/16

	Market Value (Millions)	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Treasurer's Cash Pool*	**$9,133**	**0.2%**	**0.7%**	**0.6%**	**0.6%**	**1.6%**
Custom Benchmark**		0.0%	0.1%	0.0%	0.0%	0.8%
3 month T-Bills		0.1%	0.3%	0.1%	0.1%	0.9%

* Actual returns are calculated net of fees.

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

MINNESOTA STATE BOARD OF INVESTMENT
Composition of State Investment Portfolios By Type of Investment
Market Value September 30, 2016 (in Thousands)

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	223,186	0	4,807,661	0	9,391,721	2,884,399	2,572,802	19,879,769
	1.13%		24.18%		47.24%	14.51%	12.94%	100%
Public Employees Retirement Fund	208,378	0	4,293,902	0	8,388,098	2,576,165	2,297,866	17,764,409
	1.17%		24.17%		47.22%	14.50%	12.94%	100%
State Employees Retirement Fund	138,381	0	2,786,834	0	5,444,054	1,671,986	1,491,364	11,532,619
	1.20%		24.16%		47.21%	14.50%	12.93%	100%
Public Employees Police & Fire	84,187	0	1,770,049	0	3,457,775	1,061,957	947,236	7,321,204
	1.15%		24.18%		47.23%	14.51%	12.94%	100%
Highway Patrol Retirement Fund	8,951	0	155,863	0	304,476	93,511	83,410	646,211
	1.39%		24.12%		47.12%	14.47%	12.91%	100%
Judges Retirement Fund	2,948	0	41,565	0	81,197	24,937	22,244	172,891
	1.71%		24.04%		46.96%	14.42%	12.87%	100%
Correctional Employees Retirement	14,481	0	224,259	0	438,089	134,546	120,012	931,387
	1.55%		24.08%		47.04%	14.45%	12.89%	100%
Public Employees Correctional	6,599	0	128,575	0	251,169	77,139	68,806	532,288
	1.24%		24.16%		47.19%	14.49%	12.93%	100%
PERA Minneapolis Retirement	7,041	0	185,785	0	362,929	111,463	99,422	766,640
	0.92%		24.23%		47.34%	14.54%	12.97%	100%
TOTAL COMBINED FUNDS	694,152	0	14,394,493	0	28,119,508	8,636,103	7,703,162	59,547,418
	1.17%		24.17%		47.22%	14.50%	12.94%	100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
MINNESOTA SUPPLEMENTAL FUNDS								
Balanced Fund	17,615 4.57%	132,236 34.34%	0	0	235,296 61.09%	0	0	385,147 100%
U.S. Stock Actively Managed Fund	0	0	0	0	214,097 100.00%	0	0	214,097 100%
Money Market Fund	368,452 100.00%	0	0	0	0	0	0	368,452 100%
U.S. Stock Index Fund	0	0	0	0	498,686 100.00%	0	0	498,686 100%
Bond Fund	0	0	155,656 100.00%	0	0	0	0	155,656 100%
Broad International Stock Fund	0	0	0	0	0	181,843 100.00%	0	181,843 100%
Stable Value Fund	0	0	213,083 100.00%	0	0	0	0	213,083 100%
Volunteer Firefighters Account	2,612 4.70%	0	24,993 44.92%	0	19,461 34.98%	8,569 15.40%	0	55,635 100%
TOTAL SUPPLEMENTAL FUNDS	388,679 18.75%	132,236 6.38%	393,732 19.00%	0	967,540 46.69%	190,412 9.19%	0	2,072,599 100%
MN DEFERRED COMP PLAN	70,610 1.18%	0	2,222,945 37.30%	0	3,163,797 53.09%	502,788 8.44%	0	5,960,140 100%
TOTAL RETIREMENT FUNDS	1,153,441 1.71%	132,236 0.20%	17,011,170 25.17%	0	32,250,845 47.72%	9,329,303 13.80%	7,703,162 11.40%	67,580,157 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
ASSIGNED RISK PLAN	1,986 0.64%	0	246,334 79.24%	0	62,567 20.13%	0	0	310,887 100%
ENVIRONMENTAL FUND	17,820 1.88%	261,743 27.59%	0	669,218 70.53%	0	0	0	948,781 100%
PERMANENT SCHOOL FUND	23,183 1.87%	577,453 46.44%	0	642,721 51.69%	0	0	0	1,243,357 100%
CLOSED LANDFILL FUND	0	22,171 29.89%	0	52,008 70.11%	0	0	0	74,179 100%
MISCELLANEOUS TRUST FUND	490 0.29%	68,809 41.37%	0	97,025 58.33%	0	0	0	166,324 100%
Other Post Employment Funds (OPEB's)	16,774 3.11%	101,499 18.84%	0	420,591 78.05%	0	0	0	538,864 100%
TREASURERS CASH	9,132,651 100.00%	0	0	0	0	0	0	9,132,651 100%
MISCELLANEOUS STATE ACCOUNTS	0	144,238 100.00%	0	0	0	0	0	144,238 100%
MN COLLEGE SAVINGS PLAN	8,324 0.68%	0	605,455 49.11%	0	434,833 35.27%	184,275 14.95%	0	1,232,887 100%
TOTAL CASH AND NON-RETIREMENT	9,201,228 66.71%	1,175,913 8.53%	851,789 6.18%	1,881,563 13.64%	497,400 3.61%	184,275 1.34%	0	13,792,168 100%
GRAND TOTAL	**10,354,669 12.73%**	**1,308,149 1.61%**	**17,862,959 21.95%**	**1,881,563 2.31%**	**32,748,245 40.24%**	**9,513,578 11.69%**	**7,703,162 9.47%**	**81,372,325 100%**

TAB

B

This page intentionally left blank.

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Mansco Perry III

1. Reports on Budget and Travel

A report on the SBI's administrative budget for the fiscal year to date through September 30, 2016 is included as **Attachment A.**

A report on travel for the period from July 1, 2016 – September 30, 2016 is included as **Attachment B**.

2. FY16 Audit Report

The Legislative Auditor is working on the financial audit of SBI operations for FY16. We will inform you of the results upon completion of the audit.

3. Draft of FY16 Annual Report

A draft of the SBI's annual report for FY16 will be distributed to the Board members/designees and IAC members in December or January.

4. Meeting Dates for Calendar 2017

The quarterly meetings of the Investment Advisory Council and State Board of Investment have been scheduled for calendar year 2017 and are:

IAC	SBI
Monday, February 13, 2017	**Thursday, February 23, 2017**
Monday, May 15, 2017	**Wednesday, May 31, 2017**
Monday, August 14, 2017	**Thursday, August 24, 2017**
Monday, November 20, 2017	**Tuesday, December 5, 2017**

Please note: The meeting dates have been confirmed.

5. Sudan Update

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

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

According to the law, 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 third quarter, SBI managers sold a total of 223,724 shares in two separate companies on the divestment list.

Attachment C is a copy of the September 29, 2016 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.

6. Iran Update

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

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

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

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

- 100% within fifteen months after the company appeared on the scrutinized list.

In the third quarter, SBI managers sold 19,575 shares in a company on the divestment list.

Attachment D is a copy of the September 29, 2016 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.

7. Litigation Update

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

This page intentionally left blank.

ATTACHMENT A

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

ITEM	FISCAL YEAR 2017 BUDGET	FISCAL YEAR 2017 9/30/2016
PERSONNEL SERVICES		
FULL TIME EMPLOYEES	$ 4,838,700	$ 972,131
PART TIME EMPLOYEES	0	0
MISCELLANEOUS PAYROLL	100,000	0
SUBTOTAL	**$ 4,938,700**	**$ 972,131**
STATE OPERATIONS		
RENTS & LEASES	299,000	70,108
REPAIRS/ALTERATIONS/MAINTENANCE	15,000	2,962
PRINTING & BINDING	8,000	3,262
PROFESSIONAL/TECHNICAL SERVICES	150,000	31
COMPUTER SYSTEMS SERVICES	20,000	3,085
COMMUNICATIONS	36,000	7,075
TRAVEL, IN-STATE	1,000	105
TRAVEL, OUT-STATE	119,000	16,603
SUPPLIES	27,000	5,732
EQUIPMENT	25,000	2,510
EMPLOYEE DEVELOPMENT	35,000	8,592
OTHER OPERATING COSTS	140,000	26,390
INDIRECT COSTS	250,000	27,549
ATTORNEY GENERAL COSTS		5,806
SUBTOTAL	**$ 1,125,000**	**$ 179,812**
TOTAL ADMINISTRATIVE BUDGET	**$ 6,063,700**	**$ 1,151,943**

This page intentionally left blank.

ATTACHMENT B

STATE BOARD OF INVESTMENT

Travel Summary by Date
SBI Travel July 1, 2016 - September 30, 2016

Purpose	Name	Destination and Date	Total Cost
Manager Monitoring **Fixed Income Manager:** Neuberger Berman	C. Boll	Chicago, IL 7/11	$ 470.68
Manager Monitoring **Fixed Income Manager:** Neuberger Berman	A. Griga	Chicago, IL 7/11	430.96
Manager Monitoring **Fixed Income Managers:** Aberdeen; BlackRock; Goldman Sachs **Manager Search** **Fixed Income Manager:** Prudential	A. Griga	New York, NY Newark, NJ Philadelphia, PA 8/8-8/10	1,827.98
Conference: KKR's 2016 CIO Symposium	M. Perry	Washington, DC 9/8-9/9	1,033.92
Manager Monitoring **Alternative Investment Managers:** Advent; Apax Partners; CVC; IK Partners; Nordic Capital; Permira **Manager Search** **Alternative Investment Managers:** Bridgepoint; Cinver; BC Partners	A. Krech	London, England 9/10-9/17	3,324.90

STATE BOARD OF INVESTMENT

Travel Summary by Date
SBI Travel July 1, 2016 - September 30, 2016

Purpose	Name	Destination and Date	Total Cost
Manager Monitoring Alternative Investment Managers: Advent; Apax Partners; CVC; IK Partners; Nordic Capital; Permira **Manager Search Alternative Investment Managers:** Bridgepoint; Cinver; BC Partners	J. Stacy	London, England 9/10-9/17	$ 3,344.85
Conference: National Association of State Treasurers (NAST)	M. Perry	Seattle, WA 9/11-9/12	160.00
Conference: KKR Annual Credit Meeting	C. Boll	New York, NY 9/13-9/15	1,530.54
Manager Monitoring Alternative Investment Manager: EMG	C. Boll	Houston, TX 9/20-9/22	1,317.73
In-State Travel: Kellogg Fire Relief	P. Ammann	Kellogg, MN 9/20	88.34
Manager Search Alternative Investment Manager: Dyal Capital Partners	A. Krech	New York, NY 9/26-9/27	977.46
Conference: 2016 Fall Conference Council of Institutional Investors	J. Mulé	Chicago, IL 9/28-9/30	1,065.90

ATTACHMENT C

Letter to SBI International and Domestic Equity Managers

September 29, 2016

Regarding: Sudan Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Sudan Stocks. These securities **may not be purchased** for the SBI portfolio that your organization manages. If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached list makes changes to the List of Restricted Sudan Companies that was attached to the June 28, 2016 letter you received. **This new list is effective September 30, 2016.**

Changes to **Attachment 1**:

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

- **GDF SUEZ** **France**
- **Parisienne Chauffage Urbain** **France**
- **Neftekamsky Avtozavod** **Russia**

The following company had its name changed:

- **GAZ OAO** changed its name to **GAZ OJSC**

Attachment 2 is the List of Sudan Stocks Requiring Divestment. If you own securities of companies on this list 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.

Changes to **Attachment 2:**

The following company was **added** to the Divestment List:

- **ENGIE** **France**

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.

Sincerely,

Mansco Perry III
Executive Director and Chief Investment Officer

Enclosures

cc: Michael J. Menssen, Director, Debt Management
Tammy Brusehaver, Investment Officer, Public Equity
Inma Conde Goldman, Investment Officer, Public Equity
Stephanie Gleeson, Investment Officer, Public Equity
Patricia Ammann, Investment Officer, Private Markets

ATTACHMENT 1

Restricted Sudan Stocks

Company Name	Country of Origin
Andritz AG	Austria
Orca Gold Inc.	Canada
AKM Industrial Company Limited	China
China Gezhouba Group Company Limited	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
China Petroleum and Chemical Corporation AKA Sinopec Corp.	China
China Poly Group Corporation	China
Daqing Huake Group Company Limited	China
Dongfeng Motor Group Company Limited	China
Harbin Electric Company Ltd.	China
Jiangxi Hongdu Aviation	China
NORINCO International Cooperation Ltd	China
North Huajin Chemical Industries Co.	China
North Navigation Control Technology Co. Ltd	China
Petrochina Co. Ltd AKA China National Petroleum Corporation (CNPC)	China
Poly Property Group Co. Ltd.	China
Power Construction Corporation of China Ltd.	China
Power Construction Corporation of China (PowerChina)	China
Shanghai Electric Group Co. Ltd.	China
Sinopec Engineering Group Co. Ltd.	China
Sinopec Shanghai Petrochemicals Ltd	China
Sinopec Oilfield Service Corp	China
ASEC Company for Mining (ASCOM)	Egypt
Egypt Kuwait Holding Company	Egypt
ENGIE	France
GDF SUEZ	France
Parisienne Chauffage Urbain	France
MAN SE	Germany
Renk AG	Germany
Volkswagen AG	Germany
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Indian Oil Corporation Ltd.	India
Lanka IOC Limited	India
Mangalore Refinery and Petrochemicals Limited	India
Oil & Natural Gas Corp. Ltd.	India
Oil India Limited	India
Energy House Holding Co KSCC, The	Kuwait
Kuwait Finance House	Kuwait

ATTACHMENT 1

Restricted Sudan Stocks

Company Name	Country of Origin
Engen Botswana Ltd. AKA Engen	Malaysia
KLCCP Stapled Group AKA KLCC Property Holdings	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petroliam Nasional Berhad AKA Petronas	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Managem	Morocco
Societe Metallurgique D'imiter	Morocco
GAZ Group	Russia
GAZ OJSC	Russia
Kamaz PJSC	Russia
Neftekamsky Avtozavod (aka NEFAZ)	Russia
Pavlovo Bus JSC	Russia
LS Industrial Systems	South Korea

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

Source: EIRIS Conflict Risk Network

Effective Date: September 30, 2016

ATTACHMENT 2

SUDAN STOCKS REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this date
ENGIE	France	June 30, 2017	December 31, 2017

Effective Date: September 30, 2016

COMPLETED/HISTORICAL DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this date
Shanghai Electric Group Co. Ltd.	China	March 31, 2016	September 30, 2016
Volkswagen AG	Germany	June 30, 2015	December 31, 2015
Poly Property Group	China	March 31, 2015	September 30, 2015
MAN SE	Germany	December 31, 2014	June 30, 2015
Bharat Heavy Electricals	India	September 30, 2014	March 31, 2015
Bharat Electronics Limited	India	September 30, 2014	March 31, 2015
Andritz AG	Austria	September 30, 2014	March 31, 2015
Dongfeng Motor Group Company Limited	China	March 31, 2011	September 30, 2011
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

EIRIS CONFLICT RISK NETWORK
Empowering Responsible Investment

ATTACHMENT 3

Security Identifiers for "Scrutinized" Stocks

The following security identifiers correlate with the Third Quarter 2016 Sudan Company Report and are current as of August 12, 2016

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
ANDRITZ AG	ANDRITZ GROUP	Vienna (WBAH)	Common Stock	ANDRITZ AG	ANDR AV	632305	B1WVF68 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE)	Common Stock	ANDRITZ AG	ANDR EB	632305	B1WVF68 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Chi-X Europe (CHIX)	Common Stock	ANDRITZ AG	ANDR IX	632305	B1WVF68 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Turquoise (TRQX)	Common Stock	ANDRITZ AG	ANDR TQ	632305	B1WVF68 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GB	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GD	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GF	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GH	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GM	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GR	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GS	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	AZ2 GY	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Quotrix Exch (XQTX)	Common Stock	ANDRITZ AG	AZ2 QT	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Tradegate (XGAT)	Common Stock	ANDRITZ AG	AZ2 TH	632305	B1X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	Common Stock	ANDRITZ AG	ADRZF US	632305	B1XBL36			AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	Common Stock	ANDRITZ AG	ADRZF UV	632305	B1XBL36			AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	Euro Comp (XLON)	Common Stock	ANDRITZ AG	ANDR EU	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	LSE EuropeQS (XLON)	Common Stock	ANDRITZ AG	ANDR LI	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	LSE EuropeQS (XLON)	Common Stock	ANDRITZ AG	ANDR LO	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XA	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XB	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XD	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XE	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XL	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XV	632305	B28F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BX Worldcaps (XBRN)	Common Stock	ANDRITZ AG	ANDR BW	632305	BHZL8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	SIX Swiss Ex (XSWX)	Common Stock	ANDRITZ AG	ANDR SE	632305	BHZL8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BX Worldcaps (XBRN)	Common Stock	ANDRITZ AG	ANDR SW	632305	BHZL8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XS	632305				AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro Comp (XLON)	Common Stock	ANDRITZ AG	ANDRCHF EU	632305				AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	Blockmatch (BLOX)	Common Stock	ANDRITZ AG	ANDRV B3	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	Liquidnet (LIQU)	Common Stock	ANDRITZ AG	ANDRV L3	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	ITG Posit (XPOS)	Common Stock	ANDRITZ AG	ANDRV PO	632305				AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	UBS MTF (XUBS)	Common Stock	ANDRITZ AG	ANDRV S2	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY PQ		B3DY4P2 US	034522102		US0345221024			
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY US		B3DY4P2 US	034522102		US0345221024			
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY UV	A1W8D1	B3DY4P2 US	034522102		US0345221024	096194871		
ASEK COMPANY FOR MINING (ASCOM) aka	ASEC COMPANY FOR MINING (ASCOM) aka ASEK												
ASEK COMPANY FOR MINING	COMPANY FOR MINING	EGX (XCAI)	Common Stock	ASEK CO FOR MINING	ASCM EC	A0Q78K	B04CCH2 EG			EGS10001C013			
ASEC COMPANY FOR MINING (ASCOM) aka	ASEC COMPANY FOR MINING (ASCOM) aka ASEK												
ASEK COMPANY FOR MINING	COMPANY FOR MINING	EGX (XCAI)	Common Stock	ASEK CO FOR MINING	ASCM EY	A0Q78K	B04CCH2 EG			EGS10001C013			
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			
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Second Lending	BHARAT ELECTRONICS LTD-SLB	BHE/S IN								
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Second Lending	BHARAT ELECTRONICS LTD-SLB	BHE/S IS								
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	BHEL/S IN								
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SLB	BHEL/S IS								
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-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	Nth SSE-SEHK (XSSC)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 C1	A0M31Z	BP3R693 CN			CNE000000QF1			
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			
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 GD	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	Quotrix Exch (XQTX)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 QT	A1CV3E	5387753 DE			BMG5320C1082	50092003		
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	B01DDZ3 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	B01DDZ3 US		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF UV	A1CV3E	B01DDZ3 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	BP3RW39 HK		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Euro Comp (XLON)	Common Stock	KUNLUN ENERGY CO LTD	135EUR EU	A1CV3E				BMG5320C1082	50092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY PQ	A1J7V7	B3L2812 US	50126A101		US50126A1016			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY US	A1J7V7	B3L2812 US	50126A101		US50126A1016			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY UV	A1J7V7	B3L2812 US	50126A101		US50126A1016			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Buenos Floor (XBUE)	CEDEAR	PETROCHINA CO LTD -CEDEAR	PTR AF		B1C5SR2 AR			ARDEUT113958			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Buenos Floor (XBUE)	CEDEAR	PETROCHINA CO LTD -CEDEAR	PTR AR		B1C5SR2 AR			ARDEUT113958			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GB	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GD	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GF	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GH	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GM	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GR	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GS	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GY	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Quotrix Exch (XQTX)	Common Stock	PETROCHINA CO LTD-H	PC6 QT	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 TH	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0M4YQ	6226576 HK			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF US	A0M4YQ	B01DNL9 US			CNE1000003W8	011014674	Y6883Q104	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF UV	A0M4YQ	B01DNL9 US			CNE1000003W8	011014674	Y6883Q104	

PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sth SSE-SEHK (SHSC)	Common Stock	PETROCHINA CO LTD-H	857 H1	A0M4YQ	BP3RWW8 HK		CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CG	A0NANC	B28SLD9 CN		CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	A0NANC	B28SLD9 CN		CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Nth SSE-SEHK (XSSC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	A0NANC	BP3R206 CN		CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UB	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UD	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UF	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UN	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UP	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UT	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UX	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VJ	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VK	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VY	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GB	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GF	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GM	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GR	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GS	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GY	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD -ADR	PTR SP	936983	B3KTK63 SG		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Mexico (XMEX)	ADR	PETROCHINA CO LTD -ADR	PTRN MM	936983	B569834	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD -ADR	PC6A TH	936983		74646E100	US71646E1001	011511449		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	1639 HK	A0D86T	B02J0J3 HK		HK8298013897	021553654		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GB	A0D86T	B06L0H3 DE		HK8298013897	021553654		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GR	A0D86T	B06L0H3 DE		HK8298013897	021553654		
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE000000VZ9			
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CS	A0M35W	6112125 CN		CNE000000VZ9			
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A	000059 CH	A0M30T	6796143 CN		CNE000000NY9		Y7742G105	
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A	000059 CS	A0M30T	6796143 CN		CNE000000NY9			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 CG	A0M4L5	6649946 CN		CNE000001F88			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 CH	A0M4L5	6649946 CN		CNE000001F88			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Nth SSE-SEHK (XSSC)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 C1	A0M4L5	BP3RB54 CN		CNE000001F88			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CH	A0M4G4	6373728 CN		CNE0000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	386 HK	A0M4XN	6291819 HK		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GB	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GD	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GF	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GH	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GM	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GR	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GS	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Quotrix Exch (XQTX)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU 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-H	SNPMF PQ	A0M4XN	B01XKR4 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-H	SNPMF US	A0M4XN	B01XKR4 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-H	SNPMF UV	A0M4XN	B01XKR4 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-H	386 H1	A0M4XN	BP3RSM0 HK		CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CG	A0M4G4	6373728 CN		CNE1000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	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-ADR	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-ADR	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-ADR	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-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		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	London Intl (XLON)	ADR	CHINA PETROLEUM & CHEM-ADR	SNP LI	578971	2654375 GB	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	B0RSW00 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	B0RSW00 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	B0RSW00 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	B0RSW00 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	B0RSW00 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		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sth SSE-SEHK (SHSC)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 H1	A1T97T	B92NYC9			CNE100001NV2	093502256		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 HK	A1T97T	B92NYC9			CNE100001NV2	093502256		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GF	A1T97T	B96WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GM	A1T97T	B96WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GR	A1T97T	B96WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GS	A1T97T	B96WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Quotrix Exch (XQTX)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS QT	A1T97T	B96WKB3 DE			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Euro Comp (XLON)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386EUR EU	A1T97T				CNE100001NV2	093502256	Y80359105	
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	BP3RXQ9 HK			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	ADR	SINOPEC KANTONS-UNSPON ADR	SPKOY PQ		B3KRT60	82934W207		US82934W2070			
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	ADR	SINOPEC KANTONS-UNSPON ADR	SPKOY US		B3KRT60	82934W207		US82934W2070			
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	ADR	SINOPEC KANTONS-UNSPON ADR	SPKOY UV		B3KRT60	82934W207		US82934W2070			
SINOPEC OILFIELD EQUIPMENT	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	SINOPEC OILFIELD EQUIPMENT-A	000852 CH	A0M37A	6136385			CNE000000XK7		Y4446M108	
SINOPEC OILFIELD EQUIPMENT	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	SINOPEC OILFIELD EQUIPMENT-A	000852 CS	A0M37A	6136385			CNE000000XK7		Y4446M108	
SINOPEC OILFIELD SERVICE CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CG	A0M3V6	6986740 CN			CNE000000HS3			
SINOPEC OILFIELD SERVICE CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CH	A0M3V6	6986740 CN			CNE000000HS3			
SINOPEC OILFIELD SERVICE CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 C1	A0M3V6	BWT5TJ1 CN			CNE000000HS3			
SINOPEC OILFIELD SERVICE CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK		917709	CNE1000004D6	008069662		
SINOPEC OILFIELD SERVICE CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sth SSE-SEHK (SHSC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 H1	A0M4Y6			917709	CNE1000004D6	008069662		
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	BP3R596 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	Quotrix Exch (XQTX)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH QT	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	Sth SSE-SEHK (SHSC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	338 H1	A0M4Y5	BP3RXR0 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		
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 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		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Hong Kong (XHKG)	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	Sth SSE-SEHK (SHSC)	Common Stock	POLY PROPERTY GROUP CO LTD	119 H1	885546	BP3RQJ3 HK			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Receipt	POLY PROPERTY GROUP CO LTD	PHKIY PQ		BJTXRN4 US			US7316541090			
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Receipt	POLY PROPERTY GROUP CO LTD	PHKIY US		BJTXRN4 US			US7316541090			
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			CNE 100000312	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKG)	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 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 GS	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 UV	A0M4XY	B0XZY65			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 US	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKG)	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	DNFGY PQ		B3SQPT4 US	257738203		US2577382037			
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	ADR	DONGFENG MOTOR GRP-H-UNS ADR	DNFGY 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	DNFGY UV		B3SQPT4 US	257738203		US2577382037			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Kuwait (XKUW)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHOLDIN KK	A0H1G7	B0S8H15 KW			EG69082C013			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EC	A0H1G7	B0QMD00 EG			EGS69082C013			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EY	A0H1G7	B0QMD00 EG			EGS69082C013			
ENERGY HOUSE HOLDING CO KSCC/THE	ENERGY HOUSE HOLDING CO KSCC/THE	Kuwait (XKUW)	Common Stock	ENERGY HOLDING CO KSCC/THE	ENERGYH KK	A0KD4C	B13BW99 KW			KW0EQ0601801			
KUWAIT FINANCE HOUSE	ENERGY HOUSE HOLDING CO KSCC/THE	Kuwait (XKUW)	Common Stock	KUWAIT FINANCE HOUSE	KFIN KK	A0JC70	6503138 KW			KW0EQ0100085			
ENGIE	ENGIE	EN Paris (XPAR)	Common Stock	ENGIE	ENGI FP	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Equiduct (XEQT)	Common Stock	ENGIE	ENGIP BQ	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	BATS Europe (BATE)	Common Stock	ENGIE	ENGIP EB	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Chi-X Europe (CHIX)	Common Stock	ENGIE	ENGIP IX	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Aquis Exchg (AQXE)	Common Stock	ENGIE	ENGIP QX	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Turquoise (TRQX)	Common Stock	ENGIE	ENGIP TQ	A0ER6Q	B0C2CQ3			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Sigma X MTF (SGMX)	Common Stock	ENGIE	GSZ S1	A0ER6Q	B0C2CQ3 FR			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GB	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GD	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GE	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GF	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GH	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GI	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GM	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GR	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GS	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Xtra EU Strs (XETR)	Common Stock	GDF SUEZ	GZF GY	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Quotrix Exch (XQTX)	Common Stock	GDF SUEZ	GZF QT	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	Tradegate (XGAT)	Common Stock	GDF SUEZ	GZF TH	A0ER6Q	B0CYN33 DE			FR0010208488	022341499		
ENGIE	ENGIE	OTC US (OOTC)	Common Stock	ENGIE	ENGQF PQ	A0ER6Q	B0Z11C6			FR0010208488	022341499	F7629A107	
ENGIE	ENGIE	OTC US (OOTC)	Common Stock	ENGIE	ENGQF US	A0ER6Q	B0Z11C6			FR0010208488	022341499	F7629A107	
ENGIE	ENGIE	OTC US (OOTC)	Common Stock	ENGIE	ENGQF UV	A0ER6Q	B0Z11C6			FR0010208488	022341499	F7629A107	
ENGIE	ENGIE	LSE Europe QS (XLON)	Common Stock	GDF SUEZ	GSZ LI	A0ER6Q	B28HB14 GB			FR0010208488	022341499		
ENGIE	ENGIE	LSE Europe QS (XLON)	Common Stock	GDF SUEZ	GSZ LO	A0ER6Q	B28HB14 GB			FR0010208488	022341499		
ENGIE	ENGIE	Brsaltaliana (MTAA)	Common Stock	ENGIE	ENGI IF	A0ER6Q	B3BQVC6			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Brsaltaliana (MTAA)	Common Stock	ENGIE	ENGI IM	A0ER6Q	B3BQVC6			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Luxembourg (XLUX)	Common Stock	GDF SUEZ	GSZ LX	A0ER6Q	B3BVQW6 LU			FR0010208488	022341499		
ENGIE	ENGIE	SIX Swiss Ex (XSWX)	Common Stock	ENGIE	ENGI SE	A0ER6Q	BRTM7D7			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	SIX Swiss Ex (XSWX)	Common Stock	ENGIE	ENGI SW	A0ER6Q	BRTM7D7			FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Euro Comp (XLON)	Common Stock	ENGIE	ENGI1EUR EU	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XB	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XD	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XE	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XL	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XO	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XS	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGI1EUR XV	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	Euro Comp (XLON)	Common Stock	ENGIE	ENGICHF EU	A0ER6Q				FR0010208488	022341499	F42768105	
ENGIE	ENGIE	EURO OTC (XLON)	Common Stock	ENGIE	ENGICHF XW	A0ER6Q				FR0010208488	022341499		
ENGIE	ENGIE	ITG Posit (XPOS)	Common Stock	ENGIE	ENGIP PO	A0ER6Q				FR0010208488	022341499		
ENGIE	ENGIE	Euro TLX (ETLX)	Common Stock	GDF SUEZ	GSZ TE	A0ER6Q				FR0010208488	022341499		
ENGIE	ENGIE	OTC US (OOTC)	ADR	ENGIE-SPON ADR	ENGIY PQ	A14XKC	BYY9W15	29286D105		US29286D1054	126845286		

ENGIE	ENGIE	OTC US (OOTC)	ADR	ENGIE-SPON ADR	ENGIY US	A14XKC	BYY9W15	29286D105		US29286D1054	126845286		
ENGIE	ENGIE	OTC US (OOTC)	ADR	ENGIE-SPON ADR	ENGIY UV	A14XKC	BYY9W15	29286D105		US29286D1054	126845286		
ENGIE	ENGIE	Berlin (XBER)	ADR	GDF SUEZ-SPON ADR	GZFB GB	A0Q41P	B3BXWH9 DE	36160B105		US36160B1052	038007297		
ENGIE	ENGIE	Berlin (XBER)	ADR	GDF SUEZ-SPON ADR	GZFB GF	A0Q41P	B3BXWH9 DE	36160B105		US36160B1052	038007297		
ENGIE	ENGIE	Berlin (XBER)	ADR	GDF SUEZ-SPON ADR	GZFB GR	A0Q41P	B3BXWH9 DE	36160B105		US36160B1052	038007297		
ENGIE	ENGIE	Berlin (XBER)	ADR	GDF SUEZ-SPON ADR	GZFB GS	A0Q41P	B3BXWH9 DE	36160B105		US36160B1052	038007297		
PARISIENNE CHAUFFAGE URBAIN	ENGIE	BATS Europe (BATE)	Common Stock	PARISIENNE CHAUFFAGE URBAIN	CHAU EB	919453	4189165			FR0000052896	011389066	F70641117	
PARISIENNE CHAUFFAGE URBAIN	ENGIE	EN Paris (XPAR)	Common Stock	PARISIENNE CHAUFFAGE URBAIN	CHAU FP	919453	4189165			FR0000052896	011389066	F70641117	
PARISIENNE CHAUFFAGE URBAIN	ENGIE	Chi-X Europe (CHIX)	Common Stock	PARISIENNE CHAUFFAGE URBAIN	CHAU IX	919453	4189165			FR0000052896	011389066	F70641117	
PARISIENNE CHAUFFAGE URBAIN	ENGIE	Euro Comp (XLON)	Common Stock	PARISIENNE CHAUFFAGE URBAIN	CHAU EU	919453				FR0000052896	011389066	F70641117	
GAZ OJSC	GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ OJSC	GAZA RM	903426	B5BKBJ9 RU		950579	RU0009034268	034991693		
GAZ OJSC	GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ OJSC	GAZA RX	903426	B5BKBJ9 RU		950579	RU0009034268	034991693		
GAZ OJSC	GAZ GROUP	MICEX Main (MISX)	Preference	GAZ OJSC	GAZAP RM	910283	B5BKC29 RU			RU0009102834			
GAZ OJSC	GAZ GROUP	MICEX Main (MISX)	Preference	GAZ OJSC	GAZAP RX	910283	B5BKC29 RU			RU0009102834			
PAVLOVO BUS JSC	GAZ GROUP	MICEX Main (MISX)	Common Stock	PAVLOVSKY BUS-CLS	PAZA RM	908324	B57MPG4 RU			RU0009083240			
PAVLOVO BUS JSC	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	A0M4X8	6422761 HK		930709	CNE10000003C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GB	A0M4X8	B1HJDX0 DE		930709	CNE10000003C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GF	A0M4X8	B1HJDX0 DE		930709	CNE10000003C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GR	A0M4X8	B1HJDX0 DE		930709	CNE10000003C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF US	A0M4X8	B3BHKK0 US		930709	CNE10000003C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF UV	A0M4X8	B3BHKK0 US		930709	CNE10000003C0	011043780		
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IB	A0B968	6121563 IN			INE178A01016			
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IN	A0B968	6121563 IN			INE178A01016			
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IS	A0B968	6121563 IN			INE178A01016			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IB	A0B9FM	6253767 IN			INE242A01010			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IN	A0B9FM	6253767 IN			INE242A01010			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IS	A0B9FM	6253767 IN			INE242A01010			
LANKA IOC PLC	INDIAN OIL CORP LTD aka IOCL	Colombo (XCOL)	Common Stock	LANKA IOC PLC	LIOC SL	A0D83L	B0591G4 LK			LK0345N00005			
JIANGXI HONGDU AVIATION INDUSTRY CO LTD	JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CG	A0M4EK	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	A0M4EK	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	A0M4EK	BP3R8J7 CN			CNE0000015N3			
KAMAZ PJSC	KAMAZ PJSC	MICEX Main (XMIC)	Common Stock	KAMAZ	KMAZ RM	895958	B55XCQ8 RU			RU0008959580	006692125		
KAMAZ PJSC	KAMAZ PJSC	MICEX Main (XMIC)	Common Stock	KAMAZ	KMAZ RX	895958	B55XCQ8 RU			RU0008959580	006692125		
NEFTEKAMSKY AVTOZAVOD aka NEFAZ	KAMAZ PJSC	MICEX Main (XMIC)	Common Stock	NEFTEKAMSKY AVTOZAVOD-CLS	NFAZ RM		B5637D9 RU			RU0009115604			
NEFTEKAMSKY AVTOZAVOD aka NEFAZ	KAMAZ PJSC	MICEX Main (XMIC)	Common Stock	NEFTEKAMSKY AVTOZAVOD-CLS	NFAZ RX		B5637D9 RU			RU0009115604			
LS INDUSTRIAL SYSTEMS CO. LTD	LS INDUSTRIAL SYSTEMS CO. LTD	Korea (XKRX)	Common Stock	LS INDUSTRIAL SYSTEMS	010120 KP	895497	6378217 KR			KR7010120004			
LS INDUSTRIAL SYSTEMS CO. LTD	LS INDUSTRIAL SYSTEMS CO. LTD	Korea (XKRX)	Common Stock	LS INDUSTRIAL SYSTEMS	010120 KS	895497	6378217 KR			KR7010120004			
MAN SE	MAN SE	Equiduct (XEQT)	Common Stock	MAN SE	MAN BQ	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BX Worldcaps (XBRN)	Common Stock	MAN SE	MAN BW	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BATS Europe (BATE)	Common Stock	MAN SE	MAN EB	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GB	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GD	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GF	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GH	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GI	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GM	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GR	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GS	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GY	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Quotrix Exch (XQTX)	Common Stock	MAN SE	MAN QT	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Sigma X MTF (SGMX)	Common Stock	MAN SE	MAN S1	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BX Worldcaps (XBRN)	Common Stock	MAN SE	MAN SW	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Tradegate (XGAT)	Common Stock	MAN SE	MAN TH	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Turquoise (TRQX)	Common Stock	MAN SE	MAN TQ	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Aquis Exchg (AQXE)	Common Stock	MAN SE	MAND QX	593700	5563520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Chi-X Europe (CHIX)	Common Stock	MAN SE	MANG IX	593700	5563520 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	OTC US (OOTC)	Common Stock	MAN SE	MAGOF US	593701	B0318P0 US		944020	DE0005937007	001117254	D51716104	
MAN SE	MAN SE	OTC US (OOTC)	Common Stock	MAN SE	MAGOF UV	593701	B0318P0 US		944020	DE0005937007	001117254	D51716104	
MAN SE	MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MAN EU	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	LSE EuropeQS (XLON)	Common Stock	MAN SE	MAN LI	593700	B10LRX1 GB		944020	DE0005937007	001117254		
MAN SE	MAN SE	LSE EuropeQS (XLON)	Common Stock	MAN SE	MAN LO	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 XE	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 XV	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro TLX (ETLX)	Common Stock	MAN SE	MAN TE	593700	B88FOL3 IT		944020	DE0005937007	001117254		
MAN SE	MAN SE	EURO OTC (XLON)	Common Stock	MAN SE	MAN XA	593700				DE0005937007	001117254	D51716104	
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XD	593700				DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XL	593700				DE0005937007	001117254		
MAN SE	MAN SE	EURO OTC (XLON)	Common Stock	MAN SE	MAN XO	593700				DE0005937007	001117254	D51716104	
MAN SE	MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MANCHF EU	593700				DE0005937007	001117254	D51716104	
MAN SE	MAN SE	Blockmatch (BLOX)	Common Stock	MAN SE	MAND B3	593700				DE0005937007	001117254		
MAN SE	MAN SE	ITG Posit (XPOS)	Common Stock	MAN SE	MAND PO	593700				DE0005937007	001117254	D51716104	
MAN SE	MAN SE	UBS MTF (XUBS)	Common Stock	MAN SE	MAND S2	593700				DE0005937007	001117254		
MAN SE	MAN SE	BATS Europe (BATE)	Preference	MAN SE-VORZUGSAKTIEN	MAN3D EB	593703	5563531			DE0005937031	001114816	D51716112	
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GB	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GD	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GF	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GH	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GI	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GM	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GR	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GS	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GY	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Quotrix Exch (XQTX)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 QT	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Turquoise (TRQX)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 TQ	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Equiduct (XEQT)	Preference	MAN SE-VORZUGSAKTIEN	MAN3D BQ	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Chi-X Europe (CHIX)	Preference	MAN SE-VORZUGSAKTIEN	MAN3D IX	593703	5563531 DE		944021	DE0005937031	001114816		
MAN SE	MAN SE	Euro Comp (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 EU	593703	B28K2R6 GB			DE0005937031	001114816		
MAN SE	MAN SE	Euro OTC (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 XS	593703	B28K2R6 GB			DE0005937031	001114816		
MAN SE	MAN SE	Tradegate (XGAT)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 TH	593703			944021	DE0005937031	001114816		
MAN SE	MAN SE	ITG Posit (XPOS)	Preference	MAN SE-VORZUGSAKTIEN	MAN3D PO	593703			944022	DE0005937031	001114816		
MAN SE	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY PQ	A0YF6N	B3DY656 US	561641101		US5616411014	054361637		
MAN SE	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY US	A0YF6N	B3DY656 US	561641101		US5616411014	054361637		

MAN SE	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY UV	A0YF6N	B3DY656 US	561641101		US5616411014	054361637	
MAN SE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GF	A0YF6N	B5900P0 DE	561641101		US5616411014	054361637	
MAN SE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GR	A0YF6N	B5900P0 DE	561641101		US5616411014	054361637	
MAN SE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GS	A0YF6N	B5900P0 DE	561641101		US5616411014	054361637	
MAN SE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GY	A0YF6N	B5900P0 DE	561641101		US5616411014	054361637	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GB	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GF	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GM	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GR	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GS	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Euro Comp (XLON)	Common Stock	RENK AG	ZAR EU	785000	B28LK31 GB			DE0007850000	001121936	
RENK AG	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG	ZAR XD	785000				DE0007850000	001121936	
VOLKSWAGEN AG	MAN SE	Chi-X Europe (CHIX)	Common Stock	VOLKSWAGEN AG	VW IX	766400	5496994			DE0007664005	001115308	D94523145
VOLKSWAGEN AG	MAN SE	LSE EuropeQS (XLON)	Common Stock	VOLKSWAGEN AG	VOW LI	766400	0308908 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	LSE EuropeQS (XLON)	Common Stock	VOLKSWAGEN AG	VOW LO	766400	0308908 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XD	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XE	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XL	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XO	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XS	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XV	766400	0308908 GB			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG	VOW BW	766400	5496994 CH			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG	VOW SE	766400	5496994 CH			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG	VOW SW	766400	5496994 CH			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Common Stock	VOLKSWAGEN AG	VW EB	766400	5496994 CH		996800	DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EN Amsterdam (XAMS)	Common Stock	VOLKSWAGEN AG	VWA NA	766400	5497016 NL			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Luxembourg (XLUX)	Common Stock	VOLKSWAGEN AG	VOW LX	766400	5497061 LU			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Equiduct (XEQT)	Common Stock	VOLKSWAGEN AG	VOW BQ	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Common Stock	VOLKSWAGEN AG	VOW EB	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GB	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GD	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GF	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GH	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GI	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GM	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GR	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GS	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GY	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Quotrix Exch (XQTX)	Common Stock	VOLKSWAGEN AG	VOW QT	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Tradegate (XGAT)	Common Stock	VOLKSWAGEN AG	VOW TH	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Turquoise (TRQX)	Common Stock	VOLKSWAGEN AG	VOW TQ	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Chi-X Europe (CHIX)	Common Stock	VOLKSWAGEN AG	VOWG IX	766400	5497102 DE			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Sigma X MTF (SGMX)	Common Stock	VOLKSWAGEN AG	VOW S1	766400	5497102DE		996800	DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VLKAF PQ	766400	B01DRL7 US			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VLKAF US	766400	B01DRL7 US			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VLKAF UV	766400	B01DRL7 US			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	EuroTLX (ETLX)	Common Stock	VOLKSWAGEN AG	VOW TE	766400	B7N7B69 IT			DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Common Stock	VOLKSWAGEN AG	VOW EU	766400				DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Euro OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XB	766400				DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Common Stock	VOLKSWAGEN AG	VOWCHF EU	766400				DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	Blockmatch (BLOX)	Common Stock	VOLKSWAGEN AG	VOWD B3	766400				DE0007664005		
VOLKSWAGEN AG	MAN SE	ITG Posit (XPOS)	Common Stock	VOLKSWAGEN AG	VOWD PO	766400				DE0007664005	001115308	D94523145
VOLKSWAGEN AG	MAN SE	Aquis Exchg (AQXE)	Common Stock	VOLKSWAGEN AG	VOWD QX	766400			996800	DE0007664005	001115308	
VOLKSWAGEN AG	MAN SE	UBS MTF (XUBS)	Common Stock	VOLKSWAGEN AG	VOWD S2	766400				DE0007664005		
VOLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Preference	VOLKSWAGEN AG-PREF	VWV EB	766403	5497146			DE0007664039	001117432	D94523103
VOLKSWAGEN AG	MAN SE	Chi-X Europe (CHIX)	Preference	VOLKSWAGEN AG-PREF	VWV IX	766403	5497146			DE0007664039	001117432	D94523103
VOLKSWAGEN AG	MAN SE	LSE EuropeQS (XLON)	Preference	VOLKSWAGEN AG-PREF	50IT LI	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	LSE EuropeQS (XLON)	Preference	VOLKSWAGEN AG-PREF	50IT LO	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XB	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XD	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XE	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XI	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XL	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XO	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XS	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XV	766403	0309291 GB			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VW/V BW	766403	5497146 CH			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VW/V SE	766403	5497146 CH			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VW/V SW	766403	5497146 CH			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Equiduct (XEQT)	Preference	VOLKSWAGEN AG-PREF	VOW3 BQ	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Preference	VOLKSWAGEN AG-PREF	VOW3 EB	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GB	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GD	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GF	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GH	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GI	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GM	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GR	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GS	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GY	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Chi-X Europe (CHIX)	Preference	VOLKSWAGEN AG-PREF	VOW3 IX	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Quotrix Exch (XQTX)	Preference	VOLKSWAGEN AG-PREF	VOW3 QT	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Aquis Exchg (AQXE)	Preference	VOLKSWAGEN AG-PREF	VOW3 QX	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Sigma X MTF (SGMX)	Preference	VOLKSWAGEN AG-PREF	VOW3 S1	766403	5497168 DE		909007	DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Tradegate (XGAT)	Preference	VOLKSWAGEN AG-PREF	VOW3 TH	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Turquoise (TRQX)	Preference	VOLKSWAGEN AG-PREF	VOW3 TQ	766403	5497168 DE			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Luxembourg (XLUX)	Preference	VOLKSWAGEN AG-PREF	VOWP LX	766403	5497221 LU			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF PQ	766403	B1GXSC7 US			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF US	766403	B1GXSC7 US			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF UV	766403	B1GXSC7 US			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Brsaltaliana (MTAA)	Preference	VOLKSWAGEN AG-PREF	VOW3 IF	766403	BD3VRN2 IT			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Brsaltaliana (MTAA)	Preference	VOLKSWAGEN AG-PREF	VOW3 IM	766403	BD3VRN2 IT			DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Mexico (XMEX)	Preference	VOLKSWAGEN AG-PREF	VOW3N MM	766403	BYQT730			DE0007664039	001117432	D94523103
VOLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 EU	766403				DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3CHF EU	766403				DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	Blockmatch (BLOX)	Preference	VOLKSWAGEN AG-PREF	VOW3D B3	766403				DE0007664039		
VOLKSWAGEN AG	MAN SE	Liquidnet (LIQU)	Preference	VOLKSWAGEN AG-PREF	VOW3D L3	766403				DE0007664039		
VOLKSWAGEN AG	MAN SE	ITG Posit (XPOS)	Preference	VOLKSWAGEN AG-PREF	VOW3D PO	766403				DE0007664039	001117432	
VOLKSWAGEN AG	MAN SE	UBS MTF (XUBS)	Preference	VOLKSWAGEN AG-PREF	VOW3D S2	766403				DE0007664039		
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3USD XB	766403				DE0007664039	001117432	D94523103
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	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY UV	879511	2930484 US	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GB	879511	B62V8T7	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GM	879511	B62V8T7	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GF	879511	B62V8T7 DE	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GR	879511	B62V8T7 DE	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GY	879511	B62V8T7 DE	928662303		US9286623031	011526233		
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VLKPY PQ	A0DPR2	2265960 US	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VLKPY US	A0DPR2	2265960 US	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VLKPY UV	A0DPR2	2265960 US	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VOW5 GB	A0DPR2	B603118 DE	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VOW5 GF	A0DPR2	B603118 DE	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VOW5 GR	A0DPR2	B603118 DE	928662402		US9286624021	042872202		
VOLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFD	VOW5 GY	A0DPR2	B603118 DE	928662402		US9286624021	042872202		
MANAGEM	MANAGEM	Casablanca (XCAS)	Common Stock	MANAGEM	MNG MC	165414	6287454 MA			MA0000011058			
SOCIETE METALLURGIQUE D'IMITER	MANAGEM	Casablanca (XCAS)	Common Stock	SOCIETE METALLURGI D'IMITER	SMI MC	256307	6007759 MA			MA0000010068			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IB	A0NANW	6121530 IN			INE103A01014			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IN	A0NANW	6121530 IN			INE103A01014			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IS	A0NANW	6121530 IN			INE103A01014			
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IN	A1H6P4	6139362 IN			INE213A01029			
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IB	A1H6P4	6139362 IS			INE213A01029			
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IS	A1H6P4	6139362 IS			INE213A01029			
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Sec Lending	OIL & NATURAL GAS CORP-SLB	ONGC/S IN								
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Sec Lending	OIL & NATURAL GAS CORP-SLB	ONGC/S IS								
OIL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IB	A0X9PF	B409HQ9 IN			INE274J01014			
OIL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IN	A0X9PF	B409HQ9 IN			INE274J01014			
OIL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IS	A0X9PF	B409HQ9 IN			INE274J01014			
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DS	A1T8LS	B84J7Q3	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CN	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CV	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG QF	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG QH	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TG	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TV	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF PQ	A1T8LS	B8JYMF7 US	68558N104		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF US	A1T8LS	B8JYMF7 US	68558N103		CA68558N1024	091768225		
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF UV	A1T8LS	B8JYMF7 US	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GB	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GF	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GR	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GS	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224		
ENGEN BOTSWANA LTD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Gaborone (XBOT)	Common Stock	ENGEN	ENGN BG	546632	B063G04			BW0000000058			
KLCCP STAPLED GROUP	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD	KLCCSS MK	A1T91X	B92NSW7 MY			MYL5235SS008			
MALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	MISC BHD	MISC MK	880504	6557997 MY		905279	MYL3816OO005	003527883		
MALAYSIA MARINE AND HEAVY ENGINEERING HOLDINGS BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	MALAYSIA MARINE AND HEAVY EN	MMHE MK	A1C7U6	B3W5NN7			MYL5186OO001	055049394		
PETRONAS CHEMICALS GROUP BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS CHEMICALS GROUP BHD	PCHEM MK	A1C891	B5KQGT3 MY			MYL5183OO008	055800235		
PETRONAS DAGANGAN BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS DAGANGAN BHD	PETD MK	895131	6695938 MY			MYL5681OO001	005378044		
PETRONAS GAS BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS GAS BHD	PTG MK	896633	6703972 MY			MYL6033OO004	007076959		
POWER CONSTRUCTION CORP OF-A	POWER CONSTRUCTION CORPORATION OF CHINA (POWERCHINA)	Shanghai (XSHG)	Common Stock	POWER CONSTRUCTION CORP OF-A	601669 CG	A1JNL6	B4TH690 CN			CNE1000017G1			
POWER CONSTRUCTION CORP OF-A	POWER CONSTRUCTION CORPORATION OF CHINA (POWERCHINA)	Shanghai (XSHG)	Common Stock	POWER CONSTRUCTION CORP OF-A	601669 CH	A1JNL6	B4TH690 CN			CNE1000017G1			
POWER CONSTRUCTION CORP OF-A	POWER CONSTRUCTION CORPORATION OF CHINA (POWERCHINA)	Nth SSE-SEHK (XSSC)	Common Stock	POWER CONSTRUCTION CORP OF-A	601669 C1	A1JNL6	BP3R4M2 CN			CNE1000017G1			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Euro Comp (XLON)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	2727EUR EU	A0M4YX	#N/A N/A			CNE100000437	021854387	Y76824104	
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Hong Kong (XHKG)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	2727 HK	A0M4YX	B07J656 HK			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Quotrix Exch (XQTX)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR QT	A0M4YX	B07ZG10			CNE100000437	021854387	Y76824104	
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GB	A0M4YX	B07ZG10 DE			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GF	A0M4YX	B07ZG10 DE			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GM	A0M4YX	B07ZG10 DE			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GR	A0M4YX	B07ZG10 DE			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GS	A0M4YX	B07ZG10 DE			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Sth SSE-SEHK (SHSC)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	2727 H1	A0M4YX	BP3RX69 HK			CNE100000437	021854387		
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	601727 CG	A0YAVL	B3FJ9X8 CN			CNE100000D55			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	601727 CH	A0YAVL	B3FJ9X8 CN			CNE100000D55			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Nth SSE-SEHK (XSSC)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	601727 C1	A0YAVL	BP3R3T2 CN			CNE100000D55			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELY PQ	A1H9PU	B3L2823 US	81943J108		US81943J1088			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELY US	A1H9PU	B3L2823 US	81943J108		US81943J1088			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELY UV	A1H9PU	B3L2823 US	81943J108		US81943J1088			
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Tradegate (XGAT)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR TH	A0M4YX	B07ZG10 DE				021854387		
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI MECHANICAL AND EL-A	600835 CG	A0M654	6785851 CN			CNE000000B91			
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI MECHANICAL AND EL-A	600835 CH	A0M654	6785851 CN			CNE000000B91			
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Nth SSE-SEHK (XSSC)	Common Stock	SHANGHAI MECHANICAL AND EL-A	600835 C1	A0M654	BP3R7Q7 CN			CNE000000B91			
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI MECHANICAL AND EL-B	900925 CG	A0M3UQ	6797436 CN		916599	CNE000000G39	032099050		
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI MECHANICAL AND EL-B	900925 CH	A0M3UQ	6797436 CN		916599	CNE000000G39	032099050		

ATTACHMENT D

Letter to SBI International and Domestic Equity Managers

September 29, 2016

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 <u>may not be purchased</u> for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **<u>and</u>** the companies are **<u>not</u>** on the divestment list, then you do not need to sell your holdings. Please note that the attached list makes changes to the List of Restricted Iran Companies that was attached to the June 24, 2016 letter you received. **This new list is effective September 30, 2016.**

Changes to **Attachment 1**:

The following company was **<u>added</u>** to the Restricted List:

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

Attachment 2 is the List of Iran Companies Requiring Divestment. If you own securities of companies on this list then you must **<u>divest</u>** 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.

Changes to **Attachment 2**:

The following company was **added** to the Divestment List:

- **Linde AG** **Germany**

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. Please note that 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 your assigned SBI Investment Officer.

Sincerely,

Mansco Perry III
Executive Director and Chief Investment Officer

Enclosures

cc: Michael J. Menssen, Director, Debt Management
Patricia Ammann, Investment Officer, Private Markets
Tammy Brusehaver, Investment Officer, Public Equity
Inma Conde Goldman, Investment Officer, Public Equity
Stephanie Gleeson, Investment Officer, Public Equity

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
Eni Spa	Italy
Gail (India) Ltd.	India
Gazprom OAO	Russia
GS Engineering & Construction Corp	South Korea
Gubre Fabrikalari T.A.S.	Turkey
Indian Oil Corporation Ltd.	India
L G International	South Korea
Linde AG	Germany
Lukoil Oil Co.	Russia
Maire Tecnimont S.p.A	Italy
Mitsui & Co. Ltd	Japan
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: September 30, 2016

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
GS Engineering & Construction Corp	South Korea	June 30, 2016	December 31, 2016
Daelim Industrial	South Korea	December 31, 2016	June 30, 2017
Linde AG	Germany	March 31, 2017	September 30, 2017

Effective Date: September 30, 2016

COMPLETED/HISTORICAL DIVESTMENTS

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

ATTACHMENT 3
IRAN RESTRICTED COMPANIES
Security Identifiers

ISIN	Company	SYMBOL	CUSIP	COUNTRY
INE029A01011	Bharat Petroleum Corporation Ltd.	500547		India
ARDEUT114071	China Petroleum & Chemical Corp	386	16941R108	China
CNE0000018G1	China Petroleum & Chemical Corp	386	16941R108	China
CNE1000002Q2	China Petroleum & Chemical Corp	386	16941R108	China
US16941R1086	China Petroleum & Chemical Corp	386	16941R108	China
KR7000210005	Daelim Industrial	210		Korea South
KR7000211003	Daelim Industrial	210		Korea South
IT0003132476	Eni Spa	ENI	26874R108	Italy
ARDEUT112612	Eni Spa	ENI	26874R108	Italy
US26874R1086	Eni Spa	ENI	26874R108	Italy
INE129A01019	Gail (India) Ltd.	532155	36268T206	India
US36268T2069	Gail (India) Ltd.	532155	36268T206	India
US36268T1079	Gail (India) Ltd.	532155	36268T206	India
US3682871088	Gazprom OAO	GAZP	368287207	Russia
US3682872078	Gazprom OAO	GAZP	368287207	Russia
RU0007661625	Gazprom OAO	GAZP	368287207	Russia
ARDEUT114261	Gazprom OAO	GAZP	368287207	Russia
KR7006360002	GS Engineering & Construction Corp	6360		Korea South
TRAGUBRF91E2	Gubre Fabrikalari T.A.S.	GUBRF		Turkey
INE242A01010	Indian Oil Corporation Ltd.	530965		India
KR7001120005	L G International	A001120		Korea South
DE0006483001	Linde AG	LIN	535223200	Germany
US5352232004	Linde AG	LIN	535223200	Germany
RU0009024277	Lukoil Oil Co.	LKOH	69343P105	Russia
US5498741058	Lukoil Oil Co.	LKOH	69343P105	Russia
ARDEUT114253	Lukoil Oil Co.	LKOH	69343P105	Russia
US69343P1057	Lukoil Oil Co.	LKOH	69343P105	Russia
US69343P2048	Lukoil Oil Co.	LKOH	69343P105	Russia
US56064T1016	Maire Tecnimont S.p.A.	MT	56064T101	Italy
IT0004931058	Maire Tecnimont S.p.A.	MT	56064T101	Italy
JP3893600001	Mitsui & Co. Ltd	8031	606827202	Japan
US6068272029	Mitsui & Co. Ltd	8031	606827202	Japan
INE213A01029	Oil & Natural Gas Corporation Ltd.	500312		India
ARDEUT113958	PetroChina Co. Ltd.	857	71646E100	China
US71646E1001	PetroChina Co. Ltd.	857	71646E100	China
CNE1000007Q1	PetroChina Co. Ltd.	857	71646E100	China
CNE1000003W8	PetroChina Co. Ltd.	857	71646E100	China
JP3607800004	Toyo Engineering Corporation	6330		Japan
JP3635000007	Toyota Tsusho Corporation	8015		Japan

Please note that the SBI does not represent that this is a complete list of identifiers. The manager is responsible for identifying all listings.

Source: IW Financial

Effective Date: September 30, 2016

Letter to SBI Fixed Income Managers

September 29, 2016

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 June 24, 2016 letter you received. **This new list is effective September 30, 2016.**

Changes to **Attachment 1**:

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

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

Attachment 2 is the List of Iran Companies Requiring Divestment. If you own securities of companies on this list 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.

Changes to **Attachment 2**:

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

- **Linde AG** **Germany**

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

Sincerely,

Mansco Perry III
Executive Director and Chief Investment Officer

Enclosures

cc: Michael J. Menssen, Director, Debt Management
Aaron Griga, Investment Officer, Fixed Income
Cassandra Boll, Investment Officer, Private Markets
Steve Kuettel, Investment Officer, Cash Mgmt. Services
Patricia Ammann, Investment Officer, Private 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
Eni Spa	Italy
Gail (India) Ltd.	India
Gazprom OAO	Russia
GS Engineering & Construction Corp	South Korea
Gubre Fabrikalari T.A.S.	Turkey
Indian Oil Corporation Ltd.	India
L G International	South Korea
Linde AG	Germany
Lukoil Oil Co.	Russia
Maire Tecnimont S.p.A	Italy
Mitsui & Co. Ltd	Japan
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: September 30, 2016

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
GS Engineering & Construction Corp	South Korea	June 30, 2016	December 31, 2016
Daelim Industrial	South Korea	December 31, 2016	June 30, 2017
Linde AG	Germany	March 31, 2017	September 30, 2017

Effective Date: September 30, 2016

COMPLETED/HISTORICAL DIVESTMENTS

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

This page intentionally left blank.

TAB

C

This page intentionally left blank.

EXECUTIVE DIRECTOR'S REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Mansco Perry III

SUBJECT: Asset Allocation Transition Update

At the June 2016 SBI meeting, the Board approved a new Asset Allocation Policy for the Combined Funds. Additionally, the Executive Director indicated his intention to increase the proportion of the Public Equity program that is passively managed. Following are three charts which indicate how the transitions are progressing.

Transition to new Asset Allocation Policy

The first chart reflects how the asset allocation is moving towards the new target. The focal point for the SBI is the Adjusted Policy Target which is the basis for the Combined Funds Composite Index and reflects that the uninvested Private Markets allocation will be invested in Public Equities. During the transition period, it will be reflective of the actual beginning of the month asset allocation. The expectation is the allocation to bonds continuously moves towards the 20% target level, at which point, the transition will be concluded. Then, the only allocations to float in the composite index will be Public Equities and Private Markets. Looking at the first chart, you can see that the allocation to bonds has declined from 24.7% to 22.8% thus far in Fiscal Year 2017. The objective is to reach the target by fiscal year end.

Public Equity Transition

The second chart tracks the change in the components of the allocation target for Public Equities. The target has changed from a 75% U.S./25% Non-U.S. split to a 67% U.S./33% Non-U.S. split. The objective is to transition Public Equities to reflect the 67%/33% split by the end of the fiscal year. At the beginning of Fiscal Year 2017, the split was 76.7%/23.3%. As of November 1, 2016, we have a 73.6%/26.4% split. At this time, staff anticipates adding several new Emerging Markets managers to our roster. If the Board approves our recommendation, we anticipate that new managers will be funded in January 2017. At that time, additional assets will be transitioned to further increase our Non-U.S. public equity allocation. Additional transfers to our Non-U.S. public equity allocation will occur due to market movements, portfolio rebalancing, and manager changes in Public Equities.

Increased Passive Management in Public Equities

The process of increasing passive management in Public Equities began in October 2016. As the final chart illustrates, we have crossed the 50% passive management threshold for Public Equities. While there is no pre-specified target for the amount of passive management, we anticipate an increase above the current levels.

Staff will continue to update the SBI and the IAC on the status of these transitions throughout the fiscal year.

This page intentionally left blank.

Minnesota State Board of Investment

Combined Funds Asset Allocation Transition

	Previous Target	Current Target	1-Jul-16	1-Oct-16	1-Nov-16	Adjusted Policy Target if full Transitioned Nov-1
Public Equity	60.0%	58.0%	60.4%	61.7%	61.8%	64.9%
Bonds	18.0%	20.0%	24.7%	24.2%	22.8%	20.0%
Private Markets	20.0%	20.0%	12.8%	12.9%	13.1%	13.1%
Cash	2.0%	2.0%	2.1%	1.2%	2.3%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Domestic and International Transition

	Previous Target	Current Target	1-Jul-16	1-Oct-16	1-Nov-16
Domestic	75.0%	67.0%	76.7%	76.5%	73.6%
International	25.0%	33.0%	23.3%	23.5%	26.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Minnesota State Board of Investment

Active and Passive Allocation Transition

Public Equity	1-Jul-16
Active	64.5%
Passive	35.5%

Domestic Equity	1-Jul-16
Active	66.7%
Passive	33.3%

International Equity	1-Jul-16
Active	57.3%
Passive	42.7%

	1-Nov-16
Active	47.7%
Passive	52.3%

	1-Nov-16
Active	46.3%
Passive	53.7%

	1-Nov-16
Active	51.4%
Passive	48.6%

TAB D

This page intentionally left blank.

EXECUTIVE DIRECTOR'S REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Mansco Perry III

SUBJECT: Consideration of a new Contract to provide services for the Minnesota Achieving a Better Life Experience (ABLE) Plan

Background

The federal law, The Stephen Beck, Jr., Achieving a Better Life Experience (ABLE) Act was enacted in December of 2014 under Section 529A of the Internal Revenue Code. The ABLE Act permits states to establish tax-advantaged investment accounts to assist eligible individuals to save for qualified disability-related expenses. In 2015, the Minnesota ABLE plan was established in Minn. Stat. §256Q.01. The Department of Human Services (DHS) and the State Board of Investment (SBI) staff have reviewed their respective responsibilities within the Minnesota ABLE Plan and recommend contracting with a third party provider.

Consortium

In order to establish an affordable ABLE plan, individual states have decided to coordinate efforts by joining a multi-state consortium to leverage resources and provide lower costs. Without the consortium most states would lack the market share to ensure low cost and high quality investment options. The consortium is unique in that each state has its own ABLE program over which it will exercise authority but will offer common program elements such as investment options. Minnesota is currently one of eleven states across the nation in the ABLE Consortium. The Department of Human Services joined the consortium of states and agrees with the choice of the third-party vendor to administer ABLE accounts in Minnesota. Pursuant to Minn. Stat. §256Q.07, DHS has requested that the SBI review and approve the investment options offered through the third-party vendor.

The ABLE Consortium has completed the public request for proposal process and selected a vendor that can provide the services that will accomplish the goals of each individual state. The Consortium has advised that it is prudent to keep the name of the recommended vendor confidential until the master agreement has been executed by Illinois, which is the facilitating state, on behalf of the consortium. Execution of the master agreement is anticipated to occur in December of 2016. If approved by DHS and SBI, Minnesota would execute its own agreement with the selected vendor. The Minnesota ABLE Plan has a preliminarily launch date of the first quarter of 2017.

Investment Line Up

The underlying investment options are passively managed mandates that currently charge the lowest fees in the industry. Participants in the ABLE Plan can choose from six different target risk portfolios that range from very conservative to very aggressive (Exhibit A). As part of the due diligence process, an evaluation of the proposed target risk asset allocation and investment manager line up was completed by a consultant. The consultant for the Consortium concluded that the underlying index strategies are suitable, cost effective and support the proposed asset allocation within the target risk portfolios. SBI staff have reviewed the investments and determined the investments are prudent, have appropriate fee structures, and the vendor has the financial expertise to manage the investment options.

RECOMMENDATION:

SBI staff, in concurrence with the staff of the Department of Human Services, recommends that the SBI contract with the vendor selected by the ABLE Consortium that meets the requirements of the plan to provide the services for the Minnesota ABLE Plan.

National ABLE Alliance - Target Risk Investment Lineup

Asset Class	Underlying Investment Product	Ticker of Underlying Product	Morningstar Rating	Net Expense Ratio	Investment Portfolio Options					
					Very Aggressive	Aggressive	Growth	Moderate	Conservative	Very Conservative
U.S. Large Cap	Vanguard Institutional Index Fund - Institutional Plus Shares	VIIIX	5 Star /Gold	0.02%	31.50%	26.25%	21.00%	15.75%	10.50%	3.50%
U.S. Small & Mid Cap	Vanguard Extended Market Index Fund - Institutional Plus Shares	VEMPX	4 Star /Gold	0.05%	27.00%	22.50%	18.00%	13.50%	9.00%	3.00%
Non - U.S. Multi Cap	iShares Core MSCI EAFE ETF	IEFA	5 Star	0.08%	16.20%	13.50%	10.80%	8.10%	5.40%	1.80%
Emerging Markets	Schwab Emerging Markets Equity ETF	SCHE	3 Star	0.13%	6.30%	5.25%	4.20%	3.15%	2.10%	0.70%
REITs	Schwab U.S. REIT ETF	SCHH	4 Star /Gold	0.07%	9.00%	7.50%	6.00%	4.50%	3.00%	1.00%
Total Equity					**90.00%**	**75.00%**	**60.00%**	**45.00%**	**30.00%**	**10.00%**
U.S. Core Bond	Vanguard Total Bond Market Index Fund - Institutional Plus Shares	VBMPX	3 Star / Silver	0.04%	3.00%	7.50%	12.00%	16.50%	13.50%	9.0%
Short - Term Investment Grade	Vanguard Short-Term Bond Index Fund - Institutional Plus Shares	VBIPX	3 Star / Silver	0.04%	2.50%	6.25%	10.00%	13.75%	11.25%	7.5%
Short - Term Inflation Protected Bond	Vanguard Short-Term Inflation-Protected Securities Index Fund - Institutional Shares	VTSPX	2 Star	0.05%	3.50%	8.75%	14.00%	19.25%	15.75%	10.5%
International Bond	iShares® Core International Aggregate Bond ETF	IAGG	5 Star	0.09%	1.00%	2.50%	4.00%	5.50%	4.50%	3.0%
Total Fixed Income					**10.00%**	**25.00%**	**40.00%**	**55.00%**	**45.00%**	**30.00%**
Cash	Sallie Mae High Yield FDIC			0.00%	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**25.00%**	**60.00%**
Total Allocation					**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Net Portfolio Underlying Expenses					**0.05%**	**0.05%**	**0.05%**	**0.05%**	**0.04%**	**0.02%**

Notes

1 - All underlying investment vehicles have been confirmed as passive
2 - All underlying investments are the lowest cost available
3 - The iShares Core International Aggregate Bond ETF replaces the DFA Two Year Global Fixed Income Portfolio reducing underlying fund fees from 0.18% to 0.09%
4 - The iShares MSCI EAFE ETF replaces the iShares Edge Min Vol EAFE ETF, reducing underlying fund fees from 0.20% to 0.08%
5 - As a result of the two underlying fund changes, net portfolio underlying expenses have been reduced from 3-7 bps to 2-5 bps

This page intentionally left blank.

TAB

E

This page intentionally left blank.

INVESTMENT ADVISORY COUNCIL REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT Review of fixed income manager, Aberdeen Asset Management

Summary

The SBI hired Aberdeen Asset Management (originally Deutsche Asset Management) to manage a fixed income mandate in February 2000. As of October 31, 2016, the SBI portfolio with Aberdeen was $940 million.

Aberdeen has provided consistent value added performance relative to its benchmark for the SBI since inception. However, since December 2015, Aberdeen's fixed income platform has experienced several organizational events which have caused the SBI Staff to recommend that the SBI discontinue its relationship with Aberdeen for fixed income management. During this time period, a portfolio manager filed a lawsuit against the firm citing discrimination and retaliation because he was denied a promotion to Head the North American fixed income platform. The lawsuit was subsequently settled. During 2016, Aberdeen experienced significant turnover within its fixed income platform. Lastly, in October 2016, Aberdeen informed the SBI that they had entered into an agreement to sell its U.S. Core and Core Plus Strategies. As a result, the SBI Executive Director informed Aberdeen that they were being defunded and froze their account in November 2016. The assets are in the process of being transitioned in accordance with the changes in the SBI asset allocation. Staff recommends that the Aberdeen fixed income relationship be terminated.

Organization Assets

As of Q2 2016, Aberdeen had $94.3B fixed income Assets Under Management, of which $9.9B is North American Fixed Income. North American Fixed Income includes $2.1B Core Bond, $471MM Core Plus, $1.6B Total Return Bond/TRB Plus, and $81MM High Yield. The SBI invests in Core Bond, which is a bottom-up duration neutral strategy benchmarked vs. the Bloomberg Barclays U.S. Aggregate Index. Since 2012, Aberdeen's U.S. Core Fixed Income strategy has lost nine net accounts and experienced a 40% reduction in AUM.

U.S. Core Fixed Income	2012	2013	2014	2015	YTD 2016
Asset Under Mgmt. ($mm, end of year)	$3,722	$2,894	$2,531	$2,387	$2,120
Net Flows (G/L, $mm)	($443)	($627)	($380)	($83)	($381)

Organizational Issues

In December 2015, Neil Moriarty, Core Fixed Income PM, filed a lawsuit against Aberdeen Asset Management, citing age discrimination/retaliation because he was denied a promotion to Head of North American Fixed Income. The lawsuit was settled in March 2016 via mutual agreement. In June 2016, Aberdeen replaced Don Quigley with Lynn Chen in Total Return Bond, and Greg Hopper with Steve Logan in U.S. High Yield. The SBI does not have significant exposure to Aberdeen's High Yield or Total Return products.

In June 2016, four research analysts that supported U.S. Core Fixed Income strategy left Aberdeen. They were Jon Prestley, Jamie Chiarieri, Geoff Roth and Jee-Hyea Choi. Fifteen fundamental and technical analysts remained on the Core Fixed Income team.

In August 2016, Neal Rayner, Head of Fixed Income Trading U.S., was asked to leave the company, per Aaron's on-site visit with Charles Tan and Kieran McGlynn. His day to day focus was high yield trading which was underperforming its benchmark, although as head of trading, he did have management oversight of the five remaining members of the North American Fixed Income trading team.

Most recently in October 2016, Aberdeen informed the SBI that following a strategic review of their U.S. fixed income business, they had entered into an agreement to sell their U.S. Core and Core Plus strategies to TriState Capital Holdings, Inc. to add to its Chartwell Investment Partners business. TriState Capital is a bank holding company based in Pittsburgh, PA. Its Chartwell Investment partners subsidiary held $10.6 billion in AUM as of 3Q 2016, ($6.2 billion equity and $2.5 billion fixed income) and serves as the advisor to the Berwyn Funds and Chartwell Mutual Funds. Six members of the U.S. Fixed Income team are expected to leave Aberdeen to join Chartwell: Neil Moriarty, Stephen Cianci, Michael Degernes, Oliver Chambers, Stefan Martin and Stephen Frech.

Performance

We note that Aberdeen's performance has been adequate over relevant time periods, versus their benchmark.

Returns for Periods Ending 9/30/16	**Last Quarter**	**Year to Date**	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**	**Inception Date**	**Since Inception**
Aberdeen Asset Management	1.02	6.65	6.01	4.75	4.33	4.63	1/1/1990	6.82
Barclays Aggregate	0.46	5.80	5.19	4.03	3.08	4.79	1/1/1990	6.30
Difference	0.56	0.85	0.82	0.72	1.25	-0.16		0.52

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI terminate the relationship with Aberdeen Asset Management Inc. due to staff departures, organizational instability, and the sale of Aberdeen's Core fixed income business to a third party.

TAB

F

This page intentionally left blank.

INVESTMENT ADVISORY COUNCIL REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: Review of emerging markets manager, Capital International, Inc.

Summary

The SBI hired Capital International, Inc. ("Capital") in February 2001 to manage an active emerging markets mandate. As of September 30, 2016, the SBI's portfolio with Capital was $668 million. While the strategy continues to be managed by a well-resourced and experienced team, Capital has experienced persistent underperformance and asset losses in the product, as well turnover within the investment team. As a result of these issues, the SBI Executive Director informed Capital that they were being defunded and froze their account in October 2016. Currently, the assets are being managed passively by State Street's transition management unit. A final destination for the assets will be determined following the December 2016 SBI meeting. Staff recommends that the Capital emerging markets relationship be terminated. Following are more details regarding issues with Capital.

Organization Assets

The total assets in the strategy have significantly decreased in past years. The product had net losses every year since 2012.

	Assets Gained* (millions)	Assets Lost* (millions)	**Total Assets (millions)**
YTD 2016 (9/30/16)	$0	$1,136	**$5,766**
2015	$348	$989	**$6,485**
2014	$921	$3,021	**$10,256**
2013	$826	$2,064	**$15,425**
2012	$209	$2,018	**$19,586**

**Assets gained and lost represent U.S. institutional EME accounts*

Team Turnover

The strategy has recently experienced significant personnel turnover. Two significant recent changes were the transition out of the account of senior portfolio managers David Fisher and Luis Freitas de Oliveira in June 2016.

Performance

As of September 2016, the portfolio has underperformed its benchmark for all time periods shown.

	One year	**Two years**	**Three years**	**Four years**	**Five years**	**Ten years**	**Since inception (February 2001)**
Capital International, Inc.	15.4	-4.5	-2.7	-1.3	1.0	3.4	8.2
MSCI Emerging Markets	16.8	-2.9	-0.6	-0.2	3.0	4.0	9.1
Active Performance	**-1.4**	**-1.6**	**-2.1**	**-1.1**	**-2.0**	**-0.6**	**-0.9**

Also, the portfolio underperformed the benchmark in five of the past six calendar years.

	2015	**2014**	**2013**	**2012**	**2011**	**2010**
Capital International, Inc.	-16.4	-5.9	0.7	13.8	-22.8	16.1
MSCI Emerging Markets	-14.9	-2.2	-2.6	18.2	-18.4	18.9
Active Performance	**-1.5**	**-3.8**	**3.3**	**-4.4**	**-4.3**	**-2.7**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI terminate the relationship with Capital International, Inc. due to continued underperformance, asset loss, and team turnover.

TAB

G

This page intentionally left blank.

INVESTMENT ADVISORY COUNCIL REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

Staff has reviewed the following information and action agenda items:

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

Existing Managers:

Private Equity	Merced Capital	Fund V	$100 Million
Private Equity	West Street Capital Partners	Fund VII	$150 Million
Private Equity	Goldman Sachs Vintage	Fund VII	$100 Million
Private Equity	Lexington Partners	LMMI IV	$100 Million

New Managers:

Private Equity	Dyal Capital Partners	Fund III	$175 Million
Private Equity	Oak Hill Capital Partners	Fund IV	$150 Million

Board action is required on the second item.

INFORMATION ITEM:

1) Review of Current Strategy.

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

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

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

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

d. The strategy for yield-oriented investments is to target funds that typically provide a current return and may have an equity component such as subordinated debt or mezzanine investments. Yield-oriented investments will provide diversification by including investments in the private equity, resource and real estate categories.

ACTION ITEMS:

1) Investment with an existing private equity manager, Merced Capital ("Merced"), in Merced Partners V ("Merced V").

Merced Capital is seeking investors for a new $800 million distressed fund, Merced Partners V. The Firm was founded in 1988, and since 2005 has raised seven multi-year lock-up funds with approximately $2.5 billion in aggregate capital commitments. The SBI has invested in the three most recent Merced Capital funds.

Fund V will invest primarily through investments where the General Partner determines there is strong downside protection from asset or enterprise value and/or counter-party credit and compelling return potential from some combination of current income, financial instrument price appreciation, and asset or enterprise value appreciation. Merced believes targeting individual deployments between $5 million and $50 million enhances both the quantity and quality of deal flow. This range is too big for most individual investors and too small for most of Merced's larger competitors. Merced targets sectors and individual investments that attract less attention due to size, complexity or illiquidity.

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

More information on Merced V 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 $100 million, or 20% of Merced Partners V, 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 Merced Capital upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Merced Capital or reduction or termination of the commitment.

2) Investment with an existing private equity manager, Goldman, Sachs & Co. ("Goldman Sachs"), in West Street Capital Partners VII, L.P. ("WSCP VII").

Goldman Sachs is seeking investors for a new $5 billion private equity fund, West Street Capital Partners VII, L.P. West Street Capital Partners ("WSCP") is part of Goldman Sach's Merchant Banking Division ("MBD"). The MBD is one of the world's largest leading alternative investing platforms, with over 30 years of global experience investing over $150 billion of capital across corporate equity, credit, infrastructure and real estate investments. The SBI has invested in three prior Goldman Sachs private equity funds.

The investment objective of WSCP VII is to seek long-term capital gains through the creation of a diversified global portfolio of direct or indirect investments in equity, equity-related and similar securities. The firm expects WSCP VII to be invested in a similar manner to prior corporate private equity investing activity, across geographies (approximately 60% of invested cost in the Americas, 40% outside the Americas) and industries. There are five key tenets to their investment strategy: value orientation, domain expertise, company building, preferred partner and powerful global network. WSCP VII will continue to focus on the following sectors in which WSCP possesses deep expertise: Financial Services; Technology, Media, & Telecommunications ("TMT"); Natural Resources; Services; Consumer; and Healthcare.

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

More information on WSCP VII is included as **Attachment D**.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $150 million, or 20% of West Street Capital Partners VII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Goldman, Sachs & Co. upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further

due diligence and negotiations may result in the imposition of additional terms and conditions on Goldman, Sachs & Co. or reduction or termination of the commitment.

3) Investment with an existing private equity manager, Goldman, Sachs & Co. ("Goldman Sachs"), in Vintage VII, L.P. ("Vintage VII").

Goldman Sachs is establishing Vintage VII to acquire and structure portfolios of private equity partnerships and assets in the secondary market. Goldman Sachs has an 18-year track record of investing in the private equity secondaries market, dating back to its first fund launched in 1998. The Vintage fund series has 17 dedicated investment professionals and is complemented by over 150 Alternative Investments & Manager Selection Group ("AIMS") professionals.

Vintage VII seeks to outperform the public market equivalent by (i) identifying and investing in high quality assets and managers on a global basis, leveraging the resources of Goldman Sachs and the AIMS Group; (ii) capitalizing on market disruptions which may result in unique opportunities to purchase private equity fund interests and assets at attractive prices; and (iii) partnering with knowledgeable private equity managers to acquire assets which may sit outside of traditional fund structures or which require innovative solutions to create new fund structures. Vintage VII will be comprised of traditional secondary market purchases, where limited partner interests of one or more funds are purchased, and also special situations. Special situations transactions involve the acquisition of private equity assets outside of the traditional fund structure, and may include fund restructuring and management company stakes.

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

More information on Vintage VII is included as **Attachment E**.

RECOMMENDATION:

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

4) Investment with an existing private equity manager, Lexington Partners, in Lexington Middle Market Investors IV, L.P. ("LMMI IV").

Lexington Partners is forming LMMI IV, to continue Lexington's history of successfully acquiring U.S. growth capital, small, and middle market buyout interests through negotiated secondary market purchases. Lexington is the largest independent manager of secondary acquisition and co-investment funds with more than $34 billion in original committed capital.

LMMI IV will seek to generate superior returns by negotiating attractive secondary market purchases of interests in high-quality U.S. middle market buyout investments, primarily in established funds that are less than 50% invested. Lexington Partners believes that the U.S. middle market is an attractive private equity segment due to the combination of higher potential growth rates for small- and mid-sized businesses, generally lower purchase price multiples, modest leverage, and the opportunity for substantial value creation from accretive acquisitions and operational improvements. Lexington Partners designed the Lexington Middle Market Investors' innovative investment strategy 12 years ago specifically to provide high-quality U.S. middle market buyout exposure to investors on a diversified basis with the objective of mitigating risk while capitalizing on Lexington's ability to originate, analyze, negotiate, and close attractive acquisitions in the global secondary market.

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

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

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $100 million, or 20% of Lexington Middle Market Investors IV, L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Lexington 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 Lexington Partners reduction or termination of the commitment.

5) Investment with a new private equity manager, Dyal Capital Partners ("Dyal"), in Dyal Capital Partners III, L.P. ("Dyal III").

Dyal Capital Partners is sponsoring Dyal III to make minority equity investments in established investment management companies. Dyal Capital Partners is part of the Neuberger Berman Private Equity ("NB Private Equity") platform. Since its inception, NB Private Equity has managed over $25 billion of investor commitments across primary, secondary, co-investments, private debt and other direct investments.

Dyal III will focus on acquiring minority interests in leading institutionalized private equity firms, which should continue to benefit from increased allocations to private equity funds by large institutional investors, such as public and corporate pension plans and sovereign wealth funds. Further, Dyal believes that portfolio diversification is critical and will seek to assemble a portfolio of complimentary investments diversified by investment strategy, vintage years, and geography. Dyal anticipates that each investment in a private equity General Partner will benefit from three return components: (i) a share of management fees, which is very stable and predictable over the life of the funds, (ii) a share of return of capital and gains on balance sheet investments made alongside the limited partners in the funds (i.e., the GP commitment), and (iii) a share of carried interest, which is episodic and varies with fund returns.

In addition to reviewing the attractiveness of the Dyal III 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 Dyal III 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 the acquisition of an interest for a commitment of up to $175 million, or 20% of Dyal Capital Partners III, L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Dyal Capital 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 Dyal Capital Partners reduction or termination of the commitment.

6) Investment with a new private equity manager, Oak Hill Capital Partners ("Oak Hill"), in Oak Hill Capital Partners IV, L.P. ("OHCP IV").

Oak Hill is forming OHCP IV to make private equity investments of $100 million to $300 million in middle-market companies primarily in North America. OHCP IV's investment activities will focus on the following sectors: (i) Consumer, Retail & Distribution; (ii) Industrials; (iii) Media & Communications; and (iv) Services. Oak Hill has a 28-year history of successful private equity investing, making it one of the longest-tenured middle-market firms in the industry.

Oak Hill's investment strategy focuses on originating attractive opportunities and executing successful investments by adhering to its theme-based investment strategy. This strategy requires a deep understanding of: (i) the long-term secular trends within each core sector; (ii) the key operating drivers of business performance; and (iii) the intrinsic value of an asset. Oak Hill has an established track record of creating value through multiple initiatives, which not only increases the number of levers to drive franchise value but also expands the universe of potential investment opportunities. In order to unlock financial and strategic value over the course of an investment, Oak Hill typically focuses on one or two of the following initiatives: operating initiatives, strategic repositioning, and/or mergers and acquisitions.

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

More information on OHCP 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 $150 million, or 20% of Oak Hill Capital Partners IV, L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Oak Hill Capital 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 Oak Hill Capital Partners reduction or termination of the commitment.

This page intentionally left blank.

ATTACHMENT A

Minnesota State Board of Investment

Pooled Alternative Investments

Combined Funds

September 30, 2016

Combined Funds Market Value	$59,547,416,827
Amount Available for Investment	**$4,277,947,071**

	Current Level	Target Level	Difference
Market Value (MV)	$7,631,536,294	$11,909,483,365	$4,277,947,071
MV +Unfunded	$13,268,922,526	$20,841,595,890	$7,572,673,364

Asset Class	Market Value	Unfunded Commitment	Total
Private Equity	$4,667,078,227	$3,460,901,677	$8,127,979,904
Real Estate	$598,652,485	$528,836,424	$1,127,488,909
Resource	$1,379,742,272	$874,226,161	$2,253,968,433
Yield-Oriented	$986,063,310	$773,421,970	$1,759,485,280
Total	$7,631,536,294	$5,637,386,232	$13,268,922,526

Cash Flows

September 30, 2016

Year	Capital Calls	Distributions	Net Invested
2016 (thru 9/30)	$1,324,479,099	($1,072,919,919)	$251,559,180
2015	$1,541,161,769	($2,128,301,645)	($587,139,876)
2014	$1,378,984,263	($2,133,698,037)	($754,713,774)
2013	$1,257,559,066	($2,522,817,494)	($1,265,258,428)

This page intentionally left blank.

ATTACHMENT B

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
I. REAL ESTATE								
Angelo, Gordon & Co.								
AG Realty Fund IX	100,000,000	38,640,717	39,113,757	0	61,359,283	1.80	**1.01**	1.81
Blackstone								
Blackstone Real Estate Partners V	100,000,000	97,030,342	45,651,761	155,498,414	4,174,052	10.88	**2.07**	10.18
Blackstone Real Estate Partners VI	100,000,000	99,320,387	48,073,829	157,048,538	4,907,906	12.59	**2.07**	9.25
Blackstone Real Estate Partners VII	100,000,000	92,693,726	94,816,690	64,439,122	17,790,521	19.21	**1.72**	4.59
Blackstone Real Estate Partners VIII	150,000,000	57,605,075	59,519,199	5,041,974	96,542,436	11.62	**1.12**	1.27
Blackstone Strategic Partners (CSFB)								
Strategic Partners III RE	25,000,000	25,752,810	5,080,765	10,023,438	9,006	-7.28	**0.59**	11.00
Strategic Partners IV RE	50,000,000	50,538,570	12,726,377	36,283,170	1,431,678	-0.72	**0.97**	8.04
Colony Capital								
Colony Investors III	100,000,000	100,000,000	5,169,500	172,642,105	0	14.57	**1.78**	18.50
Silverpeak Real Estate Partners								
Silverpeak Legacy Pension Partners II	75,000,000	78,596,974	8,312,748	86,318,011	7,819,119	4.52	**1.20**	11.00
Silverpeak Legacy Pension Partners III	150,000,000	69,966,786	17,275,825	9,390,517	80,033,214	-13.02	**0.38**	8.11
Rockpoint								
Rockpoint Real Estate Fund V	100,000,000	14,265,428	15,402,097	269,051	86,003,623	-4.06	**1.10**	1.72
Rockwood								
Rockwood Capital RE Partners X	100,000,000	6,234,414	6,234,414	0	93,765,586	0.00	**1.00**	0.21
T.A. Associates Realty								
Realty Associates Fund VII	75,000,000	75,000,000	483,582	76,273,641	0	0.33	**1.02**	11.62
Realty Associates Fund VIII	100,000,000	100,000,000	54,677,385	39,891,542	0	-0.70	**0.95**	10.00
Realty Associates Fund IX	100,000,000	100,000,000	69,629,537	89,984,124	0	10.97	**1.60**	7.85
Realty Associates Fund X	100,000,000	100,000,000	92,124,369	40,990,394	0	12.30	**1.33**	4.34
Realty Associates Fund XI	100,000,000	25,000,000	24,360,650	0	75,000,000	-2.58	**0.97**	1.01
Real Estate Total	**1,625,000,000**	**1,130,645,229**	**598,652,485**	**944,094,040**	**528,836,424**	6.85	**1.36**	
II. RESOURCE								
Apache Corp.								
1986 Net Profits Interest	30,000,000	30,000,000	417,720	59,464,292	0	12.14	**2.00**	29.50
EIG Global Energy Partners								
EIG Energy Fund XIV	100,000,000	112,513,074	11,471,368	92,181,918	3,261,129	-3.30	**0.92**	9.20
EIG Energy Fund XV	150,000,000	145,074,733	103,052,557	62,311,812	6,322,679	4.41	**1.14**	6.07
EIG Energy Fund XVI	200,000,000	107,380,546	83,593,569	10,369,007	99,230,852	-10.27	**0.88**	2.80
EnCap Energy								
EnCap Energy Capital Fund VII	100,000,000	96,692,592	10,255,871	130,765,121	3,860,151	15.53	**1.46**	9.00
EnCap Energy Capital Fund VIII	100,000,000	86,740,226	41,173,958	32,728,723	13,722,229	-6.19	**0.85**	5.75
Encap Energy Fund IX	100,000,000	87,182,069	81,338,727	21,529,754	19,156,147	12.23	**1.18**	3.57
EnCap Energy Capital Fund X	100,000,000	28,079,400	24,587,288	1,536,826	73,457,426	-13.49	**0.93**	1.33
Energy & Minerals Group								
NGP Midstream & Resources	100,000,000	99,954,848	80,762,129	112,972,183	366,338	16.36	**1.94**	9.25
The Energy & Minerals Group Fund II	100,000,000	88,788,289	122,929,583	22,393,093	11,485,016	17.31	**1.64**	4.77
The Energy & Minerals Group Fund III	200,000,000	172,051,198	136,933,982	4,391,607	29,677,136	-11.05	**0.82**	2.32
The Energy & Minerals Group Fund IV	150,000,000	92,640,894	90,445,861	85,406	57,359,953	-3.10	**0.98**	0.92
Energy Capital Partners								
Energy Capital Partners II	100,000,000	80,529,511	48,198,887	70,054,005	30,099,613	11.43	**1.47**	5.95
Energy Capital Partners III	200,000,000	68,790,968	79,001,061	0	131,209,032	10.11	**1.15**	2.53
EnerVest Energy								
EnerVest Energy Institutional Fund XIV	100,000,000	69,052,803	63,050,285	3,142,011	32,701,991	-7.41	**0.96**	1.19
First Reserve								
First Reserve Fund X	100,000,000	100,000,000	401,435	182,429,002	0	31.06	**1.83**	11.66
First Reserve Fund XI	150,000,000	150,292,121	14,743,863	87,351,627	0	-8.94	**0.68**	9.53
First Reserve Fund XII	150,000,000	161,217,207	50,176,012	70,703,666	2,366,265	-8.03	**0.75**	7.67
First Reserve Fund XIII	200,000,000	32,731,423	19,348,869	2,279,302	167,268,577	-31.62	**0.66**	2.66
NGP								
Natural Gas Partners IX	150,000,000	161,154,200	19,510,020	224,576,328	2,022,299	12.04	**1.51**	8.69
NGP Natural Resources X	150,000,000	131,825,315	89,076,117	47,788,542	18,174,685	1.53	**1.04**	4.73
Natural Gas Capital Resources XI	150,000,000	49,327,363	38,839,752	12,374,843	106,834,643	6.93	**1.04**	1.56

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Sheridan								
Sheridan Production Partners I	100,000,000	100,000,000	51,724,005	82,750,000	0	6.78	**1.34**	9.25
Sheridan Production Partners II	100,000,000	100,000,000	70,444,970	7,000,000	0	-7.04	**0.77**	5.75
Sheridan Production Partners III	100,000,000	34,350,000	30,565,998	0	65,650,000	-35.01	**0.89**	1.56
T. Rowe Price	18,513,566	18,513,566	17,698,385	0	0	-4.71	**0.96**	
Resource Total	**3,198,513,566**	**2,404,882,347**	**1,379,742,272**	**1,341,179,069**	**874,226,161**	5.17	**1.13**	
III. YIELD-ORIENTED								
Audax Group								
Audax Mezzanine Fund III	100,000,000	88,989,140	53,361,764	54,627,232	19,518,855	9.25	**1.21**	6.24
Audax Mezzanine Fund IV	100,000,000	2,140,540	2,140,540	0	97,859,460	0.00	**1.00**	1.23
Avenue Capital Partners								
Avenue Energy Opportunities Fund	100,000,000	95,026,598	92,762,399	934,495	4,973,402	-2.60	**0.99**	1.27
Citicorp Mezzanine								
CM Liquidating Partnership	100,000,000	88,029,296	11,526,914	132,324,719	0	16.23	**1.63**	16.67
Crescent Capital Group								
TCW/Crescent Mezzanine Partners III	75,000,000	68,835,269	2,407,492	156,868,939	29,733,852	35.89	**2.31**	15.26
Gold Hill Venture Lending								
Gold Hill Venture Lending	40,000,000	40,000,000	923,511	63,913,250	0	10.62	**1.62**	11.76
Gold Hill 2008	25,852,584	25,852,584	11,153,257	30,318,755	0	12.59	**1.60**	8.00
GS Mezzanine Partners								
GS Mezzanine Partners 2006	100,000,000	74,999,888	6,198,074	127,211,034	9,858,563	4.72	**1.78**	10.24
GS Mezzanine Partners V	150,000,000	112,057,963	12,895,410	165,434,372	60,803,216	9.26	**1.59**	8.69
Kohlberg Kravis Roberts								
KKR Lending Partners II	75,000,000	70,343,089	61,511,929	15,218,592	14,306,846	13.91	**1.09**	1.33
LBC Credit Partners								
LBC Credit Partners IV	100,000,000	3,453,648	3,453,648	0	96,546,352	0.00	**1.00**	0.42
Merit Capital Partners								
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	620,666	112,755,951	2,756,759	15.51	**1.98**	16.50
Merit Mezzanine Fund IV	75,000,000	70,178,571	28,532,990	87,353,296	4,821,429	9.70	**1.65**	11.54
Merit Mezzanine Fund V	75,000,000	70,420,408	56,572,052	31,760,647	4,579,592	8.19	**1.25**	6.54
Merit Mezzanine Fund VI	45,000,000	6,965,000	6,965,000	0	38,035,000	0.00	**1.00**	0.52
Merit Energy Partners								
Merit Energy Partners B	24,000,000	24,000,000	11,389,520	181,045,738	0	24.34	**8.02**	20.00
Merit Energy Partners C	50,000,000	50,000,000	20,317,170	493,654,262	0	30.99	**10.28**	17.68
Merit Energy Partners D	88,000,000	70,938,303	42,808,465	305,623,509	0	22.92	**4.91**	15.10
Merit Energy Partners E	100,000,000	39,983,197	26,828,369	66,686,905	0	12.77	**2.34**	11.71
Merit Energy Partners F	100,000,000	59,522,861	27,028,486	27,251,921	0	-1.67	**0.91**	10.27
Merit Energy Partners H	100,000,000	100,000,000	71,595,125	12,410,723	0	-6.90	**0.84**	5.41
Merit Energy Partners I	169,721,518	125,099,999	137,862,951	246,000	44,621,519	32.87	**1.10**	1.71
Oaktree Capital Management								
Oaktree Opportunities Fund X	50,000,000	7,500,000	8,333,813	619,660	42,500,000	17.76	**1.19**	1.33
Oaktree Opportunities Fund Xb	100,000,000	0	0	0	100,000,000	0.00	**0.00**	1.33
Pimco Bravo**								
Pimco Bravo Fund I	3,958,027	3,958,027	589,063	3,447,441	1,816,879	2.33	**1.02**	1.51
Pimco Bravo Fund II	5,243,670	5,243,670	5,674,925	0	0	4.85	**1.08**	1.51
Portfolio Advisors								
DLJ Investment Partners II	27,375,168	23,164,217	80,537	34,829,566	0	10.37	**1.51**	16.50
DLJ Investment Partners III	100,000,000	63,523,951	8,057,227	75,601,649	38,475,338	6.96	**1.32**	10.03
Prudential Capital Partners								
Prudential Capital Partners I	100,000,000	99,713,348	0	155,231,567	286,652	11.06	**1.56**	15.20
Prudential Capital Partners II	100,000,000	96,976,021	5,705,563	135,177,792	3,156,732	8.95	**1.45**	11.00
Prudential Capital Partners III	100,000,000	95,838,210	47,640,846	109,778,573	7,604,183	13.68	**1.64**	7.21
Prudential Capital Partners IV	100,000,000	82,525,114	77,125,962	22,314,189	18,041,000	13.06	**1.20**	4.45
Summit Partners								
Summit Subordinated Debt Fund III	45,000,000	42,750,000	5,578,900	55,057,070	2,250,000	8.32	**1.42**	12.38
Summit Subordinated Debt Fund IV	50,000,000	55,250,000	25,409,900	45,467,890	15,669,302	9.89	**1.28**	8.26

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
TCW Asset Management								
TCW Direct Lending LLC	100,000,000	58,019,463	45,715,813	12,603,079	48,887,731	0.29	**1.01**	1.46
Windjammer Capital Investors								
Windjammer Mezzanine & Equity Fund II	66,708,861	56,569,498	377,300	84,439,334	10,139,363	8.93	**1.50**	16.25
Windjammer Senior Equity Fund III	75,000,000	61,619,620	17,467,838	126,252,774	13,380,380	18.94	**2.33**	10.49
Windjammer Senior Equity Fund IV	100,000,000	58,993,400	49,449,891	5,382,680	42,799,565	-3.82	**0.93**	4.35
Yield-Oriented Total	**2,975,859,828**	**2,155,724,135**	**986,063,310**	**2,931,843,604**	**773,421,970**	0.00	**1.82**	
IV. PRIVATE EQUITY								
Adams Street Partners								
Adams Street Global Secondary Fund 5	100,000,000	61,270,000	41,588,602	18,625,419	38,730,000	-1.08	**0.98**	4.04
Advent International								
Advent International GPE VI	50,000,000	49,000,005	30,848,041	67,932,255	999,995	17.13	**2.02**	8.25
Advent International GPE VII	90,000,000	76,815,000	89,800,900	12,015,083	13,185,000	13.66	**1.33**	3.79
Advent International GPE VIII	100,000,000	2,100,000	1,802,516	0	97,900,000	-17.38	**0.86**	0.65
Affinity Ventures								
Affinity Ventures IV	4,000,000	4,000,000	1,785,924	1,541,970	0	-3.46	**0.83**	12.00
Affinity Ventures V	5,000,000	5,000,000	3,052,588	1,585,611	0	-1.84	**0.93**	8.00
APAX Partners								
Apax VIII - USD	200,000,000	171,727,016	187,430,491	18,618,593	46,891,577	11.73	**1.20**	3.32
Apax IX - USD	150,000,000	0	0	0	150,000,000	0.00	**0.00**	0.25
Banc Fund								
Banc Fund VII	45,000,000	45,000,000	46,773,720	812,725	0	0.59	**1.06**	11.25
Banc Fund VIII	98,250,000	98,250,000	133,102,517	24,953,973	0	11.36	**1.61**	8.18
Banc Fund IX	107,205,932	55,747,085	58,769,580	0	51,458,847	5.43	**1.05**	2.06
BlackRock								
BlackRock Tempus Fund	1,774,870	1,774,870	927,477	1,073,278	0	15.04	**1.13**	1.06
Blackstone								
Blackstone Capital Partners IV	70,000,000	72,267,426	16,145,977	180,404,015	2,003,882	37.09	**2.72**	13.97
Blackstone Capital Partners V	140,000,000	130,900,605	39,696,428	196,469,371	8,616,043	8.10	**1.80**	10.41
Blackstone Capital Partners VI	100,000,000	85,585,970	93,420,783	17,840,904	17,789,615	8.98	**1.30**	7.94
Blackstone Capital Partners VII	130,000,000	0	0	0	130,000,000	0.00	**0.00**	1.01
Blackstone Strategic Partners (CSFB/ DLJ)								
Strategic Partners II-B	100,000,000	86,140,635	2,053,163	160,717,586	4,706,926	35.09	**1.89**	12.96
Strategic Partners III-B	100,000,000	78,066,047	25,598,722	91,973,457	15,092,801	6.54	**1.51**	11.08
Strategic Partners III VC	25,000,000	24,755,364	7,444,864	26,594,046	1,201,853	6.49	**1.38**	11.08
Strategic Partners IV-B	100,000,000	91,609,280	26,146,667	122,801,487	18,810,860	12.67	**1.63**	8.27
Strategic Partners IV VC	40,500,000	39,695,991	17,145,400	44,067,723	3,318,525	10.15	**1.54**	8.04
Strategic Partners V	100,000,000	75,962,800	49,904,058	73,631,165	43,254,682	21.78	**1.63**	4.87
Strategic Partners VI	150,000,000	70,550,895	92,926,562	8,201,022	82,347,326	30.14	**1.43**	2.21
Strategic Partners VII	150,000,000	3,000,000	3,356,892	0	147,000,000	12.03	**1.12**	0.63
BLUM Capital Partners								
Blum Strategic Partners II	50,000,000	40,185,889	63,826	89,708,870	2,127,584	22.41	**2.23**	14.96
Blum Strategic Partners III	75,000,000	78,121,020	0	83,508,219	471,064	0.25	**1.07**	11.08
Blum Strategic Partners IV	150,000,000	170,916,780	0	167,939,991	5,896,033	-0.75	**0.98**	8.62
Brookfield Asset Management Inc.								
Brookfield Capital Partners Fund IV	100,000,000	26,192,359	26,537,864	1,889,939	74,494,663	6.43	**1.09**	1.03
Carval Investors								
CVI Global Value Fund	200,000,000	190,000,000	37,455,048	281,963,583	10,000,000	9.75	**1.68**	9.47
CVI Credit Value Fund I	100,000,000	95,000,000	67,388,552	135,410,375	5,000,000	19.09	**2.13**	5.75
CVI Credit Value Fund A II	150,000,000	142,500,000	168,263,292	10,171,948	7,500,000	7.48	**1.25**	3.67
CVI Credit Value Fund A III	150,000,000	67,500,000	73,075,433	0	82,500,000	10.13	**1.08**	1.08
Cardinal Partners								
DSV Partners IV	10,000,000	10,000,000	31,325	39,196,082	0	10.61	**3.92**	31.23
Carlyle Group								
Carlyle Strategic Partners IV	100,000,000	0	0	0	100,000,000	0.00	**0.00**	0.50
Chicago Growth Partners (William Blair)								
William Blair Capital Partners VII	50,000,000	48,150,000	4,743,470	64,292,866	1,650,000	8.45	**1.43**	15.32
Chicago Growth Partners I	50,000,000	52,441,998	5,482,017	53,058,188	300,000	2.57	**1.12**	10.94
Chicago Growth Partners II	60,000,000	57,975,626	48,949,052	63,542,737	1,772,374	18.65	**1.94**	8.31

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Court Square Capital Partners								
Court Square Capital Partners	100,000,000	80,813,422	285,108	181,548,807	1,934,741	28.91	**2.25**	14.55
Court Square Capital Partners II	175,000,000	158,078,327	63,678,012	241,844,253	17,968,871	13.59	**1.93**	9.82
Court Square Capital Partners III	175,000,000	72,517,652	54,660,694	31,844,069	110,146,437	7.41	**1.19**	4.08
Crescendo								
Crescendo IV	101,500,000	101,500,000	11,933,779	37,386,052	0	-6.73	**0.49**	16.31
CVC Capital Partners								
CVC European Equity Partners V	133,904,107	129,528,618	70,195,627	140,977,089	4,375,489	12.66	**1.63**	8.27
CVC Capital Partners VI	254,911,104	90,041,388	90,891,326	545,893	165,377,326	1.25	**1.02**	2.98
Diamond Castle Partners								
Diamond Castle Partners IV	92,487,949	91,151,326	0	94,068,606	1,377,108	0.40	**1.03**	9.81
Elevation Partners								
Elevation Partners	75,000,000	69,311,710	1,277,794	112,437,120	799,634	11.84	**1.64**	11.12
Fox Paine & Company								
Fox Paine Capital Fund II	50,000,000	46,299,626	3,984,828	86,859,891	11,953,212	18.95	**1.96**	16.00
GHJM Marathon Fund								
GHJM Marathon Fund V	50,000,000	50,093,425	59,926	95,838,392	46,502	12.10	**1.91**	11.75
TrailHead Fund	20,000,000	14,914,187	18,117,164	2,406,955	5,085,813	11.76	**1.38**	4.35
GS Capital Partners								
GS Capital Partners 2000	50,000,000	50,000,000	2,212,975	112,309,390	0	23.46	**2.29**	15.83
GS Capital Partners V	100,000,000	73,958,901	8,322,313	209,467,705	1,041,099	18.22	**2.94**	11.25
GS Capital Partners VI	100,000,000	80,215,619	26,507,718	96,147,732	15,039,971	5.57	**1.53**	9.41
GTCR Golder Rauner								
GTCR VI	90,000,000	90,000,000	2,204,762	77,813,800	0	-3.79	**0.89**	18.00
GTCR IX	75,000,000	69,539,933	6,513,871	119,144,001	5,460,067	13.87	**1.81**	10.00
GTCR X	100,000,000	93,248,604	82,354,193	88,929,872	6,751,396	20.94	**1.84**	5.56
GTCR Fund XI	110,000,000	48,387,553	50,505,812	649,653	61,612,447	5.00	**1.06**	2.63
HarbourVest**								
Dover Street VII	2,198,112	2,070,612	1,056,262	960,649	127,500	-2.50	**0.97**	1.51
HarbourVest Intl PE Partners V	3,518,499	3,293,739	2,038,369	1,821,185	224,760	13.87	**1.17**	1.51
Harbourvest Intl PE Partners VI	4,241,093	3,356,101	3,358,746	721,699	884,993	15.98	**1.22**	1.51
HarbourVest Partners VIII Buyout	4,506,711	4,142,711	2,835,893	1,958,396	364,000	12.71	**1.16**	1.51
HarbourVest Partners VIII Venture	7,190,898	7,015,898	5,232,318	2,245,237	175,000	4.50	**1.07**	1.51
Hellman & Friedman								
Hellman & Friedman Capital Partners V	160,000,000	146,165,961	3,841,888	414,854,231	8,070,303	27.92	**2.86**	11.58
Hellman & Friedman Capital Partners VI	175,000,000	170,348,983	43,599,339	296,606,878	5,773,636	12.96	**2.00**	9.25
Hellman & Friedman Capital Partners VII	50,000,000	47,237,591	50,581,250	17,066,887	2,762,409	15.14	**1.43**	7.20
IK Investment Partners								
IK Fund VII	180,167,393	167,781,957	168,312,060	7,293,202	12,385,435	2.79	**1.05**	2.80
IK Fund VIII	168,440,553	15,829,146	15,958,600	0	152,611,407	0.83	**1.01**	0.20
Kohlberg Kravis Roberts								
KKR Millennium Fund	200,000,000	200,000,000	25,921,198	395,648,311	0	16.42	**2.11**	13.56
KKR 2006 Fund	200,000,000	209,602,896	103,685,267	232,483,122	4,820,615	8.07	**1.60**	9.76
KKR Americas Fund XII	150,000,000	0	0	0	150,000,000	0.00	**0.00**	0.58
Leonard Green & Partners								
Green Equity Investors VI	200,000,000	200,777,472	207,046,925	28,350,388	21,295,009	10.44	**1.17**	4.30
Lexington Capital Partners								
Lexington Capital Partners VI	100,000,000	98,365,297	26,482,100	114,032,372	1,634,703	7.75	**1.43**	10.52
Lexington Capital Partners VII	200,000,000	164,170,550	90,712,170	156,066,484	43,299,357	15.76	**1.50**	7.05
Lexington Capital Partners VIII	150,000,000	33,194,146	32,122,565	9,795,927	120,867,237	27.25	**1.26**	2.32
Madison Dearborn Capital Partners								
Madison Dearborn Capital Partners VII	100,000,000	7,836,870	7,082,932	0	92,163,130	-8.77	**0.90**	0.78
MHR Institutional Partners								
MHR Institutional Partners IV	75,000,000	13,500,000	12,730,163	184,217	61,500,000	-4.90	**0.96**	1.21
Merced Capital								
Merced Partners II	75,000,000	63,768,881	8,767,472	121,622,383	0	24.10	**2.04**	9.25
Merced Partners III	100,000,000	100,000,000	63,026,074	68,497,107	0	6.92	**1.32**	6.15
Merced Partners IV	125,000,000	125,000,000	134,842,125	0	0	4.08	**1.08**	2.97
Nordic Capital								
Nordic Capital Fund VIII	177,776,744	97,819,773	94,351,352	49,418	79,956,970	-1.47	**0.97**	2.80
North Sky Capital**								
North Sky Capital LBO Fund III	1,070,259	720,259	497,570	333,594	350,000	10.98	**1.15**	1.51
North Sky Capital Venture Fund III	1,384,080	1,277,830	646,805	689,583	106,250	3.65	**1.05**	1.51

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Oaktree Capital Management								
Oaktree Principal Fund VI	100,000,000	21,393,823	13,127,787	9,743,624	87,950,941	11.46	**1.07**	1.51
Paine & Partners								
Paine & Partners Capital Fund IV	75,000,000	24,738,573	21,138,740	0	50,261,427	-19.64	**0.85**	1.56
Permal Capital**								
Permal PE Opportunities IV	5,337,098	4,247,098	2,691,359	1,885,487	1,090,000	5.64	**1.08**	1.51
PERMIRA								
Permira V	178,640,568	148,719,392	149,984,093	2,229,773	29,921,176	1.58	**1.02**	2.50
Public Pension Capital Management								
Public Pension Capital	100,000,000	8,922,513	9,563,950	180,012	91,077,487	-22.09	**1.09**	2.13
RWI Ventures								
RWI Ventures I	7,603,265	7,603,265	486,319	6,094,262	0	-4.38	**0.87**	10.01
Sightline Healthcare								
Sightline Healthcare Fund IV	7,700,000	7,753,673	43,313	7,829,436	0	0.12	**1.02**	12.77
Silver Lake Partners								
Silver Lake Partners II	100,000,000	90,121,966	19,382,241	155,275,475	11,771,953	11.35	**1.94**	12.00
Silver Lake Partners III	100,000,000	91,136,846	58,476,500	116,782,778	10,522,581	17.21	**1.92**	9.25
Silver Lake Partners IV	100,000,000	66,324,494	71,850,364	14,656,610	41,965,302	24.94	**1.30**	3.76
Split Rock Partners								
Split Rock Partners	50,000,000	47,454,543	18,631,134	25,998,744	2,545,457	-0.84	**0.94**	11.17
Split Rock Partners II	60,000,000	57,825,000	38,630,425	23,289,936	2,175,000	2.08	**1.07**	8.18
Summit Partners								
Summit Ventures V	25,000,000	24,125,000	47,221	33,358,461	875,000	8.11	**1.38**	18.25
Summit Partners Growth Equity Fund VIII	100,000,000	92,801,274	96,014,568	27,224,839	20,258,082	16.20	**1.33**	5.16
Summit Partners Growth Equity Fund IX	100,000,000	0	0	0	100,000,000	0.00	**0.00**	1.09
Thoma Bravo								
Thoma Bravo Fund XII	75,000,000	0	0	0	75,000,000	0.00	**0.00**	0.06
Thoma Cressey								
Thoma Cressey Fund VI	35,000,000	33,915,000	430,733	34,128,882	1,085,000	0.22	**1.02**	17.87
Thoma Cressey Fund VII	50,000,000	50,000,000	918,519	106,625,069	0	23.61	**2.15**	15.85
Thoma Cressey Fund VIII	70,000,000	68,932,574	1,067,446	233,860,926	770,000	18.25	**2.93**	10.17
Thomas H. Lee Partners								
Thomas H. Lee Equity Fund VII	100,000,000	15,961,879	16,536,611	31,244	84,038,121	5.54	**1.04**	0.81
Thomas, McNerney & Partners								
Thomas, McNerney & Partners I	30,000,000	30,000,000	6,982,022	10,504,694	0	-10.10	**0.58**	13.65
Thomas, McNerney & Partners II	50,000,000	47,125,000	18,680,221	90,888,340	2,875,000	17.32	**2.33**	10.00
TPG Capital								
TPG Partners VII	100,000,000	22,355,630	20,782,155	25,996	77,644,370	-12.98	**0.93**	0.81
T. Rowe Price	70,728,535	70,728,535	27,386,966	48,139,157	0	5.29	**1.07**	
Varde Fund								
Varde Fund IX	100,000,000	100,000,000	30,931,502	175,058,234	0	14.56	**2.06**	8.02
Varde Fund X	150,000,000	150,000,000	157,534,608	100,157,213	0	11.30	**1.72**	6.20
Varde Fund XI	200,000,000	200,000,000	245,697,000	0	0	7.79	**1.23**	2.98
Vestar Capital Partners								
Vestar Capital Partners IV	55,000,000	53,635,969	1,056,871	101,917,140	57,313	14.67	**1.92**	16.55
Vestar Capital Partners V	75,000,000	74,936,812	42,408,530	56,940,572	63,188	4.20	**1.33**	10.54
Vestar Capital Partners VI	100,000,000	69,414,329	75,013,218	33,964,002	30,585,671	30.10	**1.57**	4.77
Warburg Pincus								
Warburg Pincus Equity Partners	100,000,000	100,000,000	1,358,223	162,262,253	0	10.02	**1.64**	18.02
Warburg Pincus Private Equity VIII	100,000,000	100,000,000	17,385,646	208,207,623	0	14.73	**2.26**	14.21
Warburg Pincus Private Equity IX	100,000,000	100,000,000	12,004,642	163,310,456	0	10.00	**1.75**	10.93
Warburg Pincus Private Equity X	150,000,000	150,000,000	74,969,145	139,901,237	0	7.50	**1.43**	8.69
Warburg Pincus Private Equity XI	200,000,000	175,000,000	194,527,943	25,382,200	25,000,000	11.46	**1.26**	3.53
Warburg Pincus Private Equity XII	131,000,000	14,606,500	13,244,605	0	116,393,500	-21.28	**0.91**	0.62
Wayzata								
Wayzata Opportunities Fund	100,000,000	93,180,000	1,598,386	155,536,211	18,920,000	8.45	**1.69**	10.53
Wayzata Opportunities Fund II	150,000,000	57,450,000	29,352,671	171,736,599	30,000,000	16.23	**3.50**	8.69
Wayzata Opportunities Fund III	150,000,000	67,275,000	45,120,339	17,836,917	100,425,000	-4.04	**0.94**	4.04

Minnesota State Board of Investment

- Alternative Investments -

As of September 30, 2016

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Welsh, Carson, Anderson & Stowe								
Welsh, Carson, Anderson & Stowe VIII	100,000,000	100,000,000	151,455	128,668,552	0	3.12	**1.29**	17.94
Welsh, Carson, Anderson & Stowe IX	125,000,000	123,750,000	70,891	205,602,079	1,250,000	11.19	**1.66**	16.01
Welsh, Carson, Anderson & Stowe X	100,000,000	98,000,000	22,402,058	141,955,099	2,000,000	7.99	**1.68**	10.54
Welsh, Carson, Anderson & Stowe XI	100,000,000	97,272,608	65,239,447	80,463,834	2,727,392	12.38	**1.50**	7.95
Welsh, Carson, Anderson & Stowe XII	150,000,000	41,709,761	44,011,264	0	108,290,239	4.73	**1.06**	1.50
Private Equity Total	**11,991,037,769**	**8,599,496,684**	**4,667,078,227**	**8,679,696,995**	**3,460,901,677**		**1.55**	
Private Markets Total	**19,790,411,163**	**14,290,748,395**	**7,631,536,295**	**13,896,813,709**	**5,637,386,232**		**1.51**	

Notes

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

* MOIC: Multiple of Invested Capital

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

ATTACHMENT C

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Merced Partners V, L.P.
Type of Fund:	Distressed
Target Fund Size:	$800 million
Fund Manager:	Merced Capital
Manager Contact:	Erik Bender 601 Carlson Parkway, Suite 200 Minnetonka, MN 55305 952-476-7222

II. Organization and Staff

Merced Partners V, L.P (the "Fund") is being formed by Merced Capital L.P. ("Merced"; formally known as EBF) to make opportunistic investments in financial instruments and assets. Merced Capital was founded in 1988, and since 2005, the Firm has raised seven multi-year lock-up funds with approximately $2.5 billion in aggregate capital commitments. Merced also manages Merced Partners Limited Partnership ("Merced"), an annual liquidity fund that was formed in 1990. The Firm's current partner group averages over 25 years' experience in alternative investing and has been working together at Merced Capital for nearly 15 years. An equally stable and experienced team of 45 investment and administrative personnel support the partner group.

III. Investment Strategy

The Fund's investment objective is to achieve a substantial absolute and relative return on capital while bearing less than commensurate risk. The Fund expects to pursue its objective primarily through investments where the General Partner determines there is strong downside protection from asset or enterprise value and/or counter-party credit and compelling return potential from some combination of current income, financial instrument price appreciation, and asset or enterprise value appreciation.

Merced believes targeting individual deployments between $5 million and $50 million enhances both the quantity and quality of deal flow. This range is too big for most individual investors and too small for most of Merced's larger competitors. Merced targets sectors and individual investments that attract less attention due to size, complexity or illiquidity. Many of the deals Merced pursues fall outside the reach of firms with more traditional investment mandates or larger amounts of capital under management.

Downside assessment is the starting point for all investments. Merced's primary tools to protect against investment loss are avoidance of leverage, diversification, and a focus on near-

term projected cash flow. Merced further attempts to mitigate loss by purchasing in a contrarian manner at cyclical lows and by generally targeting out-of-favor sectors, financial instruments, and assets.

Historically, Merced has not used leverage at the fund level and has utilized leverage at the investment level on a highly selective basis. For investment-level leverage to make sense, Merced's needs two things. First, the need for predictable cash flows, such as from a strong airline lessee, a diversified group of office tenants, or a near-term residential lot build-out. Second, Merced needs to witness a meaningful transfer of risk onto the lender, without a commensurate transfer of expected reward, which they seek to retain exclusively.

Merced's approach is to bring numerous and diverse core competencies to the investment process. Within this flexible framework, Merced allocates capital in a "best-ideas" manner. This may mean that not all of their core investment sector competencies will manifest themselves in actual investments in any given fund. Merced's six core investment sector competencies include the following:

- Credit - Credit analysis is a fundamental skill at Merced. They combine their depth of experience with thorough analysis to capitalize on issuer-specific dislocations and industry cycles. They invest primarily in corporate secured loans, unsecured bonds and selectively in municipal debt and mortgage backed securities.

- Real Estate – The firm has been investing in Real Estate since the late '90s. Areas they have invested in include; un-entitled land/lot development, homebuilder JVs, bank-owned homes, finished lots, and commercial properties. Most recently, they have been primarily focused on homebuilder JVs, where they target regional markets with mid-sized homebuilder partners.

- Insurance - Merced's deployments in this sector have meaningfully differentiated their portfolios and returns and have included significant allocations to Regulation XXX bonds and catastrophe bonds.

- Equipment – The team has knowledge and networks in three primary areas of equipment investing: aircraft, power generation, and shipping.

- Lending – Merced has identified numerous and varied opportunities to lend money on a private basis. They benefit from a first-lien on some form of collateral, most often involving residential or small-balance commercial real estate. Loans are typically underwritten at between 50% and 80% loan-to value, depending on the nature of the collateral.

- Operating Interests – Merced also invests in a limited number of established operating companies. They prefer simple businesses with a limited number of products and highly predictable margins, which are protected by barriers to entry.

IV. Investment Performance

Previous fund performance as of September 30, 2016 is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC*
Harrington	2005	$279 million	--	6.9%	1.6x
Merced Partners II	2007	$474 million	$75 million	24.1%	1.9x
Merced Partners III	2010	$567 million	$100 million	7.1%	1.3x
Merced Partners IV	2013	$800 million	$125 million	6.3%	1.1x

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

V. General Partner's Investment

The General Partner, its affiliates and their respective employees, shareholders, partners and members will together make capital commitments to the Fund and any Parallel Regulatory Vehicles equal to at least 1.5% of the aggregate capital commitments of all partners to the Fund and all Parallel Regulatory Vehicles.

VI. Fees

Until the end of the Commitment Period, the Partnership shall pay to the General Partner or its designee, on a quarterly basis in advance per annum a "Management Fee" of 1.25% of Limited Partner's Capital Commitment. Thereafter, the annual Management Fee will be 1.25% of Limited Partner's aggregate capital contributions used to fund the acquisition cost of unrealized Fund investments as of the first day of the quarterly period to which the Management Fee payment relates. Notwithstanding any dissolution of the Fund, the General Partner will continue to earn and be entitled to receive the Management Fee for each fiscal quarter through the completion of the winding up and termination of the Fund.

VII. Distributions

Generally, the General Partner will receive 20% of all distributed profits with respect to the Fund's investments after the Limited Partners receive a return of all of their invested capital plus a preferred return thereon equal to 8% per annum.

VIII. Key Persons

A "Key Individual Event" means, prior to the end of the Commitment period, that fewer than three of the Key Individuals are devoting substantially all of their business time to the management of the affairs of the Fund, Other Accounts, Permitted Successor Funds and any co-investment vehicles, parallel vehicles or alternative investment vehicles related to any of the foregoing.

"Key Individuals" means David Ericson, Vincent Vertin, Stuart Brown, Hendrik Vroege or such other individuals designated by the General Partner and approved by the Advisory Board.

IX. Investment Period and Term

The Fund will have a term of seven years. The term of the Fund may be extended at the option of the General Partner for one additional year with the consent of the Advisory Board

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

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

ATTACHMENT D

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	West Street Capital Partners VII, L.P.
Type of Fund:	Private Equity - Buyout
Target Fund Size:	$5 billion
Fund Manager:	Goldman, Sachs & Co.
Administrative Contact:	Amy Brown 200 West St, 37th Floor New York, NY 10282 (212) 357-5422

II. Organization and Staff

Goldman Sachs is establishing West Street Capital Partners VII, L.P. (the "Partnership" or "CP VII") to be Goldman Sachs' ("Firm") primary vehicle to make direct private equity investments. CP VII is part of Goldman Sachs' Merchant Banking Division ("MBD"). The MBD is one of the world's largest leading alternative investing platforms, with over 30 years of global experience investing over $150 billion of capital across corporate equity, credit, infrastructure and real estate Investments. Today, the MBD has over $65 billion of assets under management across these platforms.

Goldman Sachs long history of investing its capital in a variety of businesses and transactions began in 1983, when the Firm started to invest in selected long-term equity investments. Many of the early investments proved successful and, in 1986, the Firm established investment partnerships that allowed the Firm's clients to participate alongside Goldman Sachs. In 1991, Goldman Sachs formalized its private equity fund business through the creation of a distinct business unit with a mandate to manage the Firm's private corporate equity investments. The GS Capital Partners ("GSCP") Funds had a broad mandate to make private equity investments on a global basis in situations where the Firm perceived an attractive risk/return trade-off. From 1992 until 2012, the GSCP Funds served as the primary vehicles for Goldman Sachs' direct private equity investing activities.

Since completing the last GSCP Fund's investing portfolio in 2012, MBD has invested approximately $5.3 billion in investments that fall in the $100 million to $500 million range targeted for the CP VII Partnerships. Throughout this period, private equity investments were funded on the Goldman Sachs balance sheet and/or alongside separate accounts managed by the firm.

The private equity team consists of approximately 120 investment professionals, including approximately 30 partners and managing directors, in 7 countries, with offices in New York, London, Hong Kong, Tokyo, Beijing, San Francisco, Mumbai, and Sao Paulo.

III. Investment Strategy

The investment objective is to seek long-term capital gains through the creation of a diversified global portfolio of direct or indirect investments in equity, equity-related and similar securities. The firm expects CP VII to be invested in a similar manner to MBD's aggregate prior corporate private equity investing activity, across geographies (approximately 60% of invested cost in the Americas, 40% outside the Americas) and industries. There are five key tenets to their investment strategy: value orientation, domain expertise, company building, preferred partner and powerful global network.

Value Orientation
CP VII will look globally to find investment opportunities with the potential for multiple expansion as a result of, but not limited to, the following characteristics:

- Embedded growth: Identify businesses with embedded growth options and/or undervalued growth potential;
- Complexity: Find sophisticated solutions to complex situations to unlock value;
- Out-of-favor situations: Use deep industry expertise, extensive due diligence, and market insight to invest through the cycle; or
- Industrial Consolidations: Engage in M&A to create market leaders or improve business mix.

Domain Expertise
The MBD has developed a deep domain expertise through its long history and broad portfolio, which allows MBD to generate distinct, repeatable investment themes around the world and over time. CP VII will continue to focus on the following sectors in which CP VII possesses deep expertise: Financial Services; Technology, Media, & Telecommunications ("TMT"); Natural Resources; Services; Consumer; and Healthcare. Examples include:

- Drawing on its global expertise to assess investment opportunities by staffing investment deal terms with industry-specific expertise from across geographies;
- The MBD has a diverse global portfolio, with over 750 individual corporate equity investments since MBD's inception (over 150 current portfolio companies), that provide insights into industry themes;
- On-the-ground resources and a long-standing presence in key markets supplement these insights with access to a deep network of relationships, including with companies, entrepreneurs, regulators, and executives; and
- The MBD believes its position within the Firm provides MBD with access to leading expertise at the Firm, including the know-how to understand macro, regional, and industry trends.

Company Building
CP VII seeks to create value in its portfolio companies through a variety of ways. A major value enhancement is through operating improvements: CP VII employs a disciplined approach to helping portfolio companies enhance operations by (i) identifying, through rigorous due diligence and benchmarking, specific areas of improvement; (ii) supporting experienced management to execute on these areas; (iii) providing external resources to implement operating initiatives; and (iv) tracing, monitoring, and holding management teams accountable for results.

Cultivating entrepreneurialism is another lever the MBD professionals use to add value. At times, a specific industry sub-segment presents a compelling industry theme in which investments into existing companies are not actionable for valuation or other reasons. In these circumstances, the MBD has had a long-standing history of founding companies to create opportunities at attractive entry valuations and provide the basis for attractive risk-adjusted returns. To execute this strategy, CP VII backs new companies in partnership with experienced management teams and entrepreneurs, and the firm draws on its experience to work with them to manage start-up risk.

Organic growth initiatives are a third approach to driving value. CP VII uses domain expertise to provide guidance on where, how, and when to enter new business lines or geographies. In addition, CP VII leverages on-the-ground Goldman Sachs and MBD resources to help portfolio companies execute on these initiatives.

Fourth is growth and acquisition capital. CP VII helps its portfolio companies identify and source accretive acquisition opportunities; provide post-acquisition integration support and track synergy realization; and offer oversight of capex plans and execution, with disciplined focus of return on invested capital and value creation.

Fifth is talent and human capital management. CP VII helps its portfolio companies find the best teams for their support needs by (i) utilizing Goldman Sachs' platform and brand to attract and retain the best talent, including support from experienced, value-adding boards of directors; (ii) assembling experienced management teams; and (iii) incentivizing performance through tailored compensation.

Preferred Partner

MBD's position inside – and partnership with- Goldman Sachs more broadly often makes MBD a partner of choice for executives, entrepreneurs, shareholders and other key stakeholders. This preferred partner status has, in the past, helped MBD source proprietary deal flow. MBD's preferred partner status primarily results from the aspects of the Goldman Sachs brand and the Firm's strong existing relationships.

Global Network

In addition to leveraging the more than 750 current and past portfolio companies, multi-asset platform, domain expertise and broad network, the MBD draws on the wide reach of the Firm to source investment opportunities.

IV. Investment Performance

Previous fund performance as of June 30, 2016 for the MBD's primary corporate equity investment vehicles is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC*
GSCP I	1992	$1.04 billion	--	27%	3.3x
GSCP II	1995	$1.75 billion	--	5%	1.2x
GSCP III	1998	$2.78 billion	--	0%	1.0x
GSCP 2000	2000	$5.25 billion	$50 million	23%	2.2x
GSCP V	2005	$8.51 billion	$100 million	18%	2.7x
GSCP VI	2007	$20.30 billion	$100 million	6%	1.2x
Balance Sheet & Managed Account	2012-2014	$3.80 billion	--	14%	1.3x

* 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 State Street for Funds 2000 – VI and by Goldman Sachs for Funds I – III and the Balance Sheet & Managed Account investments.

V. General Partner's Investment

The CP VII Partnerships are expected to include at least $500 million in investments from Goldman Sachs employees (through an investment in the Employee Fund and including leverage structured as preferred equity provided by Goldman Sachs), representing 10% of the target $5 billion fund size (subject to regulatory considerations).

VI. Fees

The Investment Manager will collect an annual management fee payable semi-annually in arrears. The Management Fee will be charged as follows:

(a) If a Limited Partner's capital commitments and such Limited Partner's and its affiliates' capital commitments to the other CP VII Partnerships in the aggregate are less than $250 million, (i) 1.50% on capital commitments during the Commitment Period, (ii) 1.0% on Net Invested Capital for two years following the end of the Commitment Period and, (iii) 0.75% on Net Invested Capital thereafter for the remainder of the Term.

(b) If a Limited Partner's capital commitments and such Limited Partner's and its affiliates' capital commitments to the other CP VII Partnerships in the aggregate are equal to or greater than $250 million, (i) 1.25% of capital commitments during the Commitment Period, (ii) 0.875% on Net Invested Capital for two years following the end of the Commitment Period and, (iii) 0.75% on Net invested Capital thereafter for the remainder of the Term.

VII. Distributions

Interest and other dividends paid to the Partnership generally will be applied by the Partnership to pay its expenses and to establish reserves. Remaining current cash flow from investments and net proceeds from investment dispositions will be distributed as follows:

(a) If the entire portfolio has not achieved the Preferred Return computed by marking to market unrealized gains and losses, distributions will be made to all partners pro rata based on their capital commitments as of the distribution date.
(b) If the entire portfolio has achieved the Preferred Return compute by marking to market unrealized gains and losses, then amounts otherwise distributable to Limited Partners will be distributed to such Limited Partners pro rata based on their capital commitments until such Limited Partners have received a cumulative amount equal to the sum of:
    i. their capital contributions used to fund the cost of all investments that have been sold, refinanced, redeemed or otherwise disposed and
    ii. the Preferred Return of 8% per annum thereon.
(c) Next, amounts otherwise distributable to such Limited Partners will be distributed to the holders of SLP Interests (defined as Goldman Sachs and / or its employees, directly or indirectly, including through the Employee Fund) until they have achieved 20% of total profits otherwise allocable to Limited Partners.
(d) Thereafter, amounts will be distributed 20% to the holders of SLP Interests and 80% to the Limited Partners.

VIII. Key Persons

A Key Person Event means the departure of:

(a) Both of the Chief Investment Officers of the CP VII Partnerships, Sumit Rajpal and Andrew Wolff, and the Chairperson of the Investment Committee, Rich Friedman, or,
(b) One or more Investment Committee members who are members of the MBD that result in there being fewer than 50% of the total number of Investment Committee members who are members of the MBD at such time following the Final Admission Date, as such total number may be increased from time to time through the addition of one or more additional Investment Committee members who are members of MBD.

IX. Investment Period and Term

The commitment period will commence on the initial admission date and will continue until the fifth anniversary of the final admission date. The term of the Partnership will be ten years from the final admission date, subject to the General Partner's right, in its discretion, to extend the term of the Partnership for one additional year and, with the consent of the Investment Advisory Committee, for up to two additional one-year periods thereafter.

Note: 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.

This page intentionally left blank.

ATTACHMENT E

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Vintage VII, L.P.
Type of Fund:	Private Equity - Secondaries
Target Fund Size:	$5 billion
Fund Manager:	Goldman, Sachs & Co.
Administrative Contact:	Amy Brown 200 West St, 37th Floor New York, NY 10282 (212) 357-5422

II. Organization and Staff

Goldman Sachs (the "Firm") is establishing Vintage VII, L.P. (the "Partnership" or "Fund VII") to acquire and structure portfolios of private equity partnerships and assets in the secondary market. The Firm has an 18-year track record of investing in the private equity secondaries market, dating back to its first fund launched in 1998. Within Goldman Sachs, the Vintage fund series is managed in the Alternative Investments & Manager Selection Group ("AIMS"), which is a division of Goldman Sachs Investment Management ("GSAM"). AIMS has over 300 global professionals across 9 offices worldwide and together they manage over $150 billion in assets. The Vintage investment team is comprised of 17 dedicated investment professionals, supplemented by 13 Strategy Vertical Heads who work on secondary transactions within their areas of expertise. There are 150 private markets employees in total across AIMS who touch the Vintage Funds in either an investment, risk management and analytics, or client service capacity.

III. Investment Strategy

The investment objective of Fund VII is to acquire and structure portfolios of private equity partnerships and assets in the secondary market. The Fund seeks to outperform the public market equivalent by (i) identifying and investing in high quality assets and managers on a global basis, leveraging the resources of Goldman Sachs and the AIMS Group; (ii) capitalizing on market disruptions which may result in unique opportunities to purchase private equity fund interests and assets at attractive prices; and (iii) partnering with knowledgeable private equity managers to acquire assets which may sit outside of traditional fund structures or which require innovative solutions to create new fund structures.

The AIMS team divides secondary investing into two broad categories: LP Secondaries and Direct Secondaries / Special Situations. LP Secondaries involve the purchase of a limited partnership interest in one or multiple private equity funds. In these transactions, the secondary investor generally assumes the associated rights and obligations of the original investor in the

fund(s). The Vintage team intends to use its informational advantage to carve out subsets of fund interests from large portfolios being sold. Direct Secondaries / Special Situations involve the acquisition of private equity assets outside of the traditional fund structure. Examples that the AIMS team has executed in the past are:

(a) Fund restructurings: Restructuring a fund to realign incentives between managers and investors whereby a buyer offers to acquire existing investor interests and, to the extent appropriate, create a new vehicle to manage the portfolio of assets under revised terms.
(b) Regulatory change: Opportunity to acquire private equity assets through captive team spin-outs or portfolio sales from banks and other financial institutions as the new regulatory environment makes it more challenging for these organizations to hold certain illiquid investments on their balance sheets.
(c) Management company stakes: As the private equity industry matures, the secondary market can be a tool to provide strategic capital at the management company level to facilitate generational transitions or growth capital to become a more diversified asset manager.

While most participants focus on multi-fund portfolios, the Vintage strategy allows AIMS to pivot across the market depending on where they find the best relative value. Over the course of their program, approximately half of the transactions have been in direct secondaries or special situation investments, and AIMS actively seeks out tactical investment themes to maximize potential alpha generation.

Sourcing plays an important role for the strategy as the Firm's network provides it with a competitive advantage in the secondary space. The Firm is able to leverage (subject to informational barriers) Goldman Sachs' 36,800 employees in 74 offices across 37 countries. In addition, AIMS is one of the largest allocators to the private markets with over $50 billion of committed capital, over 500 manager relationships globally, and over 7,500 private market funds evaluated to date. This leads to an extensive network of relationships with private market firms, corporations, investors, entrepreneurs, governments, pension fund managers, endowments, foundations, financial institutions, high net worth individuals, and financial intermediaries worldwide.

Idiosyncratic deal dynamics among the seller, buyer, and investment manager also play an important role in buying well in the secondary market. The Firm believes it is well-suited to negotiate these dynamics for several reasons. First, AIMS is a partner of choice for many investment managers with whom it has developed extensive relationships over the course of its long history investing in private equity. This is potentially critical as transfers of limited partner interests typically require the approval of the investment manager. Second, the Firm has the ability to act on an expedited basis, which is often a critical consideration for sellers of private equity. Third, the Firm is experienced at navigating structurally complex deal dynamics related to legal, tax, asset transfers, and other considerations.

IV. Investment Performance

Previous fund performance as of June 30, 2016 for historical Vintage funds is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC *
Vintage I	1998	$412 million	--	7.9%	1.3x
Vintage II	2001	$1,130 million	--	16.7%	1.5x
Vintage III*	2004	$1,504 million	--	10.0%	1.4x
Vintage IV	2006	$3,003 million	--	5.7%	1.3x
Vintage V	2008	$5,525 million	--	12.8%	1.5x
Vintage VI	2012	$5,867 million	--	13.8%	1.2x

* 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 Goldman Sachs. Performance for Vintage III is as of 3/31/16.

V. General Partner's Investment

Current and former employees will commit at least $170 million to Vintage VII. The split between these commitments is approximately $70 million from current employees and $100 million from accounts affiliated with former employees.

VI. Fees

The Investment Manager will collect an annual management fee payable quarterly. The Management Fee will be charged as follows:

(a) 1.125% on Limited Partners' capital commitment during the four year investment period.
(b) Upon the termination of the Investment Period and each subsequent anniversary, the percentage used to calculate the management fee will decline to 75% of the previous year.

VII. Distributions

Distributions will be apportioned to Limited Partners as follows:

(a) First, 100% to each Limited Partner until such Limited Partner has received cumulative distributions equal to such Limited Partner's cumulative capital contributions.
(b) Second, 100% to each Limited Partner until such Limited Partner has received an 8% per annum compounded internal rate of return.
(c) Third, 100% to the Carried Interest Partner until the cumulative Carried Interest is equal to 10%.
(d) Thereafter, 90% to each Limited Partner and 10% to the Carried Interest Partner.

VIII. Key Persons

The Fund does not have a key person provision.

IX. Investment Period and Term

The Investment Period is the period from the formation of the Fund until the fourth anniversary of the Commencement Date. The term of the Fund will continue until one year after the date on which the Fund has liquidated all its investments and the Fund has extinguished or has otherwise provided for its obligations.

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

ATTACHMENT F

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Lexington Middle Market Investors IV, L.P.
Type of Fund:	Private Equity Limited Partnership
Target Fund Size:	$2 billion
Fund Manager:	Lexington Partners
Manager Contact:	Jenny Kheng Lexington Partners 3000 Sand Hill Road, Ste 1-220 Menlo Park, CA 94025 (650) 561-9600

II. Organization and Staff

Lexington Partners L.P. (the "Firm" or "Lexington") is forming Lexington Middle Market Investors IV, L.P. (the "Partnership" or "LMMI IV"), to continue Lexington's history of successfully acquiring U.S. growth capital, small, and middle market buyout (collectively, "middle market buyout") interests through negotiated secondary market purchases. Lexington is the largest independent manager of secondary acquisition and co-investment funds with more than $34 billion in original committed capital. Lexington has been at the forefront of private equity innovation since principals of Lexington helped pioneer the development of the secondary market for private investment fund interests 25 years ago and also created one of the first independent co-investment programs 18 years ago. Lexington's leadership position in the secondary and co-investment markets has attracted commitments from more than 700 institutional investors in over 30 countries, including many of the largest global investors with alternative asset commitments.

Since 1990, principals of Lexington have successfully originated, analyzed, negotiated, and closed over 400 secondary transactions, including 62 in the LMMI secondary funds and acquiring over 2,600 private investment fund interests managed by more than 640 sponsors, including 176 U.S. middle market buyout sponsors. In addition, since 1998, Lexington's secondary funds have made select commitments to new private investment funds during their initial formation to complement Lexington's secondary acquisition strategy.

Lexington's private equity secondary strategy is led by Partners Brent Nicklas, Kirk Beaton, Duncan Chapman, Charles Grant, Tom Newby, Marshall Parke, Pål Ristvedt, John Rudge, Lee Tesconi, Wilson Warren, and Victor Wu.

III. Investment Strategy

LMMI IV will seek to generate superior returns by negotiating attractive secondary market purchases of interests in high-quality U.S. middle market buyout investments, primarily in

established funds that are less than 50% invested. Lexington believes that the U.S. middle market is an attractive private equity segment due to the combination of higher potential growth rates for small- and mid-sized businesses, generally lower purchase price multiples, modest leverage, and the opportunity for substantial value creation from accretive acquisitions and operational improvements. In addition, multiple liquidity options are available for small- and mid-sized businesses including sales to both strategic and financial buyers, recapitalizations, and public market exits. As a result, pooled returns for U.S. middle market buyout primary funds have consistently demonstrated strong relative performance compared to public market indices and other private equity strategies. The Firm designed the Lexington Middle Market Investors' innovative investment strategy 12 years ago specifically to provide high-quality U.S. middle market buyout exposure to investors on a diversified basis with the objective of mitigating risk while capitalizing on Lexington's ability to originate, analyze, negotiate, and close attractive acquisitions in the global secondary market.

Lexington intends to capitalize on the experience of its principals, its substantial expertise in secondary market transactions, its proprietary database of information and disciplined investment process to seek superior investment returns for LMMI IV. While the investment opportunity for LMMI IV is a subset of the global secondary market, Lexington believes its ability to selectively pursue U.S. middle market buyout interests, both separately and within the context of broad portfolio dispositions, will allow the Partnership to benefit from an attractive secondary market opportunity as well as the full scale of Lexington's sourcing ability, counterparty reputation, strength of capital, and breadth of relationships in the global secondary market. Lexington believes that LMMI IV will provide investors with an opportunity to obtain attractive U.S. middle market buyout exposure on a lower-risk and better-cost basis than primary funds while benefitting from earlier and more consistent cash distributions.

IV. Investment Performance

Previous fund performance as of June 30, 2016 is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC*
LMMI I	2005	$556 million	-	11.3%	1.6
LMMI II	2009	$650 million	-	14.0%	1.4
LMMI III	2013	$1,070 million	-	14.4%	1.2
LCP I	1996	$242 million	-	13.1%	1.3
LCP II	1998	$1,111 million	-	8.2%	1.3
LCP III	1999	$656 million	-	8.7%	1.3
LCP IV	2000	$606 million	-	19.3%	1.8
LCP V	2002	$2,004 million	-	19.0%	1.7
LCP VI	2006	$3,774 million	$100 million	7.8%	1.4
LCP VII	2010	$7,054 million	$200 million	15.8%	1.5
LCP VIII	2014	$10,119 million	$150 million	27.3%	1.3

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Net MOIC for LCP VI-VIII provided by State Street. Other fund returns provided by the manager.

V. General Partner's Investment

The General Partner and its affiliates will commit to the Partnership the lesser of (i) $40,000,000 or (ii) 2% of the Partnership's aggregate capital commitments.

VI. Fees

During the investment period, 1% per annum of capital committed to the Fund. After the investment period, the management fee is 0.85% per annum on the sum of the reported value of all secondary investments and unfunded commitments to secondary investments.

VII. Distributions

Distributions will be apportioned as follows:

(a) First, 100% to such Limited Partners until such Limited Partner has received distributions equal to the aggregate amount of capital contributions made to the Partnership by such Limited Partner in respect to Secondary Investments and fees and expenses.
(b) Second, 100% to such Limited Partner until such a time as the 7% Preferred Return Test is satisfied.
(c) Third, 100% to the General Partner until it receives a cumulative carried interest of 10%.
(d) Fourth, 90% to such Limited Partner and 10% to the General Partner until such a time as the 10% IRR Test is satisfied.
(e) Fifth, 100% to the General Partner until it receives a cumulative carried interest of 12.5%.
(f) Thereafter, 87.5% to such Limited Partner and 12.5% to the General Partner.

VIII. Key Persons

A temporary suspension period will occur upon the failure for any reason of three out of the five Key Persons for a period of three consecutive months to devote sufficient portion of their business time to the Advisor and related entities. Brent R. Nicklas, Charles R. Grant, Marshall W. Parke, Lee J. Tesconi and Wilson S. Warren are designated the initial Key Persons of the General Partner.

IX. Investment Period and Term

The investment period will end following the earlier of (a) the date upon which a Successor Fund begins to accrue an advisory fee and (b) the fifth anniversary of the Final Closing Date. The Partnership will terminate on December 31 of the year during which occurs the tenth anniversary of the Final Closing Date, but may be extended for up to a total of three one-year periods.

Note: 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.

This page intentionally left blank.

ATTACHMENT G

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Dyal Capital Partners III, L.P.
Type of Fund:	Private Equity
Target Fund Size:	$4.5 billion
Fund Manager:	Neuberger Berman
Manager Contact:	Sean Ward 605 3rd Ave New York, NY 10158 212-476-8532

II. Organization and Staff

Dyal Capital Partners ("Dyal" or "the firm") is sponsoring Dyal Capital Partners III (the "Fund" or "Fund III") to make minority equity investments in established investment management companies ("Partner Managers").

Dyal Capital Partners is part of the Neuberger Berman ("NB") Private Equity platform. Since its inception, NB Private Equity has managed over $35 billion of investor commitments across primary, secondary, co-investments, private debt and other direct investments (since inception through June 30, 2016). NB Private Equity has a global presence with over 110 investment professionals in offices in the U.S., Europe, Asia, and South America, and is supported by approximately 130 investor service professionals including the back office services affiliate Capital Analytics.

The Dyal Capital Partners team is composed of 23 professionals: 8 senior investment professionals and a 15-member Business Services Platform. The 8 members of the Investment Team have extensive prior experience in asset management mergers and acquisitions, and have consummated minority investments in 13 hedge funds and 6 private equity managers across Dyal Funds I – III. The Business Services Platform provides strategic services to Partner Managers in four key areas: qualified client introductions, strategic advisory projects, consultant coverage, and product development.

The Dyal team is headquartered in New York, and has raised a total of $3.4 billion in two prior funds (Dyal Capital Partners I and Dyal Capital Partners II), each following a hedge fund-focused investment program that is otherwise substantially similar to the private equity-focused program that Fund III intends to implement.

III. Investment Strategy

Fund III focuses on acquiring minority interests in leading institutionalized private equity firms, which should continue to benefit from increased allocations to private equity funds by

large institutional investors, such as public and corporate pension plans and sovereign wealth funds. Further, Dyal believes that portfolio diversification is critical and will seek to assemble a portfolio of complimentary investments diversified by investment strategy, vintage years, and geography.

Dyal believes that owners of private equity firms are increasingly attracted to taking on minority equity partners for a number of reasons. First, such a transaction can provide the private equity firm with permanent capital, which can be used to make larger commitments to their own funds or develop new products, as well as engage in acquisitions or geographic expansion. Second, selling a minority stake may allow management to reallocate ownership to the next generation of investment professionals. Third, certain firms may have existing financial shareholders that are seeking liquidity, or may be looking to spin a successful franchise out of a bank due to regulatory concerns. Lastly, taking on a minority partner can provide management with access to capital while avoiding an IPO and the costs and responsibilities of running a public company.

Dyal seeks to respond to all of these motivations, and has three distinct advantages in seeking to partner with high quality private equity firms: (i) a deep and experienced team, (ii) the ability to offer a true strategic partnership, and (iii) affiliation with a global asset management firm that does not, generally speaking, compete with Partner Managers.

The Firm anticipates that each Fund III investment in a private equity Partner Manager will benefit from three return components:

1. A share of management fees, which is very stable and predictable over the life of the funds,
2. A share of return of capital and gains on balance sheet investments made alongside the limited partners in the funds (i.e., the GP commitment), and
3. A share of carried interest, which is episodic and varies with fund returns.

Although every transaction is unique, Dyal generally seeks to acquire the right to these three income streams with respect to a Partner Manager's existing funds, as well as those it will raise in the future. The existing funds may be at different stages of their lives, and the predictability of the performance of balance sheet assets and the likelihood of carried interest payments varies according to the stage of the fund. Regardless of fund stage, the expected management fee income is much less variable and can be more accurately predicted. Dyal uses reasonable and conservative assumptions regarding the size and performance of funds that a Partner Manager may raise in the future, and evaluates several different scenarios (both good and bad) to assess the range of possible outcomes. Dyal's underwriting does not ascribe significant terminal value to the manager at the end of an expected 12 year hold period. Dyal expects to generate attractive returns solely from cash flow.

Dyal's focus is on "institutionalized" firms that are positioned for sustained earnings stability with potential upside growth. These firms have the resources to retain large, sophisticated investors and build lasting businesses. Institutionalized firms dedicate substantial resources to non-investment functions, such as investor relations, legal, compliance, and risk management. They typically have multiple products and are not key-person dependent. Managers will be evaluated both for their investment acumen and their ability to build and manage growth businesses successfully. In addition to business stability and attractiveness to institutional

investors and consultants, institutionalized firms are generally large enough to be profitable even in years with little or no carried interest.

Fund III Partner Managers will be entitled to benefit from the customized suite of services provided by Dyal's Business Services Platform. Broadly speaking, the Business Services Platform executes projects in four key areas:

- Qualified Client Introductions – making strategic, qualified introductions of Dyal's Partner Managers to carefully selected institutional allocators to alternative investments, including a number of investors in Dyal's funds.
- Consultant Coverage – providing Partner Managers with guidance through the consultant process, including identification of key decision-makers at individual consulting firms and advice regarding how to approach each consultant's evaluation process.
- Strategic Advisory – undertaking strategic advisory projects regarding best practices in such areas as succession planning, firm infrastructure and operations, counterparty exposure, expansion, employee compensation, and branding.
- Product Development – launching new products with extensive market and product opportunity analyses that define relevant peer groups, examine performance data, and identify potential target investors and barriers to entry.

IV. Investment Performance

Previous fund performance as of June 30, 2016 is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC*
Dyal I	2012	$1.3 billion	--	7%	1.2x
Dyal II	2014	$2.1 billion	--	--	--

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

V. General Partner's Investment

The General Partner and its affiliates (including employees of Neuberger Berman) will commit to Fund III an amount equal to 1% of aggregate commitments.

VI. Fees

The management fee for Fund III will be 2% per annum during the Investment Period, stepping down to 1.5% beginning on the earliest of (A) the end of the investment period, (B) the date upon which 90% of the aggregate commitments have been drawn, committed or reserved for expenses or investments and (C) the initial closing of a successor partnership. No management fee will be charged after the 15th anniversary of Fund III's initial closing.

VII. Distributions

Distributions will be apportioned to Limited Partners as follows:

(a) First, 100% to such Limited Partner until such Limited Partner has received cumulative distributions of Investment Proceeds equal to such Limited Partner's cumulative capital contributions through such date.
(b) Second, 100% to such Limited Partner until cumulative distributions of Investment Proceeds are sufficient to provide an 8% per annum compounded internal rate of return.
(c) Third, 100% to the Special Limited Partner until the cumulative Carried Interest is equal to 20%.
(d) Thereafter, 80% to such Limited Partner and 20% to the Special Limited Partner.

VIII. Key Persons

A Key Person Event will be triggered if either (A) Michael Rees ceases to spend at least 40% of his business time on the business and activities of the Fund, or (B) if none of Sean Ward, Mark O'Sullivan, and Andrew Laurino are devoting a sufficient amount of time to the Fund as is reasonably required to conduct the investment and other activities of the Fund.

IX. Investment Period and Term

The investment period will last for five years from the date of the final closing, unless terminated earlier by the General Partner. The General Partner may extend the investment period for up to two periods of up to 12 month each, with the consent of the LP Advisory Committee. At any time during the investment period, 80% in interest of the voting investors may elect to terminate the investment period. Fund III will continue in existence indefinitely. However, the General Partner may present the Limited Partners with the opportunity to offer all or substantially all of their interests for public or private sale, and may cause Fund III to enter into a transaction that affords the Limited Partners with an opportunity to receive in exchange for all or substantially all of their interests cash or marketable securities. Any such Full Liquidity Event may involve (i) a public offering, (ii) issuance of stock or common equity, (iii) a securitization of future income streams, (iv) a sale of transfer to an existing private or public company in exchange for more liquid securities, or (v) another type of offering of securities or financing.

Note: This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum, as supplemented by Supplement No. 1 and Supplement No.2 to the PPM (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

ATTACHMENT H

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Oak Hill Capital Partners IV, L.P.
Type of Fund:	Private Equity - Buyout
Target Fund Size:	$2 billion
Fund Manager:	Oak Hill Capital Management, LLC
Administrative Contact:	Andrew Burdick 263 Tresser Boulevard, 15th Floor Stamford, CT 06901 (203) 328-1672

II. Organization and Staff

Oak Hill Capital Management, LLC ("Oak Hill" or the "Firm") has a 30-year history of successful private equity investing, making it one of the longest-tenured middle-market firms in the industry. The Firm began its investment activities in 1986 as the family office of Robert M. Bass, at which time it established its longstanding approach as "principal-minded" investors and its core philosophy of partnership through alignment of interests. In 1999, the Firm raised its first outside capital and formed its first fund. Oak Hill is led by two Managing Partners and 12 Partners (together or separately, the "Partners"), who have worked at Oak Hill for an average of 16 years and have an average of 29 years of industry experience. The Oak Hill team comprises 37 dedicated professionals with extensive expertise in private equity, investment banking, capital markets, operations, consulting, legal, and other functional areas. Oak Hill is headquartered in New York and has offices in Menlo Park and Stamford.

III. Investment Strategy

Oak Hill's investment strategy focuses on originating attractive opportunities and executing successful investments by adhering to its theme-based investment strategy. This strategy requires a deep understanding of: (i) the long-term secular trends within each core sector; (ii) the key operating drivers of business performance; and (iii) the intrinsic value of an asset. Oak Hill believes that its investment strategy enables the Firm to form differentiated perspectives relative to other potential acquirers and intends to continue to deploy its proven and disciplined investment strategy by seeking to:

- Leverage sector knowledge to develop actionable investment themes based on observable long-term trends;
- Proactively originate investment opportunities that align with the Firm's investment themes;

- Partner with proven management and leverage in-house functional experts and established relationships with operating talent;
- Identify, underwrite, and execute against customized value creation roadmaps;
- Mitigate risk; and
- Position companies to capitalize on the optimal exit strategy.

With an average of 29 years of relevant industry experience, Oak Hill's Partners have amassed comprehensive industry knowledge and an extensive network of relationships that allow them to develop proprietary and actionable investment themes. Investment themes are identified based on the attractiveness and sustainability of industry demand and financial trends, and are continually evaluated for whether or not they are actionable in light of macroeconomic and market conditions. The Firm invests considerable resources in analyzing the macroeconomic outlook, secular trends, and industry dynamics in addition to relevant company-specific trends. Oak Hill conducts periodic business planning sessions during which themes are underwritten (or re-underwritten) on a Firm-wide basis to ensure efficient allocation of resources and to maximize knowledge sharing.

Once an investment theme has been identified, the Firm's professionals proactively build a pipeline of potential investment targets. Oak Hill professionals identify target companies in its core sectors through a variety of direct and indirect methods, including the Firm's network of industry and management relationships, primary research, outbound inquiries, industry conferences, and advisor/banker introductions. Oak Hill's origination strategy is highly disciplined, as the Firm focuses exclusively on opportunities within its established investment themes and avoids "reactive" opportunities. This allows Oak Hill professionals to focus on opportunities where they believe they are best positioned to create value through differentiated perspectives and expertise.

Oak Hill believes that superior management and operating talent can consistently lead to outperformance. For nearly three decades, Oak Hill has demonstrated its ability to identify and partner with best-in-class managers, which is a critical element of executing on value creation roadmaps and driving investment performance. Once an investment has been made, Oak Hill seeks to actively add value to its portfolio companies through a variety of resources that it offers to each company, in addition to providing board oversight. Management receives support and hands-on assistance from Oak Hill and the Firm's operating network. Oak Hill investment professionals are actively engaged in designing strategic plans, acquisitions, dispositions, capital markets events, and other priority items on portfolio companies' value creation roadmaps, each of which draws upon the industry experience and expertise of the Oak Hill team. Oak Hill complements management with its extensive network of operating talent. The professionals in this network are not employees of the Firm, but are experienced professionals with whom Oak Hill has established relationships and who provide additional resources to the Oak Hill funds and portfolio companies. These value-added resources have enabled the Firm's portfolio companies to enhance execution, financial growth, and franchise value.

Oak Hill has an established track record of creating value through multiple initiatives, which not only increases the number of levers to drive franchise value but also expands the universe of potential investment opportunities. In order to unlock financial and strategic value over the

course of an investment, Oak Hill typically focuses on one or two of the following initiatives, targeting those that are expected to have the largest impact on company performance.

- Operating Initiatives: Oak Hill has successfully executed a variety of revenue and profitability enhancing operating initiatives that directly result in revenue gains and/or EBITDA margin expansion, such as capacity enhancement, geographic expansion, pricing model refinement, and margin improvement through supply-chain/sourcing arrangements.
- Strategic Repositioning: In some situations, Oak Hill will pursue major business transformations to maximize value and drive growth, such as enhancing brand positioning, go-to-market strategy, or implementing other business model refinements designed to increase franchise value.
- Mergers & Acquisitions: Oak Hill works closely with its management teams to pursue accretive add-on acquisitions. These acquisition opportunities are often pre-determined as a result of Oak Hill's theme-based approach and institutional sector knowledge.

Oak Hill believes that exit strategies and investment horizons must be tailored to meet the circumstances of each portfolio company as well as market conditions. The Oak Hill team has experience utilizing several different options to realize attractive returns on its investments, including: (i) selling portfolio companies to strategic buyers for stock, cash, or a combination thereof; (ii) IPOs and secondary public equity offerings; (iii) sales to financial buyers; and (iv) dividend recapitalizations. The Firm analyzes capital markets opportunities and potential exit alternatives both during underwriting and throughout the life of each investment.

IV. Investment Performance

Previous fund performance as of June 30, 2016 for Oak Hill Capital Partners ("OHCP") is shown below:

Fund	Vintage Year	Total Committed Capital	SBI Investment	Net IRR*	Net MOIC*
OHCP I	1999	$1,508 million	--	12%	1.9
OHCP II	2004	$2,369 million	--	11%	1.7
OHCP III	2007	$3,514 million	--	11%	1.7

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Performance was provided by Oak Hill Capital Management.

V. General Partner's Investment

The Oak Hill professionals and Robert M. Bass will commit at least $300 million, of which $100 million will be committed by the investment professionals.

VI. Fees

During the commitment period, 1.75% per annum of aggregate commitments. Thereafter and until the tenth anniversary of the initial closing, 1.25% per annum of aggregate capital contributions attributable to investments that have not been disposed. After the tenth anniversary of the initial closing, 0.75% per annum of aggregate capital contributions attributable to investments that have not been disposed of. After the thirteenth anniversary of initial closing, no management fee will be paid.

VII. Distributions

Distributions will be apportioned to Limited Partners as follows:

(a) first, 100% to each investor until it has received total distributions equal to its capital contributions;
(b) second, 100% to each investor until it has received an 8% per annum return (compounded annually) on the investor's outstanding capital contributions (the "Preferred Return");
(c) third, 100% to the General Partner as carried interest until it has received 20% of all distributions made by the fund pursuant to sub-paragraph (b) above and this sub-paragraph (c); and
(d) fourth, 80% to investors and 20% to the General Partner as carried interest.

VIII. Key Persons

If, at any time prior to the expiration of the Commitment Period, (a) a majority of J. Taylor Crandall, Steven B. Gruber, and Tyler J. Wolfram or (b) a majority of Mr. Crandall, Mr. Wolfram, and Brian N. Cherry cease to fulfill their agreed upon time commitments to OHCP IV, then the General Partner will notify the Limited Partners of the occurrence of such Managing Partner Key Person Event and OHCP IV will automatically be in suspension mode.

IX. Investment Period and Term

The Investment Period will last for a period of six years. The fund will terminate 10 years from the initial closing with the option of (i) an additional one-year extension at the sole discretion of the General Partner and (ii) up to two additional one-year extensions with the approval of the Advisory Board.

Note: 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.

TAB

H

This page intentionally left blank.

INVESTMENT ADVISORY COUNCIL REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

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

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

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

The report includes the following sections:

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

This page intentionally left blank.

Public Markets Economic and Market Overview
Third Quarter 2016

Overview

After a wave of pessimism swept through financial markets following the U.K. referendum to leave the European Union, sentiment gradually improved and risk taking was rewarded. This quarter, many of the defensive stocks that led for much of the first half of 2016 did not participate in the rally. Recent economic data reflect a stable environment for consumer spending, supported by continued job growth and wage gains that have more than offset the upward pressure on gas prices from rebounding oil markets. As a result, Technology was the best performing sector in the Russell 3000 index which had an overall return of 4.4%. Utilities and Consumer Staples were the only two sectors with negative returns for the quarter.

U.S. Treasury yields started the third quarter at record lows following the June 23, 2016 U.K. referendum to leave the European Union, then steadily increased as the Brexit shock abated and positive economic reports including a strong July employment data were released. The FOMC chose to leave the Fed Funds target range unchanged in September. Chair Yellen commented that even if economic conditions warranted a rate hike in calendar 2016, the Fed would remain accommodative for the foreseeable future. The Barclays Aggregate Index rose 0.5% for the quarter, with the spread tightening of longer duration credit outweighing the decline in U.S Treasuries.

Developed markets had a positive quarter, as represented by the 6.3% return of the MSCI World ex. USA Index (net) return, amid generally positive macroeconomic data and accommodative policies across many regions. However, uncertainty surrounding the United Kingdom vote to leave the European Union weighed on market sentiment at certain points. The quarter returns were positive even as a number of global macroeconomic developments remained in flux, particularly around various central bank policies and oil prices. The top performing sectors for the quarter were Information Technology, Materials and Consumer Discretionary. The worst performing sectors were Health Care, Telecommunication Services and Utilities.

Overall, emerging markets saw a strong quarter despite overall global uncertainty. The MSCI Emerging Markets Index (net) had a return of 9.0% during the third quarter. Low valuations, improving fundamentals and higher yields drove fund flows into the asset class. The top performing sectors were Information Technology, Materials and Financials. The worst performing sectors were Utilities, Consumer Staples and Telecommunication Services.

SBI Portfolio

In the third quarter, the SBI's overall portfolio, the Combined Funds, exceeded the composite benchmark return 4.1% versus 3.8%. Domestic equities outperformed the Russell 3000 Index return (4.4%) by 40 basis points, while international equities underperformed the MSCI ACWI ex USA Index (net) return (6.9%) by 20 basis points. The fixed income portfolio outpaced the Barclays Aggregate Index return (0.5%) by 40 basis points.

Domestic Equity
The large cap growth managers exceeded the Russell 1000 Growth benchmark by 3.1% for the quarter. The quarterly return was helped by stock selection in Health Care. INTECH trailed the quarterly benchmark by 2.9%. Sands and Zevenbergen outperformed by 6.6% and 7.7%, respectfully. The large cap value managers outperformed the Russell 1000 Value benchmark by 1.3% for the quarter. Stock selection in the Financial Services sector and an underweight to the Utilities sector helped the quarterly return. All managers exceeded the quarterly benchmark, led by Systematic's outperformance of 2.7%. Both of the small cap growth managers trailed the Russell 2000 Growth benchmark by 4.1% for the quarter. Stock selection in the Health Care and Technology sectors hurt the quarterly performance. The small cap value managers underperformed the Russell 2000 Value benchmark by 0.6% for the quarter. Negative stock selection across most sectors detracted from the quarterly performance. Three of the managers trailed the benchmark, while Peregrine outperformed by 0.6%. For the quarter, the semi-passive managers in aggregate matched the Russell 1000 index return and the passive manager matched the Russell 3000 index.

Four new small cap growth managers were funded on October 31, 2016.

International Equity
Active developed equity managers outperformed the MSCI World ex USA Index (net) by 0.1 percentage point for the quarter as stock selection as well as allocation added value to performance. From a country point of view, stock selection was positive in Australia, Canada and France. From a sector point of view, allocation was positive in Information Technology, Utilities and Energy and selection was positive in Health Care and Information Technology.

Emerging Markets
The SBI's emerging markets equity managers underperformed the benchmark by 0.4 percentage point due to negative country allocation in Philippines, China and Mexico and negative sector allocation in Information Technology, Industrials and Health Care.

Fixed Income
The relative performance of SBI's fixed income managers vs. the Barclays Aggregate benchmark for the quarter was mixed. In total, the managers outperformed the benchmark by 0.4 percentage point. Managers with underweight duration positioning and exposure to credit largely outperformed the benchmark, while managers with equal or overweight benchmark duration and less credit focus underperformed. Exposure to credit, both corporate investment grade and high yield, was beneficial, as spreads narrowed during the quarter, as did CMBS and non-agency RMBS.

Public Markets Manager Activity
Third Quarter 2016

For the quarter, the majority of investment managers performed in line with expectations. There were some noteworthy manager developments for the quarter involving Winslow Capital, J.P. Morgan, BlackRock, Fidelity, State Street Global Advisors (SSgA), and Aberdeen.

Domestic Equity Managers

Winslow Capital

Michael Hoover, energy analyst, left Winslow as of July 15, 2016. Energy was getting to be a smaller and smaller part of the portfolio. Stephan Peterson, financial analyst, will cover the energy sector. Staff will monitor the change and does not have any concerns with the pending change.

J.P. Morgan

During the third quarter, J.P. Morgan's Global Head of Equities, Martin Porter, announced his intention to retire in the fourth quarter of 2016. Paul Quinsee, Chief Investment Officer of U.S. Equity, will become the new Global Head of Equities, reporting to Chris Wilcox, CEO of J.P. Morgan's Global Investment Management business.

Effective as of the end of 3Q16, Lee Spelman assumed the role of Head of U.S. Equity, a team managing assets across the Core, Value, Growth and Behavioral Finance platforms. Previously, Lee held an investment role and, most recently, was Head of the U.S. Equity Client Portfolio Management team. Staff has no concerns with these announcements.

BlackRock

Mark Wiseman joined BlackRock in September as Head of Global Active Equity. As a Senior Managing Director, he will join the Global Executive Committee and will also become Chairman of the BlackRock Global Investment Committee. Mark will also help support BlackRock Alternative Investors (BAI).

In consultation with Mark, BlackRock has established a structure for the Global Active Equity platform under co-CIO's Nigel Bolton, Raffaele Savi and Jeff Shen that provides global, regional and functional direction for the team.

Chris Jones, formerly co-CIO for Americas Fundamental Equity, departed BlackRock, having recently informed the firm of his desire to leave the firm to pursue other long-held interests in the arts and business. Staff has no concerns with these announcements.

International Equity Managers

Fidelity

In October 2016, Fidelity announced the departure of Chris Steward, the co-lead portfolio manager for their International Growth strategy. As a result, Brian Hoesly, who has co-managed the strategy alongside Steward since 2013, will be solely responsible for the management of the product. Staff will monitor these changes.

State Street Global Advisors (SSgA)
During the third quarter, SSgA completed its acquisition of GE Asset Management. As a result of this acquisition, Lori Heinel became the Deputy Global Chief Investment Officer, while also retaining her role as Chief Portfolio Strategist. Dale Brooksbank left his position as the Head of Trading, EMEA. Graham Sorrell and Sharon Ruffles have assumed his responsibilities while SSgA searches for a replacement. Stephen Mantle left his position as Head of Trading, APAC. Tommy Cheung has assumed his responsibilities while SSgA searches for a replacement. Staff will continue to monitor staffing changes at SSgA.

Fixed Income Managers

Aberdeen
In August 2016, Aberdeen Asset Management announced the departure of Neal Rayner, Head of Fixed Income trading. Neal had management oversight over a team of five North American Fixed Income traders including the SBI's U.S. Core Bond mandate. Aberdeen announced that Neal's responsibilities would be assumed by existing staff.

In October 2016, Aberdeen conducted a strategic review of its U.S. Fixed Income business and decided to exit the U.S. Core and Core Plus business. Aberdeen agreed to sell these businesses to Chartwell Investment Partners LLC, an investment management business of TriState Capital located in Berwyn, PA. Six Aberdeen investments professionals currently managing the SBI's account will be joining Chartwell: Neil Moriarty, Stephen Cianci, Michael Degernes, Oliver Chambers, Stefan Martin and Stephen Frech. Staff feels this decision creates an unacceptable level of organizational risk, and is recommending terminating our relationship with Aberdeen.

2016 Manager Meetings

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

Investment Manager	Asset Class
• Aberdeen Asset Management Inc.	Fixed Income
• Barrow, Hanley, Mewhinney & Strauss, LLC	Domestic Equity
• BlackRock Financial Management, Inc.	Fixed Income
• Goldman Sachs Asset Management	Fixed Income
• INTECH Investment Management, LLC	Domestic Equity
• Mellon Capital Management Corporation	Domestic Equity
• Neuberger Berman Fixed Income LLC	Fixed Income
• State Street Global Advisors (SSgA)	International Equity
• Winslow Capital Management, LLC	Domestic Equity

Non-Retirement Manager Update
Third Quarter 2016

Domestic Equities

State Street Global Advisors (previously GE Asset Management)

The domestic equity portfolio outperformed the S&P 500 for the quarter and underperformed for the year. Performance for the quarter benefited from broad based stock selection with the greatest contribution from the cyclical sectors, including information technology, financials, industrials, and consumer discretionary. Sector allocation also benefited for the quarter with an underweight to consumer staples, telecom and utilities.

Staff continues to monitor the portfolio closely with the sale of GE Asset Management (GEAM) to State Street on July 1, 2016.

Internal Stock Pool

The performance in the domestic equity portfolio tracked the S&P 500 for the quarter and the year.

Fixed Income

RBC Global Asset Management

The fixed income portfolio tracked the benchmark, the Barclays Intermediate Government Index, for the quarter and outperformed for the year.

Internal Bond Pool

The bond portfolio outperformed its benchmark, the Barclays Aggregate, for the quarter and for the year. For the quarter, the overweight position to investment grade credit benefited and within investment grade credit, energy and producer manufacturing were the biggest drivers of performance. For the year, the allocation to corporates and mortgages were the largest contributors to performance.

Deferred Compensation Managers
Third Quarter 2016

Domestic Equities

Janus Twenty

The MNDCP liquidated Janus Twenty Fund during the third quarter of 2016 and mapped the assets to the Vanguard Dividend Growth Fund.

Vanguard Dividend Growth Fund

The Vanguard Dividend Growth Fund was added to the MNDCP investment line-up during the third quarter of 2016 and is an actively managed portfolio invested by Wellington Management. The Fund focuses on high-quality companies with a history of paying a stable or increasing dividend over time. The investment team focuses on revenues, earnings, and free cash flow as indicators of growing income streams.

The Fund lagged its benchmark, the NASDAQ US Dividend Achievers Select Index, for the quarter and for the year. Performance for the quarter was primarily impacted from stock selection in the information technology and consumer discretionary sectors. For the year, poor stock selection in industrials, financials and materials pulled down returns.

Vanguard Institutional Index Plus

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

Vanguard Mid-Cap Index

The mid-cap equity portfolio tracked the benchmark, CRSP US Mid Cap Index, for the quarter and the year.

T. Rowe Price

The small cap equity portfolio underperformed the Russell 2000 for the quarter and outperformed for the year. Performance for the year benefited from strong stock selection in industrial and business services in addition to the energy sectors.

The MNDCP transitioned the T. Rowe Price Small Cap Equity investors out of the Retail Mutual Fund and into the lower fee, Institutional Share Class Fund during the third quarter of 2016. This was an in-kind transfer and there were no changes to the process, team, or portfolio.

Staff met with Frank Alonso, who will replace Greg McCrickard as the lead portfolio manager in October of 2016.

International Equities

Fidelity Diversified International

The international equity portfolio outperformed the MSCI EAFE Free for the quarter and underperformed for the year. Performance for the quarter benefited from stock selection.

The MNDCP will transition the Fidelity Diversified International investors out of the Retail Mutual Fund and into the lower fee, Commingled Investment Trust (CIT) in November of 2016. This is an in-kind transfer and there were no changes to the process, team, or portfolio.

Vanguard Total International Stock Index

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

Fixed Income

Dodge & Cox Income Fund

The fixed income portfolio outperformed the benchmark, the Barclays Aggregate, for the quarter and for the year. The quarterly performance benefited from credit security selection and the Fund's overweight position to corporate bonds and underweight to U.S. Treasuries. For the year, credit security selection aided return as did the Fund's overweight to the Industrial sector and underweight to U.S. Treasuries.

Vanguard Total Bond Market Index

The fixed income portfolio underperformed the benchmark, the Barclays Aggregate Index, for the quarter and outperformed for the year.

Balanced and Conservative Options

Vanguard Balanced

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

Galliard Capital Management

The stable value portfolio outperformed its benchmark, the 3 Year Constant Maturity Treasury plus 0.45%, for the quarter and the year. For the quarter, the portfolio benefited from a significant allocation to the spread sectors, including Agency RMBS, CMBS, ABS, Corporates and other U.S. Government Securitizations (Agency DUS, SBAs). For the year, allocations to the spread sectors, including Agency MBS, CMBS, ABS, Taxable Municipals and Corporates had a positive impact on performance. An overweight to intermediate maturities was also helpful, as that segment of the curve continued to outperform shorter maturities.

STATE BOARD OF INVESTMENT

Domestic Equity Manager Performance Summaries

Third Quarter 2016

(Blank)

MINNESOTA STATE BOARD OF INVESTMENT

Domestic Equity

Table of Contents

	Page
Domestic Equity Performance Summary	**A-5**
Active Manager Performance Summary (quarter, 1, 3, 5-year periods)	**A-6**
Semi-Passive and Passive Manager Performance Summary (quarter, 1, 3, 5-year periods)	**A-8**
Domestic Equity Market Values	**A-9**
Active Manager Performance Summary (by calendar year)	**A-10**
Semi-Passive and Passive Manager Performance Summary (by calendar year)	**A-11**

(Blank)

COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS

Periods Ended September 30, 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	7.7	11.7	9.3	16.3
Russell 1000 Growth Index	*4.6*	*13.8*	*11.8*	*16.6*
Russell 1000 Value Aggregate	4.8	11.1	8.5	15.9
Russell 1000 Value Index	*3.5*	*16.2*	*9.7*	*16.2*
Russell 2000 Growth Aggregate	5.1	2.2	1.6	13.2
Russell 2000 Growth Index	*9.2*	*12.1*	*6.6*	*16.1*
Russell 2000 Value Aggregate	8.3	13.0	7.2	17.1
Russell 2000 Value Index	*8.9*	*18.8*	*6.8*	*15.4*
Active Manager Aggregate	6.4	10.7	7.9	15.8
Benchmark	*5.2*	*15.2*	*9.7*	*16.3*
Semi-Passive Aggregate	4.0	13.6	10.8	16.6
Benchmark	*4.0*	*14.9*	*10.8*	*16.4*
Passive Manager (BlackRock)	4.4	15.0	10.5	16.4
Russell 3000 Index	*4.4*	*15.0*	*10.4*	*16.4*
Total Aggregate	**4.8**	**13.3**	**9.9**	**16.3**
Russell 3000 Index	*4.4*	*15.0*	*10.4*	*16.4*

Calendar Years

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

COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS
Periods Ended September 2016
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	**4.6**	**13.8**	**11.8**	**16.6**	**11.0**
INTECH	1.7	13.1	11.7	16.6	7.5
Benchmark	*4.6*	*13.8*	*11.8*	*16.6*	*8.2*
Jacobs Levy	6.9	15.6	12.6	17.0	7.4
Benchmark	*4.6*	*13.8*	*11.8*	*16.6*	*8.2*
Sands Capital	11.2	11.5	7.4	16.7	9.4
Benchmark	*4.6*	*13.8*	*11.8*	*16.6*	*8.2*
Winslow-Large Cap	6.2	10.5	10.2	15.5	8.9
Benchmark	*4.6*	*13.8*	*11.8*	*16.6*	*8.2*
Zevenbergen Capital	12.3	7.1	5.3	15.5	9.7
Benchmark	*4.6*	*13.8*	*11.8*	*16.6*	*8.9*
Aggregate	**7.7**	**11.7**	**9.3**	**16.3**	
Russell 1000 Value Index	**3.5**	**16.2**	**9.7**	**16.2**	**8.4**
Barrow, Hanley	3.7	13.1	9.3	15.9	7.6
Benchmark	*3.5*	*16.2*	*9.7*	*16.2*	*7.3*
Earnest Partners	5.1	10.2	9.3	14.1	6.1
Benchmark	*3.5*	*16.2*	*9.7*	*16.2*	*6.7*
LSV Asset Mgmt.	4.7	11.1	9.6	18.2	8.3
Benchmark	*3.5*	*16.2*	*9.7*	*16.2*	*7.3*
Systematic Financial Mgmt.	6.2	9.7	5.9	14.4	6.5
Benchmark	*3.5*	*16.2*	*9.7*	*16.2*	*7.3*
Aggregate	**4.8**	**11.1**	**8.5**	**15.9**	

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

4/1/94: Zevenbergen Capital
7/1/00: Earnest Partners
4/1/04: Barrow Hanley, LSV Asset Mgmt., Systematic Financial Mgmt.
1/1/05: INTECH, Jacobs Levy, Sands Capital, Winslow-Large Cap

Note: All aggregates include the performance of terminated managers

COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS
Periods Ended September 2016
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	**9.2**	**12.1**	**6.6**	**16.1**	**9.6**
McKinley Capital	5.1	6.1	5.4	17.6	6.6
Benchmark	*9.2*	*12.1*	*6.6*	*16.1*	*8.3*
Next Century Growth	5.1	-1.8	-1.3	10.3	2.4
Benchmark	*9.2*	*12.1*	*6.6*	*16.1*	*4.3*
Aggregate	**5.1**	**2.2**	**1.6**	**13.2**	
Russell 2000 Value Index	**8.9**	**18.8**	**6.8**	**15.4**	**8.7**
Goldman Sachs	6.6	15.5	7.8	17.1	9.3
Benchmark	*8.9*	*18.8*	*6.8*	*15.4*	*7.6*
Hotchkis & Wiley	8.4	5.0	5.9	17.1	7.8
Benchmark	*8.9*	*18.8*	*6.8*	*15.4*	*7.6*
Martingale Asset Mgmt.	8.4	19.1	9.9	19.2	7.7
Benchmark	*8.9*	*18.8*	*6.8*	*15.4*	*7.6*
Peregrine Capital	9.5	13.0	6.0	15.8	10.1
Benchmark	*8.9*	*18.8*	*6.8*	*15.4*	*9.5*
Aggregate	**8.3**	**13.0**	**7.2**	**17.1**	
Active Mgr. Aggregate (2)	**6.4**	**10.7**	**7.9**	**15.8**	

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

7/1/00: Next Century, Peregrine Capital
1/1/04: Goldman Sachs, Hotchkis & Wiley, Martingale Asset Mgmt., McKinley Capital

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

Note: All aggregates include the performance of terminated managers

COMBINED RETIREMENT FUNDS
DOMESTIC EQUITY MANAGERS
Periods Ended September 2016
Versus Manager Benchmarks

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Semi-Passive Managers (2)					
BlackRock Institutional	4.5	14.6	11.1	17.1	9.4
Benchmark	*4.0*	*14.9*	*10.8*	*16.4*	*9.0*
INTECH	3.1	12.2	9.7	15.7	11.9
Benchmark	*4.0*	*14.9*	*10.8*	*16.4*	*12.3*
JP Morgan	4.4	14.7	11.5	16.9	9.3
Benchmark	*4.0*	*14.9*	*10.8*	*16.4*	*9.0*
Mellon Capital	3.9	12.6	10.7	16.5	8.7
Benchmark	*4.0*	*14.9*	*10.8*	*16.4*	*9.0*
Semi-Passive Aggregate (R1000)	**4.0**	**13.6**	**10.8**	**16.6**	
Passive Manager (R3000)					
BlackRock Institutional	4.4	15.0	10.5	16.4	8.8
Benchmark	*4.4*	*15.0*	*10.4*	*16.4*	*8.7*
Total Aggregate (3)	**4.8**	**13.3**	**9.9**	**16.3**	**10.2**
Benchmark (3,4)	4.4	15.0	10.4	16.4	10.4
Russell 3000 Index (3)	*4.4*	*15.0*	*10.4*	*16.4*	*10.7*
Russell 1000 Index (3)	*4.0*	*14.9*	*10.8*	*16.4*	*10.8*
Russell 2000 Index (3)	*9.0*	*15.5*	*6.7*	*15.8*	*9.3*

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

1/1/95: BlackRock Institutional (semi-passive), J.P. Morgan, Mellon Capital
7/1/95: BlackRock Institutional (passive)
4/1/10: INTECH

(2) Semi-Passive managers' benchmark is the Russell 1000 index beginning 1/1/04 and was the Completeness Fund benchmark prior to 1/1/04.
(3) Total Aggregate and Benchmarks Inception as of 1/1/84
(4) The Total Aggregate benchmark is the Russell 3000 effective 10/1/03. From 7/1/99 to 9/30/03, it was the Wilshire 5000 Investable Index. From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/93, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Note: All aggregates include the performance of terminated managers.

COMBINED RETIREMENT FUNDS
DOMESTIC EQUITY MANAGERS

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
Russell 1000 Growth Aggregate	**$3,126,050,711**	**10.7%**	**$2,902,263,835**	**10.5%**
INTECH	$653,575,148	2.2%	$642,485,709	2.3%
Jacobs Levy	$774,360,727	2.7%	$724,067,067	2.6%
Sands Capital	$718,656,064	2.5%	$646,540,430	2.3%
Winslow-Large Cap	$332,989,863	1.1%	$313,547,522	1.1%
Zevenbergen Capital	$646,468,908	2.2%	$575,623,105	2.1%
Russell 1000 Value Aggregate	**$3,090,914,819**	**10.6%**	**$2,947,553,474**	**10.6%**
Barrow Hanley	$875,130,045	3.0%	$843,422,888	3.0%
Earnest Partners	$587,891,921	2.0%	$559,627,807	2.0%
LSV Asset Mgmt.	$872,635,135	3.0%	$833,429,314	3.0%
Systematic Financial Mgmt.	$755,257,717	2.6%	$711,073,465	2.6%
Russell 2000 Growth Aggregate	**$769,046,879**	**2.6%**	**$731,619,577**	**2.6%**
McKinley Capital	$404,327,371	1.4%	$384,529,827	1.4%
Next Century Growth	$364,719,507	1.3%	$347,089,750	1.3%
Russell 2000 Value Aggregate	**$1,148,462,244**	**3.9%**	**$1,060,570,082**	**3.8%**
Goldman Sachs	$291,521,871	1.0%	$273,510,256	1.0%
Hotchkis & Wiley	$243,458,098	0.8%	$224,633,552	0.8%
Martingale Asset Mgmt.	$241,633,910	0.8%	$222,875,223	0.8%
Peregrine Capital	$371,848,365	1.3%	$339,551,051	1.2%
Semi-Passive Manager Aggregate	**$10,868,220,873**	**37.4%**	**$10,450,129,983**	**37.7%**
BlackRock Institutional	$2,712,223,976	9.3%	$2,594,540,987	9.3%
INTECH	$2,425,735,898	8.3%	$2,353,846,996	8.5%
JP Morgan	$3,107,621,962	10.7%	$2,977,204,819	10.7%
Mellon Capital	$2,622,639,037	9.0%	$2,524,537,181	9.1%
Passive Manager	**$10,084,351,357**	**34.7%**	**$9,659,523,740**	**34.8%**
BlackRock Institutional	$10,084,351,357	34.7%	$9,659,523,740	34.8%
Total Portfolio	**$29,087,046,883**	**100.0%**	**$27,751,660,692**	**100.0%**

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

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

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

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

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

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

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.

(Blank)

STATE BOARD OF INVESTMENT

International Manager Performance Summaries

Third Quarter 2016

(Blank)

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 September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Developed Markets (2)					
Acadian	6.1	14.2	5.3	10.6	5.3
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
Columbia	6.2	4.4	1.4	8.8	1.9
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*2.7*
Fidelity	5.4	7.0	1.0	8.9	5.8
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
J.P. Morgan	8.6	7.2	-0.6	7.0	4.1
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
Marathon Asset Management	6.5	6.0	3.3	9.9	8.1
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.7*
McKinley	6.4	1.5	1.1	8.6	3.9
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
Aggregate	**6.4**	**6.7**	**2.2**	**9.0**	
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	
Active Emerging Markets (3)					
Capital International	7.8	15.4	-2.7	1.0	8.2
Benchmark	*9.0*	*16.8*	*-0.6*	*3.0*	*9.1*
Morgan Stanley	9.2	15.5	1.4	4.8	10.1
Benchmark	*9.0*	*16.8*	*-0.6*	*3.0*	*9.1*
Aggregate	**8.6**	**15.4**	**-0.6**	**3.0**	
Benchmark	*9.0*	*16.8*	*-0.6*	*3.0*	
Semi-Passive Developed Markets (2)					
AQR	6.6	5.9	1.3	8.9	4.9
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
Fidelity	5.1	3.0	0.5	7.7	5.0
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
State Street	5.9	3.3	-0.1	7.0	3.6
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*4.2*
Aggregate	**5.8**	**3.9**	**0.6**	**7.9**	
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	

(1) Since inception by the SBI. Inception dates as follows:
10/1/92: State Street (semi-passive developed markets)
10/1/93: Marathon Asset Management (active developed markets)
1/1/00: Columbia (active developed markets)
1/1/01: Capital International, Morgan Stanley (active emerging markets)
7/1/05: Acadian, J.P. Morgan, McKinley (active developed markets) AQR, Fidelity (semi-passive developed markets)

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

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

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

COMBINED RETIREMENT FUNDS
INTERNATIONAL MANAGERS
Periods Ended September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Passive Developed Markets (2)					
State Street	6.3	7.6	0.8	7.3	6.0
Benchmark	*6.3*	*7.2*	*0.3*	*6.9*	*5.7*
Passive Emerging Markets (3)					
State Street	9.1	17.1	-0.3	--	2.5
Benchmark	*9.0*	*16.8*	*-0.6*	--	*2.3*
Equity Only (4)	6.7	8.4	0.9	6.9	6.3
Benchmark (5)	*6.9*	*9.3*	*0.2*	*6.0*	*5.8*
Total Program (5,9)	**6.7**	**8.4**	**0.9**	**6.9**	**6.5**
Benchmark (6,9)	*6.9*	*9.3*	*0.2*	*6.0*	*5.8*
SBI Int'l Equity Target (6,9)	*6.9*	*9.3*	*0.2*	*6.0*	*5.8*
MSCI ACWI Free ex USA (7,9)	*6.9*	*9.3*	*0.2*	*6.0*	*6.0*
MSCI World ex USA (net) (9)	*6.3*	*7.2*	*0.3*	*6.9*	*5.8*
MSCI EAFE Free (net) (9)	*6.4*	*6.5*	*0.5*	*7.4*	*5.6*
MSCI Emerging Markets Free (8,9)	*9.0*	*16.8*	*-0.6*	*3.0*	*7.2*

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

10/1/92: State Street (passive developed markets)
1/1/12: State Street (passive emerging markets)

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

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

(4) Equity managers only. Includes impact of terminated managers.

(5) Includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00.

(6) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 7/1/99 to 12/31/00 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 7/1/99 to 9/30/03, the weighting of each index fluctuated with market capitalization. From 10/1/01 to 5/31/02 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 5/1/96, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/96 fixed weights. 100% EAFE Free (net) prior to 5/1/96.

(7) MSCI ACWI Free ex U.S. (gross) through 12/31/00. MSCI ACWI Free ex U.S. (net) thereafter.

(8) MSCI Emerging Markets Free (gross) through 12/31/00. MSCI Emerging Markets Free (net) thereafter.

(9) Total Program and Benchmarks Inception as of 10/1/92

COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Periods Ended September 2016

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
Active Developed Markets	**$2,453,024,676**	**27.8%**	**$2,304,703,452**	**27.9%**
Acadian	$397,971,375	4.5%	$375,162,372	4.5%
Columbia	$351,878,958	4.0%	$331,467,747	4.0%
Fidelity	$349,827,648	4.0%	$331,933,224	4.0%
J.P. Morgan	$286,731,510	3.2%	$264,115,034	3.2%
Marathon	$773,260,668	8.8%	$726,265,010	8.8%
McKinley	$293,354,517	3.3%	$275,760,065	3.3%
Active Emerging Markets	**$1,482,737,481**	**16.8%**	**$1,365,310,657**	**16.5%**
Capital International	$667,957,627	7.6%	$619,511,164	7.5%
Morgan Stanley	$814,779,854	9.2%	$745,799,493	9.0%
Semi-Passive Developed Markets	**$1,133,061,024**	**12.8%**	**$1,071,434,610**	**13.0%**
AQR	$341,574,462	3.9%	$320,409,936	3.9%
Fidelity	$495,324,747	5.6%	$471,352,159	5.7%
State Street	$296,161,815	3.4%	$279,672,516	3.4%
Passive Developed Markets	**$3,466,289,968**	**39.3%**	**$3,260,989,280**	**39.4%**
State Street	$3,466,289,968	39.3%	$3,260,989,280	39.4%
Passive Emerging Markets	**$291,403,298**	**3.3%**	**$267,103,049**	**3.2%**
State Street	$291,403,298	3.3%	$267,103,049	3.2%
Total Portfolio	**$8,826,516,447**	**100.0%**	**$8,269,541,048**	**100.0%**

COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Calendar Year Returns

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

(1) Since 6/1/08 the developed markets manager's benchmark is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net).

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

(3) Equity managers only. Includes impact of terminated managers.

(4) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex USA (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex USA (net).

COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Calendar Year Returns

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

(1) Since 6/1/08 the developed markets manager's benchmark is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net).

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

(3) Equity managers only. Includes impact of terminated managers.

(4) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex USA (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex USA (net).

STATE BOARD OF INVESTMENT

Bond Manager Performance Summaries

Third Quarter 2016

(Blank)

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 September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Managers					
Barclays Aggregate Index	**0.5**	**5.2**	**4.0**	**3.1**	
Aberdeen	1.0	6.0	4.8	4.3	5.7
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*5.5*
Columbia (RiverSource)	1.2	7.1	4.5	4.2	5.7
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*5.6*
Dodge & Cox	1.4	6.3	4.5	4.6	6.5
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*5.5*
PIMCO	0.9	5.7	3.9	4.2	6.5
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*4.9*
Western	1.5	7.5	5.2	4.6	8.8
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*7.6*
Active Mgr. Aggregate	**1.2**	**6.5**	**4.6**	**4.4**	
Semi-Passive Managers					
BlackRock	0.5	5.5	4.2	3.4	5.6
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*5.6*
Goldman	0.6	5.6	4.2	3.5	5.9
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*5.6*
Neuberger	0.5	5.4	4.2	3.5	6.8
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	*6.6*
Semi-Passive Mgr. Aggregate	**0.5**	**5.5**	**4.2**	**3.5**	
Benchmark	*0.5*	*5.2*	*4.0*	*3.1*	
Historical Aggregate (2,3)	**0.9**	**6.0**	**4.4**	**3.9**	**7.8**
Benchmark (3,4)	*0.5*	*5.2*	*4.0*	*3.1*	*7.6*
Barclays Aggregate Index (3,4)	0.5	5.2	4.0	3.1	7.6

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

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

(2) Includes performance of terminated managers.
(3) Historical Aggregate and benchmarks inception date: 7/1/84
(4) Prior to July 1994, this index reflects the Solomon BIG.

COMBINED RETIREMENT FUNDS
BOND MANAGERS
Periods Ending September 2016

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
Semi-Passive	**$7,328,967,424**	**49.8%**	**$7,289,927,864**	**50.0%**
BlackRock	$2,080,716,979	14.1%	$2,069,472,383	14.2%
Goldman	$2,497,601,539	17.0%	$2,482,558,420	17.0%
Neuberger	$2,750,648,907	18.7%	$2,737,897,062	18.8%
Active Managers	**$7,378,338,595**	**50.2%**	**$7,288,279,045**	**50.0%**
Aberdeen	$1,197,469,961	8.1%	$1,185,409,947	8.1%
Columbia (RiverSource)	$1,152,234,999	7.8%	$1,138,131,044	7.8%
Dodge & Cox	$1,626,487,686	11.1%	$1,604,207,631	11.0%
PIMCO	$1,577,238,913	10.7%	$1,563,237,473	10.7%
Western	$1,824,907,035	12.4%	$1,797,292,951	12.3%
Total Portfolio	**$14,707,306,019**	**100.0%**	**$14,578,206,909**	**100.0%**

COMBINED RETIREMENT FUNDS
BOND MANAGERS
Calendar Year Returns

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

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

STATE BOARD OF INVESTMENT

Non-Retirement Manager Performance Summaries

Third Quarter 2016

(Blank)

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 September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	5.7	13.9	9.4	16.0	9.7
S&P 500 Index	*3.9*	*15.4*	*11.2*	*16.4*	*9.5*
RBC Global Asset Management (2)	-0.2	2.5	2.2	1.6	5.2
Barclays Intermediate Government	*-0.2*	*2.4*	*2.2*	*1.6*	*5.4*
Internal Stock Pool	3.9	15.4	11.2	16.3	9.2
S&P 500 Index	*3.9*	*15.4*	*11.2*	*16.4*	*9.1*
Internal Bond Pool - Trust	0.8	5.3	4.4	3.9	6.4
Barclays Aggregate	0.5	5.2	4.0	3.1	5.9

(1) Since retention by the SBI. Inception dates as follows:
7/1/91: RBC Global Asset Management
7/1/93: Internal Stock Pool
7/1/94: Internal Bond Pool - Trust
1/1/95: GE Asset Management

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

NON-RETIREMENT MANAGERS
Periods Ended September 2016

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
GE Asset Management	$64,186,358	2.0%	$62,012,336	2.0%
RBC Global Asset Management	$246,700,856	7.7%	$247,204,792	7.9%
Internal Stock Pool	$1,878,917,044	58.8%	$1,811,952,176	58.1%
Internal Bond Pool - Trust	$1,004,681,823	31.5%	$999,299,424	32.0%
Total Portfolio	**$3,194,486,082**	**100.0%**	**$3,120,468,728**	**100.0%**

NON-RETIREMENT MANAGERS
Calendar Year Returns

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

(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

Third Quarter 2016

(Blank)

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**

Fund Manager Market Values **A-46**

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Periods Ended September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Large Cap Equity					
Vanguard Dividend Growth	0.8	13.7	10.1	14.7	8.2
S&P 500	*3.9*	*15.4*	*11.2*	*16.4*	--
Vanguard Institutional Index Plus	3.8	15.4	11.2	16.4	4.7
S&P 500	*3.9*	*15.4*	*11.2*	*16.4*	*4.7*
Mid Cap Equity					
Vanguard Mid-Cap Index	5.2	12.6	9.9	16.5	9.6
CRSP US Mid Cap (2)	*5.2*	*12.7*	*10.0*	*16.6*	*9.6*
Small Cap Equity					
T. Rowe Price Small-Cap Stock	6.2	16.1	7.9	17.4	9.6
Russell 2000	*9.0*	*15.5*	*6.7*	*15.8*	*6.7*
International					
Fidelity Diversified International	6.5	6.0	3.0	9.6	6.3
MSCI EAFE Free	*6.4*	*6.5*	*0.5*	*7.4*	*3.5*
Vanguard Total International Stock Index	6.7	9.7	0.9	6.8	1.8
FTSE Global All Cap ex US (3)	*7.0*	*10.2*	*1.2*	*6.7*	*2.0*
Balanced					
Vanguard Balanced Index Inst. Fund	2.8	11.2	8.0	11.0	7.1
60% CRSP US Tot Mkt, 40% Barclays Agg (4)	*2.8*	*11.2*	*8.0*	*11.1*	*7.1*
Fixed Income					
Dodge & Cox Income Fund	1.8	7.1	4.3	4.3	5.8
Barclays Aggregate	*0.5*	*5.2*	*4.0*	*3.1*	*5.3*
Vanguard Total Bond Market Index Inst.	0.4	5.3	4.0	3.0	4.6
Barclays Aggregate	0.5	5.2	4.0	3.1	4.6
SIF Money Market (5)	0.1	0.5	0.2	0.2	2.1
3 Month T-Bills	0.1	0.3	0.1	0.1	1.8
SIF Fixed Interest (5)					
Galliard Capital Management	0.5	2.1	1.9	2.2	4.6
3-Year Constant Maturity Treasury +45bp	*0.3*	*1.4*	*1.4*	*1.2*	*3.6*

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

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

(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 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.

(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) SIF Money Market Account and SIF Fixed Interest Accounts are Supplemental Investment Fund options (SIF), which are also offered under the Deferred Compensation Plan.

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Periods Ended September 2016

MN Target Retirement Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
SSgA					
Income Fund	1.9	7.1	3.5	5.6	4.5
Income Fund Benchmark	2.0	7.2	3.6	5.7	4.6
2020 Fund	2.3	8.5	4.6	7.7	6.5
2020 Fund Benchmark	2.5	8.6	4.7	7.8	6.6
2025 Fund	3.0	10.1	5.5	9.3	7.4
2025 Fund Benchmark	3.2	10.2	5.5	9.3	7.5
2030 Fund	3.6	11.2	6.0	10.1	8.0
2030 Fund Benchmark	3.8	11.3	6.0	10.2	8.0
2035 Fund	3.8	11.6	6.2	10.8	8.2
2035 Fund Benchmark	4.1	11.7	6.2	10.8	8.3
2040 Fund	4.1	11.9	6.2	11.2	8.1
2040 Fund Benchmark	4.3	12.0	6.3	11.2	8.2
2045 Fund	4.4	12.3	6.3	11.6	8.1
2045 Fund Benchmark	4.6	12.3	6.3	11.6	8.1
2050 Fund	4.6	12.6	6.3	11.6	8.1
2050 Fund Benchmark	4.9	12.6	6.3	11.6	8.2
2055 Fund	4.6	12.6	6.3	11.6	8.1
2055 Fund Benchmark	4.9	12.6	6.3	11.6	8.2
2060 Fund	4.6	12.6	6.3	11.6	8.1
2060 Fund Benchmark	4.9	12.6	6.3	11.6	8.2

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Periods Ended September 2016

SSgA Index Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
S&P 500 Index Fund	3.9	15.5	11.2	16.4	12.3
S&P 500	*3.9*	*15.4*	*11.2*	*16.4*	*12.3*
DJ-UBS Roll Select Commodity Index Fund	-2.6	0.9	-10.5	--	-8.6
DJ-UBS Roll Select Commodity Index	*-2.7*	*0.9*	*-10.5*	--	*-8.5*
Russell Small/Mid Cap Index Fund	7.2	13.5	7.5	--	13.6
Russell Small Cap Completeness Index	*7.2*	*13.5*	*7.5*	--	*13.6*
Global All-Cap Equity ex-US Index Fund	6.4	10.1	0.9	6.9	2.0
MSCI ACWI ex USA IMI	*7.1*	*9.8*	*0.6*	*6.4*	*1.7*
Global Real Estate Securities Index Fund	0.8	14.0	8.1	12.5	8.1
FTSE EPRA/NAREIT Dev Liquid	*0.8*	*13.1*	*7.3*	*11.8*	*7.3*
Long Government Bond Index Fund	-0.3	13.0	11.1	5.5	9.6
Barclays Long Government	*-0.3*	*13.0*	*11.1*	*5.5*	*9.6*
Bond Index Fund	0.5	5.2	4.1	3.1	3.7
Barclays Aggregate	*0.5*	*5.2*	*4.0*	*3.1*	*3.7*
Inflation Protected Bond Index Fund	1.0	6.6	2.4	1.9	2.7
Barclays U.S. TIPS	*1.0*	*6.6*	*2.4*	*1.9*	*2.7*
High Yield Bond Index Fund	5.3	12.2	4.7	8.0	6.2
Barclays U.S. High Yield Very Liquid	*5.4*	*12.4*	*4.8*	*8.2*	*6.3*
U.S. Short-Term Gov/Credit Index Fund	0.0	1.2	1.0	1.5	1.5
Barclays 1-3 Yr Govt/Credit	*0.0*	*1.3*	*1.1*	*1.1*	*1.1*

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Calendar Year Returns

	2015	2014	2013	2012	2011
Large Cap Equity					
Vanguard Dividend Growth	2.6	11.8	31.5	10.4	9.4
S&P 500	*1.4*	*13.7*	*32.4*	*16.0*	*2.1*
Vanguard Institutional Index Plus	1.4	13.7	32.4	16.0	2.1
S&P 500	*1.4*	*13.7*	*32.4*	*16.0*	*2.1*
Mid Cap Equity					
Vanguard Mid-Cap Index	-1.3	13.8	35.2	16.0	-2.0
CRSP US Mid Cap (1)	*-1.3*	*13.8*	*35.4*	*16.0*	*-1.9*
Small Cap Equity					
T. Rowe Price Small-Cap Stock	-3.1	7.4	39.6	18.7	0.2
Russell 2000	*-4.4*	*4.9*	*38.8*	*16.3*	*-4.2*
International					
Fidelity Diversified International	3.1	-3.2	25.2	19.4	-13.8
MSCI EAFE Free	*-0.8*	*-4.9*	*22.8*	*17.3*	*-12.1*
Vanguard Total International Stock Index	-4.2	-4.1	15.2	18.3	--
FTSE Global All Cap ex US (2)	*-4.0*	*-3.1*	*15.9*	*17.0*	--
Balanced					
Vanguard Balanced Index Inst. Fund	0.5	10.0	18.1	11.5	4.3
60% CRSP US Tot Mkt, 40% Barclays Agg (3)	*0.7*	*10.0*	*18.2*	*11.6*	*4.1*
Fixed Income					
Dodge & Cox Income Fund	-0.6	5.5	0.6	7.9	4.8
Barclays Aggregate	*0.5*	*6.0*	*-2.0*	*4.2*	*7.8*
Vanguard Total Bond Market Index Inst.	0.4	5.9	-2.1	4.2	7.7
Barclays Aggregate	0.5	6.0	-2.0	4.2	7.8
SIF Money Market (4)	0.2	0.1	0.2	0.3	0.2
3 Month T-Bills	0.1	0.0	0.1	0.1	0.1
SIF Fixed Interest (4)					
Galliard Capital Management	2.0	1.8	2.2	2.8	3.4
3-Year Constant Maturity Treasury +45bp	*1.5*	*1.3*	*1.0*	*0.8*	*1.2*

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

(1) Benchmark is the CRSP US Mid-Cap Index beginning February 2013. Prior to that date it was the MSCI US Mid-Cap 450 Index.

(2) 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.

(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) SIF Money Market Account and SIF Fixed Interest Accounts are Supplemental Investment Fund options (SIF), which are also offered under the Deferred Compensation Plan accounts.

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Calendar Year Returns

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Calendar Year Returns

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

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

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

Numbers in blue include returns prior to retention by SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
Fixed Income	**$497,644,577**	**8.3%**	**$477,196,705**	**8.2%**
Dodge & Cox Income Fund	$220,259,042	3.7%	$212,184,648	3.7%
Vanguard Total Bond Market Index Inst.	$212,281,984	3.6%	$202,076,677	3.5%
Money Market	$65,103,551	1.1%	$62,935,380	1.1%
Stable Value	**$1,349,547,509**	**22.6%**	**$1,338,725,839**	**23.1%**
Galliard Stable Value Composite	$1,349,547,509	22.6%	$1,338,725,839	23.1%
Large Cap Equity	**$1,552,483,333**	**26.0%**	**$1,518,362,992**	**26.2%**
Vanguard Dividend Growth	$523,139,752	8.8%	$522,605,769	9.0%
Vanguard Institutional Index Plus	$1,029,343,581	17.3%	$995,757,223	17.2%
Mid Cap Equity	**$447,569,468**	**7.5%**	**$429,590,616**	**7.4%**
Vanguard Mid-Cap Index	$447,569,468	7.5%	$429,590,616	7.4%
Small Cap Equity	**$594,827,717**	**10.0%**	**$567,937,098**	**9.8%**
T. Rowe Price Small-Cap Stock	$594,827,717	10.0%	$567,937,098	9.8%
Balanced	**$715,625,950**	**12.0%**	**$698,017,886**	**12.1%**
Vanguard Balanced Index Inst. Fund	$715,625,950	12.0%	$698,017,886	12.1%
International	**$426,897,778**	**7.2%**	**$407,146,576**	**7.0%**
Fidelity Diversified International	$282,769,488	4.7%	$270,615,627	4.7%
Vanguard Total International Stock Index	$144,128,290	2.4%	$136,530,949	2.4%
Target Retirement Funds (1)	**$375,557,929**	**6.3%**	**$350,811,208**	**6.1%**
Income Fund	$69,941,231	1.2%	$67,358,307	1.2%
2020 Fund	$83,607,729	1.4%	$79,542,830	1.4%
2025 Fund	$73,285,589	1.2%	$67,248,838	1.2%
2030 Fund	$46,646,470	0.8%	$43,094,834	0.7%
2035 Fund	$35,751,175	0.6%	$33,042,229	0.6%
2040 Fund	$22,651,552	0.4%	$21,116,030	0.4%
2045 Fund	$18,725,424	0.3%	$16,872,493	0.3%
2050 Fund	$12,976,927	0.2%	$11,702,888	0.2%
2055 Fund	$6,561,915	0.1%	$5,666,063	0.1%
2060 Fund	$5,409,917	0.1%	$5,166,696	0.1%

(1) Target Retirement Funds is a deferred comp option also offered in the Unclassified Plan. The Target Date Funds were first offered in the Unclassified Plan as of July 1, 2015.

MINNESOTA COLLEGE SAVINGS PLAN
STATIC OPTIONS (1)
Periods Ended September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Equity					
MNCSP US Intl Equity Allocation	4.4	13.2	7.6	13.4	6.3
MNCSP US Intl Equity Allocation Bnmk	4.6	13.7	7.8	13.6	7.3
MNCSP Equity Interest Allocation	2.4	7.9	--	--	3.6
MNCSP Equity Interest Allocation Bnmk	2.2	7.5	--	--	3.3
MNCSP Intl Eq Index Allocation	6.7	8.2	0.2	--	2.0
MNCSP Intl Eq Index Allocation Bnmk	7.0	8.6	0.3	--	2.2
MNCSP US LC Equity Allocation	3.8	15.2	--	--	7.4
MNCSP US LC Equity Allocation Bnmk	3.9	15.4	--	--	7.7
Fixed Income					
MNCSP Fixed Income Allocation	0.9	5.5	3.3	2.4	4.1
MNCSP Fixed Income Allocation Bnmk	0.9	5.8	3.6	2.8	4.8
MNCSP Principal Interest Allocation	0.3	1.4	1.3	1.4	2.6
MNCSP Principal Interest Allocation Bnmk	0.1	0.2	0.1	0.1	1.3
MNCSP Money Market Allocation	0.1	0.1	0.0	0.0	0.3
MNCSP Money Market Allocation Bnmk	0.0	0.1	0.0	0.0	0.3

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

MINNESOTA COLLEGE SAVINGS PLAN
ALLOCATION OPTIONS
Periods Ended September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Allocation Options					
MNCSP Aggressive Allocation	3.7	11.4	--	--	4.2
MNCSP Aggressive Allocation Bnmk	3.9	12.2	--	--	4.5
MNCSP Moderate Allocation	3.0	9.9	5.9	9.0	4.7
MNCSP Moderate Allocation Bnmk	3.1	10.7	6.2	9.3	5.4
MNCSP Conservative Allocation	1.8	6.5	--	--	2.6
MNCSP Conservative Allocation Bnmk	1.8	6.8	--	--	2.6
Managed Allocation Options					
MNCSP Managed 0-4 Yrs	3.8	11.7	--	--	4.4
MNCSP Managed 0-4 Yrs Bnmk	3.9	12.2	--	--	4.5
MNCSP Managed 5-8 Yrs	3.4	10.9	--	--	4.2
MNCSP Managed 5-8 Yrs Bnmk	3.5	11.4	--	--	4.4
MNCSP Managed 9-10 Yrs	2.9	10.0	--	--	4.0
MNCSP Managed 9-10 Yrs Bnmk	3.1	10.7	--	--	4.2
MNCSP Managed 11-12 Yrs	2.6	9.0	--	--	3.7
MNCSP Managed 11-12 Yrs Bnmk	2.7	9.6	--	--	3.9
MNCSP Managed 13-14 Yrs	2.3	8.0	--	--	3.4
MNCSP Managed 13-14 Yrs Bnmk	2.3	8.5	--	--	3.6
MNCSP Managed 15 Yrs	1.8	6.6	--	--	3.0
MNCSP Managed 15 Yrs Bnmk	1.8	6.8	--	--	3.0
MNCSP Managed 16 Yrs	1.5	5.8	--	--	2.7
MNCSP Managed 16 Yrs Bnmk	1.5	5.9	--	--	2.6
MNCSP Managed 17 Yrs	1.3	5.0	--	--	2.5
MNCSP Managed 17 Yrs Bnmk	1.3	4.9	--	--	2.2
MNCSP Managed 18+ Yrs	1.1	4.2	--	--	2.2
MNCSP Managed 18+ Yrs Bnmk	1.0	3.9	--	--	1.8

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

MINNESOTA COLLEGE SAVINGS PLAN
ALLOCATION OPTIONS UNDERLYING FUNDS
Periods Ended September 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
TIAA-CREF:Bond Indx;Inst	0.5	5.1	4.0	3.0	--
Barclays Agg (SBI Toolbox Returns)	0.5	5.2	4.0	3.1	4.8
TIAA-CREF:EM Eq Idx;Inst	9.0	16.8	-0.6	3.2	--
MSCI:EM Gross	9.2	17.2	-0.2	3.4	4.3
TIAA-CREF:Eq Idx;Inst	4.4	14.9	10.4	16.3	7.4
Russell 3000 Index	4.4	15.0	10.4	16.4	7.4
TIAA-CREF:Hi-Yld;Inst	5.4	11.4	5.1	7.8	7.3
ML:1-3 BB US HY CP	2.4	7.6	4.1	6.4	6.7
TIAA-CREF:Infl Bond;Inst	0.5	4.5	1.7	1.3	4.0
Barclays U.S. TIPS Index	1.0	6.6	2.4	1.9	4.5
TIAA-CREF:Itl Eq Ix;Inst	6.1	6.6	0.7	7.9	2.0
MSCI EAFE USD Index	6.4	6.5	0.5	7.4	1.8
TIAA-CREF:Money Mkt;Inst	0.1	0.2	0.1	0.1	1.0
MFR Avg All-Taxble	0.1	0.4	0.2	0.1	0.9
TIAA-CREF:Real Est;Inst	-0.4	16.1	13.6	15.3	5.7
FTSE:NAREIT All Eq Index	-1.2	20.9	13.9	16.0	6.4
TIAA-CREF:S&P500 Idx;Ins	3.9	15.3	11.1	16.3	7.2
S&P 500 Index	3.9	15.4	11.2	16.4	7.2

MINNESOTA COLLEGE SAVINGS PLAN
FUND OPTIONS

	September 30, 2016 Market Value	Percent	June 30, 2016 Market Value	Percent
Fixed Income	**$126,464,046**	**10.3%**	**$127,667,485**	**10.5%**
MNCSP Fixed Income Allocation	$11,728,524	1.0%	$11,538,110	0.9%
MNCSP Principal Interest Allocation	$106,411,210	8.6%	$107,945,249	8.9%
MNCSP Money Market Allocation	$8,324,312	0.7%	$8,184,126	0.7%
Equity	**$287,536,187**	**23.3%**	**$281,978,681**	**23.1%**
MNCSP US Intl Equity Allocation	$274,138,971	22.2%	$269,771,387	22.1%
MNCSP Equity Interest Allocation	$1,214,523	0.1%	$1,105,993	0.1%
MNCSP Intl Eq Index Allocation	$2,379,386	0.2%	$2,266,382	0.2%
MNCSP US LC Equity Allocation	$9,803,307	0.8%	$8,834,919	0.7%
Allocation Options	**$69,012,088**	**5.6%**	**$66,184,354**	**5.4%**
MNCSP Aggressive Allocation	$9,961,250	0.8%	$9,370,486	0.8%
MNCSP Moderate Allocation	$55,018,153	4.5%	$53,428,190	4.4%
MNCSP Conservative Allocation	$4,032,685	0.3%	$3,385,678	0.3%
Managed Allocation Options	**$749,874,319**	**60.8%**	**$743,814,322**	**61.0%**
MNCSP Managed 0-4 Yrs	$24,604,575	2.0%	$24,308,558	2.0%
MNCSP Managed 5-8 Yrs	$71,939,014	5.8%	$72,218,552	5.9%
MNCSP Managed 9-10 Yrs	$72,949,422	5.9%	$72,718,701	6.0%
MNCSP Managed 11-12 Yrs	$101,719,516	8.3%	$103,116,866	8.5%
MNCSP Managed 13-14 Yrs	$136,234,549	11.1%	$130,516,740	10.7%
MNCSP Managed 15 Yrs	$64,975,645	5.3%	$62,431,054	5.1%
MNCSP Managed 16 Yrs	$64,936,736	5.3%	$62,277,004	5.1%
MNCSP Managed 17 Yrs	$64,419,477	5.2%	$64,823,376	5.3%
MNCSP Managed 18+ Yrs	$148,095,385	12.0%	$151,403,471	12.4%

TAB

I

This page intentionally left blank.

INVESTMENT ADVISORY COUNCIL REPORT

DATE: November 22, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: Emerging Markets Equity Manager Search

Background

In September 2016, the emerging markets portfolio of the SBI's Combined Funds was made up of two active managers, Morgan Stanley and Capital International, and one passive manager, State Street Global Advisors. The sizes of the mandates were $815 million, $668 million and $291 million, respectively. The first two managers have active mandates and the last manager has a passive mandate. In October 2016, the SBI Executive Director decided to liquidate the Capital International portfolio.

As discussed at previous IAC and SBI meetings, emerging markets is an area that the Executive Director believes provides an opportunity for successful active management. The Executive Director and SBI Staff have conducted a search for emerging markets managers which can reduce the concentration within the overall emerging markets portfolio.

The Executive Director is recommending that the SBI grant authorization to hire up to six additional managers. Staff has assembled a grouping of six managers who provide a blend of different management approaches, and exposure across the market capitalization and style spectrums. Collectively, the six managers provide an interesting array. Individually, the six are good organizations, have sound investment processes, and have exhibited different return patterns. Collectively, they represent the makings of a very diversified portfolio.

A summary of the search process followed by the SBI Staff and the consultant, Callan Associates, is outlined below.

Emerging Markets Manager Search Process

The process started with Staff determining the objectives of the search help diversify the SBI's current emerging markets managers.

The following objectives were outlined:

1) Excess returns that are diversifying to the existing emerging markets portfolio;
2) Firm size assets of $1 billion or greater;
3) Product assets of $500 million or greater;
4) Stable investment team;
5) Good long-term relative performance; and
6) Open to new accounts.

After screening the eVestment database based on the outlined objectives and meeting with multiple managers, SBI Staff established a preliminary candidate list comprised of eleven managers.

Staff and Callan conducted a call to review this preliminary list. Strengths and weakness of each of the strategies were reviewed. After the review, five managers from the initial list were selected as possible candidates.

Also during the call Callan suggested seven additional strategies for SBI Staff to review. Staff conducted due diligence on these managers which included detailed analysis on the investment products and conference calls with the managers to better understand the organizations, the teams, the investment strategies and the risk-adjusted performance.

At this point, a final list of six managers was created:

- Delaware Investments
- EARNEST Partners
- Martin Currie Investment Management, Ltd.
- Neuberger Berman
- Pzena Investment Management, LLC
- The Rock Creek Emerging Markets Group

SBI Staff required each finalist to respond to an extensive due diligence questionnaire. In addition, in-house meetings were held in order to provide SBI Staff members with a better understanding of the investment process directly from the portfolio managers involved in managing the strategy.

Finally, Callan and the SBI Staff compiled their manager analyses and held a conference call to review the finalists' information in detail. The focus was not only on strengths and weaknesses of individual managers but also on how well each manager would complement both the existing emerging markets managers as well as the other five new managers being considered.

Key Aspects of Emerging Markets Managers

SBI Staff and Callan believe that all six finalists have good investment organizations, with good investment processes and performance histories.

All the strategies are managed by experienced senior investment professionals. In most cases, portfolio managers and analysts have extensive experience in emerging markets.

Other than Rock Creek, that has a top-down fundamental macro component, all the other strategies are bottom-up, fundamental. From this point of view, they should be a good complement to the other strategies.

All six finalists complement each other regarding size and style. EARNEST Partners, Neuberger Berman, Pzena and Rock Creek all gravitate towards smaller capitalization stocks while Martin Currie and Delaware focus on larger capitalization stocks. Delaware, EARNEST Partners, and Pzena are value managers while Martin Currie, Neuberger Berman, and Rock Creek have growth orientation portfolios.

The number of stocks within each strategy differs. SBI Staff included both concentrated, high conviction strategies as well as diversified portfolios containing a large number of holdings.

All of the finalists run medium to high volatility portfolios with five year ex post tracking error in the 3-6% range.

The fees for all finalists are within a reasonable range. The Executive Director will negotiate the best fee structure possible with each investment management firm.

Based on Staff and Callan's review, Staff is recommending the SBI retain the following six firms for potential inclusion in the Emerging Markets portfolio.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation to retain up to six of the following emerging markets investment managers for the Emerging Market portfolio

- ***Delaware Investments***
- ***EARNEST Partners***
- ***Martin Currie Investment Management, Ltd.***
- ***Neuberger Berman***
- ***Pzena Investment Management, LLC***
- ***The Rock Creek Emerging Markets Group***

and that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate fees and execute a contract with each firm.

This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: Delaware Investments

Name of Product: Emerging Markets Equity

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product: 1

Number of analysts on this product: 3

Investment Philosophy

Delaware believes market price and intrinsic business value are positively correlated in the long run but that in the short-term divergences can emerge. They seek to take advantage of these divergences through a disciplined, fundamental, bottom-up approach.

They invest in companies with sustainable franchises when they are trading at a significant discount to their conservative intrinsic value estimate. The team defines intrinsic value as the appropriately discounted value of a business' cash-flow stream. They only buy when the business trades at a significant discount to their intrinsic value estimate. The team focuses resources on sustainable franchises, defined as those companies with high potential to earn excess returns above their cost of capital over the long run.

The team aims to capture market inefficiencies by:

1) Judging a franchise's sustainability and secular growth prospects
2) Maintaining a long-term structural bias to capture franchises oversold due to temporary setbacks
3) Exploiting public market and private market valuation discrepancies
4) Buying assets below their replacement costs

They prefer companies that have large market opportunities in which to deploy capital, ensuring that they grow faster than the overall economy.

They define the opportunity universe as those securities in the MSCI Emerging Markets index, non-index emerging markets companies and companies with significant exposure to emerging markets. Their universe consists of approximately 2,800 stocks. They do not maintain a strict

market capitalization minimum, though they generally invest in companies with market cap of at least $100 million and trading volume of at least $1 million per day.

Investment Process

Fundamental bottom-up research is the core of their investment process. The team's fundamental research process can be broken down into two main components: analyzing a company's sustainability and assessing its intrinsic value.

Sustainability analysis involves identification of a company's source of competitive advantage and the ability of its management to maximize its return potential. Fundamental research is conducted emphasizing the long-term determinants of a company's returns and growth. They focus on companies with identifiable competitive advantages and businesses with high entry barriers and high replication costs.

Intrinsic value assessment plays a crucial role in their investment process. In order to estimate a company's intrinsic value, they choose one or more appropriate valuation methods based on the fundamentals of the business. This typically involves a combination of discounted cash-flow analysis, replacement cost, private market transaction or multiple analyses. They are generally looking for a minimum discount to a conservative intrinsic value estimate of 25%.

Company research is performed by each member of the team according to their regional responsibilities. It is the entire team's responsibility to discuss relative values between and across industries and countries. The team is encouraged to collaborate informally to share ideas, develop insights, compare valuations, and inform each other of major developments in their respective markets. Team members make trips to their regions for on-site visits as well.

Position weightings are bottom-up driven and based on their conviction in a company's franchise sustainability and its discount to intrinsic value estimate. They do not explicitly allocate capital by country or sectors. Their country and sector weightings depend on the availability of investment opportunities that they come across in each country or sector. They do not add value from currency management; however currency valuation is an input into their bottom-up investment decisions.

Individual position weights are discussed between the analysts and Liu-Er Chen. Liu-Er Chen has the final decision-making authority.

They are constantly evaluating their portfolio to ensure that they have conviction in each position that they own. If more attractive alternatives arise, they will take the opportunity to ensure that they are allocating capital to the ideas that they find the most attractive and in which they have the most conviction.

Portfolio Team

Liu-Er Chen, CFA
Senior Vice President, Chief Investment Officer — Emerging Markets and Healthcare
Liu-Er Chen heads the firm's global Emerging Markets team, and he is also the portfolio manager for Delaware Healthcare Fund, which launched in September 2007. Prior to joining Delaware Investments in September 2006 in his current position, he spent nearly 11 years at Evergreen Investment Management Company, where he most recently worked as managing director and senior portfolio manager. He co-managed the Evergreen Emerging Markets Growth Fund from 1999 to 2001, and became the Fund's sole manager in 2001. He was also the sole manager of the Evergreen Health Care Fund since its inception in 1999. Chen began his career at Evergreen in 1995 as an analyst covering Asian and global healthcare stocks, before being promoted to portfolio manager in 1998. Prior to his career in asset management, Chen worked for three years in sales, marketing, and business development for major American and European pharmaceutical and medical device companies. He received his medical education in China and he has experience in medical research at both the Chinese Academy of Sciences and Cornell Medical School. He holds an MBA with a concentration in management from Columbia Business School.

Jeffrey S. Wang, CFA
Vice President, Senior Equity Analyst
Jeffrey S. Wang is responsible for covering Asia for the firm's global Emerging Markets team. Prior to joining Delaware Investments in August 2007, he spent three years as an emerging markets investment manager at Pictet Asset Management in London, England, where he was part of a team that managed more than $10 billion in emerging market equity assets. In addition, he managed the firm's Global High Yield Emerging Equities Fund. He began his career in 1999 at Putnam Investments, leaving the firm in 2002 as a senior investment associate. Wang earned a bachelor's degree in economics, magna cum laude, from Harvard University and an MBA with High Honors from the University of Chicago Booth School of Business.

Daniel Ko
Vice President, Senior Equity Analyst
Daniel Ko, who joined Delaware Investments in June 2012, is a senior equity analyst responsible for covering Eastern Europe, the Middle East, and Africa, as well as financials, for the firm's global Emerging Markets team. Prior to joining the firm, he worked with Putnam Investments from 2009 to 2012 as a research analyst covering financials. From 2002 to 2007, Ko worked as a strategist at JPMorgan on the firm's global currency and commodity strategy team. He earned his bachelor's degree in economics from Brown University and an MBA from Columbia Business School.

Wei Xiao
Vice President, Senior Equity Analyst
Wei Xiao is a senior equity analyst responsible for covering technology and Latin America for the firm's global Emerging Markets team. Prior to joining Delaware Investments in July 2011, he worked at Amazon.com as a senior product manager in charge of the company's third-party platform in consumer electronics. Before that, Xiao was a senior research analyst with China Asset Management, the largest mutual fund company in China, where he covered the Asian technology sector, including internet and information technology. Earlier, he worked as an equity research

analyst with Fidelity Management & Research Company. Xiao began his career with Microsoft as a software engineer in the company's e-business group. He earned a bachelor's degree in computer science from Jiaotong University in China, a master's degree in computer science from the University of Illinois at Urbana-Champaign and an MBA with a concentration in finance from the Kellogg School of Management, Northwestern University.

Risk Management

The team, under the leadership of Liu-Er Chen, is responsible for risk management. Portfolio risk is continuously managed through a combination of portfolio construction techniques as well as risk assessment of individual holdings. They are thorough when conducting fundamental research and by creating a diversified portfolio of stocks trading at significant discounts to intrinsic value. Scenario analysis and stress testing are conducted as part of their bottom-up research. They monitor portfolio risk metrics and portfolio constraints on a regular basis.

Additional risk management is provided by the Equity Quantitative Analysis team. In addition to proprietary systems for portfolio risk analysis, they use MSCI Barra's Global Model to measure risk and produce risk metrics. Risk reports contains details on the portfolio's factor exposures and relative risk decomposition as outlined by Barra, as well as predicted tracking error and predicted beta relative to their benchmark. The Equity Quantitative Analysis team is available to provide any further risk metrics or analysis as needed through FactSet, among other tools, and reviews all risk models to ensure that they are appropriate for the strategy. Delaware Investments' equity CIO monitors risk metrics on a regular basis.

They do not target a specific tracking error relative to the benchmark, but it will typically range between 4% and 6%.

Ownership

Since January 2010, Delaware Investments is owned by Macquarie Affiliated Managers, a subsidiary of Macquarie Group Limited.

Macquarie Group Limited is a global provider of banking, financial, advisory, investment and funds management services headquartered in Australia. It is publicly listed (ASX: MQG).

Data as of June 30, 2016

Firm's total assets under management:	$173,586 million
Total assets under management in this product:	$3,905 million
Institutional assets under management in this product:	$1,481 million
Number of separate accounts in this product:	12
Number of stocks in portfolio:	95
Weighted average market cap (million):	$28,848
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$11,293
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	1.06
Historical Tracking Error (five years):	5.10%

Turnover (calendar years):

2015: 11.75%
2014: 30.16%
2013: 23.28%
2012: 16.92%
2011: 21.29%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	27	$4,931
2012	30	$6,055
2013	30	$7,524
2014	27	$6,743
2015	22	$4,290

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Mutual Fund	$496 million
Public	$228 million
Public	$214 million
Mutual Fund	$34 million
Sub-advisory	$16 million

Returns:

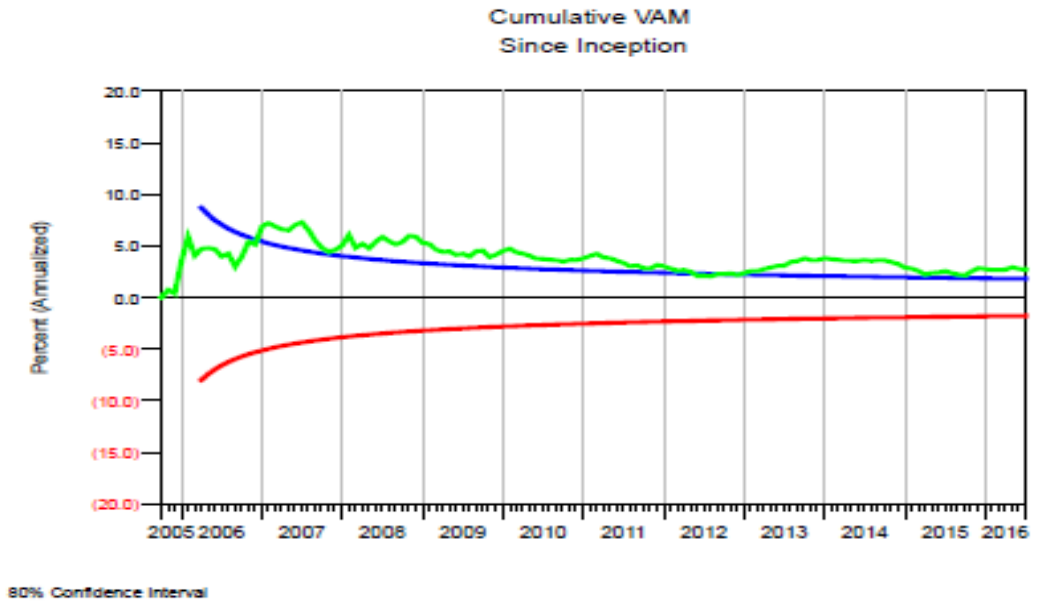
(As of June 30, 2016)

	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
Delaware	1.43	-8.32	0.10	-1.88	5.76
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	3.79
Difference	0.77	3.73	1.66	1.90	1.97

	2015	2014	2013	2012	2011
Delaware	-13.63	-6.53	11.88	16.37	-19.17
MSCI Emerging Markets	-14.92	-2.19	-2.60	18.22	-18.42
Difference	1.29	-4.34	14.48	-1.85	-0.75

VAM Chart:

Delaware versus MSCI Emerging Markets
(as of June 30, 2016)



MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: EARNEST Partners

Name of Product: Global Emerging Markets Unconstrained

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product[1]: 6

Number of analysts on this product[2]: 8

Investment Philosophy

EARNEST Partners is a fundamental, bottom-up investment manager. The firm's investment objective is to outperform the assigned benchmark while seeking to control volatility and risk.

EARNEST Partners implements this philosophy using a screen developed in-house called Return Pattern Recognition®, thorough fundamental analysis and risk management that seeks to minimize the likelihood of meaningfully underperforming the assigned benchmark.

Given the typical characteristics of the firm's portfolios, such as lower P/E's than the market, EARNEST Partners is typically categorized as a relative value manager. It is important to point out that the firm does not subscribe to a deep value dogma, but rather ends up with a relative value based portfolio as an outgrowth of the process.

Investment Process

The first step in their investment process is to screen the relevant universe to identify stocks that they believe are likely to outperform based on their financial characteristics and the current environment. Using an approach called Return Pattern Recognition®, they identify the financial and market characteristics that have been in place when an individual company has produced outstanding performance. These characteristics include valuation measures, market trends, operating trends, growth measures, profitability measures, and macroeconomics. They screen thousands of companies and select those exhibiting the set of characteristics that have historically indicated excess returns.

[1] Shared with other products

[2] Shared with other products

The approximately 150 best companies that pass the aforementioned screens are put through a second more rigorous review. In this step, they develop an investment thesis for each company. This thesis must be tested. The test generally includes conversations with the company's management team and industry specialists, review of the company's financial reports, analysis of industry and company-specific studies, and independent field research. They seek companies in attractive industries with developed strategies, talented and honest management teams, sufficient funding, and strong financial results. The experience and different perspectives of their investment team are advantages in determining which companies they believe are best positioned to meet or exceed expectations. They eliminate from consideration any company that does not pass their rigorous fundamental analysis.

The final step in their investment process is to construct a portfolio that includes those stocks they expect to have the best performance and that blend together well. Their clients are primarily concerned about the risk of meaningfully underperforming the assigned benchmark. Hence, they focus their attention on reducing this possibility. They use a statistical approach called downside deviation to measure and then constrain the likelihood of significantly underperforming the benchmark. Using this information, they seek to select investments that blend together to manage downside risk. The result is a concentrated portfolio of approximately 40-50 stocks that they believe can provide excess returns and limited risk of meaningful underperformance.

EARNEST Partners does not target sector or industry weights. Instead, the weightings are an outgrowth of their bottom-up, fundamental stock selection process. Their process is designed to put the client in the individual securities that they believe have the most attractive expected returns; relative over weights and underweights are an outgrowth of where they finding those individual opportunities. The risk management process also influences the weights taken in any one sector or country. As a general rule, larger sectors and countries will not represent more than two times the benchmark weight. No individual holding should exceed 5.0% of the portfolio's value.

Portfolio Team

Paul E. Viera
CEO and Partner
Mr. Viera is the founder and Chief Executive Officer of EARNEST Partners, an investment firm responsible for overseeing over $20 billion for municipalities, states, corporations, endowments, and universities. He developed Return Pattern Recognition®, the investment methodology used to screen equities at EARNEST Partners. He has a BA in Economics from the University of Michigan, an MBA from the Harvard Business School, and has over thirty years of investment experience. Mr. Viera was a Vice President at Bankers Trust in both New York and London. He later joined Invesco, where he became a Global Partner and senior member of its Investment Team. Mr. Viera is a Trustee of the Woodruff Arts Center and a member of its investment committee, a member of the Board of Dean's Advisors for Harvard Business School, a member of the Council on Foreign Relations, a member of Board of Foreign Advisors of Haitong Securities (the second largest Chinese securities firm), a board member for the National Center for Human & Civil Rights, and the Atlanta Society of Finance and Investment Professionals. He is also a commentator for several news organizations, including, among others, CNBC and Bloomberg News.

Trey Greer, CFA, CPA
Partner
Mr. Greer is a member of the investment team at EARNEST Partners. He has a BS in Business Administration and a Master of Accounting from the University of North Carolina at Chapel Hill and an MBA from Emory University. He has over 20 years of investment experience and began his career in public accounting. He later joined AMVESCAP PLC where he was an Investment Manager with assignments in London, Houston, and Atlanta. He is a member of the CFA Institute, the Atlanta Society of Finance and Investment Professionals, and the American Institute of Certified Public Accountants.

Chris Hovis, CFA
Partner
Mr. Hovis is a member of the investment team at EARNEST Partners. Prior to joining EARNEST Partners, he served as a Senior Analyst with Morgan Keegan where he was an analyst in US Software. His extensive background also includes experience in the information technology industry as well as in Equity Research with SunTrust Robinson Humphrey and CQ Partners. Previously, he was VP of Marketing and Business Development at Lancope, and a senior software engineer at Intel and Alliance Semiconductor. He holds an MBA with Distinction from The Wharton School of Business and Bachelor degrees with Highest Honors in Electrical Engineering from Georgia Tech and in Physics from Centre College. Mr. Hovis is also a member of the CFA Institute and the Atlanta Society of Finance and Investment Professionals.

Jessie Magee, CFA
Partner
Mr. Magee is a member of the investment team at EARNEST Partners. Prior to joining EARNEST Partners, he spent more than seven years in the Research & Advanced Vehicle Technology division of Ford Motor Company working on alternative fuel technologies, occupant safety, and new product development. Later, he worked in Corporate Finance at Intel Corporation where he developed strategies to improve semiconductor materials sourcing and support price negotiations with Intel's strategic suppliers. He also spent six years in the Army National Guard as a Combat Engineer. He holds a BS in Mechanical Engineering from Southern University, an MS in Mechanical Engineering from the University of Michigan, and an MBA from Emory University. He is also a member of the CFA Institute and the Atlanta Society of Finance and Investment Professionals.

Tammy Qiuhong Tang
Partner
Ms. Tang is a member of the investment team at EARNEST Partners and is leading EARNEST Partners operations in China. She holds a BS in English Literature from Beijing Foreign Studies University, a BA in Business Administration from the University of California, Riverside, and an MBA from the University of Southern California. She began her career with General Electric, China. Later, she worked as a senior manager in the Investment Bank at Haitong Securities Company, where she focused on IPOs and follow-on issues. Prior to joining EARNEST Partners, she served as Director of the International Relationship Department of the Securities Association of China. Ms. Tang is fluent in Mandarin.

Dinkar Singh, Ph.D.
Director
Dr. Singh is a member of the investment team at EARNEST Partners. Prior to joining EARNEST Partners, he worked for more than five years at the IBM Research Center in the Silicon Technology group. Leading a team of Ph.D.s/engineers, he helped develop semiconductor technology for next-generation electronic chips, resulting in the first demonstration of an advanced memory and world record chip speed and was awarded five U.S. patents with four additional patent applications pending. Dr. Singh has a Ph.D. from Stanford University in Applied Physics, an MBA with high honors from the University of Chicago, and studied previously at the Indian Institute of Technology. Dr. Singh is fluent in Hindi.

Risk Management

EARNEST Partners considers risk management to be a critical piece of the investment process. Classical risk measurement assigns the same penalty, in the form of a volatility measure, to a portfolio that significantly outperforms its benchmark as it does to a portfolio that significantly underperforms its benchmark. EARNEST Partners instead chooses to focus on constructing a portfolio that minimizes the probability of underperforming the assigned benchmark. In seeking to achieve this objective, the firm uses a statistical measure called downside deviation.

Their target is to be within one downside deviation unit of the benchmark and it is reviewed (1) at the creation of a portfolio; (2) any time a stock is added to or deleted from a portfolio; and (3) at the end of each month. They believe this approach enables EARNEST Partners to capture excess returns while still constraining downside risk.

While they do not use tracking error to measure risk in their process, they are able to track this metric for clients. The trailing three year period ending 6/30/2016, tracking error for the portfolio was 3.93.

Ownership

EARNEST Partners is 100% employee owned. Paul E. Viera holds a controlling interest and the position of CEO. Seven other principals own the remaining interests. EARNEST Partners expects to increase equity participation among other employees over the next several years as contributions warrant.

Data as of June 30, 2016

Firm's total assets under management:	$19,466 million
Total assets under management in this product:	$639 million
Institutional assets under management in this product:	$639 million
Number of separate accounts in this product:	5
Number of stocks in portfolio:	53
Weighted average market cap (million):	$20,867
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$7,968
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	1.03
Historical Tracking Error (five years):	4.71%

Turnover (calendar years):

2015: 6.06%
2014: 3.94%
2013: 19.20%
2012: 6.84%
2011: 0.00%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	1	8
2012	2	65
2013	5	426
2014	5	614
2015	5	528

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Corporate	$364 million
Public	$142 million
Corporate	$84 million
Foundation	$40 million
Corporate	$9 million

Returns:

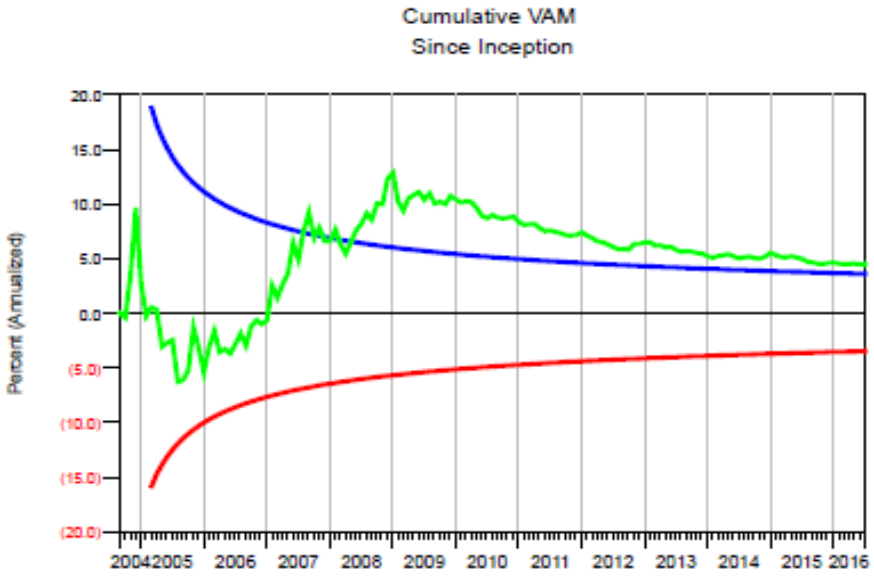
(As of June 30, 2016)

	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
EARNEST Unconstrained	1.34	-12.79	-0.89	-3.43	4.41
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	3.79
Difference	0.68	-0.74	0.67	0.35	0.62

	2015	2014	2013	2012	2011
EARNEST Unconstrained	-18.47	6.01	-7.18	18.09	-17.18
MSCI Emerging Markets	-14.92	-2.19	-2.60	18.22	-18.42
Difference	-3.55	8.20	-4.58	-0.13	1.24

VAM Chart:

EARNEST Partners Unconstrained versus MSCI Emerging Markets
(as of June 30, 2016)



MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: Martin Currie Investment Management, Ltd.

Name of Product: Global Emerging Markets

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product: 7

Number of analysts on this product: 0

Investment Philosophy

Their primary belief regarding investing in emerging markets is that sustainable cash-flows and the effective allocation of capital are the main determinants of share price movement over the long term. They focus on cash-flows rather than reporting earnings because the latter can be subject to differing accounting policies across the multi-country and multi-sector investment universe.

The Martin Currie emerging markets team builds long-term, high conviction, stock-focused portfolios, driven by fundamental research within an appropriate risk framework. They seek to identify those emerging markets companies that can sustain cash-flow growth and generate returns in excess of their cost of capital. They believe that it takes a long time for the success of a business model to become fully apparent, so they typically invest within a three-to-five year horizon.

The Martin Currie emerging markets team believes that an assessment of a company environmental, social and governance ("ESG") performance, or sustainability, can help identify those business models that are most likely to sustain high returns and resist competitive pressures.

Their core universe is the MSCI Emerging Markets index, however, they will include off-benchmark stocks if they believe that those will enhance the risk/return profile of the strategy. Typically their weighting to off-benchmark stocks is in the range of 0-20%. For them, frontier markets is part of the investment universe. They have invested in several of them in the past and continue to look for opportunities in these areas. They take account of geographic and political factors by ensuring that they are being sufficiently compensated for the country-specific risks companies face. To do this, they apply a country-specific cost of equity to all their cash-flow valuation models. The cost of equity in frontier markets is likely to be higher.

Regarding market capitalization, they split the universe in five quintiles focusing on the first and third quintiles, corresponding to mega and mid-capitalization stocks.

Investment Process

The investment process is designed to deliver high-conviction stock ideas based on fundamental bottom-up analysis. All portfolio managers are responsible for research, idea generation and analysis and the management of client portfolios.

Investment decisions can come from a wide range of sources, including the emerging markets team; the wider Martin Currie investment team; research trips; sector specific screens; company meetings and industry contacts.

All the research is internally generated. The emerging markets team meets hundreds of companies each year. In addition, specific sources for ESG research are utilized. These include MSCI ESG Research, UBS, CLSA and ISS. They also use Eurasia for political research. Top-down factors are viewed as a source of risk to the strategy, not a source of alpha. A country-specific cost of equity is applied to all cash-flow valuation models within the stock research process. Short-term macro and political research focus on the risks that could pose a threat to the stocks in the portfolio.

Martin Currie's investment team holds regular sector research meetings that bring together all portfolio managers. The purpose of these formal meetings is to generate and share potential investment ideas, discuss findings from company meetings and review corporate announcements. The outcome of these meetings is a "research priority list" that focuses resources on research ideas that are of greatest relevance to client's portfolios. Once the investment thesis receives unanimous approval, it is added to the "approved research list". This list (100-120 names) provides an exclusive source of companies to populate portfolios.

The portfolio is constructed to ensure that the upside potential and downside risk in the portfolio is dominated by stock selection and that other risks are minimized. Country, sector and market cap weightings are the result of stock selection.

Martin Currie has an internal investment risk framework to ensure that products are run in line with objectives, risk tolerances, and in accordance with the investment process. This framework includes soft limits on active exposures, tracking errors, cash weight and liquidity.

Portfolio Team

Kim Catechis, Head of Global Emerging Markets
Investment experience: 29 years
Kim is head of global emerging markets at Martin Currie. He is a co-manager on a number of portfolios, with specific responsibility for macro and political research. Kim joined Martin Currie in October 2010 from Scottish Widows Investment Partnership (SWIP), where he had been head of global emerging markets since 1998. Before joining SWIP, Kim established and managed Eagle Star Inversiones, an asset-management venture in Spain. He began his investment career as a

portfolio manager for Edinburgh Fund Managers in 1987. Kim is a member of the 20-20 Investment Association, a non-profit association of leading global investors focused on evaluating investment opportunities, while fulfilling a commitment to corporate social responsibility in emerging and frontier markets. He is fluent in Spanish, Portuguese, and French, and has intermediate language ability in Russian, German, Italian and Greek. Kim has an MBA from the University of Stirling and a BA in French and German.

Alastair Reynolds, Portfolio Manager, Global Emerging Markets
Professional qualifications: ASIP, Investment experience: 25 years
Alastair joined Martin Currie in 2010 and co-manages our global emerging-markets (GEMs) strategy, with specific responsibility for researching stocks in the industrials sector. He joined us from SWIP, where he was research manager on its GEMs desk. He was lead manager of the GEMs smaller‑companies and specialist Central and Eastern European mandates. Before joining SWIP in 2000, Alastair was an investment manager with Edinburgh Fund Managers. He began his career with Scottish Amicable Investment Management, where he spent seven years as an analyst and fund manager. Alastair is an associate of the UK Society of Investment Professionals (ASIP).

Andrew Ness, Portfolio Manager, Global Emerging Markets
Professional qualifications: ASIP, Investment experience: 21 years
Andrew is a co-manager of our global emerging markets strategy and is responsible for financials-sector research. Andrew joined Martin Currie in 2010 from SWIP, where he was investment director on the global emerging markets equity desk. As portfolio manager, Andrew managed SWIP's global emerging markets sustainability portfolios. As sector analyst, he was responsible for stocks across the financial sector in emerging markets. Before joining SWIP, Andrew was a portfolio manager with Deutsche Asset Management in New York and London. He began his career with Murray Johnstone in Glasgow, where he managed his first emerging‑market mandates. He is an associate of the UK Society of Investment Professionals (ASIP). Andrew has an MSc in business economics from the University of Strathclyde.

Divya Mathur, Portfolio Manager, Global Emerging Markets
Professional qualifications: ASIP, Investment experience: 20 years
Divya is a co-manager of our global emerging markets strategy, with responsibility for technology and utilities-sector research. He joined Martin Currie in 2010 from SWIP, where he was investment director on the global emerging markets desk. As portfolio manager, Divya was lead manager of the Global Emerging Markets Infrastructure fund and co‑manager of the balanced mandates. As sector analyst, he was responsible for stocks across the technology and utilities sectors in emerging markets. Earlier, Divya spent over a decade at Henderson Global Investors in London, where he began his career as a quantitative strategist, before managing global emerging market and dedicated Indian equity portfolios for eight years. Divya speaks Hindi. He is an associate of the UK Society of Investment Professionals (ASIP). Divya has an MSc in investment analysis from the University of Stirling and a BSc (Hons) in computer science and accounting from the University of Manchester.

Jeff Casson, Portfolio Manager, Global Emerging Markets
Professional qualifications: CFA® charterholder, Investment experience: 16 years
Jeff co-manages our global emerging markets strategy. He joined Martin Currie in 2010 and has responsibility for researching stocks in the materials and telecoms sectors. Jeff came to us from SWIP, where he was investment director in the global emerging markets team. As portfolio manager there, Jeff was lead manager of the Latin American strategy and supported Alastair Reynolds in the management of the global emerging markets smaller-companies strategy. As sector analyst, he was responsible for stocks in the telecommunications and consumer sectors. Jeff joined SWIP in April 2005 as an investment director on the global emerging markets equity team, with particular responsibility for Latin America. Earlier, he was an investment manager at Alliance Trust, where he began his investment career in 1999. Jeff is a CFA® charterholder. He has an BAcc (Hons) from the University of Dundee.

Andrew Mathewson, Portfolio Manager, Global Emerging Markets
Professional qualifications: CFA® charterholder, Investment experience: 14 years
Andrew is a co-manager of our global emerging markets strategy. He joined Martin Currie in 2005 from the Scottish Investment Trust, where he was an investment manager for UK equities. For over five years, Andrew worked in Martin Currie's Asia and global emerging markets team, as an investment manager for the GEM product with a research focus on EMEA markets. With the arrival of the former SWIP emerging-markets team, Andrew integrated into the new GEM team, taking on responsibility for the consumer and healthcare sectors. Andrew is a CFA® charterholder. He has a BSC (Hons) in Economics from the University of St Andrews.

Thomas Larsen, Portfolio Manager, Global Emerging Markets
Professional qualifications: CFA® charterholder, Investment experience: 5 years
Thomas joined Martin Currie in 2010 as an investment trainee on the Asia team, before moving to the global industrials and utilities research team. In 2012 he joined the global emerging markets team where he currently works as an investment manager, mainly focused on stocks within the energy sector. Before joining the company, he worked on an entrepreneurial project at the University of Edinburgh's Department for Information Services & Knowledge Management. Thomas is a CFA® charterholder. He has an MA in International Business from the University of Edinburgh.

Risk Management

Risk management is fully integrated within the investment process. Martin Currie takes a multi-faceted approach to risk management.

- Business risks: competitive, regulatory and sustainability risks are assessed through qualitative analysis.
- Financial risks: risks to revenues, margins, costs and cash-flows are assessed through financial modelling.

- Investment risks: macroeconomic and political risks are assessed through the application of a country-specific cost of equity.
- Portfolio risks: style and factor sensitivities are assessed by independent analysis and pre-trade simulation.

The team builds portfolios where risk is dominated by high conviction stocks while factor and thematic risks are minimized. They approach risk management from both an ex-ante and ex-post perspective. The ex-ante forecast risk analysis includes risk modelling, stress testing, and simple comparisons of active weights and tilts relative to the benchmark. They do not target tracking error but the strategy has a maximum forecast tracking error limit of 8.00% per year. The ex-post analysis of portfolio behavior includes multi-factor attribution (by country, sector, beta, style, and size), stock level attribution, and characteristics of delivered relative returns. This includes delivered tracking error and beta, performance in rising and falling markets, and analysis of the magnitude of relative return outcomes.

Some of the specific risk tools the group uses are:

- SunGard APT statistical risk model
- Proprietary liquidity risk model with daily analysis
- Style research for fundamental style profiling
- Analysis of delivered portfolio behavior through Statpro and proprietary tools
- Pre and post trade mandate compliance using Sentinel

Martin Currie has an experienced independent investment risk team. The team provides oversight of adherence to the risk framework and works closely with portfolio managers providing analytics and portfolio construction advice. Also, they perform formal risk reviews on a quarterly basis.

Ownership

Martin Currie is wholly owned by Legg Mason and is one of ten affiliates under the Legg Mason company umbrella, which includes Western Asset Management, Clearbridge and Brandywine.

Legg Mason is a global asset management firm with over US$700 billion in assets under management. Its autonomous affiliates provide active asset management in many major investment centers throughout the world. Legg Mason is headquartered in Baltimore, Maryland, and its common stock is listed on the New York Stock Exchange (symbol: LM).

Data as of June 30, 2016

Firm's total assets under management:	$11,920 million
Total assets under management in this product:	$1,091 million
Institutional assets under management in this product:	$998 million
Number of separate accounts in this product:	6
Number of stocks in portfolio:	53
Weighted average market cap (million):	$34,162
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$9,074
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	1.00
Historical Tracking Error (five years):	3.33%

Turnover (calendar years):

2015: 22.3%
2014: 38.2%
2013: 25.4%
2012: 28.5%
2011: 55.2%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	8	$213
2012	11	$625
2013	11	$1,175
2014	12	$1,240
2015	10	$1,020

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Australia Superannuation Fund	$318 million
US Public Pension Fund	$219 million
Australia Superannuation Fund	$167 million
Australia Superannuation Fund	$156 million
UK Superannuation Fund	$71 million

Returns:

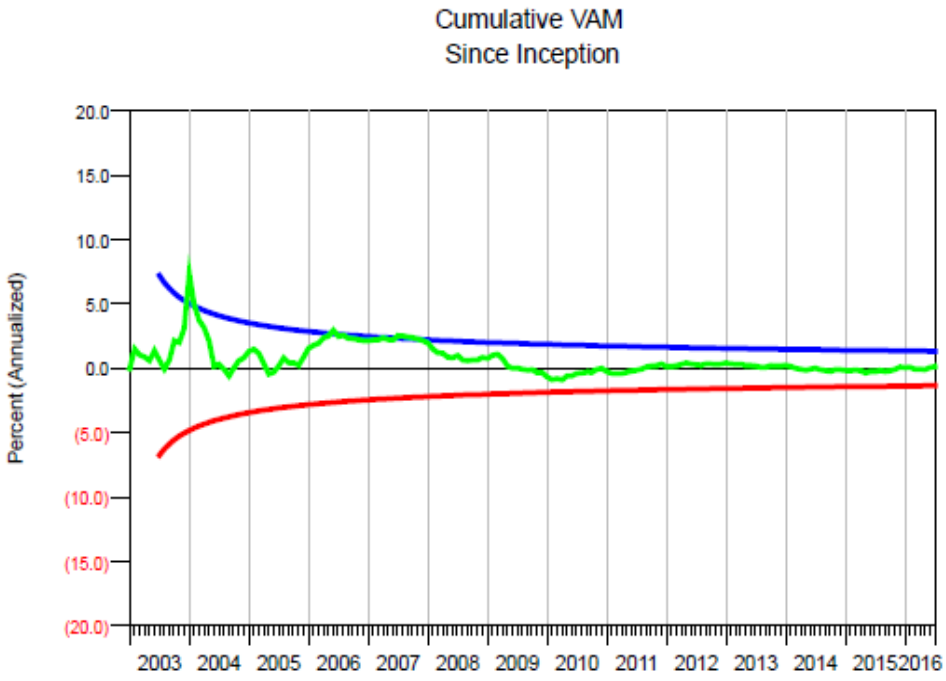
(As of June 30, 2016)

	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
Martin Currie	3.72	-7.21	-1.51	-3.12	NA
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	NA
Difference	3.06	4.84	0.05	0.66	NA

	2015	2014	2013	2012	2011
Martin Currie	-12.64	-6.62	-4.06	21.57	-15.28
MSCI Emerging Markets	-14.92	-2.19	-2.60	18.22	-18.42
Difference	2.28	-4.43	-1.46	3.35	3.14

VAM Chart:

Martin Currie versus MSCI Emerging Markets
(as of June 30, 2016)



This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: Neuberger Berman

Name of Product: Emerging Markets Equity

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product: 1

Number of analysts on this product: 4

Investment Philosophy

Neuberger Berman seeks to maximize performance by constructing its portfolios with high quality, growing companies trading at attractive valuations, which have the potential to outperform the MSCI Emerging Markets Index at low risk. It is their belief that emerging markets are less efficient than developed ones, and because of this inefficiency, or lack of market transparency, mispricing opportunities should be available for the team to capitalize on.

The team seeks to add value through bottom-up selection focused on companies that are profitable, have minimal debt and that it believes are attractively valued. Their investment universe included companies with principal businesses in the emerging markets. This includes investing in index names, but names outside the index as well. The team may invest in countries outside of the index (up to 20%), but that is limited to frontier markets (investable markets that typically have lower capitalization and liquidity than the more developed emerging markets) and developed markets companies whose assets are domiciled and/or revenues are derived in emerging markets.

The team focuses on price-to-cash-flow and discounted cash-flow as its primary valuation tools, as the team believes that these enable the team to estimate value in an objective and consistent fashion.

A key element of the strategy is the team's bottom-up identification of new opportunities that are driven by the secular growth found in emerging markets. The team's universe includes all markets that it believes offer adequate economic freedom and stock market capitalization. These include the markets of Asia, the Indian subcontinent, Africa, Eastern Europe, and South America.

The team invests in what it believes are the best investment opportunities available in the emerging markets with capitalizations above $200 million. The strategy tends to overweight small and mid-cap stocks and underweight large cap securities relative to the benchmark.

The strategy seeks long-term growth of capital that strives to provide outperformance versus the target benchmark over a market cycle.

Investment Process

The initial step of the team's process applies an investability screen to the stock universe of more than 12,000 securities. The team seeks to narrow this universe of companies by eliminating stocks with inadequate market capitalization (less than $200 million), insufficient liquidity (less than $2 million daily liquidity), extreme valuations, or excessively leveraged balance sheets. Of the remaining 900+ investable companies, the team screens for financial attributes that it believes are indicators of future share price outperformance.

The next step is to identify which of these 400+ companies are likely to be able to continue their track record of growth and profitability. The bulk of the team's strategic analysis happens during this stage of its investment process and is driven primarily by proprietary research and qualitative screens.

During the due diligence process, the team visits prospective companies in order to meet with employees at different levels of the organization. Onsite visits are also followed up with frequent conference calls and these meetings, formal and informal, are made in an attempt to understand not just the company, but the competitive environment in which it is operating. In addition, the team meets regulators, government officials, and independent consultants. The team also attends numerous conferences to meet with customers, suppliers, and competitors in a less formal setting. These meetings, it should be noted, are intended to provide the team with a holistic view of a company which allows it to evaluate, during its entire investment process, the growth prospects of the company and whether or not returns are sustainable in the future.

The research phase reduces the number of companies to approximately 200 names, which are subjected to detailed financial analysis. The team uses proprietary models to evaluate a company's financial statements, along with preparing a discounted cash-flow analysis, building peer group comparisons, and evaluating various valuation statistics (Price/Earnings, Price/Cash-Flow, Price/Sales, Price/Book, Enterprise Value/Cash-Flow, Private Market Value, etc.).

The team invests in what it believes are the best investment opportunities available in the emerging markets with capitalizations above $200 million. The strategy tends to be overweight small and mid-cap stocks and underweight large cap securities relative to the benchmark.

Based on the team's conviction and risk tolerance, individual names will be held to a maximum position of 5% at time of purchase with a typical initial position size of 0.5-2%.

Portfolios primarily invest in three emerging markets regions: Asia, Latin America, and Euro-Middle East-Africa. The team can invest up to 20% in countries outside of the index, which includes frontier markets as well as developed market-listed companies whose assets and/or revenues are principally in emerging markets.

Portfolio Team

Conrad A. Saldanha, CFA, Managing Director, joined the firm in 2008. Conrad is a Senior Portfolio Manager for the Global Equity team and is responsible for Emerging Market equities. Prior to joining the firm, he held several positions at GE Asset Management, Inc., most recently, vice president and co-portfolio manager on the Global Emerging Markets product, as well as the portfolio manager for the Indian Equity strategy. Previous positions include vice president and portfolio manager for International and European equities, analyst for International, European and Emerging equities. Conrad began his career at GE Capital's Financial Management Program. He earned a BCom from St. Xavier's College, Calcutta, an MBA from Virginia Polytechnic Institute and has also been awarded the Chartered Financial Analyst designation.

Marco A. Spinar, CFA, Senior Vice President, joined the firm in 2009. Marco is an Associate Portfolio Manager on the Global Equity team and is focused on the Latin America and EMEA regions within the Emerging Markets Equity team. Prior to joining the firm, he was an analyst for a developing markets fund at Oppenheimer funds. Marco also worked as a director of business operations at iPublish.com, an online book publishing division of Time Warner Book Group. He began his career in 1997 as a financial services consultant at Mercer Management Consulting. He received a BA in Economics from the University of Michigan and an MA in Economics from Stanford University. Marco has been awarded the Chartered Financial Analyst designation.

Patrick Ru, CFA, Senior Vice President, joined the firm in 2011. Patrick is an Associate Portfolio Manager on the Global Equity team, supporting the Emerging Market equity strategies. Prior to joining the firm, he was a vice president for International Equity Sales with Goldman Sachs primarily focused on the Pan-Asian markets. Before that he was an associate for Asia Equity Sales with Lehman Brothers. Patrick began his career with Cisco Systems, where he was a senior IT analyst. He received an MBA from the University of Virginia's Darden School of Business and a BA in Economics and Urban Studies and Planning from the University of California San Diego. Patrick has been awarded the Chartered Financial Analyst designation and is fluent in Mandarin Chinese.

Yev Ruzhitsky, CFA, Senior Vice President, joined the firm in 2014. Yev is a Senior Research Analyst on the Global Equity team, supporting the Emerging Market equity strategies. He was most recently at Equinox Partners L.P., where he spent over five years as a senior analyst responsible for identifying undervalued, high quality businesses for that firm's global equity hedge fund with particular focus on emerging markets. Prior to that, he worked for five years as an analyst at Ramius LLC, a multi-strategy hedge fund. He also has held several analyst/associate positions at buy-side firms and started his finance career as a corporate finance analyst in Bear Stearns' Technology and Aerospace Defense Group. Yev began his professional career in 1999 as a consultant at Arthur Andersen, LLP. He received a BSE in Computer Engineering from the University of Michigan and has also been awarded the Chartered Financial Analyst designation.

Sophie Chiu, Associate, joined the firm in 2016. Sophie is a Regional Analyst on the Global Equity team, supporting the Emerging Market Equity strategies. Prior to her joining, Sophie worked as a sell-side research analyst at Credit Suisse, and previously JPMorgan covering Chinese and Taiwanese equities. She started her career as a research analyst at Autonomous Research. She holds a MS in Finance with distinction from Warwick Business School, UK, and a BA in Finance from National Taiwan University. She is fluent in Mandarin Chinese.

Risk Management

The team believes that risk management starts with a focus on absolute risk at the stock level, which is determined by analyzing the business and its cash-flows to attempt to identify cash generating business with less leverage that could sustain earnings growth going forward.

Additionally, the team assesses the liquidity of a stock prior to purchase, as well as during the holding period, across all portfolios and at a firm level. For example, the investment team runs monthly tests on a stock's liquidity. Assuming that the team's trading would represent no more than one third of the average daily trading volume of the stock, it attempts to determine if a particular security can be sold or disposed of over seven business days and in the ordinary course of business.

In an attempt to manage risk at a portfolio level, the team also conducts BARRA analysis to assess the total active risk of its portfolios and targets tracking error that is in the range of 4% and 7%.

The team assesses risk across three main dimensions: geographic, sector, and market capitalization:

- Geographic: portfolios primarily invest in international regions (Asia, Latin America, and EMEA). The team limits its exposure to country weights to no more than +/- 10 percent relative to the index. They seek to diversify investments across the various emerging markets. The team's maximum allocation to countries outside the current index is 20%, as indicated previously.
- Sector: portfolio investments represent ten index industry sectors. The team limits its exposure to sector weights to no more than +/- 10 percent relative to the index.
- Market Capitalization: The team invests in the best investment opportunities available in the emerging markets with capitalizations above $200 million. The strategy tends to overweight small- and mid-cap stocks and underweight large cap securities relative to the benchmark.

The strategy tends to be classified as a Growth at a Reasonable Price (GARP). There are no explicit constraints on factor risk, but the team wants the idiosyncratic risk to be the largest explicit risk in the portfolio. The BARRA analysis is monitored to seek to ensure this is implemented consistently over time.

Target statistics are based on the strategy's historical track record, current investment philosophy and processes, as well as the portfolio management team's subjective strategy and market outlook.

Ownership

Neuberger Berman is a private, independent, employee-owned investment manager with approximately 450 current employee owners as of June 30, 2016.

The firm had $246 billion in assets under management as of June 30, 2016.

Data as of June 30, 2016

Firm's total assets under management:	$246, 216 million
Total assets under management in this product:	$4,596 million
Institutional assets under management in this product:	$3,013 million
Number of separate accounts in this product:	16
Number of stocks in portfolio:	101
Weighted average market cap (million):	$26,008
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$5,417
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	0.93
Historical Tracking Error (five years):	3.86%

Turnover (calendar years):

2015: 42.5%
2014: 36.7%
2013: 35.9%
2012: 47.8%
2011: 75.9%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	16	$1,408
2012	17	$2,617
2013	19	$4,122
2014	20	$5,003
2015	20	$4,217

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Non US Pension	$1,165 million
Public/Government	$316 million
Non US Pension	$241 million
Public/Government	$233 million
Public/Government	$222 million

Returns:

(As of June 30, 2016)

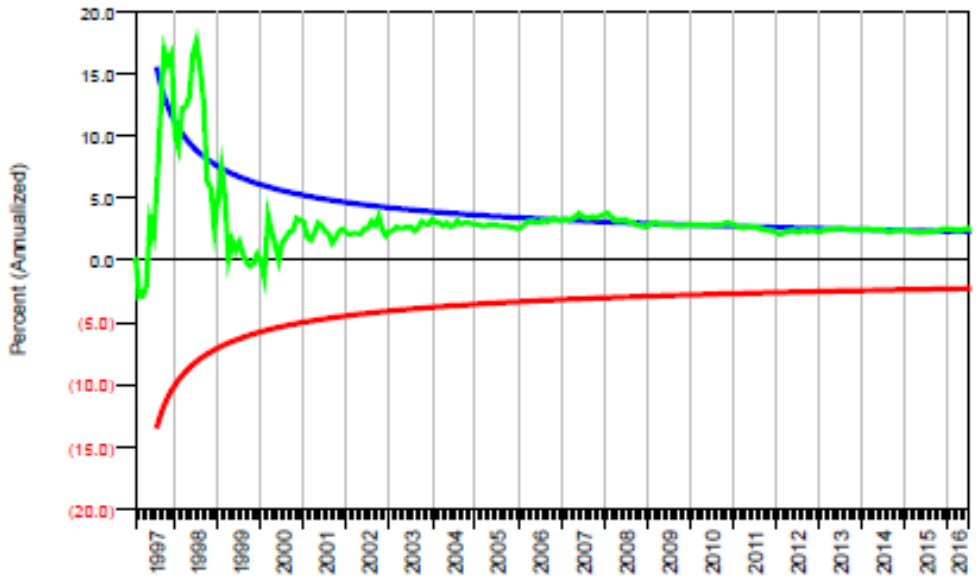
	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
Neuberger Berman	3.53	-5.66	0.69	-1.68	5.75
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	3.79
Difference	2.87	6.39	2.25	2.10	1.96

	2015	2014	2013	2012	2011
Neuberger Berman	-10.44	-1.42	3.23	21.51	-23.77
MSCI Emerging Markets	-14.92	-2.19	-2.60	18.22	-18.42
Difference	4.48	0.77	5.83	3.29	-5.35

VAM Chart:

Neuberger Berman versus MSCI Emerging Markets
(as of June 30, 2016)

Cumulative VAM
Since Inception



This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: Pzena Investment Management, LLC

Name of Product: Emerging Markets Focused Value

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product[1]: 4

Number of analysts on this product[2]**:** 19

Investment Philosophy

Pzena's investment philosophy can be defined as classic value. They seek to buy good businesses at low prices, focusing exclusively on companies that are underperforming their historic earnings power. This value philosophy is predicated on the belief that most investors do not want to invest in businesses that are experiencing problems or are out-of-favor. That is, a lack of near-term earnings visibility leads investors to significantly undervalue companies that are experiencing some form of distress.

They believe that waiting for the catalyst to emerge before making the investment can result in missing the initial stock price appreciation, which can be rapid and steep. Therefore, they seek to capture this initial stock price appreciation as they believe that the return garnered from this initial rise compensates for their longer holding period.

They seek to buy very good businesses at very low prices. They apply fundamental research to these companies in an effort to determine whether the problems that caused the earnings shortfall are temporary or permanent. They include companies in the portfolio only when all three of the following criteria are met: 1) problems are temporary; 2) management has a viable strategy to generate earnings recovery; and 3) there is meaningful downside protection in case the earnings recovery does not materialize.

They rely heavily on valuation – specifically, the price-to-normal earnings ratio. They look to buy companies that are trading at low price-to-normal earnings, where current earnings are below historic norms. As such, they typically invest in businesses that are currently performing below the long-term trend, where management has a plan to generate an earnings recovery. Thus, the

[1] Shared with other products

[2] Shared with other products

future growth prospects of their investments tend to rely more on a return to long-term trends than on fundamental organic industry growth.

They believe that the price-to-normal earnings ratio is a better gauge of valuation for the long-term investor than other valuation methods (e.g. price-to-current earnings, price-to-book, etc.). Many of these other valuation metrics have limitations that could cause investors to overlook attractive investment opportunities.

Investment Process

Their investment process starts with a universe ranking using their proprietary "StockAnalyzer", a modeling system to forecast stocks' normalized earnings. Next, research will focus on the most undervalued 20% (top quintile) of the universe. Portfolio managers assign the cheapest stocks to research analysts who have two weeks to complete an initial review of the company, seeking to answer three questions:

- What went wrong to cause the earnings and stock price decline?
- What needs to go right to generate a recovery?
- What data must they gather to be able to make an informed decision about the stock?

At this stage, approximately 70% of names are eliminated. The research analysts complete a full research project on the remaining 30% of the companies. Many of their analysts have experience working in industry, management consulting and private equity, which has given them experience and training that is directly applicable to their research approach.

Once they have built a model, the analyst and one of the portfolio managers will meet with company management. They take this step at the end of their research process to ensure that they are fully able to engage in an informed dialogue with the management.

Following the company visit, they meet with an external analyst who is bearish on the stock. Their goal is to understand whether they have missed something structural or whether they are making a timing call. The most common insight they receive at this stage is that while their thesis may be correct, there is no near-term visibility to earnings improvement. In those cases, they tend to be encouraged by the market's short-term orientation. If they determine they may have missed a structural issue, they re-visit their research.

As a final step, they incorporate all of the inputs they have gathered through the research process into their models and develop a fully-researched estimate of normalized earnings. At this stage, normalized earnings are the earnings they expect the company to generate five years forward.

Once it has been determined that a stock will be incorporated within the portfolio. They adhere to strict guidelines to control for risk. They maintain the following risk parameters to ensure that no one position or sector can cause significant risk to the portfolio:

- No one position shall be greater than 4% at the time of purchase
- No one position shall be greater than 6% at market
- No one economic sector shall be greater than (a) 20% of the total portfolio or (b) 150% of the sector's weight in the MSCI Emerging Market Index
- No one country shall exceed the greater of (a) 20% of the total portfolio or (b) 150% of the country's weight in the MSCI Emerging Market or MSCI Frontier Market index

They do not hedge currency in their portfolios. Currency exposure is a by-product of stock selection. The valuation at the individual stock level incorporates the currency exposure when country risk discount rates are applied in the analysis of a potential opportunity. However, they do consider the impact of currency moves on the range of outcomes of normalized earnings, which in turn, impacts position sizing.

Portfolio Team

John P. Goetz
Managing Principal, Co-Chief Investment Officer, Portfolio Manager, and member of the firm's Executive Committee
Mr. Goetz serves as co-portfolio manager for the U.S. large cap strategies and all non-U.S. strategies. He was also the director of Research and was responsible for building and training the research team. Prior to joining Pzena Investment Management, Mr. Goetz held a range of key positions at Amoco Corporation, his last as the Global Business Manager for Amoco's $1 billion polypropylene business where he had bottom-line responsibility for operations and development worldwide. Prior positions included strategic planning, joint venture investments, and project financing in various oil and chemical businesses. Before joining Amoco, Mr. Goetz had been employed by The Northern Trust Company and Bank of America. He earned a B.A. summa cum laude in Mathematics and Economics from Wheaton College and an M.B.A from the Kellogg School at Northwestern University.

Caroline Cai, CFA
Principal and Portfolio Manager
Ms. Cai is a co-portfolio manager for the international (ex-U.S.) and global strategies, European Focused Value strategy, and Emerging Markets Focused Value strategy. Prior to joining Pzena Investment Management, Ms. Cai was a senior analyst at AllianceBernstein LLP, and a business analyst at McKinsey & Company. She earned a B.A. summa cum laude in Math and Economics from Bryn Mawr College. Ms. Cai holds the Chartered Financial Analyst designation.

Allison Fisch
Principal and Portfolio Manager
Ms. Fisch is a co-portfolio manager for the emerging markets and international (ex-U.S.) strategies. Prior to joining Pzena Investment Management, Ms. Fisch was a business analyst at

McKinsey & Company. She earned a B.A. summa cum laude in Psychology and a minor in Drama from Dartmouth College. At Dartmouth, Ms. Fisch was a member of the Phi Beta Kappa and Psi Chi national honor societies.

Rakesh Bordia
Principal and Portfolio Manager
Mr. Bordia is a co-portfolio manager for Emerging Markets Focused Value strategy. Prior to joining Pzena Investment Management, Mr. Bordia was a principal at Booz Allen Hamilton focusing on innovation and growth strategies, and a software engineer at River Run Software Group. He earned a Bachelor of Technology in Computer Science and Engineering from the Indian Institute of Technology, Kanpur, India and an M.B.A. from the Indian Institute of Management, Ahmedabad, India.

Risk Management

They define risk as the possibility of losing money at the end of a three-to-five year holding period when they sell a position. Through their Stock Analyzer, Factset and Barra systems they review individual stocks and aggregate portfolio level risk factors. Reports are run by portfolio management administrators and monitored by portfolio managers. However, the most important risk control is research.

Lead by the research analyst, they make a judgment regarding the nature of a company's under-valuation. For example, companies and by extension, industries, receive higher weightings when they can reasonably judge the range of potential business outcomes to be a narrow one. On the other hand they are likely to give little or no weight to situations where a stock is clearly cheap, but the underlying resolution of the cheapness is unlikely to be estimated through intense research. Outstanding legal judgments against a company or industry, or estimating demand for new products or services are examples of such "non-researchable" circumstances.

Volatility is another input to their investment research process. Given the enormous market dislocations of the 2007/08 period, many market participants have contemplated ways to reduce volatility in their portfolios. They completed a study to explore the impact of volatility in a deep value portfolio and have observed that moderate volatility is good for the value investor, and that performance can be improved, and volatility reduced, when the extremes of volatility are taken into account as a research input.

Their embed risk controls at multiple stages in the investment process: from research to portfolio construction to trading. Additionally, risk management is implemented at the portfolio management level by the co-portfolio managers, Rakesh Bordia, Caroline Cai, Allison Fisch, John Goetz, and the Portfolio Implementation team. At regularly held portfolio review meetings, all portfolio managers and those involved in the administration of client portfolios review the current investment strategy, and current holdings in each portfolio. Issues such as turnover, security weighting and sector weighting are all reviewed to be sure that they are following both firm and client guidelines. Model changes, priority buys, sells and trims are set at these meetings.

Since they do not attempt to track a benchmark, they do not believe that traditional short-term measures of risk are appropriate (i.e.: one-year standard deviation, tracking error).

Ownership

As of June 30, 2016, Pzena Investment Management, LLC had 39 employees with an equity interest, representing approximately 59.0% of the Firm. The remaining shares are held by other members, including former employees, who hold approximately 16.6% interest, and approximately 24.4% of the Firm is publicly owned through their holding company, Pzena Investment Management, Inc.

Data as of June 30, 2016

Firm's total assets under management:	$25,430 million
Total assets under management in this product:	$1,801 million
Institutional assets under management in this product:	$1,383 million
Number of separate accounts in this product:	11
Number of stocks in portfolio:	59
Weighted average market cap (million):	$22,850 million
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$4,978 million
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	0.99
Historical Tracking Error (five years):	5.24%

Turnover (calendar years):

2015: 35.4%
2014: 26.3%
2013: 26.5%
2012: 22.9%
2011: 60.2%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	3	$193 million
2012	2	$267 million
2013	10	$851 million
2014	17	$1,112 million
2015	18	$1,619 million

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Public	$580 million
Corporate	$184 million
Corporate	$179 million
Corporate	$136 million
Corporate	$121 million

Returns:

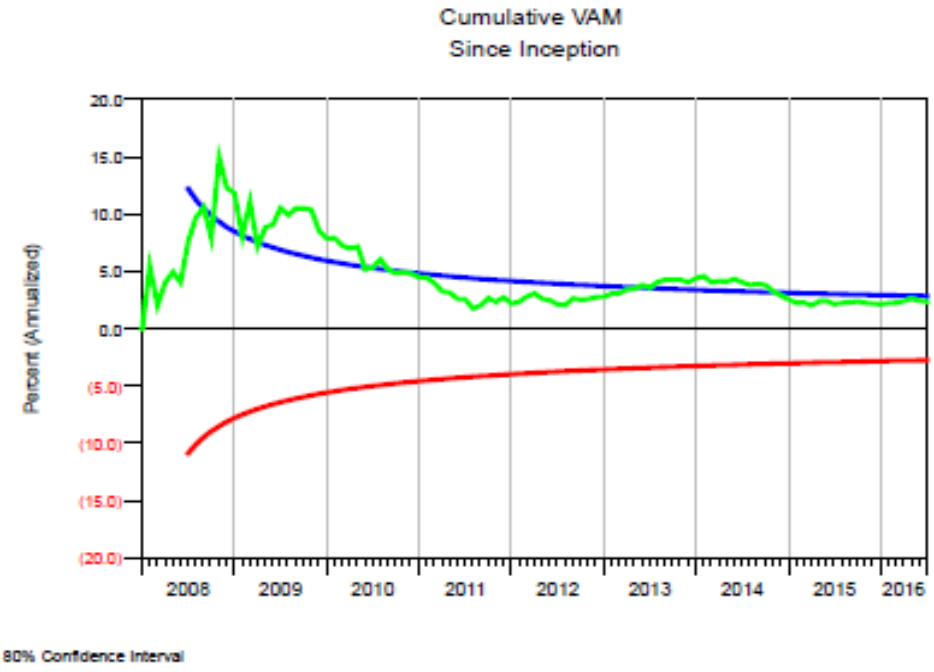
(As of June 30, 2016)

	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
Pzena	0.79	-8.59	-1.48	-1.67	4.50
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	3.79
Difference	0.13	3.46	0.08	2.11	0.71

	2015	2014	2013	2012	2011
Pzena	-15.64	-9.87	10.03	24.34	-21.94
MSCI Emerging Markets	-14.92	-2.19	-2.60	18.22	-18.42
Difference	-0.72	-7.68	12.63	6.12	-3.52

VAM Chart:

Pzena versus MSCI Emerging Markets
(as of June 30, 2016)



This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

SUMMARY INFORMATION

Firm Name: The Rock Creek Emerging Markets Group ("Rock Creek")

Name of Product: Emerging Markets Equity

Investment Style: Emerging Markets Equity

Number of portfolio managers on this product: 3

Number of analysts on this product: 2

Investment Philosophy

The investment team has a long history of investing in emerging markets, including time at the World Bank. Rock Creek has invested in emerging markets since its inception as part of its portfolios. Rock Creek's standalone Emerging Markets equity strategy was launched in August 2009 with the objective of consistently outperforming the MSCI Emerging Markets Index.

The investment team interacts with well-established investors, policy makers, economists, and strategists to refine their macroeconomic view on countries, sectors, and investment themes. They monitor flows into individual emerging markets from both foreign and local investors to measure the investor sentiment in these countries. These market insights and data points are an important part of the process because it allows them to make specific calls on country, sector, and market capitalization exposures. They will express their views via a combination of portfolio allocations to individual securities, ETFs, customized baskets of stocks, and index futures.

The emerging markets portfolios utilize an actively managed all-cap approach in which their top-down views drive country and sector selection and their locally based company research drives security selection. Their focus on the drivers of growth and opportunity in local emerging markets has tended to skew their portfolios to a structural overweighting in the small and mid-cap space. They find that smaller companies that are not benchmark constituents are often overlooked by sell-side analysts and typical global emerging markets investors. As such, they are an attractive source of potential alpha.

The Rock Creek Emerging Markets Team believes that having access to locally based investment teams is a critical component to their future success. Emerging markets are expanding rapidly as local entrepreneurs launch new businesses and well-established family and state-owned enterprises expand their public equity ownership. Equally, domestic markets are increasingly opening to

foreign investors (e.g., China's domestic A-Share market). They firmly believe that navigating these emerging opportunities and discovering businesses with promising long-term growth prospects is greatly enhanced when it is led by experienced institutional investors with long histories in the local markets.

Investment Process

Rock Creek's Emerging Markets portfolios utilize an actively managed all-cap approach in which their top-down views drive country and sector selection and locally based investment teams provide on-the-ground stock picking talent that drives security selection. They keep the top-down/bottom-up decision-making processes separate from one another as they believe that individual security decisions should be influenced by local factors while their top-down views are derived from broader country and global macro views. The Rock Creek investment team adjusts the bottom-up derived portfolio to reflect top-down views on country exposures and betas.

Each investment decision that they implement is the outcome of thorough bottom-up research conducted by experienced locally based investment teams. These teams are comprised of experienced local investors who have long experience in their respective markets. They speak the local language, they know the reputations and practices of the management teams who run the businesses they follow, and they understand the nuances underlying the specific risks and opportunities embedded in each prospective investment. Rock Creek ensures that the local teams employ the highest standards of professionalism and objectivity in conducting bottom-up research.

The outcome of this investment process is expressed in a series of unique local-market portfolios that have a decided skew to smaller and mid-cap companies whose growth prospects are linked to specific local and regional economic factors.

The formulation and implementation of the top-down decision-making takes place at Rock Creek's headquarters in Washington D.C. The investment team interacts with well-established investors, policy makers, economists and strategists to refine the macroeconomic views on countries, sectors and investment themes. They monitor flows into individual emerging markets from both foreign and local investors to measure the investor sentiment in these countries. These market insights and data points are an important part of the investment process, allowing them to make specific top-down calls on country, sector and market capitalization exposures. They express these views via a combination of portfolio allocations to individual countries/sectors/market caps, ETFs, customized baskets of stocks and index futures. The result of this bottom-up and top-down process is a global emerging markets portfolio which combines the highest conviction stock ideas with the highest conviction top-down views.

With respect to their locally based investment teams, their company, industry and market research is conducted by dedicated and experienced portfolio managers and analysts. All Rock Creek's local investment teams are subject to an exhaustive due diligence process that is conducted by their Investment, Legal, Compliance, Risk and Operations Teams. Understanding the research, idea-generation and portfolio management processes of each local team is critical and is a key part of investment due diligence. Each local team works in close collaboration with Rock Creek and conducts its research efforts in line with specific guidelines set by Rock Creek.

Although their CIO and the Investment Committee have ultimate decision making authority, individual portfolio managers and their teams are expected to drive the investment process.

Portfolio Team

Afsaneh Beschloss, Founder and CEO: Ms. Beschloss has over 33 years of industry experience, including serving as Treasurer and Chief Investment Officer of The World Bank. She launched the Rock Creek Group in 2002.

Kenneth Lay, Senior Managing Director: Mr. Lay joined the Rock Creek Group in 2011. He has over 34 years of industry experience and previously served as Treasurer of the World Bank, where he managed over $100 billion in investments, including in local emerging markets. Mr. Lay also served as a country director in Latin America and Southeastern Europe.

Sudhir Krishnamurthi, Senior Managing Director: Dr. Krishnamurthi has been with the Rock Creek Group since its launch in 2002. He has over 25 years of industry experience, including as Director of the World Bank's Investment Management Department. He was also Finance Director for a top 100 Indian engineering conglomerate.

Alberto Fassinotti, Managing Director: Mr. Fassinotti is a portfolio manager focusing on Latin America. He has 15 years of industry experience, including working for Darby Overseas Investments, an emerging markets private equity firm. He also worked at J.P. Morgan covering EM strategies and for Goldman Sachs.

Ronald van der Wouden, Managing Director: Mr. van der Wouden was previously Co-Head of Risk Management in the World Bank Treasury. In that position, he was responsible for risk management across different businesses within the Treasury (the global fixed income portfolios, the alternative investment portfolio, and fixed income relative value).

Risk Management

When constructing portfolios, they place considerable emphasis on quantitative analytics, as well as on qualitative judgments, with the goal of identifying the most attractive trade-offs between risk and return.

From a quantitative standpoint, they employ a broad range of quantitative tools to analyze an investment's contribution to the portfolio. For example, the team conducts security and portfolio stress tests and scenario analysis as well as cluster analysis to evaluate how individual securities and portfolios of securities may perform in different environments. The focus is on selecting complementary investment ideas that are not highly correlated to one another. Their quantitative team has developed tools and measures, such as advanced correlation calculations, positions overlap analysis and exposure concentration analysis, to identify investment ideas that are

complementary to one another and can add value to a portfolio through unique investment strategies, styles and positions. Specifically, they regularly monitor the following parameters:

- Portfolio beta
- Country, sector and market cap deviations versus the benchmark
- Asset managers' and overall portfolio volatility and Value at Risk
- Asset managers' and overall portfolio alpha, tracking error and information ratio
- Asset managers' and overall portfolio expected shortfall and drawdown risk
- Risk and performance attribution reports for individual asset managers and overall portfolios

Cash, in the context of risk management, is actively used when they intend to achieve an overall beta reduction.

Their typical emerging markets equity portfolios have a tracking error limit of 10%, although they usually manage portfolios to a lower risk level. The tracking error level of the portfolio depends both on the dispersion in performance across emerging market countries and the dispersion in performance across securities and sectors within a country. They increase or decrease the tracking error of the portfolio according to the opportunity set presented by the markets. They consider the portfolio's overall tracking error relative to its index as well as the local team's tracking error relative to the appropriate index assigned to the sub-portfolio.

Ownership

Rock Creek is 35% employee owned and 65% owned by the Affiliated Managers Division (AMD) of Wells Fargo Investment Group, Inc. AMD has a zero voting interest. Rock Creek maintains an independent management committee, culture and investment process.

Data as of June 30, 2016

Firm's total assets under management:	$11,600 million
Total assets under management in this product:	$2,750 million
Institutional assets under management in this product:	$2,700 million
Number of separate accounts in this product:	8
Number of stocks in portfolio:	842
Weighted average market cap (million):	$19,222
MSCI Emerging Markets weighted average market cap:	$25,668
Weighted median market cap (million):	$4,506
MSCI Emerging Markets median market cap:	$8,578

Historical Beta (five years):	0.93
Historical Tracking Error (five years):	4.13%

Turnover (calendar years):

2015: 68.5%
2014: 85.6%
2013: 71.6%
2012: 76.6%
2011: 74.3%

Number of accounts and AUM (calendar years):

	Number of accounts	**AUM (Millions)**
2011	2	$1,121
2012	4	$1,619
2013	5	$2,314
2014	6	$2,388
2015	8	$2,450

Largest Accounts:

Below are the firm's five largest tax-exempt institutional separate accounts for the emerging markets product under consideration.

Type	*Amount*
Public Fund 1	$1,090 million
Public Fund 2	$465 million
Public Fund 3	$435 million
Corporate Pension Fund 1	$220 million
Sovereign Wealth Fund 1	$220 million

Returns:

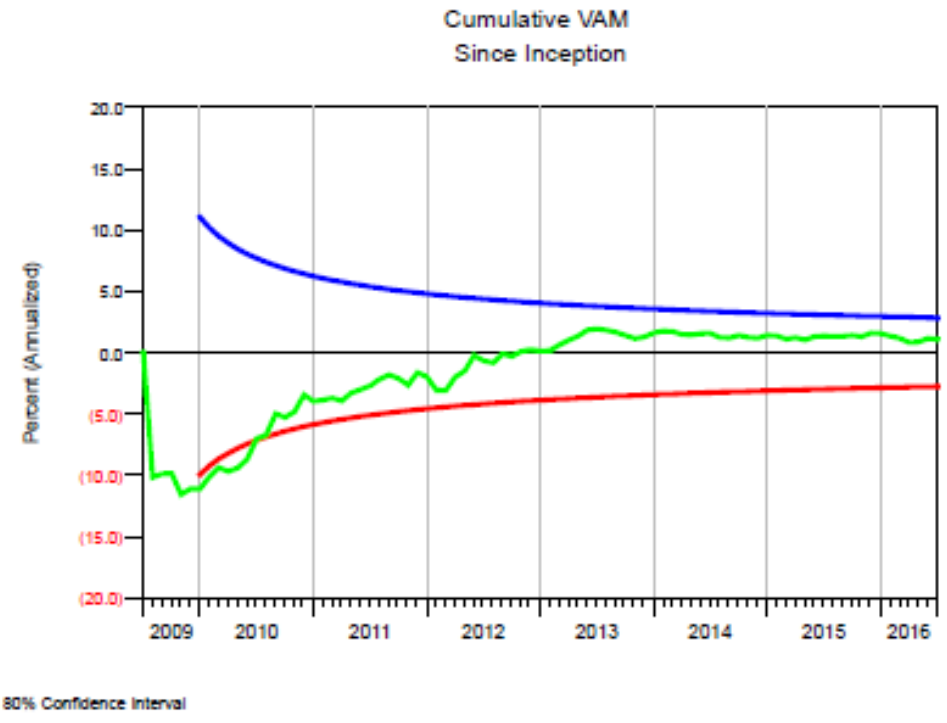
(As of June 30, 2016)

	Last Quarter	Last Year	Last Three Years	Last Five Years	Last Seven Years
Rock Creek	2.72	-12.53	-1.61	-1.24	NA
MSCI Emerging Markets	0.66	-12.05	-1.56	-3.78	NA
Difference	2.06	-0.48	-0.05	2.54	NA

	2015	2014	2013	2012	2011
Rock Creek	-12.97	-1.72	4.22	24.80	-17.52
MSCI Emerging Markets	-14.60	-1.82	-2.27	18.63	-18.17
Difference	1.63	0.10	6.49	6.17	0.65

VAM Chart:

Rock Creek versus MSCI Emerging Markets
(as of June 30, 2016)



Report from the
SBI Investment Consultant Review Committee

This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

Board Members:

Governor
Mark Dayton

State Auditor
Rebecca Otto

Secretary of State
Steve Simon

Attorney General
Lori Swanson

Executive Director & Chief Investment Officer:

Mansco Perry

60 Empire Drive
Suite 355
St. Paul, MN 55103
(651) 296-3328
FAX (651) 296-9572
E-mail:
minn.sbi@state.mn.us
www.sbi.state.mn.us

An Equal Opportunity Employer

DATE: November 29, 2016

TO: Members, State Board of Investment

FROM: SBI Investment Consultant Review Committee

SUBJECT: Investment Consultant Review Committee Recommendation

The SBI retains consultants to provide independent advice to Board members and technical assistance to SBI staff on a variety of issues related to management of the assets under the SBI's control. Consultants are selected through a periodic Request for Proposal (RFP) process with review and recommendation by a Consultant Review Committee.

The SBI's investment consulting contracts with Callan Associates Inc. and Pension Consulting Alliance expire on June 30, 2017. In accordance with SBI policy, Staff prepared and released the Investment Consultant RFP related to the SBI's investment consulting needs. Notice of the RFP was published in the State Register on August 15, 2016. Responses were received in the SBI office by September 9, 2016.

The SBI received responses from the following seven consulting firms:

Aon Hewitt Investment Consulting, Inc.
Callan Associates Inc. (*current General Consultant*)
Hamilton Lane (*Private Equity only*)
Meketa Investment Group
NEPC: New England Pension Consulting, LLC
PCA: Pension Consulting Alliance (*current Special Projects Consultant*)
Verus Advisory, Inc.

The SBI Consultant Review Committee was formed and was responsible for reviewing the responses, interviewing appropriate candidates, and making a recommendation to the Board as to which consultant(s) should be retained.

The Committee consists of the following members:

Kim Holmes	Governor's Representative
Ramona Advani	State Auditor's Representative
Bert Black	Secretary of State's Representative
Christie Eller	Attorney General's Representative
Dave Bergstrom	Executive Director, MSRS and IAC Representative
Laurie Hacking	Executive Director, TRA and IAC Representative
Susanna Gibbons	IAC Representative
Gary Martin	IAC Representative
Mansco Perry	SBI Executive Director

Review Process
Staff developed the RFP and criteria for evaluating responses. The range of tasks included in the RFP was very broad and consultants were encouraged to respond to any area of the RFP in which they have special expertise. The RFP stated that more than one consultant may be required to fulfill all the proposed duties. A copy of the RFP is included as Attachment 1 and a summary of the interview candidate RFP responses is included as Attachment 2.

After reviewing the services that the SBI requires from an investment management consultant, the Committee determined that continuing to have the services of a general consultant and a consultant for special projects is desirable. Six of the seven respondents were invited to interview with the Committee on November 14 – 16 at the SBI office. Hamilton Lane, a private equity specialist, was not invited to interview. The Committee decided not to interview candidates for private equity services, at this time. The Committee concluded that the general consultant would provide a broad range of consulting and analytical services. The special projects consultant would address specific needs of particular concern to public retirement systems, as necessary.

Conclusions
After reviewing the strengths of each responder in relation to the above needs, the Committee recommends the following:

- **Aon Hewitt Investment Consulting, Inc.** (AHIC) should be retained as the SBI's general consultant. AHIC can provide general consulting on all asset classes and offer access to in-depth research and a range of sophisticated analytical tools that will assist the SBI in the on-going development and evaluation of its investment programs.

- **Pension Consulting Alliance** (PCA) should be retained as the SBI's special projects consultant. PCA's practice focuses primarily on governmental plans similar to the SBI and Minnesota's three statewide pension plans. Through the expertise of its managing directors and its supplementary network of consulting specialists, PCA is well positioned to respond to a variety of tasks as specific needs arise.

AON Hewitt Investment Consulting is a division of the AON Company. The firm is headquartered in Chicago, IL. AHIC was formerly known as Hewitt Ennis Knupp and the firm's origin dates back to 1981. AHIC's sole line of business is investment consulting. They are a full service investment consulting firm that services a diverse client base, including public retirement system sponsors, corporate pension funds, defined contribution plans, endowments and foundations. The firm serves 493 clients in the U.S., representing $1.8 trillion. AHIC consults to 43 public pension plan clients representing $1.3 trillion. Their organization consists of a team of 208 investment consultants and has dedicated teams which focus on investment manager research, asset allocation, fiduciary services and trust services.

The AON project team assigned to the SBI's account would be:

- Steve Cummings, Senior Partner and President (lead)
- Kristen Doyle, Partner (lead)
- Chris Tucek, Partner (lead)
- Suzanne Bernard, Partner (backup)
- Katie Comstock, Senior Consultant (support)

Pension Consulting Alliance was founded in 1988. The firm is headquartered in Portland, OR and has an office in New York City. PCA is an independent boutique pension consulting firm with 34 employees and contracts with specialized firms in several disciplines to provide technical research and databases. PCA focuses on consulting for large public plans. The firm has more than 30 clients, who utilize PCA for work as a general consultant, asset class specialists, and on a variety of special assignments. PCA advises to over $1.2 trillion in clients assets. PCA has worked with the SBI as both an international equity consultant and as a special projects consultant.

The PCA project team assigned to the SBI's account would be:

- Allan Emkin, Founder and Managing Director
- Neil Rue, Managing Director
- John Burns, Managing Director

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute contracts with Aon Hewitt Investment Consulting, Inc. for general consulting services and with Pension Consulting Alliance for special projects. The contracts should allow for adequate transitional time from the current consultants and cover a period of five years. The contract will also be subject to the standard termination provisions required by state statute.

This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

REQUEST FOR PROPOSAL FOR INVESTMENT CONSULTING SERVICES

Minnesota's Commitment to Diversity and Inclusion

The State of Minnesota is committed to diversity and inclusion in its public procurement process. The goal is to ensure that those providing goods and services to the State are representative of our Minnesota communities and include businesses owned by minorities, women, veterans, and those with substantial physical disabilities. Creating broader opportunities for historically under-represented groups provides for additional options and greater competition in the marketplace, creates stronger relationships and engagement within our communities, and fosters economic development and equality.

To further this commitment, the Department of Administration operates a program for Minnesota-based small businesses owned by minorities, women, veterans, and those with substantial physical disabilities. For additional information on this program, or to determine eligibility, please call 651-296-2600 or go to www.mmd.admin.state.mn.us/mn02001.htm.

This page intentionally left blank.

Minnesota State Board of Investment

Investment Consulting Services Overview

Project Overview

The Minnesota State Board of Investment (SBI) is charged with the investment of approximately $82.3 billion for the State of Minnesota and related constituents.

The selected consultant(s) will report to the Board and its individual members. In carrying out its responsibilities, the consultant(s) will work closely with individual Board members and their staffs, the SBI's Executive Director and SBI staff, and members of the SBI's Investment Advisory Council.

The SBI has established performance objectives for each of the funds under its control. A brief description of each fund and its performance objectives is included as **Exhibit A**. In its efforts to meet or exceed these objectives, the SBI has sought and will continue to seek consultants' advice and recommendations in the design, development and implementation of its investment programs.

The primary advisory responsibilities of the consultant(s) selected through this RFP shall include, but are not limited to, investment objectives and asset allocation, management structures, performance measurement and analytics, manager search and evaluation, risk management and analysis, and other operational needs.

The SBI has retained the services of consulting firms since 1982. Currently, the firm of Callan Associates, Inc., Chicago IL serves as the SBI's primary consultant. Pension Consulting Alliance, Portland, Oregon serves as the SBI's consultant for special projects.

The SBI is issuing this RFP to comply with State law which requires all consultant contracts be rebid every two years with a potential extension out to a maximum of five years. The SBI always is open to new and creative approaches and encourages consulting organizations to respond to this RFP.

The SBI has established a Consultant Review Committee to prepare and distribute a formal RFP to evaluate available consulting services. The Committee will review responses and will recommend one or more candidates to the SBI for approval. The SBI assumes that the process for evaluating and selecting a consultant or consultants will proceed expeditiously and anticipate it will be completed by March 2017.

GOAL

The SBI utilizes qualified consultants to provide independent, objective and creative input in the process of fulfilling its fiduciary responsibility and to maintain performance history for reporting and analysis.

The consultant(s) employed by the SBI through this RFP will be expected to offer analysis, advice and recommendations with respect to one or more of the following:

- Investment Policies
- Investment Strategy
- Investment Management Structures
- Assist in Manager Selection
- Private Markets
- Performance Evaluation
- Risk Management and Analysis
- Operations and Resources
- Special Projects
- On-Site Consultation and Assistance

Detailed requirements are set forth in the Consultant Tasks section on page 5 of this RFP.

CONSULTANT RELATIONSHIP

The selected Consultant(s) will report to the Board. However, the Consultant(s) will bear the responsibility for maintaining direct communication with members of the Board and their staffs, the SBI's Executive Director and other SBI staff and members of the SBI's Investment Advisory Council.

The SBI recognizes that more than one consulting firm may be required to fulfill the duties described in the Consultant Tasks section on page 5 of this RFP. The SBI's goal is to hire a consultant or consultants whose experience, whether broad-based or specialized, can best satisfy its needs.

Consultants are encouraged to respond to each of the duties cited in the Consultant Tasks section in which they have special expertise.

BACKGROUND REGARDING THE SBI

A. Legal Authorization

The SBI was created pursuant to Article XI, Section 8, of the Minnesota Constitution for the purpose of "administering and directing the investment of all state funds." Statutory provisions relating to fiduciary responsibility, portfolio composition, and the types of securities in which the SBI may legally invest are set forth in Minnesota Statutes Chapter 11A and 356A, copies of which are attached as **Exhibit B**.

B. Composition

By constitutional requirement, the SBI is composed of four (4) elected officials: Governor, State Auditor, Secretary of State, and State Attorney General.

The SBI has established a Consultant Review Committee to prepare and distribute a formal RFP to evaluate available consulting services.

C. Investments and Managers

Currently, the SBI invests in domestic and international equities, fixed income, real estate, private equity, venture capital, resource funds, mezzanine debt, and derivative securities.

The state's cash account and some non-retirement assets (one equity and two bond portfolios) are managed internally. The balance of the assets, approximately $69.3 billion, are managed externally by firms retained by the Board.

Numbers of Managers	Asset Class
19	Domestic Equity (14 active, 4 semi-passive and 1 passive)
10	Foreign Equity (6 active/semi-passive developed, 1 passive/semi-passive developed/emerging, 1 semi-passive developed, and 2 active emerging)
8	Fixed Income (5 active and 3 semi-passive)
7	Real Estate
53	Private Equity and Venture Capital
9	Resource
17	Yield Oriented
1	Stable Asset/GIC
5	Deferred Compensation Mutual Fund
1	Target Date Fund Family
1	529 College Savings Plan (TIAA)

In addition, the SBI utilizes a master custodian, currently State Street Bank to provide a variety of administrative and management functions.

D. Staffing and Support Services

The SBI has a staff of twenty-four (24) persons supervised by an Executive Director. The staff is responsible for the implementation of Board policies on an on-going basis. The Executive Director reports investment performance and makes policy recommendations to the SBI at quarterly and special meetings. As part of their on-going duties, the SBI staff maintains close contact with the Board members and their staffs, the State Legislature, the state-wide and local retirement systems whose assets are managed by the SBI, and the other organizations with interest in the operations and results of the Board.

The SBI also utilizes the services of its 17-member Investment Advisory Council (IAC) whose duties are set forth in Minnesota Statutes 11A.08. The IAC is composed of the State Commissioner of Management and Budget, the Executive Directors of the three statewide retirement systems, one governor designated retiree representative, two governor designated active employee representatives and ten persons knowledgeable in general investment matters.

The IAC's duties are to advise the SBI on general investment policy matters and perform other advisory tasks as the SBI requests. The IAC meets quarterly prior to the SBI's quarterly meeting.

The SBI has established an Administrative Committee to oversee the Executive Director's annual work plan and administrative budget. The Committee is comprised of each Board member (or his/her designee) as well as the chair and vice chair of the IAC and the Executive Directors of the three statewide retirement systems.

The Proxy Committee establishes guidelines for voting shares held by the SBI.

At times, the SBI may establish ad hoc committees to carry out specific tasks which it may assign.

Charts illustrating the SBI's functional organizational structure and decision-making process are included as **Exhibits C and D**.

E. Funds Invested by the SBI

The funds invested by the SBI are listed below, along with their June 30, 2015 market values.

	Market Value (Billions)
Combined Retirement Funds	$60.1
Supplemental Investment Fund	1.9
State Deferred Compensation Plan SIF Assets	5.8
Assigned Risk Plan	0.3
Permanent School Fund	1.2
Environmental Trust Fund	0.9
State Cash Accounts	10.2
Minnesota College Savings Plan	1.2
Miscellaneous Accounts	0.7
Total	$82.3

A brief description of each fund is included as **Exhibit A**.

Consultant Tasks

I. The SBI has established performance objectives for each of the funds under its control (See **Exhibit A**). In its efforts to meet or exceed these objectives, the SBI has sought and will continue to seek consultants' advice and recommendations in the design, development and implementation of its investment programs.

The following list of duties represents the consultant(s) primary areas of responsibility. The SBI expects the consultant(s) selected through this RFP to provide independent, prudent, objective and creative input to its decision making process.

Most of the duties outlined in this section have been addressed by the SBI in the past or are being addressed now. However, during the contract period the consultant(s) may be required to perform any or all of the following tasks:

A. Investment Policies:

1. Prepare a comprehensive review or analysis of the investment policies established for the Combined Funds and recommend changes, if appropriate. The review should address investment objectives, asset allocation and management structure. Performance benchmarks at each management level (total fund, asset class segment, individual manager) should be reviewed as well.

2. Conduct a similar review for other funds managed by the SBI, as requested.

B. Investment Strategy:

1. Provide technical assistance in analyzing the investment characteristics of available asset classes and alternative asset mixes for each fund managed by the SBI.

2. Assist in the consideration of asset classes not already included in SBI funds.

3. Advise in the development of guidelines and procedures for rebalancing the asset mix of each fund and for evaluating the effectiveness of such procedures.

4. Assist in developing or updating a comprehensive written investment policy statement for each fund managed by the SBI.

C. Investment Management Structures:

1. Assist in developing an appropriate investment management structure for each fund and asset class considering the role of passive versus active management, the range and mix of available management styles, as well as the number of managers hired.

2. Assist in developing criteria for evaluating the effectiveness of the current investment management structure for each fund and asset class.

3. Inform the SBI of new developments in investment management techniques within each asset class and each fund as a whole. Analyze how these new techniques might enhance the SBI's investment program and how they might best be implemented.

D. Manager Selection:

1. Assist in designing and implementing manager selection processes.

2. Assist in analyzing the SBI's needs for particular managers within each asset class.

3. Assist in establishing appropriate qualitative and quantitative requirements for reviewing potential candidates.

4. Assist in screening prospective managers and recommending finalists which meet stated requirements.

E. Private Markets:

1. Assist in the development of private market investment policies, investment objectives, investment guidelines, investment procedures and portfolio strategy.

2. Research private market trends and capital market trends.

3. Identify, analyze and report on new investment trends in the private market space.

4. Assist staff in reviewing investment proposals and transactions from potential and existing investment managers.

5. Assist staff in conducting manager due diligence on an as needed basis.

6. Assist with the negotiation of partnership terms and legal documents as needed.

7. Provide quarterly monitoring, performance review and written reporting of the private market portfolio and underlying private market funds.

F. Performance Evaluation:

1. Assist in developing a composite index for each fund to measure total fund performance relative to its established target asset mix.

2. Have the ability to calculate the performance at the total fund, asset class, and individual manager levels based on accounting data provided by the SBI’s custodial bank.

3. Analyze actual performance relative to the composite indices established for the Combined Funds on an on-going basis.

4. Assist in analyzing the performance of other SBI funds, as requested.

5. Where appropriate, provide performance attribution for each manager in each asset class utilized in the Combined Funds. Provide an analysis of the individual and aggregate risk positions of the above managers on a periodic basis.

6. Provide a performance database and analytical system that can be accessed by the SBI.

7. Assist in establishing appropriate performance benchmarks at the asset class and individual manager level in all asset classes.

8. Assist in evaluating manager performance and consistency relative to guidelines, standards, and desired characteristics.

9. Assist the SBI in continued implementation of performance-based fees. Currently, only active domestic equity managers utilize performance-based fees.

G. Risk Management and Analysis

1. Assist in developing and maintaining comprehensive risk measurement systems for each fund, asset class and individual manager under SBI management.

2. Analyze the risk exposure of each fund, asset class and individual manager under SBI management.

3. Assist the SBI to develop an agency wide risk analysis program that includes both investment and non-investment risk.

H. Operations and Resources:

1. Review the Executive Director's annual work plan and recommend modifications, where appropriate.

2. Comment on the adequacy of the operational resources available to carry out the plan (e.g. budget, staffing, analytical systems technology).

3. Recommend new technologies which may be available to enhance the productivity of the operation.

4. The investment consulting firm must be able to maintain a satisfactory electronic interface with SBI's custodian bank through an online connection at the firm's expense.

I. Special Requests:

1. Prepare comprehensive analyses of specific issues designated by the SBI. For example, these may include topics such as tobacco related investments, ESG (Environmental, Social, and Governance) related investments, custodial relationships or data processing needs.

2. Present such analyses to the SBI and IAC when requested.

J. On-Site Consultation and Assistance:

1. Attend all quarterly and special meetings of the SBI and the Investment Advisory Council (IAC).

   The consultant may be called upon to comment on specific items presented to the SBI for approval and to review trends in the economy and capital markets.

   Board meetings (subject to change) are scheduled for the first Wednesday of March, June, September, and December. The IAC meetings (subject to change) are scheduled for the third Tuesday of February, May, August, and November. A schedule of Board and IAC meetings for the following year is presented to the Board at its December meeting.

2. Be available to meet with each member of the SBI or their designee on a quarterly basis, or as requested, to discuss pertinent investment management issues.

3. Meet with SBI staff, as requested, to assure timely completion of the tasks set forth in this section.

II. The contract shall be for a period of five (5) years commencing on or about July 1, 2017. By Minnesota law, the contract may be canceled by the Minnesota State Board of Investment, the Commissioner of Administration of the State of Minnesota, or the contractor, at any time, with or without cause, upon thirty (30) days written notice to the other party.

III. Responders are encouraged to propose additional tasks or activities if they will substantially improve the results of the project. These items should be separated from the required items on the cost proposal.

IV. This RFP does not obligate the SBI to complete the project and the SBI reserves the right to cancel or postpone the solicitation if the SBI considers it to be in the best interest of the SBI.

V. Questions regarding information to be presented in response to the RFP or requesting clarification about this RFP may only be submitted via e-mail to LeaAnn Stagg at: minn.sbi@state.mn.us no later than Friday, August 19, 2016. For the subject line in the e-mail please use Consultant RFP 2016. SBI will consolidate all questions and its answers into a single Q&A document without divulging the source of the query. The Q&A document will be distributed via e-mail to all firms who received the RFP.

INFORMATION CONTACTS

The SBI's exclusive agents for purposes of responding to consultants' inquiries on RFP requirements are:

Mansco Perry
Executive Director and Chief Investment Officer

LeaAnn M. Stagg
Assistant Executive Director and Chief Operating Officer

Minnesota State Board of Investment
60 Empire Drive, Suite 355
St. Paul, MN 55103

minn.sbi@state.mn.us

Other Personnel are NOT authorized to discuss this request for proposal with responders, before the proposal submission deadline. Contact regarding this RFP with any personnel not listed above could result in disqualification. The SBI shall not be bound by and responders may not rely on information regarding RFP requirements obtained from non-authorized persons.

Proposal Content

The consultant's response to this RFP shall be organized in the following manner. **Please observe the page limits shown for each section.** Please note that consultants will be evaluated, in part, on their ability to communicate clearly and succinctly. **Brevity will be appreciated and considered in the evaluation of the RFP responses**.

Executive Summary
Page Limit: One

Section 1: Consulting Services Provided
Page Limit: No more than 30 (excluding manager due diligence reports and performance report samples)

Investment Policies and Asset Allocation

1. Describe the theory and methodology of the asset allocation models the firm employs. How often does your firm recommend a formal asset allocation review? Discuss your firms' views, capabilities and experience in the following concepts:

   a. Mean Variance Optimization

   b. Risk Factor Asset Allocation

c. Risk Parity

d. Plan Level Leverage

e. Liquidity Requirements

f. Risk Budgeting

2. Which asset classes does your firm currently incorporate directly into the asset allocation model? How do you incorporate alternative assets - including real estate, private equity credit, real assets, hedge funds, commodities, infrastructure and timber?

3. Discuss your firms' process for analyzing a client's investment portfolio structure. Describe the process for recommending modifications to the portfolio structure as warranted by changes in the long-term expectations of asset markets. Provide examples of such recommendations made to clients and the underlying reasons.

4. Discuss your firms' views on active vs. passive management and when it is appropriate to use each and how to determine the optimum mix. Discuss your firm's views on the following concepts:

   a. Portable Alpha Strategies

   b. Fundamental Indexing and Smart Beta type Strategies

   c. Low Volatility Strategies

5. Describe in detail the methods for determination of capital market assumptions.

   a. How are risk, return, correlation and constraint assumptions determined for the asset allocation model? Please discuss the assumptions for each asset class included.

   b. How often are the numbers updated?

   c. How far forward are projections?

   d. How do the assumptions differ from the market consensus? From the firm's competitors?

   e. Please analyze and discuss the accuracy of your historical, long-term capital market assumption for each asset class and at the total fund level.

   f. To what extent do you involve staff in discussing the economic climate and asset return assumptions that form the basis of your asset allocation model?

6. Discuss your firms' capabilities in performing scenario analysis. How are factors for scenario analysis determined? Provide an example.

7. What is your firms' approach to addressing Environmental, Social, and Governance issues for client investment programs? Does your firm provide climate risk and other forms of ESG analysis to clients?

8. Describe your approach to the development of an investment policy statement. Detail your process for the development of asset class structures, investment objective, and risk control policies (including derivative, securities lending etc.).

9. Describe your firm's capabilities and experience in illiquid investments such as real estate, private equity and opportunistic investments. List the factors you would consider in recommending these investments.

10. Describe your firm's capabilities and experience in the area of derivatives. List the factors you would consider in recommending derivative strategies.

11. Describe your firm's methodology for incorporating liabilities into an asset/liability study. What are your firm's capabilities for analyzing the liabilities of a large public pension plan? Does your firm have experience in customizing asset/liability studies for individual clients? How often does your firm recommend that a client should update their asset/liability study?

12. What systems does the firm have, if any, that are accessible to clients so they can evaluate the impact of different scenarios ("what if?") on their funded status?

13. Describe your firm's view of market timing and portfolio rebalancing.

14. Explain your firm's position/approach regarding internal and external investment management.

15. What trends, changes or key issues do you believe will impact public pension funds going forward?

Performance Measurement and Portfolio Analytics

1. Describe your process for evaluation benchmark selection for individual investment strategies. How are performance benchmarks for the total fund, asset classes and investment managers chosen and constructed? Please differentiate your approach for public and private markets.

2. Describe your access to private market database(s) for benchmarking.

3. Describe your firm's view of the most critical factors and methods of evaluating performance.

4. Do you calculate performance independently of the custodian? If so, do you reconcile your calculated performance to the custodians' reports? If yes, please describe.

5. Describe the methodology of your performance calculations. Describe the firm's ability to modify these conventions.

6. Do you have the capability of using rates of return calculated by the SBI's custodial bank in your performance evaluation reports?

7. What performance and portfolio analytic systems and reports (including attribution analysis) of your firm can be accessed on-line by the SBI staff?

8. Describe your firm's performance attribution process and provide sample reports with a breakdown of capabilities by total fund, asset class and investment manager level.

9. What portfolio analytics is your firm capable of providing at the total fund, asset class and investment manager level?

10. Describe your capabilities in the development of risk/return characteristics at the total fund, asset class and investment manager level.

11. Do you have the ability to customize reports? Are there charges for additional customization? In general, how long does it take to implement changes?

12. How soon at the end of a month are the reports generally available?

13. Please provide samples of return attribution performance reports.

14. As custodians are the primary source for the SBI's performance data, which custodians have you worked with?

Manager Search and Evaluations

1. Discuss the steps your firm would take to analyze SBI's current investment managers within the portfolio.

2. Describe your firm's philosophy with respect to manager evaluations.

3. Does your firm maintain a proprietary database of investment manager information?

4. Are investment managers charged direct or indirect fees to be included in the database? If so, describe the fees. If not, how are managers added/deleted from your database?

5. For firms that have a proprietary database, describe your methodology and criteria for classification of managers. Describe how your firm gathers, verifies, updates and maintains the data collected for managers in the database. How do you monitor consistency of style? How often are the managers reviewed?

6. Provide a copy of a recently completed investment manager's due diligence report for a fixed income, domestic equity, and international equity manager.

Private Markets

1. What services are included in a general retainer relationship (or other) related to alternative assets (i.e. real estate, infrastructure, timber, farmland, commodities, private equity, oil and gas, hedge funds, mezzanine funding etc.)?

2. Describe your capabilities to evaluate and monitor alternative asset classes. Describe the resources dedicated to this area including staff and their experience.

3. How does your firm approach asset allocation within a private equity or other private market portfolio?

4. Describe your firm's process for performing investment and operational due diligence on potential managers. Describe the process used to monitor existing manager relationships and client performance.

5. Does your firm advocate allocation of capital to first time funds?

6. Describe our firm's view regarding geographic allocations.

7. Describe your firm's view regarding both fund size and capital commitment size.

8. Provide two (2) due diligence reports within the alternative asset class, one of which should be for a private equity manager.

9. Provide the typical quarterly performance report, and portfolio review, that your firm currently provides to clients with large private equity or private market portfolios.

Risk Management

1. Describe your firms' definition of risk and strategies that have been recommended to mitigate risks. Explain your firms' views on currency hedging overlays and tail risk hedging strategies. List what measurements are used when evaluating risk at the total fund, asset class and investment manager level.

2. What is your firm's opinion on risk allocation and risk budgeting at the total fund, asset class and investment manager level?

SBI Portfolio (Combined Funds Pension Portfolio)

After reviewing the SBI's Combined Funds pension portfolio and other publicly available information, what changes, if any, would your firm recommend the Board and Staff consider to the SBI's strategic asset allocation and manager line-up?

Section 2: Organization and Personnel
Page Limit: No more than 10 (excluding audited financial statements and resumes)

1. Provide the date business commenced.

2. Provide details of the ownership structure including any parent, affiliated or subsidiary company, and any business partners or joint ventures.

3. Describe the services your firm provides. Specify and detail any and all lines of business in which your firm participates.

4. Provide an organizational chart of your firm and describe the relationship between each component and your consulting group. List the address of your corporate headquarters and indicate which office(s) will service the SBI.

5. How many employees does your firm have? Please break this number into specific functions, strategic areas and delineate which are support staff, analysts and investment professionals.

6. Provide a brief description of the firm's growth plan and capacity to undertake this consulting relationship. Discuss limits you have in the "client to consultant ratio."

7. Within the past three years have there been significant changes in your organization such as ownership, restructuring or personnel organization.

8. Describe the firm's financial position and sources of revenue. Include a copy of the firm's most recent audited financial statements.

9. Describe the key features of your firm's business continuation and disaster recovery plans.

10. Describe any litigation against the firm in the last three (3) years.

11. Has there been any SEC or other regulatory action against the firm or its principals/owners/officers?

12. Briefly describe the level of coverage for errors and omissions insurance and any fiduciary or professional liability insurance your firm carries. List the insurance carrier(s) supplying coverage.

13. What limitation on liability, if any, does your firm impose through your contract?

14. Provide a list of current clients, the size of the funds and inception date of the relationships.

15. Provide the number of consulting relationships gained and lost in each of the following periods:

    - January - December 2013
    - January - December 2014
    - January - December 2015
    - January - June 2016

16. Provide the number and title of professional personnel gained and lost in the same periods. Explain the circumstance for any departure by investment professionals.

17. Describe the firm's compensation and incentive program, and any other programs for hiring and retaining key personnel. How does the firm tie client performance and satisfaction to a consultant's compensation?

18. What is the average and maximum number of clients assigned per consultant? How many clients would the lead consultant to the SBI be assigned? Describe your firm's backup procedures in the event the key personnel in this assignment should leave the firm?

19. Provide a resume or biography of each professional staff person to be assigned to this consulting relationship, outlining their qualifications, previous experience in similar tasks or engagements with institutional investors and name the clients they currently service. State whether the individuals assigned to the work have responsibilities other than providing consulting services and, if so, specify those responsibilities.

20. Does your firm accept investment managers as clients? If so, for what products? Does your firm conduct or sponsor investment manager or client conferences? If so, please describe all such conferences in the past two years.

21. What percentage of your clients utilize money managers, investment funds, brokerage service, or other service providers from whom you receive fees?

22. Do you have any arrangements with broker dealers under which you or a related company will benefit if firms place trades for their clients with them?

23. Are there any other circumstance under which your firm, or any individual in your firm receives compensation, finder's fees, or any other benefit from investment managers or third parties? If so, describe in detail.

24. Please describe your policies and/ or procedures to address perceived or actual conflicts of interest when you provide advice to clients?

Section 3: Research
Page Limit: No more than 5 (excluding research reports provided)

1. Describe how internal research is structured and organized within your firm. Please describe how your research fits into the overall organizational structure of the firm.

2. Describe how any external resources and sources of information are used in the research process.

3. Describe your ability to provide customized computer based analytical tools.

4. Describe your firm's process for monitoring industry and market trends that impact investment funds.

5. Describe your firm's process for monitoring political, legislative and media environments that may impact a client's investment program.

6. Please provide some recent research reports that will provide an indication of the range and depth of your research.

7. Provide a list of research reports prepared by the consultant for use by its clients within the last three (3) years.

Section 4: Computer Capability
Page Limit: No more than 3

1. Describe the databases, software and hardware that will be used to support the delivery of investment consultant services.

2. Describe how the databases and software will be accessed by SBI staff. Specify the hardware necessary to accomplish such access.

3. Describe the plan to keep data processing systems, databases, software and hardware current and secure. Please reference how your organization determines the need to upgrade existing systems and when to introduce new applications.

4. Describe how your organization will maintain an electronic interface with the SBI's custodian bank through an online connection at the organization's expense.

Section 5: Miscellaneous
Page Limit: No more than 2

1. What are your firm's consulting specialties and strengths that differentiates your firm from your competitors? What are your firm's limitations?

2. Describe how your firm will manage its advisory role to the Board with its supportive role with Staff.

3. Please describe educational resources that are available to Board and Staff members.

4. Briefly describe how a new client would transition to your firm. What problems have you encountered in transitioning a new client to your firm from their previous consultant?

Section 6: References
Page Limit: No more than 1

1. Provide a list of at least five references for whom you provide full retainer investment consulting services. It is preferable that at least three of these references be current public pension fund clients that have accounts of similar size and complexity as those described in this RFP. The references shall include the name, title, organization, address, e-mail and phone number of the responder's primary contact at the client organization.

Section 7: Fee Proposal *(Provide one copy of the cost proposal in a separately sealed envelope clearly marked on the outside "Cost Proposal" along with the firm's name)*

Page Limit: No more than 1

- Proposed fees shall be stated for a time period of July 1, 2017 to June 30, 2022 in one of the following alternatives:

  (1) Total fee to be charged and a list of the services to be provided. Please provide quotes for any additional services not included in this fee.

  (2) Individual costs related to each service the consultant proposes to provide. (All proposed fees should be all inclusive. No additional charges such as travel will be accepted).

- A statement that the fee estimate is valid for a minimum of one hundred and eighty (180) days. This period may be extended by mutual agreement between a responder and the Consultant Review Committee.

Section 8 Submit the following forms:

A. Affidavit of Non Collusion

B. Certificate Regarding Lobbying (if proposal exceeds $100,000, including extension options)

C. Affirmative Action Certification (if proposal exceeds $100,000, including extension options)

D. Equal Pay Certificate Form (if proposals exceeds $500,000, including extension options)

E. Veterans Preference Form (if applicable)

F. Resident Vendor Form (if applicable)

Proposal Instructions

The responder shall submit twenty (20) bound copies of its RFP response to the SBI at the following address:

LeaAnn Stagg, CFA
Assistant Executive Director and Chief Operating Officer
Minnesota State Board of Investment
60 Empire Drive, Suite 355
St. Paul, MN 55103-3555

minn.sbi@state.mn.us

- All costs incurred in responding to this RFP will be borne by the responder.
- Fax or e-mail responses will not be considered.
- No proposal received after 3:00 P.M. Central Time on Friday, September 9, 2016 will be considered. (Early submissions are encouraged).
- One (1) copy of the response must be unbound and signed in ink by an authorized officer of the responding firm.
- Two copies on disk or CD. One readable by Microsoft Word and one PDF.
- Each copy of the proposer's response must be sealed in a mailing envelope or package with the responder's name and address clearly written on the outside. Please identify the unbound copy on the outside of its envelope as well.

- In addition to the proposal, provide one copy of the cost proposal in a separately sealed envelope clearly marked on the outside "Cost Proposal" along with the firm's name. For purposes of completing the Cost Proposal, the state does not make regular payments based upon the passage of time, it only pays for services performed or work delivered after it is accomplished.

Project Timetable

RFP Issued.	August 15, 2016
Consultants' proposals due.	September 9, 2016
NO PROPOSALS RECEIVED AFTER 3:00 P.M. CENTRAL TIME ON SEPTEMBER 9, 2016 WILL BE CONSIDERED.	
Proposals evaluated.	November 2016*
Finalist presentations at SBI offices.	November 2, 2016 – November 10, 2016*
Consultant selected by the SBI.	December 2016*
Contract completed and executed.	March 2017*

* Projected dates, subject to change.

Proposal Evaluation

All responses received by the deadline will be evaluated by representatives of the Minnesota State Board of Investment designated as the Consultant Review Committee. First, the RFP responses will be evaluated to ensure that the minimum requirements have been met. Proposals that fail to meet the minimum requirements will not advance to the next phase of the evaluation. For those proposal advancing to the next phase of the evaluation, the Committee will review the proposals submitted and score the work plan and cost proposals. The State reserves the right, based on the scores of the proposal, to create a short list of proposers receiving the highest scores and to interview or conduct presentations. All scores will be compiled and the Committee will then make a final recommendation to the SBI Board based upon the best value to the State. Final selection is subject to approval of the SBI Board and successful contractual negotiation and execution by the SBI Executive Director.

Pass/Fail - Minimum Requirements

The proposer must meet all of the following minimum qualifications to be given further consideration. Failure to satisfy each of the minimum qualifications will result in the immediate rejection of the proposal.

The following will be considered on a pass/fail basis:

1. The primary consultant assigned to the SBI account must have a minimum of five (5) years of experience providing consulting services to large institutional plan sponsors.

2. As of June 30, 2016 and for at least the three (3) most recent continuous years, the firm must have a verifiable operating history with at least three (3) institutional fund clients with at least $20 billion in assets.

3. Proposals must be received on or before the due date and time specified in this solicitation.

The Factors and Weightings on which the Proposals will be judged in are as follows:

1. The consultant's ability to precisely and clearly respond to the Proposal Content section of the RFP as it relates to the prescribed duties. (10%)

The approach, methodology and techniques should be appropriately specific, logical and organized. The consultant must demonstrate the capability to gather the necessary information, develop fully supportable conclusions, and communicate findings and recommendations clearly and succinctly. The consultant's ability to effectively communicate to audiences with varying levels of investment expertise will be evaluated.

2. The consultant's demonstrated knowledge and experience in investment consulting. (25%)

It is imperative that the consultant has been frequently and recently engaged in the field of investment consulting for large pension plan sponsors. In addition, knowledge and experience with respect to endowments, cash accounts, and insurance portfolios is desirable.

3. The quality of staff to be assigned to fulfill this contract and available support. (25%)

The consultant must assign to this contract, in terms of numbers and quality, sufficient staff with experience in the fields of financial and investment analysis, data processing and systems support, and general pension fund management. The consultant should explain to the best of its ability to what extent back-up professional personnel are available to substitute for loss of professional personnel identified as necessary in the proposal. ***Please note that if the candidate is selected for an interview or presentation, (i.e. finalist interviews), the primary consultant(s) must be a key presenter to the Consultant Review Committee.***

4. The quality of the data processing and analytical systems necessary to support the consulting services. (10%)

The consultant should demonstrate its ability to manage and maintain the computer software, hardware and databases referenced in its proposal. The consultant's commitment to upgrade existing systems and to introduce new applications which will enhance its ability to perform its duties also will be assessed.

5. The consultant's demonstrated ability to manage the assignment effectively and assure the successful delivery of the services provided. (20%)

The plan for performing and managing the contract, including the framework within which the project team will function relative to the State, will be evaluated. The consultant should demonstrate its ability to manage and control its duties, including specification of the reporting mechanisms and inter-relationships between the consultant, the SBI and its staff, and outside vendors of the SBI.

6. Cost Detail and Method of Payment (10%)

1. All costs relating to the proposal shall be explained in detail.

2. Payment shall be made on a pro rata quarterly basis billed in arrears.

3. The evaluation team reserves the right to reject unreasonable costs proposed by responders. Specifically, the evaluation team will not consider any proposed costs that are, at the sole discretion of the state, not rational or are not competitively priced. Such proposals will be regarded as non-responsive and receive no further consideration.

This page intentionally left blank.

EXHIBIT A

SUMMARY OF FUNDS MANAGED BY THE SBI

(Please also see the enclosed SBI Annual Report for Fiscal Year 2015. The report will give a history of the SBI and detailed facts pertaining to the current management structure.)

COMBINED FUNDS

The Combined Funds represent the assets of both active and retired public employees who participate in the defined benefit plans of the major statewide public employee retirement plans. All assets of the Combined Funds are managed externally using multiple managers.

Performance Objectives

The Board has established several long term investment objectives for the Combined Funds. Monitoring actual performance against these return objectives helps the Board to ensure that the Combined Funds meet their respective long-term funding objectives:

1. Provide Real Returns. Over a twenty year period, the Combined Funds are expected to exceed inflation by 3-5 percentage points.

2. Exceed Market Returns. Over a ten year period, the Combined Funds are expected to outperform a composite of market indices weighted in a manner that reflects the asset mix of the Combined Funds.

COMBINED RETIREMENT FUNDS ($60.1 billion)

The Combined Funds contain the pension assets of the currently working and retired participants in the major statewide public employee retirement plans:

Retirement System	**Plans**
Teachers Retirement	Teachers Retirement Plan
Public Employees Retirement	Public Employees Plan Police and Fire Plan Public Employees Correctional Plan
Minnesota State Retirement	State Employees Plan Highway Patrol Plan Judges Plan Correctional Employees Plan Legislative Retirement Plan

Combined Fund Long Term Policy Mix (as of 7/1/2016)

Asset Class		Allocation	Asset Class Target
Public Equities		**58%**	
Domestic Stocks	39%		Russell 3000
International Stocks	19%		MSCI ACWI Free ex-U.S.
Private Markets*		**20%**	
Private equity			Composite of SBI Funds
Real Estate			Composite of SBI Funds
Resources			Composite of SBI Funds
Fixed Income		**22%**	
Domestic Bonds	20%		Barclays Capital Aggregate
Cash Equivalents	2%		91Day T-Bills
Total		**100%**	

* Unallocated portion of Private Markets allocated are invested in Public Equities.

All assets of the Combined Funds are managed externally using multiple managers.

SUPPLEMENTAL INVESTMENT FUND ($1.9 billion)

The Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to various state and local public employee participant driven plans. The accounts have different investment emphases designed to meet a wide range of investor needs and objectives.

Account	Assets Mix	Objective
Balanced Fund	Balanced - Stocks and Bonds	Exceed Composite Index: 60% Russell 3000 35% Barclays Capital Aggregate 5% 91 Day T-Bills
US Stock Actively Managed Fund	All Stock - Active	Exceed Russell 3000
US Stock Index Fund	All Stock - Passive	Track Russell 3000
Broad International Stock Fund	All Stock - Active and Passive	Exceed MSCI ACWI Free ex-U.S.
Bond Fund	All Bonds - Active	Exceed Barclays Capital Aggregate
Money Market Fund	All Short Term Debt	Exceed 91 Day T-Bills
Stable Value Fund	Stable Value Investments	Exceed 3 year Constant Maturity Treasury +45 basis points
Volunteer Firefighter Account	Balanced - Stocks and Bonds	Exceed composite Index: 35% Russell 3000 15% MSCI ACWI Free ex U.S. 45% Barclays Capital Aggregate 5% 91Day T-Bills

Nearly all assets in the Fund are managed externally using the same firms retained for the Combined Funds.

STATE DEFERRED COMPENSATION PLAN ($5.8 billion)

The Deferred Compensation Plan provides public employees with a tax-sheltered retirement savings plan that is a supplement 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 a menu of 4 actively managed mutual funds and 5 passively managed mutual funds, a money market option, a fixed interest option and a set of target date funds. All provide 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.

PERMANENT SCHOOL FUND ($1.2 billion)

The Permanent School Fund is a trust established for the benefit of Minnesota public schools. Investment income is appropriated directly to school districts. The entire fund is managed internally.

Performance Objectives

The fund is invested in a balanced portfolio of common stocks and bonds. 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.

ENVIRONMENTAL TRUST FUND ($0.9 billion)

The Environmental Trust Fund is a trust established to provide a long-term, consistent and stable source of funding for activities that protect and enhance the environment. The entire fund is managed internally.

Performance Objectives

The fund is invested in a balanced portfolio of common stocks and bonds. 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.

ASSIGNED RISK PLAN ($0.3 billion)

The Minnesota Workers Compensation Assigned Risk Plan is the insurance company of last resort for companies unable to obtain insurance coverage from private issuers. The portfolio is managed externally by two managers with one focusing on the bond segment and the other managing the equity segment.

The plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide liquidity for the payment of on-going claims and operating expenses.

Performance Objectives

The Plan's assets are invested in a portfolio of bonds and common stocks. Its target asset mix and performance objective will fluctuate in response to changes in the Plan's liability stream. At present, the performance objective is to exceed a composite index weighted 20% in the S&P 500 and 80% against the Barclay's Capital Intermediate Government Index.

STATE CASH ACCOUNTS ($10.2 billion)

These accounts represent the cash balances in more than 400 separate accounts that flow through the Minnesota State Treasury. These accounts include the Trust Fund Pool (cash balances of internally managed retirement-related accounts and the Permanent School), the Treasurer's Cash Pool (cash balances of special or dedicated accounts of State agencies and the balance of the Invested Treasurer's Cash), bond proceeds, the debt reserve transfer, and small legally restricted cash accounts. All of these accounts are managed internally.

Performance Objectives

The majority of the assets of the cash accounts are invested in the Invested Treasurer's Cash Pool with the objectives, in order of priority, to preserve capital, meet the cash needs without the forced sale of securities at a loss and to provide a competitive rate of return.

The Invested Treasurer's Cash Pool is measured against the IMoneyNet, All Taxable Money Fund Report Average which appropriately reflects the maturity structure of the Pool.

MINNESOTA COLLEGE SAVINGS PLAN ACCOUNTS (1.2 billion)

The Minnesota College Savings Plan, established under the provisions of the Internal Revenue Code Section 529, is an education savings plan designed to help families set aside funds for future college costs. The SBI is responsible for the investments and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan. The SBI and OHE contract jointly with TIAA to provide administrative, market, communication, recordkeeping and investment management services.

The objective of the Plan is to be competitive in the market place by providing quality investment options with low fees to its participants. The Plan offers nine (9) Age Based Managed Allocation Options, three (3) Risk-Based Allocation Options and seven (7) Static Investment Options. The TIAA managed investment options are a combination of both active and passive.

This page intentionally left blank.

CHAPTER 11A
INVESTMENT OF STATE AND PENSION ASSETS

11A.01	STATEMENT OF PURPOSE.
11A.02	DEFINITIONS.
11A.03	STATE BOARD; MEMBERSHIP; ORGANIZATION.
11A.04	DUTIES AND POWERS; APPROPRIATION.
11A.07	EXECUTIVE DIRECTOR.
11A.075	DISCLOSURE OF EXPENSE REIMBURSEMENT.
11A.08	INVESTMENT ADVISORY COUNCIL.
11A.09	STANDARD OF CARE.
11A.10	DUTIES OF OTHER OFFICIALS.
11A.11	INVESTMENT AND EXPENSE APPROPRIATION.
11A.12	GAINS AND LOSSES; DISPOSITION.
11A.13	ASSETS AND DOCUMENTATION.
11A.14	MINNESOTA COMBINED INVESTMENT FUNDS.
11A.15	STATE BOND FUND.
11A.16	PERMANENT SCHOOL FUND.
11A.17	MINNESOTA SUPPLEMENTAL INVESTMENT FUND.
11A.20	INVESTMENT OF STATE TREASURY FUNDS NOT CURRENTLY NEEDED.
11A.21	INVESTMENT OF HIGHWAY FUNDS.
11A.23	INVESTMENT OF RETIREMENT FUNDS AND PLANS.
11A.235	ACCOUNT FOR INVESTMENT OF CERTAIN DULUTH FUNDS OR ASSETS.
11A.24	AUTHORIZED INVESTMENTS.
11A.241	INVESTMENT IN NORTHERN IRELAND.
11A.243	INVESTMENT IN SUDAN.
11A.244	INVESTMENT IN IRAN.
11A.25	ADDITIONAL INVESTMENT PROVISIONS.
11A.27	REPORT ON INVESTMENT CONSULTANT ACTIVITIES AND DELIVERABLES.

11A.01 STATEMENT OF PURPOSE.

The purpose of this chapter is to establish standards, in addition to the applicable standards of chapter 356A, to ensure that state and pension assets subject to this legislation will be responsibly invested to maximize the total rate of return without incurring undue risk.

History: *1980 c 607 art 14 s 1; 1989 c 319 art 8 s 2*

11A.02 DEFINITIONS.

Subdivision 1. **Applicability.** For the purposes of sections 11A.01 to 11A.25, the terms defined in this section shall have the meanings given them.

Subd. 2. **State board.** "State board" means the Minnesota State Board of Investment created by article XI, section 8 of the Constitution of the state of Minnesota for the purpose of administering and directing the investment of all state funds and pension funds.

Subd. 3. **Council.** "Council" means the Investment Advisory Council created by section 11A.08.

Subd. 4. **Fund.** "Fund" means any of the individual funds, including but not limited to the permanent school fund, general fund of the state, retirement funds and other funds and accounts for which the state board has responsibilities.

Subd. 5. **Director.** "Director" means the executive director of the state board.

Subd. 6. **Management.** "Management" means the performance or delegation of general management duties relating to any fund established pursuant to this chapter.

History: *1980 c 607 art 14 s 2*

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

11A.03 STATE BOARD; MEMBERSHIP; ORGANIZATION.

Pursuant to article XI, section 8, of the Constitution of the state of Minnesota, the state board shall be composed of the governor, state auditor, secretary of state, and attorney general. The governor shall serve as ex officio chair of the state board.

History: *1980 c 607 art 14 s 3; 1986 c 444; 1998 c 387 art 2 s 3*

11A.04 DUTIES AND POWERS; APPROPRIATION.

The state board shall:

(1) Act as trustees for each fund for which it invests or manages money in accordance with the standard of care set forth in section 11A.09 if state assets are involved and in accordance with chapter 356A if pension assets are involved.

(2) Formulate policies and procedures deemed necessary and appropriate to carry out its functions. Procedures adopted by the board must allow fund beneficiaries and members of the public to become informed of proposed board actions. Procedures and policies of the board are not subject to the Administrative Procedure Act.

(3) Employ an executive director as provided in section 11A.07.

(4) Employ investment advisors and consultants as it deems necessary.

(5) Prescribe policies concerning personal investments of all employees of the board to prevent conflicts of interest.

(6) Maintain a record of its proceedings.

(7) As it deems necessary, establish advisory committees subject to section 15.059 to assist the board in carrying out its duties.

(8) Not permit state funds to be used for the underwriting or direct purchase of municipal securities from the issuer or the issuer's agent.

(9) Direct the commissioner of management and budget to sell property other than money that has escheated to the state when the board determines that sale of the property is in the best interest of the state. Escheated property must be sold to the highest bidder in the manner and upon terms and conditions prescribed by the board.

(10) Undertake any other activities necessary to implement the duties and powers set forth in this section.

(11) Establish a formula or formulas to measure management performance and return on investment. Public pension funds in the state shall utilize the formula or formulas developed by the state board.

(12) Except as otherwise provided in article XI, section 8, of the Constitution of the state of Minnesota, employ, at its discretion, qualified private firms to invest and manage the assets of funds over which the state board has investment management responsibility. There is annually appropriated to the state board, from the assets of the funds for which the state board utilizes a private investment manager, sums sufficient to pay

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

the costs of employing private firms. Each year, by January 15, the board shall report to the governor and legislature on the cost and the investment performance of each investment manager employed by the board.

(13) Adopt an investment policy statement that includes investment objectives, asset allocation, and the investment management structure for the retirement fund assets under its control. The statement may be revised at the discretion of the state board. The state board shall seek the advice of the council regarding its investment policy statement. Adoption of the statement is not subject to chapter 14.

(14) Adopt a compensation plan setting the terms and conditions of employment for unclassified board employees who are not covered by a collective bargaining agreement.

(15) Contract, as necessary, with the board of trustees of the Minnesota State Universities and Colleges System for the provision of investment review and selection services under section 354B.25, subdivision 3, and arrange for the receipt of payment for those services.

There is annually appropriated to the state board, from the assets of the funds for which the state board provides investment services, sums sufficient to pay the costs of all necessary expenses for the administration of the board. These sums will be deposited in the State Board of Investment operating account, which must be established by the commissioner of management and budget.

History: *1980 c 607 art 14 s 4; 1982 c 587 s 1; 1986 c 444; 1987 c 372 art 8 s 1; 1989 c 319 art 8 s 3; 1993 c 244 art 2 s 1; 1998 c 254 art 1 s 2; 2003 c 112 art 2 s 50; 2005 c 55 s 1; 2006 c 277 art 4 s 2; 2009 c 101 art 2 s 109; 2010 c 359 art 8 s 1*

11A.041 [Repealed, 2009 c 169 art 1 s 77]

11A.07 EXECUTIVE DIRECTOR.

Subdivision 1. **Selection.** The state board shall select an executive director.

Subd. 2. **Qualifications.** The director of the state board shall be well qualified by training to administer and invest the money available for investment and possess experience in the management of institutional investment portfolios. The director shall be in the unclassified state service and serve at the pleasure of the state board.

Subd. 3. [Repealed, 1983 c 305 s 28]

Subd. 4. **Duties and powers.** The director, at the direction of the state board, shall:

(1) plan, direct, coordinate, and execute administrative and investment functions in conformity with the policies and directives of the state board and the requirements of this chapter and of chapter 356A;

(2) prepare and submit biennial and annual budgets to the board and with the approval of the board submit the budgets to the Department of Management and Budget;

(3) employ professional and clerical staff as necessary. Employees whose primary responsibility is to invest or manage money or employees who hold positions designated as unclassified under section 43A.08, subdivision 1a, are in the unclassified service of the state. Other employees are in the classified service. Unclassified employees who are not covered by a collective bargaining agreement are employed under the terms and conditions of the compensation plan approved under section 43A.18, subdivision 3b;

(4) report to the state board on all operations under the director's control and supervision;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(5) maintain accurate and complete records of securities transactions and official activities;

(6) establish a policy relating to the purchase and sale of securities on the basis of competitive offerings or bids. The policy is subject to board approval;

(7) cause securities acquired to be kept in the custody of the commissioner of management and budget or other depositories consistent with chapter 356A, as the state board deems appropriate;

(8) prepare and file with the director of the Legislative Reference Library, by December 31 of each year, a report summarizing the activities of the state board, the council, and the director during the preceding fiscal year. The report must be prepared so as to provide the legislature and the people of the state with a clear, comprehensive summary of the portfolio composition, the transactions, the total annual rate of return, and the yield to the state treasury and to each of the funds whose assets are invested by the state board, and the recipients of business placed or commissions allocated among the various commercial banks, investment bankers, money managers, and brokerage organizations and the amount of these commissions or other fees. The report must include an executive summary;

(9) include on the state board's Web site its annual report and an executive summary of its quarterly reports;

(10) require state officials from any department or agency to produce and provide access to any financial documents the state board deems necessary in the conduct of its investment activities;

(11) receive and expend legislative appropriations; and

(12) undertake any other activities necessary to implement the duties and powers set forth in this subdivision consistent with chapter 356A.

Subd. 5. **Apportionment of expenses.** The annual expenses incurred by the State Board of Investment will be apportioned among the state general fund, the retirement funds administered by the Minnesota State Retirement System, Public Employees Retirement Association, and Teachers Retirement Association, and all other funds as follows:

(1) on a biennial basis, the State Board of Investment, in accordance with biennial budget procedures established by the commissioner of management and budget, may request a direct appropriation that represents the portion of the State Board of Investment expenses necessary to provide investment services to the state general fund. This appropriation must be deposited in the State Board of Investment operating account;

(2) the executive director shall apportion the actual expenses incurred by the State Board of Investment, less the charge to the state general fund, among the funds whose assets are invested by the State Board of Investment, with the exception of the state general fund, based on the weighted average assets under management during the fiscal year. The amounts necessary to pay these charges are apportioned from the investment earnings of each fund. Receipts must be credited to the State Board of Investment operating account;

(3) the actual expenses apportioned and charged to the funds, with the exception of the state general fund and the retirement funds administered by the Minnesota State Retirement System, Public Employees Retirement Association, and Teachers Retirement Association, must be calculated, billed, and paid on a quarterly basis in accordance with procedures for interdepartmental payments established by the commissioner of management and budget; and

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(4) the annual estimated expenses to be incurred by the State Board of Investment that will be payable by the retirement funds administered by the Minnesota State Retirement System, Public Employees Retirement Association, and Teachers Retirement Association must be deposited in the State Board of Investment operating account on the first business day of each fiscal year. A reconciliation of the actual expenses compared to the estimated costs must occur at the end of each fiscal year with any surplus or deficit being credited or debited to each of the respective funds. The State Board of Investment must present a statement of accrued actual expenses to each fund at the end of each quarter during each fiscal year.

History: *1980 c 607 art 14 s 5; 1982 c 560 s 3; 1983 c 324 s 1; 1Sp1985 c 13 s 76; 1986 c 444; 1989 c 319 art 8 s 4; 1990 c 594 art 1 s 40; 2003 c 112 art 2 s 50; 2005 c 55 s 2; 2006 c 277 art 4 s 3,4; 2009 c 101 art 2 s 19,109; 2012 c 286 art 10 s 1*

11A.075 DISCLOSURE OF EXPENSE REIMBURSEMENT.

(a) A member or employee of the state board must annually disclose expenses paid for or reimbursed by: (1) each investment advisor, consultant, or outside money manager under contract to the state board; (2) each investment advisor, consultant, or outside money manager that has bid on a contract offered by the state board during that year; and (3) each business, including officers or employees of the business, in which the state board has invested money under the board's control during the annual reporting period. The disclosure requirement of this paragraph does not apply to expenses or reimbursements from an investment advisor, consultant, money manager or business if the board member or employee received less than $50 during the annual reporting period from that person or entity.

(b) For purposes of this section, expenses include payments or reimbursements for meals, entertainment, transportation, lodging, and seminars.

(c) The disclosure required by this section must be filed with the Campaign Finance and Public Disclosure Board by April 15 each year. Each disclosure report must cover the previous calendar year. The statement must be on a form provided by the Campaign Finance and Public Disclosure Board. An individual who fails to file the form required by this section or who files false information, is subject to penalties specified in sections 10A.09 and 10A.025, subdivision 2.

History: *1993 c 192 s 37; 1997 c 202 art 2 s 63; 1999 c 220 s 50*

11A.08 INVESTMENT ADVISORY COUNCIL.

Subdivision 1. **Membership.** There is created an Investment Advisory Council consisting of 17 members. Ten of these members must be experienced in general investment matters. The state board must appoint the ten members. The other seven members are: the commissioner of management and budget; the executive director of the Minnesota State Retirement System; the executive director of the Public Employees Retirement Association; the executive director of the Teachers Retirement Association; a retiree currently receiving benefits from a statewide retirement plan; and two public employees who are active members of funds whose assets are invested by the state board. The governor must appoint the retiree and the public employees for four-year terms.

Subd. 2. **Duties and powers.** The council shall:

(1) advise the state board and the director on general policy matters relating to investments;

(2) advise the state board and the director on methods to improve the rate of return on invested money while insuring adequate security for that money;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(3) advise the state board and the director on the form and content of the report required by section 11A.07, subdivision 4, clause (7), so that the report clearly and objectively discloses the investment activities of the state board and the director;

(4) perform other tasks of an advisory nature as requested by the state board.

Subd. 3. **Officers; meetings.** The council shall annually elect a chair and vice-chair from among its members, and may elect other officers as necessary. The council shall meet upon the call of the chair of the council or the chair of the state board.

Subd. 4. **Terms; compensation; removal; vacancies; expiration.** The membership terms, compensation, removal of members appointed by the state board, and filling of vacancies of members shall be as provided in section 15.059 except that council members shall not receive a per diem. The council is not subject to the expiration date provisions of section 15.059.

Subd. 5. **Liability; indemnification.** A member of the council shall be indemnified and held harmless by the state for any reasonable costs or expenses incurred as a result of any actual or threatened litigation or administrative proceedings arising out of the performance of the member's duties, except an action brought by the state or agency thereof arising from the failure of a council member to perform duties in the manner prescribed in section 11A.09.

Subd. 6. **Conflict of interest; economic interest statement.** No member of the council may participate in deliberations or vote on any matter before the council which will or is likely to result in direct, measurable economic gain to the member. Additionally, no member of the council appointed by the state board may participate in deliberations or vote on any matter before the council which will or is likely to result in direct, measurable economic gain to that member's employer. Members of the council shall file with the Campaign Finance and Public Disclosure Board an economic interest statement in a manner as prescribed by section 10A.09, subdivisions 5 and 6.

History: *1980 c 607 art 14 s 6; 1981 c 298 s 3; 3Sp1982 c 1 art 2 s 3; 1983 c 260 s 4; 1983 c 324 s 2; 1984 c 654 art 2 s 38; 1986 c 444; 1993 c 300 s 1; 2009 c 169 art 1 s 6,109*

11A.09 STANDARD OF CARE.

In the discharge of their respective duties, the members of the state board, director, board staff, and members of the council and any other person charged with the responsibility of investing money pursuant to the standards set forth in sections 11A.01 to 11A.25 shall act in good faith and shall exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom. In addition, for the investment of pension fund assets, the members and director of the state board and members of the Investment Advisory Council shall act in accordance with chapter 356A.

History: *1980 c 607 art 14 s 7; 1989 c 319 art 8 s 5*

11A.10 DUTIES OF OTHER OFFICIALS.

Subdivision 1. **Custody of securities.** The commissioner of management and budget and other custodians of securities belonging to the various funds shall provide in the appropriate cases the state board and its delegates with reasonable access thereto. Each security shall be held as an asset of the fund from which the investment expenditure was made.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 2. **Escheated property.** The commissioner of management and budget shall report immediately to the state board all personal property other than money received by the state of Minnesota as escheated property. If the state board elects to sell escheated property, all money received from the sale shall be credited to the general fund of the state.

Subd. 3. **Audits.** State audits of the activities of the state board and its delegates shall be conducted by the legislative auditor.

Subd. 4. **Office space.** The commissioner of administration shall provide the director and staff with suitable office and storage space in the State Capitol complex as near as practicable to the office of the commissioner of management and budget.

History: *1980 c 607 art 14 s 8; 2003 c 112 art 2 s 50; 2009 c 101 art 2 s 109*

11A.11 INVESTMENT AND EXPENSE APPROPRIATION.

There is appropriated to the state board annually, and from time to time, the various moneys as are available for investment in the various funds subject to their supervision and control, for the purposes of the purchase, sale, exchange and lending of securities, reinvestment activities, payment of the execution expenses of securities transactions, amortization of premiums or accumulation of discounts, and contribution and redemption of participation in the funds.

History: *1980 c 607 art 14 s 9*

11A.12 GAINS AND LOSSES; DISPOSITION.

All interest and profit accruing from and all losses incurred by investment activity shall be credited to or borne by the fund from which the investment was made.

History: *1980 c 607 art 14 s 10*

11A.13 ASSETS AND DOCUMENTATION.

Subdivision 1. **Legal title to fund assets.** Legal title to the assets of state funds to be invested by the state board must be in the state of Minnesota, or its nominees. Legal title to pension funds to be invested by the state board must be as specified in section 356A.06.

Subd. 2. **Rights of employees; validity of documentation.** The rights of any public employee to any assets in the retirement funds shall be as fixed by the law or laws authorizing or requiring a retirement fund to purchase or order the redemption of investment participations or units on behalf of the public employee. The state board may rely on the documents, forms and applications of the various retirement funds which accompany money for investment or orders to redeem assets as being made in concert with the applicable law and with the rights of the public employees concerned. Accordingly, the state board need not inquire into the legality or validity of any documents, forms and applications.

History: *1980 c 607 art 14 s 11; 1989 c 319 art 8 s 6*

11A.14 MINNESOTA COMBINED INVESTMENT FUNDS.

Subdivision 1. **Establishment.** The Minnesota combined investment funds are established for the purpose of providing investment vehicles for assets of the participating public retirement plans and non-retirement funds. The assets of participating nonretirement funds may not be commingled with the assets of participating public retirement plans. The combined funds shall consist of the following investment

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

accounts: cash management accounts, equity accounts, fixed income accounts, and any other accounts determined appropriate by the state board.

Subd. 2. **Assets.** The assets of the combined investment funds shall consist of the money certified to and received by the state board from participating retirement plans and nonretirement funds which shall be used to purchase investment shares in the appropriate investment accounts. Each participating plan or fund shall own an undivided participation in all the assets of the particular accounts of the combined funds in which it participates. As of any date, the total claim of a participating plan or fund on the assets in each account shall be equal to the ratio of units owned by a plan or fund in each account to the total issued units then outstanding.

Subd. 3. **Management.** The combined investment funds shall be managed by the state board.

Subd. 4. **Investments.** The assets of the combined investment funds shall be invested by the state board subject to the provisions of section 11A.24, except that any individual account may be completely invested in a single asset class or managed in a separate account by the state board at its discretion.

Subd. 5. **Participation in Minnesota combined investment funds.** Any public retirement plan or nonretirement fund authorized by law to have its assets managed by the state board may participate in the Minnesota combined investment funds.

Subd. 6. **Initial transfer of assets.** As of July 1, 1980, or a later date as determined by the state board, the participating funds shall transfer to the combined investment funds all appropriate securities then held together with cash necessary for the purchase of units in the combined fund accounts.

Subd. 7. **Initial valuation of assets and units.** All assets transferred to the Minnesota combined investment funds shall be valued at their current market value as determined by the state board, including accrued interest. The initial value of each account unit shall be $1,000 with each participating fund allocated units in the various accounts of the Minnesota combined investment funds in the same proportion as their assets are to the total assets in each account.

Subd. 8. **Realized appreciation or depreciation.** Any realized gains or losses in the value of investments incurred by a transferring fund pursuant to subdivision 7 shall be recognized on the date of the transfer.

Subd. 9. **Valuation of units.** (a) Valuation of units for the accounts in the Minnesota combined investment funds shall be performed as of the last business day of each month, or more frequently should the state board determine that additional valuation dates are necessary.

(b) The value of a unit for each account shall be determined by the following procedure:

(1) As of the close of business on the valuation date the state board shall determine the fair market value of each asset in each account, using the references, pricing services, consultants, or other methods as the state board deems appropriate.

(2) The sum total of the market value of all securities plus cash, less the value of undistributed income in each account, shall be divided by the number of units issued and outstanding for the account to determine the value per account unit.

Subd. 10. **Purchase and redemption of units.** Purchase and redemption of units shall be on the first business day following the valuation date. All transactions shall be at the unit value established on the

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

immediately preceding valuation date. Except for the initial purchase of units by an authorized participant, all purchases and redemptions shall be made in cash unless the state board determines that an exception is necessary.

Subd. 11. **Earnings defined.** Investment earnings shall be the sum total of the following of each account:

(1) Dividends receivable on securities trading ex-dividend to and including the valuation date.

(2) Cash dividends received to and including the valuation date that were not accounted for on a previous valuation date.

(3) Accrued interest to and including the valuation date.

(4) Interest received which had not been accrued and accounted for on a prior valuation date.

(5) Income from the sale of options, rights, warrants, or security lending.

(6) Other income received to and including the valuation date.

Subd. 12. **Distribution of earnings.** At least once each year the state board shall distribute to each participant net earnings determined proportionately in accordance with their average unit holdings in each account during the period. Unless otherwise directed by the participating fund, any distributions shall be used to purchase additional units in the accounts.

Subd. 13. **Records required.** The executive director of the state board shall keep accounting records. The records shall reflect the number of units in the Minnesota combined investment funds owned by each participating fund. No certificates or other evidence of ownership shall be required.

Subd. 14. **Reports required.** As of each valuation date, or as often as the state board determines, each participant shall be informed of the number of units owned and the current value of the units.

History: *1980 c 607 art 14 s 12; 1981 c 37 s 2; 1984 c 383 s 1; 1985 c 224 s 1; 1990 c 426 art 1 s 3; 1992 c 539 s 1; 1993 c 300 s 2-5; 2012 c 286 art 10 s 2*

11A.15 STATE BOND FUND.

Subdivision 1. **Establishment.** Pursuant to article XI, section 7, of the Constitution of the state of Minnesota, there is hereby established a state bond fund for the purpose of the timely payment of principal and interest on bonds for which the full faith and credit of the state has been pledged. The state bond fund shall be a continuation of the state bond fund in existence on January 1, 1980.

Subd. 2. **Assets.** Any money appropriated to the state bond fund, any income arising from the invested assets of the state bond fund which is not immediately required to pay the principal or interest on state bonds and any proceeds arising from the sale of any securities in the state bond fund shall constitute the assets of the state bond fund.

Subd. 3. **Management.** The state bond fund shall be managed by the commissioner of management and budget who shall, from time to time, certify to the state board those portions of the state bond fund which in the judgment of the commissioner of management and budget are not required for immediate use.

Subd. 4. **Investment.** The state board shall invest assets of the state bond fund subject to the provisions of section 11A.25.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 5. **Withdrawal of assets.** Securities sufficient to equal the amount of money certified by the commissioner of management and budget as necessary to pay the principal or interest due on state bonds in excess of any cash on hand shall be sold at the request of the commissioner of management and budget and the certified amount of money shall be transferred to the commissioner of management and budget.

Subd. 6. **Credit of income towards subsequent appropriations.** Notwithstanding provisions of section 11A.12, the net income of the state bond fund after the recovery of any losses from the sale of securities shall be deducted from the amount of any subsequent appropriations for the payment of principal and interest of state bonds.

History: *1980 c 607 art 14 s 13; 2003 c 112 art 2 s 50; 2009 c 101 art 2 s 109*

11A.16 PERMANENT SCHOOL FUND.

Subdivision 1. **Establishment.** Pursuant to article XI, section 8, of the Constitution of the state of Minnesota, there is hereby established a permanent school fund which shall be a continuation of the permanent school fund in existence on January 1, 1980.

Subd. 2. **Assets.** The permanent school fund shall consist of the proceeds derived from the school lands, the swamp lands and the internal improvement lands granted to the state and all cash and investments credited to the permanent school fund, to the swamp land fund and to the internal improvement land fund.

Subd. 3. **Management.** The permanent school fund shall be managed by the commissioner of management and budget.

Subd. 4. **Investment.** The permanent school fund shall be invested by the state board subject to the provisions of section 11A.24.

Subd. 5. **Calculation of income.** As of the end of each fiscal year, the state board shall calculate the investment income earned by the permanent school fund. The investment income earned by the fund shall equal the amount of interest on debt securities, dividends on equity securities, and interest earned on certified monthly earnings prior to the transfer to the Department of Education. Gains and losses arising from the sale of securities shall be apportioned as follows:

(a) If the sale of securities results in a net gain during a fiscal year, the gain shall be apportioned in equal installments over the next ten fiscal years to offset net losses in those years. If any portion of an installment is not needed to recover subsequent losses identified in paragraph (b) it shall be added to the principal of the fund.

(b) If the sale of securities results in a net loss during a fiscal year, the net loss shall be recovered first from the gains in paragraph (a) apportioned to that fiscal year. If these gains are insufficient, any remaining net loss shall be recovered from interest and dividend income in equal installments over the following ten fiscal years.

Subd. 6. **Disposition of income.** Notwithstanding provisions of section 11A.12, the income of the permanent school fund as calculated pursuant to subdivision 5, shall be credited to the permanent school fund, and transferred to the school endowment fund as needed for payments made pursuant to section 127A.32.

History: *1980 c 607 art 14 s 14; 1984 c 482 s 3; 1992 c 539 s 2; 1999 c 86 art 1 s 3; 2009 c 101 art 2 s 109; 1Sp2011 c 11 art 1 s 1*

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

11A.17 MINNESOTA SUPPLEMENTAL INVESTMENT FUND.

Subdivision 1. **Purpose; accounts; continuation.** (a) The purpose of the supplemental investment fund is to provide an investment vehicle for the assets of various public retirement plans and funds.

(b) The state board shall determine and make available investment accounts within the supplemental investment fund. These accounts shall include an appropriate array of diversified investment options for participants of the public retirement plans under subdivision 5.

(c) The assets of the supplemental investment fund must be invested by the state board in types of investments permitted under section 11A.24.

(d) The state board shall make available a volunteer firefighter account for the voluntary statewide lump-sum volunteer firefighter retirement plan under section 353G.02.

Subd. 2. **Assets.** (a) The assets of the supplemental investment fund consist of the money certified and transmitted to the state board from the participating public retirement plans and funds and from the voluntary statewide volunteer firefighter retirement plan under section 353G.08.

(b) With the exception of the assets of the voluntary statewide volunteer firefighter retirement fund, the assets must be used to purchase investment shares in the investment accounts as specified by the plan or fund. The assets of the voluntary statewide volunteer firefighter retirement fund must be invested in the volunteer firefighter account.

(c) These accounts must be valued at least on a monthly basis but may be valued more frequently as determined by the State Board of Investment.

Subd. 3. **Management.** The supplemental investment fund shall be managed by the state board.

Subd. 4. [Repealed, 2014 c 296 art 13 s 28]

Subd. 5. **Participating public retirement plans or funds.** Any public retirement plan or fund authorized or required by law to invest its assets in the supplemental investment fund may from time to time as provided by law certify moneys to the state board for the purchase of investment shares in the investment accounts of the supplemental investment account. The state board shall credit each purchase of investment shares to the appropriate participating public retirement plan or fund and shall confirm each purchase in writing to the appropriate plan or fund. Each participating public retirement plan or fund shall maintain adequate records to account for money certified to the supplemental investment fund.

Subd. 6. **Participation in fund.** Each public retirement plan or fund which has certified money to the state board for investment in the supplemental investment fund shall have a participation in each investment account of the fund in which it has money invested. The participation shall be determined by the ratio of the number of shares credited to the public retirement plan or fund to the total number of shares in that account.

Subd. 7. **Purchase of shares.** The state board shall allocate shares in the investment account or accounts at least monthly following the receipt of the funds for purchase of shares from the public retirement plan or fund as specified in the certification. The purchase price for shares shall be determined using the procedure specified in subdivision 9.

Subd. 8. **Redemption of shares.** The state board shall redeem shares in the investment account or accounts on the first business day after the valuation date next following the receipt of the request for

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

redemption of shares from the public retirement plan or fund. The redemption value for shares shall be determined using the procedure specified in subdivision 9. Money representing the value of the redeemed shares shall be transmitted to the public retirement plan or fund making the request.

Subd. 9. **Valuation of investment shares.** (a) The value of shares for each investment account, excluding a money market account, must be determined by dividing the total market value of the securities constituting the respective account by the total number of shares then outstanding in the investment account.

(b) The value of shares in a money market account must be $1 a share.

Subd. 10. **Certifications for investment and requests for redemption.** The state board may specify the required forms for certifications of money for investment and requests for redemption of investment shares and may require the filing of any other documents which it deems necessary.

Subd. 10a. [Repealed, 1998 c 390 art 2 s 21 para (a)]

Subd. 11. **Prospectus.** Annually, by July 2, the state board shall prepare and shall issue a prospectus for the supplemental investment fund with separate exhibits for each investment account. The exhibit for each account must include its investment objectives, asset allocation, and past investment performance. Upon request, the board shall provide a list of each security in the fund and show the following items, whichever are applicable:

(1) the purchase price of the security;

(2) the current market value of the security;

(3) the current dividend or interest rate of the security;

(4) the rating of a debt security issued by a nationally recognized rating agency if it is other than a security issued or guaranteed by the United States government.

The state board shall transmit sufficient copies of the prospectus to each public retirement plan or fund participating in the supplemental investment account to meet the plan or fund's distribution requirements. The prospectus must be filed with the director of the Legislative Reference Library as provided by section 3.195.

Subd. 12. [Repealed, 1988 c 453 s 12]

Subd. 13. [Repealed, 1988 c 453 s 12]

Subd. 14. [Repealed, 1998 c 390 art 2 s 21 para (a)]

History: *1980 c 607 art 14 s 15; 1981 c 208 s 1; 1981 c 224 s 14; 1983 c 324 s 3; 1985 c 224 s 2; 1986 c 356 s 1-5; 1988 c 453 s 1-5; 1992 c 539 s 3-7; 1994 c 604 art 1 s 1-5; 1998 c 390 art 2 s 2; 1Sp2003 c 12 art 2 s 1; 2009 c 32 s 5; 2009 c 169 art 9 s 1,2; 2014 c 296 art 13 s 1,2; 2015 c 68 art 8 s 1*

11A.18 [Repealed, 2009 c 169 art 1 s 77]

11A.181 [Repealed, 2009 c 169 art 1 s 77]

11A.19 Subdivision 1. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 2. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 3. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 4. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 5. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 6. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 7. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 8. [Repealed, 1990 c 426 art 1 s 1; 1990 c 570 art 12 s 64]

Subd. 9. [Repealed, 1990 c 426 art 1 s 2; 1990 c 570 art 12 s 64]

11A.20 INVESTMENT OF STATE TREASURY FUNDS NOT CURRENTLY NEEDED.

Subdivision 1. **Certification.** When there are funds in the state treasury over and above the amount that the commissioner of management and budget has determined are currently needed, the commissioner shall certify to the state board the amount thereof.

Subd. 2. **Investment.** The certified amount of state treasury funds not currently needed shall be invested by the state board subject to the provisions of section 11A.25.

Subd. 3. **Crediting of investment income.** Notwithstanding provisions of section 11A.12, all investment income and all investment losses attributable to the investment of state treasury funds, other than the game and fish fund, not currently needed shall be credited to the general fund.

History: *1980 c 607 art 14 s 18; 1981 c 356 s 254; 1Sp1985 c 13 s 77; 2009 c 101 art 2 s 109*

11A.21 INVESTMENT OF HIGHWAY FUNDS.

Subdivision 1. **Certification.** The commissioner of transportation shall certify to the state board those portions of the highway user tax distribution fund established pursuant to article XIV, section 5 of the Constitution of the state of Minnesota; the trunk highway fund established pursuant to article XIV, section 6 of the Constitution of the state of Minnesota; the county state-aid highway fund established pursuant to article XIV, section 7 of the Constitution of the state of Minnesota; and the municipal state-aid street fund established pursuant to article XIV, section 8 of the Constitution of the state of Minnesota, which in the judgment of the commissioner are not required for immediate use.

Subd. 2. **Investment.** The certified amount of highway funds not currently needed shall be invested by the state board subject to the provisions of section 11A.25.

History: *1980 c 607 art 14 s 19; 1993 c 266 s 14*

11A.22 [Repealed, 1989 c 335 art 4 s 109]

11A.23 INVESTMENT OF RETIREMENT FUNDS AND PLANS.

Subdivision 1. **Certification of assets not needed for immediate use.** Each executive director administering a retirement fund or plan enumerated in subdivision 4 shall, from time to time, certify to the state board for investment those portions of the assets of the retirement fund or plan which in the judgment of the executive director are not required for immediate use.

Subd. 2. **Investment.** Retirement fund assets certified to the state board under subdivision 1 must be invested by the state board subject to the provisions of section 11A.24. Retirement fund assets transferred

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

to the combined investment fund or the supplemental investment fund must be invested by the state board as part of those funds.

Subd. 3. **Withdrawal of assets.** When an executive director administering a retirement fund or plan enumerated in subdivision 4, certifies to the state board that invested assets of the fund or plan are required for immediate use, the state board shall sell securities to equal the amount of assets certified as required and shall order the transfer of the assets to the appropriate executive director.

Subd. 4. **Covered retirement funds and plans.** The provisions of this section apply to the following retirement funds and plans:

(1) Board of Trustees of the Minnesota State Colleges and Universities supplemental retirement plan established under chapter 354C;

(2) state employees retirement fund established pursuant to chapter 352;

(3) correctional employees retirement plan established pursuant to chapter 352;

(4) State Patrol retirement fund established pursuant to chapter 352B;

(5) unclassified employees retirement plan established pursuant to chapter 352D;

(6) general employees retirement fund established pursuant to chapter 353;

(7) public employees police and fire fund established pursuant to chapter 353;

(8) teachers' retirement fund established pursuant to chapter 354;

(9) judges' retirement fund established pursuant to chapter 490; and

(10) any other funds required by law to be invested by the board.

History: *1980 c 607 art 14 s 21; 1981 c 37 s 2; 1981 c 208 s 10; 1981 c 224 s 15; 1992 c 464 art 1 s 2; art 2 s 1; 1993 c 13 art 1 s 8; 1995 c 141 art 4 s 1; 1995 c 212 art 4 s 64; 2009 c 169 art 1 s 7,8; 2010 c 359 art 12 s 2*

11A.235 ACCOUNT FOR INVESTMENT OF CERTAIN DULUTH FUNDS OR ASSETS.

Subdivision 1. **Establishment.** The State Board of Investment, when requested by the city of Duluth, may invest the funds or assets of the city's community investment trust fund in a special account for that purpose in the combined investment funds established in section 11A.14, subject to the policies and procedures established by the State Board of Investment. Use of the funds in the account is restricted to debt service payments for the city's street improvement program or to any other use approved in accordance with Section 54(E) of the home rule charter of the city of Duluth.

Subd. 2. **Account maintenance and investment.** The city may deposit money in the account and may withdraw money from the account for purposes approved by the Duluth City Council in accordance with Section 54(E) of the home rule charter of the city of Duluth. Such transactions must be at a time and in a manner required by the executive director of the State Board of Investment. Investment earnings must be credited to the account of the city. The account may be terminated by the city at any time.

History: *2007 c 14 s 1*

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

11A.24 AUTHORIZED INVESTMENTS.

Subdivision 1. **Securities generally.** (a) Pursuant to an investment policy adopted by the state board, the state board is authorized to purchase, sell, lend, and exchange the securities specified in this section, for funds or accounts specifically made subject to this section. This authority includes puts and call options, future contracts, and swap contracts marked to market, if these options and contracts are traded on a contract market regulated by a governmental agency or by a financial institution regulated by a governmental agency. These securities may be owned directly or through shares in exchange-traded or mutual funds, or as units in commingled trusts, subject to any limitations as specified in this section.

(b) Any agreement to lend securities must be concurrently collateralized with cash or securities with a market value of not less than 100 percent of the market value of the loaned securities at the time of the agreement. Any agreement for put and call options and futures contracts may only be entered into with a fully offsetting amount of cash or securities. Only securities authorized by this section, excluding those under subdivision 6, paragraph (a), clauses (1) to (3), may be accepted as collateral or offsetting securities.

Subd. 2. **Government obligations.** The state board is authorized to invest funds in governmental bonds, notes, bills, mortgages, and other evidences of indebtedness if the issue is backed by the full faith and credit of the issuer or if the issue is rated among the top four quality rating categories by a nationally recognized rating agency. The obligations in which the board may invest under this subdivision are guaranteed or insured issues of:

(1) the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;

(2) the Dominion of Canada or any of its provinces, provided the principal and interest are payable in United States dollars;

(3) any of the states or any of their municipalities, political subdivisions, agencies, or instrumentalities; and

(4) any United States government sponsored organization of which the United States is a member, if the principal and interest are payable in United States dollars.

Subd. 3. **Corporate obligations.** (a) The state board is authorized to invest funds in bonds, notes, debentures, transportation equipment obligations, and any other longer term evidences of indebtedness issued or guaranteed by a corporation organized under the laws of the United States or any state of the United States, or the Dominion of Canada or any Canadian province if:

(1) the principal and interest of obligations of corporations incorporated or organized under the laws of the Dominion of Canada or any Canadian province are payable in United States dollars; and

(2) the obligations are rated among the top four quality categories by a nationally recognized rating agency.

(b) The state board may invest in unrated corporate obligations or in corporate obligations that are not rated among the top four quality categories as provided in paragraph (a), clause (2), if:

(1) the aggregate value of these obligations does not exceed five percent of the market value of the fund for which the state board is investing;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(2) the state board's participation is limited to 50 percent of a single offering subject to this paragraph; and

(3) the state board's participation is limited to 25 percent of an issuer's obligations subject to this paragraph.

Subd. 4. **Other obligations.** (a) The state board is authorized to invest funds in:

(1) bankers acceptances and deposit notes if issued by a United States bank that is rated in the highest four quality categories by a nationally recognized rating agency;

(2) certificates of deposit if issued by a United States bank or savings institution that is rated in the top four quality categories by a nationally recognized rating agency or whose certificates of deposit are fully insured by federal agencies, or certificates of deposits issued by a credit union in an amount within the limit of the insurance coverage provided by the National Credit Union Administration;

(3) commercial paper if issued by a United States corporation or its Canadian subsidiary and if rated in the highest two quality categories by a nationally recognized rating agency;

(4) mortgage securities and asset-backed securities if rated in the top four quality categories by a nationally recognized rating agency;

(5) repurchase agreements and reverse repurchase agreements if collateralized with letters of credit or securities authorized in this section;

(6) guaranteed investment contracts if issued by an insurance company or a bank that is rated in the top four quality categories by a nationally recognized rating agency or alternative guaranteed investment contracts if the underlying assets comply with the requirements of this section;

(7) savings accounts if fully insured by a federal agency; and

(8) guaranty fund certificates, surplus notes, or debentures if issued by a domestic mutual insurance company.

(b) Sections 16A.58, 16C.03, subdivision 4, and 16C.05 do not apply to certificates of deposit and collateralization agreements executed by the state board under paragraph (a), clause (2).

(c) In addition to investments authorized by paragraph (a), clause (4), the state board is authorized to purchase from the Minnesota Housing Finance Agency all or any part of a pool of residential mortgages, not in default, that has previously been financed by the issuance of bonds or notes of the agency. The state board may also enter into a commitment with the agency, at the time of any issue of bonds or notes, to purchase at a specified future date, not exceeding 12 years from the date of the issue, the amount of mortgage loans then outstanding and not in default that have been made or purchased from the proceeds of the bonds or notes. The state board may charge reasonable fees for any such commitment and may agree to purchase the mortgage loans at a price sufficient to produce a yield to the state board comparable, in its judgment, to the yield available on similar mortgage loans at the date of the bonds or notes. The state board may also enter into agreements with the agency for the investment of any portion of the funds of the agency. The agreement must cover the period of the investment, withdrawal privileges, and any guaranteed rate of return.

Subd. 5. **Corporate stocks.** The state board is authorized to invest funds in stocks or convertible issues of any corporation organized under the laws of the United States or any of its states, the Dominion of Canada

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

or any of its provinces, or any corporation listed on an exchange that is regulated by an agency of the United States or of the Canadian national government.

An investment in any corporation must not exceed five percent of the total outstanding shares of that corporation, except that the state board may hold up to 20 percent of the shares of a real estate investment trust and up to 20 percent of the shares of a closed-end mutual fund.

Subd. 5a. **Asset mix limitations.** The aggregate value of investments under subdivision 5, plus the aggregate value of all investments under subdivision 6, must not exceed 85 percent of the market value of a fund.

Subd. 6. **Other investments.** (a) In addition to the investments authorized in subdivisions 1 to 5, and subject to the provisions in paragraph (b), the state board is authorized to invest funds in:

(1) equity and debt investment businesses through participation in limited partnerships, trusts, private placements, limited liability corporations, limited liability companies, limited liability partnerships, and corporations;

(2) real estate ownership interests or loans secured by mortgages or deeds of trust or shares of real estate investment trusts through investment in limited partnerships, bank-sponsored collective funds, trusts, mortgage participation agreements, and insurance company commingled accounts, including separate accounts;

(3) resource investments through limited partnerships, trusts, private placements, limited liability corporations, limited liability companies, limited liability partnerships, and corporations; and

(4) international securities.

(b) The investments authorized in paragraph (a) must conform to the following provisions:

(1) the aggregate value of all investments made under paragraph (a), clauses (1) to (3), may not exceed 35 percent of the market value of the fund for which the state board is investing;

(2) there must be at least four unrelated owners of the investment other than the state board for investments made under paragraph (a), clause (1), (2), or (3);

(3) state board participation in an investment vehicle is limited to 20 percent thereof for investments made under paragraph (a), clause (1), (2), or (3); and

(4) state board participation in a limited partnership does not include a general partnership interest or other interest involving general liability. The state board may not engage in any activity as a limited partner which creates general liability.

(c) All financial, business, or proprietary data collected, created, received, or maintained by the state board in connection with investments authorized by paragraph (a), clause (1), (2), or (3), are nonpublic data under section 13.02, subdivision 9. As used in this paragraph, "financial, business, or proprietary data" means data, as determined by the responsible authority for the state board, that is of a financial, business, or proprietary nature, the release of which could cause competitive harm to the state board, the legal entity in which the state board has invested or has considered an investment, the managing entity of an investment, or a portfolio company in which the legal entity holds an interest. As used in this section, "business data" is data described in section 13.591, subdivision 1. Regardless of whether they could be considered financial,

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

business, or proprietary data, the following data received, prepared, used, or retained by the state board in connection with investments authorized by paragraph (a), clause (1), (2), or (3), are public at all times:

(1) the name and industry group classification of the legal entity in which the state board has invested or in which the state board has considered an investment;

(2) the state board commitment amount, if any;

(3) the funded amount of the state board's commitment to date, if any;

(4) the market value of the investment by the state board;

(5) the state board's internal rate of return for the investment, including expenditures and receipts used in the calculation of the investment's internal rate of return; and

(6) the age of the investment in years.

Subd. 7. **Appropriation.** There is annually appropriated to the state board, from the assets of the funds for which the state board invests relating to authorized investments under subdivision 6, paragraph (a), sums sufficient to pay the costs for the management of these assets by private management firms.

History: *1980 c 607 art 14 s 22; 1981 c 208 s 3-6,9; 1982 c 587 s 2; 1983 c 216 art 1 s 5; 1983 c 324 s 7-9; 1984 c 382 s 1; 1984 c 383 s 2,3; 1985 c 224 s 3-5; 1987 c 72 s 1; 1987 c 372 art 8 s 2-6; 1988 c 453 s 7,8; 1991 c 47 s 1; 1991 c 206 s 1; 1992 c 539 s 9; 1992 c 587 art 2 s 2; 1992 c 592 s 2; 1993 c 300 s 6,7; 1994 c 604 art 1 s 7-11; 1995 c 122 s 1; 1998 c 386 art 2 s 8; 2000 c 392 s 1,2; 2005 c 156 art 2 s 7; 2005 c 163 s 2; 2009 c 86 art 1 s 90; 2012 c 286 art 10 s 3; 2013 c 111 art 1 s 1*

11A.241 INVESTMENT IN NORTHERN IRELAND.

Subdivision 1. **List of investments.** (a) By January 1 of each year, the state board shall:

(1) compile a list of corporations that, directly or through a subsidiary, do business in Northern Ireland and in whose stocks or obligations the board has invested under section 11A.24, subdivision 3 or 5; and

(2) determine whether each corporation on the list has, during the preceding year, taken affirmative action to eliminate religious or ethnic discrimination in Northern Ireland.

(b) In making the determination required by paragraph (a), clause (2), the state board shall consider whether a corporation has, during the preceding year, taken substantial action designed to lead toward the achievement of the following goals:

(1) increasing representation of persons from underrepresented religious groups at all levels in its work force;

(2) providing adequate security for employees who are members of minority religious groups, both at the workplace and while traveling to and from work;

(3) creating a climate in the workplace free from religious or political provocation;

(4) publicly advertising all job openings and making special recruiting efforts to attract applicants from underrepresented religious groups;

(5) providing that layoff, recall, and termination procedures do not favor workers who are members of particular religious groups;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(6) abolishing job reservations, apprenticeship restrictions, and differential employment criteria that discriminate on the basis of religious or ethnic origin;

(7) developing new programs and expanding existing programs to prepare current employees who are members of minority religious groups for skilled jobs;

(8) establishing procedures to assess, identify, and recruit employees who are members of minority religious groups and who have potential for advancement; and

(9) appointing senior management employees to oversee affirmative action efforts and the setting of timetables for carrying out clauses (1) to (8).

Subd. 2. **Affirmative action policy.** Whenever feasible, the board shall sponsor, cosponsor, or support shareholder resolutions designed to encourage corporations in which the board has invested to pursue a policy of affirmative action in Northern Ireland.

Subd. 3. **Divestment not required.** Nothing in this section may be construed to require the state board to dispose of existing investments or to make future investments that violate sound investment policy for public pensions.

History: *1988 c 687 s 1*

11A.243 INVESTMENT IN SUDAN.

Subdivision 1. **Definitions.** (a) For the purposes of this section, the following items have the meanings given them in this subdivision.

(b) "Active business operations" means all business operations that are not inactive business operations.

(c) "Business operations" means engaging in commerce in any form in Sudan, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

(d) "Company" means any sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company, or other entity or business association, including all wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for profit-making purposes.

(e) "Complicit" means taking actions during any preceding 20-month period that have directly supported or promoted the genocidal campaign in Darfur, including, but not limited to, preventing Darfur's victimized population from communicating with each other, encouraging Sudanese citizens to speak out against an internationally approved security force for Darfur, actively working to deny, cover up, or alter the record on human rights abuses in Darfur, or other similar actions.

(f) "Direct holdings" in a company means all securities of that company held directly by the State Board of Investment or in an account or fund in which the State Board of Investment owns all shares or interests.

(g) "Government of Sudan" means the government in Khartoum, Sudan, which is led by the national congress party (formerly known as the national Islamic front) or any successor government formed on or after October 13, 2006, including the coalition national unity government agreed upon in the comprehensive peace agreement for Sudan, and does not include the regional government of southern Sudan.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(h) "Inactive business operations" means the mere continued holding or renewal of rights to property previously operated for the purpose of generating revenues but not presently deployed for such purpose.

(i) "Indirect holdings" in a company means all securities of that company held in an account or fund, such as a mutual fund, managed by one or more persons not employed by the State Board of Investment, in which the State Board of Investment owns shares or interests together with other investors not subject to the provisions of this section.

(j) "Marginalized populations of Sudan" include, but are not limited to, the portion of the population in the Darfur region that has been genocidally victimized; the portion of the population of southern Sudan victimized by Sudan's north-south civil war; the Beja, Rashidiya, and other similarly underserved groups of eastern Sudan; the Nubian and other similarly underserved groups in Sudan's Abyei, Southern Blue Nile, and Nuba Mountain regions; and the Amri, Hamadab, Manasir, and other similarly underserved groups of northern Sudan.

(k) "Military equipment" means weapons, arms, military supplies, and equipment that readily may be used for military purposes, including, but not limited to, radar systems or military-grade transport vehicles, or supplies or services sold or provided directly or indirectly to any force actively participating in armed conflict in Sudan.

(l) "Mineral extraction activities" include exploring, extracting, processing, transporting, or wholesale selling or trading of elemental minerals or associated metal alloys or oxides (ore), including gold, copper, chromium, chromite, diamonds, iron, iron ore, silver, tungsten, uranium, and zinc, as well as facilitating such activities, including the provision of supplies or services in support of such activities.

(m) "Oil-related activities" include, but are not limited to, owning rights to oil blocks; exporting, extracting, producing, refining, processing, exploring for, transporting, selling, or trading of oil; constructing, maintaining, or operating a pipeline, refinery, or other oil-field infrastructure; and facilitating such activities, including the provision of supplies or services in support of such activities, provided that the mere retail sale of gasoline and related consumer products shall not be considered oil-related activities.

(n) "Power production activities" means any business operation that involves a project commissioned by the National Electricity Corporation (NEC) of Sudan or other similar government of Sudan entity whose purpose is to facilitate power generation and delivery, including, but not limited to, establishing power-generating plants or hydroelectric dams, selling or installing components for the project, providing service contracts related to the installation or maintenance of the project, as well as facilitating such activities, including the provision of supplies or services in support of such activities.

(o) "Scrutinized company" means any company that meets the criteria in clause (1), (2), or (3):

(1) the company has business operations that involve contracts with or provision of supplies or services to:

(i) the government of Sudan;

(ii) companies in which the government of Sudan has any direct or indirect equity share;

(iii) government of Sudan-commissioned consortiums or projects; or

(iv) companies involved in government of Sudan-commissioned consortiums or projects; and

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(A) more than ten percent of the company's revenues or assets linked to Sudan involve oil-related activities or mineral extraction activities; less than 75 percent of the company's revenues or assets linked to Sudan involve contracts with or provision of oil-related or mineral extracting products or services to the regional government of southern Sudan or a project or consortium created exclusively by that regional government; and the company has failed to take substantial action; or

(B) more than ten percent of the company's revenues or assets linked to Sudan involve power production activities; less than 75 percent of the company's power production activities include projects whose intent is to provide power or electricity to the marginalized populations of Sudan; and the company has failed to take substantial action;

(2) the company is complicit in the Darfur genocide; or

(3) the company supplies military equipment within Sudan, unless it clearly shows that the military equipment cannot be used to facilitate offensive military actions in Sudan or the company implements rigorous and verifiable safeguards to prevent use of that equipment by forces actively participating in armed conflict, for example, through postsale tracking of such equipment by the company, certification from a reputable and objective third party that such equipment is not being used by a party participating in armed conflict in Sudan, or sale of such equipment solely to the regional government of southern Sudan or any internationally recognized peacekeeping force or humanitarian organization.

Notwithstanding any other provision to the contrary in this section, a social development company that is not complicit in the Darfur genocide shall not be considered a scrutinized company.

(p) "Social development company" means a company whose primary purpose in Sudan is to provide humanitarian goods or services, including medicine or medical equipment, agricultural supplies or infrastructure, educational opportunities, journalism-related activities, information or information materials, spiritual-related activities, services of a purely clerical or reporting nature, food, clothing, or general consumer goods that are unrelated to oil-related activities, mineral extraction activities, or power production activities.

(q) "Substantial action" means adopting, publicizing, and implementing a formal plan to cease scrutinized business operations within one year and to refrain from any such new business operations; undertaking significant humanitarian efforts in conjunction with an international organization, the government of Sudan, the regional government of southern Sudan, or a nonprofit entity that has been evaluated and certified by an independent third party to be in substantial relationship to the company's Sudan business operations and of benefit to one or more marginalized populations of Sudan; or through engagement with the government of Sudan, materially improving conditions for the genocidally victimized population in Darfur.

Subd. 2. **Identification of companies.** (a) Within 90 days following May 23, 2007, the State Board of Investment shall make its best efforts to identify all scrutinized companies in which the State Board of Investment has direct or indirect holdings or could possibly have such holdings in the future. Such efforts shall include, as appropriate:

(1) reviewing and relying, as appropriate in the State Board of Investment's judgment, on publicly available information regarding companies with business operations in Sudan, including information provided by nonprofit organizations, research firms, international organizations, and government entities;

(2) contacting asset managers contracting with the State Board of Investment who invest in companies with business operations in Sudan; or

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(3) contacting other institutional investors that have divested from or engaged with companies that have business operations in Sudan.

(b) At the first meeting of the State Board of Investment after it has completed the requirements of paragraph (a), the State Board of Investment shall assemble a list of scrutinized companies.

(c) The State Board of Investment shall update the scrutinized companies list each quarter based on continuing information, including, but not limited to, information from sources identified in paragraph (a).

Subd. 3. **Engagement of scrutinized companies.** The State Board of Investment shall use the following procedure for companies on the scrutinized companies list:

(a) After completing the list required under subdivision 2, paragraph (a), the State Board of Investment shall immediately identify the companies on the list in which the State Board of Investment owns direct or indirect holdings.

(b) For each company identified in paragraph (a) with only inactive business operations, the State Board of Investment shall send a written notice to the company with information about this section and encourage it to continue to refrain from initiating active business operations in Sudan until it is able to avoid scrutinized business operations. The State Board of Investment shall continue such correspondence on a semiannual basis.

(c) For each company newly identified in paragraph (a) with active business operations, the State Board of Investment shall send a written notice informing the company of its scrutinized company status and that it may become subject to divestment by the State Board of Investment. The notice shall offer the company the opportunity to clarify its Sudan-related activities and shall encourage the company, within 90 days, to either cease its scrutinized business operations or convert such operations to inactive business operations in order to avoid qualifying for divestment by the State Board of Investment.

(d) If, within 90 days following the State Board of Investment's first engagement with a company under paragraph (c), that company ceases scrutinized business operations, the company shall be removed from the scrutinized companies list and the provisions of this section shall cease to apply to it unless it resumes scrutinized business operations. If, within 90 days following the State Board of Investment's first engagement, the company converts its scrutinized active business operations to inactive business operations, the company shall be subject to all provisions of this section relating to inactive business operations.

Subd. 4. **Divestment.** (a) If, after 90 days following the State Board of Investment's first engagement with a company under subdivision 3, paragraph (c), the company continues to have scrutinized active business operations, and only while the company continues to have scrutinized active business operations, the State Board of Investment shall sell, redeem, divest, or withdraw all publicly traded securities of the company, except as provided in subdivisions 5 to 11, according to the following schedule:

(1) at least 50 percent of the assets in the company shall be removed from the State Board of Investment's assets under management by nine months after the company's most recent appearance on the scrutinized companies list; and

(2) 100 percent of the assets in the company shall be removed from the State Board of Investment's assets under management within 15 months after the company's most recent appearance on the scrutinized companies list.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(b) If a company that ceased scrutinized active business operations following engagement under subdivision 3, paragraph (c), resumes such operations, paragraph (a) shall immediately apply to the company and the State Board of Investment shall send a written notice to the company. The company shall also be immediately reintroduced onto the scrutinized companies list.

Subd. 5. **Prohibition on acquisition of certain securities.** At no time shall the State Board of Investment acquire securities of companies on the scrutinized companies list that have active business operations, except as provided in this section.

Subd. 6. **Exemption.** If the federal government affirmatively excludes a company from its present or any future federal sanctions regime relating to Sudan, the company is exempt from the divestment and investment requirements of subdivisions 4 and 5.

Subd. 7. **Excluded securities.** Notwithstanding any other provision in this section to the contrary, subdivisions 4 and 5 do not apply to indirect holdings in actively managed investment funds. The State Board of Investment shall submit letters to the managers of investment funds containing companies with scrutinized active business operations requesting the managers to consider removing such companies from the fund or to create a similar actively managed fund with indirect holdings that do not include the companies. If a manager creates a similar fund, the State Board of Investment shall promptly replace all applicable investments with investments in the similar fund consistent with prudent investing standards. For the purposes of this section, "private equity" funds shall be deemed to be actively managed investment funds.

Subd. 8. **Reporting.** (a) Within 30 days after creating the scrutinized companies list, the State Board of Investment shall submit the list to the chairs of the legislative committees and divisions with jurisdiction over the State Board of Investment.

(b) By January 15, 2008, and on January 15 of each year thereafter, the State Board of Investment shall submit a report to the chairs of the legislative committees and divisions with jurisdiction over the State Board of Investment and send a copy of that report to the United States Presidential Special Envoy to Sudan or the appropriate designee or successor for the envoy. The report must include:

(1) a summary of correspondence with companies engaged by the State Board of Investment under subdivision 3, paragraphs (b) and (c);

(2) a list of all investments sold, redeemed, divested, or withdrawn in compliance with subdivision 4;

(3) a list of all prohibited investments under subdivision 5; and

(4) a description of any progress made under subdivision 7.

Subd. 9. **Expiration.** This section shall expire upon the occurrence of any of the following:

(1) the Congress or president of the United States declares that the Darfur genocide has been halted for at least 12 months;

(2) the United States revokes all sanctions imposed against the government of Sudan;

(3) the Congress or president of the United States declares that the government of Sudan has honored its commitments to cease attacks on civilians, demobilize and demilitarize the Janjaweed and associated militias, grant free and unfettered access for deliveries of humanitarian assistance, and allow for the safe and voluntary return of refugees and internally displaced persons; or

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(4) the Congress or president of the United States, through legislation or executive order, declares that mandatory divestment of the type provided for in this section interferes with the conduct of United States foreign policy.

Subd. 10. **Other legal obligations.** The State Board of Investment is exempt from any statutory or common law obligations that conflict with actions taken in compliance with this section, including all good faith determinations regarding companies as required by this section, including any obligations regarding the choice of asset managers, investment funds, or investments for the State Board of Investment's securities portfolios.

Subd. 11. **Reinvestment in certain companies with scrutinized active business operations.** Notwithstanding any provision of this section to the contrary, the State Board of Investment shall be permitted to cease divesting from certain scrutinized companies under subdivision 4 or to reinvest in certain scrutinized companies from which it divested under subdivision 4 if clear and convincing evidence shows that the value for all assets under management by the State Board of Investment is equal to or less than 99.5 percent (50 basis points) of the hypothetical value of all assets under management by the State Board of Investment without any divestment for any company under subdivision 4. Cessation of divestment, reinvestment, or any subsequent ongoing investment authorized by this subdivision shall be strictly limited to the minimum steps necessary to avoid the contingency. For any cessation of divestment, reinvestment, or subsequent ongoing investment authorized by this subdivision, the State Board of Investment shall provide a written report to the chairs of the legislative committees and divisions with jurisdiction over the State Board of Investment in advance of initial reinvestment, updated semiannually thereafter as applicable, setting forth the reasons and justification, supported by clear and convincing evidence, for its decisions to cease divestment, reinvest, or remain invested in companies with scrutinized active business operations. This subdivision does not apply to reinvestment in companies because they have ceased scrutinized active business operations.

History: *2007 c 117 s 1*

11A.244 INVESTMENT IN IRAN.

Subdivision 1. **Definitions.** (a) For the purposes of this section, the following terms have the meanings given them in this subdivision.

(b) "Active business operations" means all business operations that are not inactive business operations.

(c) "Company" means any sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company, or other entity or business association, including all wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for profit-making purposes.

(d) "Direct holdings" means all publicly traded debt and equity securities of a company that are held directly by the State Board of Investment or held in an account or fund in which the State Board of Investment owns all shares or interests.

(e) "Government of Iran" means the government of the Islamic Republic of Iran or its instrumentalities or political subdivisions and companies owned or controlled by the Islamic Republic of Iran.

(f) "Inactive business operations" means the continued holding or renewal of rights to property previously operated for the purpose of generating revenues but not presently deployed for such a purpose.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(g) "Indirect holdings" means all investments held in an account or fund, including a mutual fund, a real estate fund, a private equity fund, or a commingled fund, managed by one or more persons who are not employed by the State Board of Investment, in which the public funds own shares or interests together with other investors who are not subject to this section.

(h) "Scrutinized company" means any company engaging in scrutinized business operations.

(i) "Scrutinized business operations" means any and all active business operations that are subject or liable to sanctions under Public Law 104-172, as amended, the Iran Sanctions Act of 1996, and that involve the maintenance of a company's existing assets or investments in Iran, or the deployment of new investments to Iran that meet or exceed the $20,000,000 threshold referred to in Public Law 104-172, as amended, the Iran Sanctions Act of 1996. "Scrutinized business operations" does not include the retail sale of gasoline and related products.

(j) "Substantial action specific to Iran" means adopting, publicizing, and implementing a formal plan to cease scrutinized business operations within one year and to refrain from any such new business operations.

Subd. 2. **Identification of scrutinized companies.** (a) Within 90 days following August 1, 2009, the State Board of Investment shall make its best efforts to identify all scrutinized companies in which it has direct holdings. These efforts shall include, as appropriate:

(1) reviewing and relying, as appropriate, on publicly available information regarding companies with business operations in Iran, including information provided by nonprofit organizations, research firms, international organizations, and government entities;

(2) contacting asset managers contracting with the State Board of Investment who invest in companies with business operations in Iran; and

(3) contacting other institutional investors that have divested from or engaged with companies with business operations in Iran.

(b) At the first meeting of the State Board of Investment after it has completed the requirements of paragraph (a), the State Board of Investment shall assemble a list of scrutinized companies in which it has direct holdings.

(c) The State Board of Investment shall update the scrutinized companies list each quarter based on continuing information, including but not limited to information from sources identified in paragraph (a).

Subd. 3. **Engagement of scrutinized companies.** The State Board of Investment shall use the following procedures with respect to companies on the scrutinized companies list:

(1) for each company newly identified in subdivision 2 with scrutinized business operations, the State Board of Investment shall, within 90 days following its assembly of the scrutinized companies list, send a written notice informing the company of its scrutinized company status and that it may become subject to divestment by the State Board of Investment. The notice shall offer the company the opportunity to clarify its scrutinized business operations and shall encourage the company to cease, within 90 days of the date of the notice, its scrutinized business operations, or to convert them to inactive business operations in order to avoid divestment by the State Board of Investment; and

(2) if, within 90 days following the State Board of Investment's first engagement with a company under clause (1), that company publicly announces its commitment to substantial action specific to Iran, that

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

company shall be removed from the scrutinized companies list and the provisions of this section shall cease to apply to it unless it resumes active business operations in Iran.

Subd. 4. **Divestment.** (a) If, after 90 days following the State Board of Investment's first engagement with a company under subdivision 3, clause (1), the company continues to have scrutinized business operations, and only while the company continues to have scrutinized business operations, the State Board of Investment shall sell, redeem, divest, or withdraw all publicly traded securities of the company, according to the following schedule:

(1) at least 50 percent of the holdings in the company shall be removed from the State Board of Investment's assets under management by nine months after the company's initial appearance on the scrutinized companies list; and

(2) 100 percent of the holdings in the company shall be removed from the State Board of Investment's assets under management within 15 months after the company's initial appearance on the scrutinized companies list.

(b) If a company that ceased scrutinized business operations following engagement under subdivision 3, clause (1), resumes such operations, paragraph (a) immediately applies to the company and the State Board of Investment shall send a written notice to the company. The company shall also be immediately reintroduced onto the scrutinized companies list.

Subd. 5. **Prohibition on new acquisitions.** The State Board of Investment may not acquire securities of companies on the scrutinized companies list that have scrutinized business operations, except as provided in this section.

Subd. 6. **Relation to federal action.** If the federal government excludes a company from its present or any future federal sanctions relating to Iran, that company is exempt from the divestment requirements and the investment prohibitions in this section.

Subd. 7. **Exemptions.** Subdivisions 4 and 5 do not apply to any of the following:

(1) investments in a company that is primarily engaged in supplying goods or services intended to relieve human suffering in Iran;

(2) investments in a company that is primarily engaged in promoting health, education, or journalistic, religious, or welfare activities in Iran; and

(3) investments in a United States company that is authorized by the federal government to have active business operations in Iran.

Subd. 8. **Excluded securities.** Subdivisions 4 and 5 do not apply to indirect holdings in actively managed investment funds. The State Board of Investment shall submit letters to the managers of investment funds containing companies with scrutinized active business operations requesting the managers to consider removing such companies from the fund or to create a similar actively managed fund with indirect holdings that do not include the companies. If a manager creates a similar fund, the State Board of Investment shall promptly replace all applicable investments with investments in the similar fund consistent with prudent investing standards. For the purposes of this section, "private equity" funds shall be deemed to be actively managed investment funds.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 9. **Reporting.** By January 15 of each calendar year, the State Board of Investment shall submit a report to the chairs and ranking minority members of the legislative committees and divisions with jurisdiction over the State Board of Investment. The report must include:

(1) a copy of the most recent list of scrutinized companies;

(2) a summary of correspondence with companies engaged by the State Board of Investment under subdivision 3;

(3) a list of all investments sold, redeemed, divested, or withdrawn in compliance with subdivision 4;

(4) a list of all prohibited investments under subdivision 5; and

(5) a description of any progress made under subdivision 8.

Subd. 10. **Expiration.** This section ceases to be operative if either of the following apply:

(1) Iran is removed from the United States Department of State's list of countries that have been determined to repeatedly provide support for acts of international terrorism; or

(2) the president of the United States determines and certifies that state legislation similar to this section interferes with the conduct of United States foreign policy.

Subd. 11. **Other legal obligations.** The State Board of Investment is exempt from any statutory or common law obligations that conflict with actions taken in compliance with this section, including all good faith determinations regarding companies as required by this section, including any obligations regarding the choice of asset managers, investment funds, or investments for the State Board of Investment's securities portfolios.

Subd. 12. **Severability.** The provisions of this section are severable. If any provision of this section or its application is held invalid, that invalidity does not affect other provisions or applications that can be given effect without the invalid provision or application.

History: *2009 c 90 s 1*

11A.25 ADDITIONAL INVESTMENT PROVISIONS.

When investing assets of any funds or accounts specifically made subject to this section or not otherwise referred to in sections 11A.01 to 11A.25, all securities shall be debt obligations and shall conform to the applicable provisions of section 11A.24.

History: *1980 c 607 art 14 s 23; 1987 c 372 art 8 s 7*

11A.27 REPORT ON INVESTMENT CONSULTANT ACTIVITIES AND DELIVERABLES.

(a) Annually, on or before November 1, the State Board of Investment shall file a report with the Legislative Reference Library on the activities and work product during that year of any investment consultants retained by the board.

(b) The report must include the following items:

(1) the total contract fee paid to each investment consultant;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(2) a listing of the projects in which the investment consultant was involved; and

(3) examples of the written work product provided by the investment consultant on those projects during the report coverage period.

History: *2007 c 148 art 2 s 7*

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

CHAPTER 356A
PUBLIC PENSION FIDUCIARY RESPONSIBILITY

356A.01 DEFINITIONS.
356A.02 FIDUCIARY STATUS AND ACTIVITIES.
356A.03 PROHIBITION OF CERTAIN PERSONS FROM FIDUCIARY STATUS.
356A.04 GENERAL STANDARD OF FIDUCIARY CONDUCT.
356A.05 DUTIES APPLICABLE TO ALL ACTIVITIES.
356A.06 INVESTMENTS; ADDITIONAL DUTIES.
356A.07 BENEFIT SUMMARY; ANNUAL REPORTS; ADDITIONAL DUTIES.
356A.08 PLAN ADMINISTRATION; ADDITIONAL DUTIES.
356A.09 FIDUCIARY BREACH; REMEDIES.
356A.10 COFIDUCIARY RESPONSIBILITY AND LIABILITY.
356A.11 FIDUCIARY INDEMNIFICATION.
356A.12 JURISDICTION; SERVICE OF PROCESS; AND STATUTE OF LIMITATIONS.
356A.13 CONTINUING FIDUCIARY EDUCATION.

356A.01 DEFINITIONS.

Subdivision 1. **Scope.** For purposes of this chapter, the following terms have the meanings given them in this section.

Subd. 2. **Benefit.** "Benefit" means an amount, other than an administrative expense, paid or payable from a pension plan, including a retirement annuity, service pension, disability benefit, survivor benefit, death benefit, funeral benefit, or refund.

Subd. 3. **Benefit provisions.** "Benefit provisions" means the portion of a pension plan that deals specifically with the benefit coverage provided by the plan, including the kinds of coverage, the eligibility for and entitlement to benefits, and the amount of benefits.

Subd. 4. **Benefit recipient.** "Benefit recipient" means a person who has received a benefit from a pension plan or to whom a benefit is payable under the terms of the plan document of the pension plan.

Subd. 5. **Chief administrative officer.** "Chief administrative officer" means the person who has primary responsibility for the execution of the administrative or management affairs of a pension plan.

Subd. 6. **Cofiduciary.** "Cofiduciary" means a fiduciary of a pension plan, other than a fiduciary directly undertaking a fiduciary activity or directly and primarily responsible for a fiduciary activity.

Subd. 7. **Covered governmental entity.** "Covered governmental entity" means a governmental subdivision or other governmental entity that employs persons who are plan participants in a covered pension plan and who are eligible for that participation because of their employment.

Subd. 8. **Covered pension plan.** "Covered pension plan" means a pension plan or fund listed in section 356.20, subdivision 2, or section 356.30, subdivision 3, or a plan established under chapter 353D, 354B, 354C, or 354D.

Subd. 9. **Covered pension plan other than a statewide plan.** "Covered pension plan other than a statewide plan" means a pension plan not included in the definition of a statewide plan in subdivision 24.

Subd. 10. **Direct or indirect profit.** "Direct or indirect profit" means a payment of money, the provision of a service or an item of other than nominal value, an extension of credit, a loan, or any other special

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

consideration to a fiduciary or a direct relative of a fiduciary on behalf of the fiduciary in consideration for the performance of a fiduciary activity or a failure to perform a fiduciary activity.

Subd. 11. **Direct relative.** "Direct relative" means any of the persons or spouses of persons related to one another within the third degree of kindred under civil law.

Subd. 12. **Fiduciary.** "Fiduciary" means a person identified in section 356A.02.

Subd. 13. **Fiduciary activity.** "Fiduciary activity" means an activity described in section 356A.02, subdivision 2.

Subd. 14. **Financial institution.** "Financial institution" means a bank, savings institution, or credit union organized under federal or state law.

Subd. 15. **Governing board of a pension plan.** "Governing board of a pension plan" means the body of a pension plan that is assigned or that undertakes the chief policy-making powers and management duties of the plan.

Subd. 16. **Investment Advisory Council.** "Investment Advisory Council" means the Investment Advisory Council established by section 11A.08.

Subd. 17. **Liability.** "Liability" means a secured or unsecured debt or an obligation for a future payment of money, including an actuarial accrued liability or an unfunded actuarial accrued liability, except where the context clearly indicates another meaning.

Subd. 18. **Office of the pension plan.** "Office of the pension plan" means an administrative facility or portion of a facility where the primary business or administrative affairs of a pension plan are conducted and the primary and permanent records and files of the plan are retained.

Subd. 19. **Pension fund.** "Pension fund" means the assets amassed and held in a pension plan, other than the general fund, as reserves for present and future payment of benefits and administrative expenses. For the Bloomington Fire Department Relief Association or a retirement plan governed by chapter 424A, the term means the relief association special fund.

Subd. 20. **Pension plan.** "Pension plan" means all aspects of an arrangement between a public employer and its employees concerning the pension benefit coverage provided to the employees.

Subd. 21. **Plan document.** "Plan document" means a written document or series of documents containing the eligibility requirements and entitlement provisions constituting the benefit coverage of a pension plan, including any articles of incorporation, bylaws, governing body rules and policies, municipal charter provisions, municipal ordinance provisions, or general or special state law.

Subd. 22. **Plan participant.** "Plan participant" means a person who is an active member of a pension plan by virtue of the person's employment or who is making a pension plan member contribution.

Subd. 23. **State Board of Investment.** "State Board of Investment" means the Minnesota State Board of Investment created by the Minnesota Constitution, article XI, section 8.

Subd. 24. **Statewide plan.** "Statewide plan" means any of the following pension plans:

(1) the Minnesota State Retirement System or a pension plan administered by it;

(2) the Public Employees Retirement Association or a pension plan administered by it; and

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(3) the Teachers Retirement Association or a pension plan administered by it.

History: *1989 c 319 art 7 s 1; 2000 c 461 art 12 s 16; 2012 c 286 art 10 s 9; 2013 c 111 art 5 s 67; 2014 c 275 art 2 s 16*

356A.02 FIDUCIARY STATUS AND ACTIVITIES.

Subdivision 1. **Fiduciary status.** For purposes of this chapter, the following persons are fiduciaries:

(1) any member of the governing board of a covered pension plan;

(2) the chief administrative officer of a covered pension plan or of the State Board of Investment;

(3) any member of the State Board of Investment; and

(4) any member of the Investment Advisory Council.

Subd. 2. **Fiduciary activity.** The activities of a fiduciary identified in subdivision 1 that must be carried out in accordance with the requirements of section 356A.04 include, but are not limited to:

(1) the investment and reinvestment of plan assets;

(2) the determination of benefits;

(3) the determination of eligibility for membership or benefits;

(4) the determination of the amount or duration of benefits;

(5) the determination of funding requirements or the amounts of contributions;

(6) the maintenance of membership or financial records;

(7) the expenditure of plan assets; and

(8) the selection of financial institutions and investment products.

History: *1989 c 319 art 7 s 2; 2000 c 461 art 12 s 17; 2007 c 133 art 3 s 3*

356A.03 PROHIBITION OF CERTAIN PERSONS FROM FIDUCIARY STATUS.

Subdivision 1. **Individual prohibition.** For the prohibition period established by subdivision 2, a person, other than a constitutional officer of the state, who has been convicted of a violation listed in subdivision 3, may not serve in a fiduciary capacity identified in section 356A.02.

Subd. 2. **Prohibition period.** A prohibition under subdivision 1 is for a period of five years, beginning on the day following conviction for a violation listed in subdivision 3 or, if the person convicted is incarcerated, the day following unconditional release from incarceration.

Subd. 3. **Applicable violations.** A prohibition under subdivision 1 is imposed as a result of any of the following violations of law:

(1) a violation of federal law specified in United States Code, title 29, section 1111, as amended;

(2) a violation of Minnesota law that is a felony under Minnesota law; or

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(3) a violation of the law of another state, United States territory or possession, or federally recognized Indian tribal government, or of the Uniform Code of Military Justice, that would be a felony under the offense definitions and sentences in Minnesota law.

Subd. 4. **Documentation.** In determining the applicability of this section, the appropriate appointing authority, the State Board of Investment, or the covered pension plan, as the case may be, may rely on a disclosure form meeting the requirements of the federal Investment Advisers Act of 1940, as amended through June 2, 1989, and filed with the State Board of Investment or the pension plan.

History: *1989 c 319 art 7 s 3*

356A.04 GENERAL STANDARD OF FIDUCIARY CONDUCT.

Subdivision 1. **Duty.** A fiduciary of a covered pension plan owes a fiduciary duty to:

(1) the active, deferred, and retired members of the plan, who are its beneficiaries;

(2) the taxpayers of the state or political subdivision, who help to finance the plan; and

(3) the state of Minnesota, which established the plan.

Subd. 2. **Prudent person standard.** A fiduciary identified in section 356A.02 shall act in good faith and shall exercise that degree of judgment and care, under the circumstances then prevailing, that persons of prudence, discretion, and intelligence would exercise in the management of their own affairs, not for speculation, considering the probable safety of the plan capital as well as the probable investment return to be derived from the assets.

History: *1989 c 319 art 7 s 4*

356A.05 DUTIES APPLICABLE TO ALL ACTIVITIES.

(a) The activities of a fiduciary of a covered pension plan must be carried out solely for the following purposes:

(1) to provide authorized benefits to plan participants and beneficiaries;

(2) to incur and pay reasonable and necessary administrative expenses; or

(3) to manage a covered pension plan in accordance with the purposes and intent of the plan document.

(b) The activities of fiduciaries identified in section 356A.02 must be carried out faithfully, without prejudice, and in a manner consistent with law and the plan document.

History: *1989 c 319 art 7 s 5*

356A.06 INVESTMENTS; ADDITIONAL DUTIES.

Subdivision 1. **Authorized holder of assets; title to assets.** (a) Assets of a covered pension plan may be held only by:

(1) the plan treasurer;

(2) the State Board of Investment;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(3) the depository agent of the plan;

(4) a security broker or the broker's agent with, in either case, insurance equal to or greater than the plan assets held from the Securities Investor Protection Corporation or from excess insurance coverage; or

(5) the depository agent of the State Board of Investment.

(b) Legal title to plan assets must be vested in the plan, the State Board of Investment, the governmental entity that sponsors the plan, the nominee of the plan, or the depository agent. The holder of legal title shall function as a trustee for a person or entity with a beneficial interest in the assets of the plan.

Subd. 2. **Diversification.** The investment of plan assets must be diversified to minimize the risk of substantial investment losses unless the circumstances at the time an investment is made clearly indicate that diversification would not be prudent.

Subd. 3. **Absence of personal profit.** No fiduciary may personally profit, directly or indirectly, as a result of the investment or management of plan assets. This subdivision, however, does not preclude the receipt by a fiduciary of reasonable compensation, including membership in or the receipt of benefits from a pension plan, for the fiduciary's position with respect to the plan.

Subd. 4. **Economic interest statement.** (a) Each member of the governing board of a covered pension plan and the chief administrative officer of the plan shall file with the plan a statement of economic interest.

(b) For a covered pension plan other than a plan specified in paragraph (c), the statement must contain the information required by section 10A.09, subdivision 5, and any other information that the fiduciary or the governing board of the plan determines is necessary to disclose a reasonably foreseeable potential or actual conflict of interest.

(c) For a covered pension plan governed by sections 424A.091 to 424A.096 or the Bloomington Fire Department Relief Association if its special fund assets are under $8,000,000, the statement must contain the following:

(1) the person's principal occupation and principal place of business;

(2) whether or not the person has an ownership of or interest of ten percent or greater in an investment security brokerage business, a real estate sales business, an insurance agency, a bank, a savings and loan, or another financial institution; and

(3) any relationship or financial arrangement that can reasonably be expected to give rise to a conflict of interest.

(d) The statement must be filed annually with the chief administrative officer of the plan and be available for public inspection during regular office hours at the office of the pension plan.

(e) A disclosure form meeting the requirements of the federal Investment Advisers Act of 1940, United States Code, title 15, sections 80b-1 to 80b-21 as amended, and filed with the State Board of Investment or the pension plan meets the requirements of this subdivision.

(f) The chief administrative officer of each covered pension plan, by January 15, annually, shall transmit a certified listing of all individuals who have filed statements of economic interest with the plan under this subdivision during the preceding 12 months and the address of the office referenced in paragraph (d) to the Campaign Finance and Public Disclosure Board.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 5. **Investment business recipient disclosure.** The chief administrative officer of a covered pension plan, with respect to investments made by the plan, and the executive director of the State Board of Investment, with respect to investments of plan assets made by the board, shall annually disclose in writing the recipients of investment business placed with or investment commissions allocated among commercial banks, investment bankers, brokerage organizations, or other investment managers. The disclosure document must be prepared within 60 days after the close of the fiscal year of the plan and must be available for public inspection during regular office hours at the office of the plan. The disclosure document must also be filed with the executive director of the Legislative Commission on Pensions and Retirement within 90 days after the close of the fiscal year of the plan. For the State Board of Investment and a first class city teacher retirement fund association, a disclosure document included as part of a regular annual report of the board or of the first class city teacher retirement fund association when filed with the executive director of the Legislative Commission on Pensions and Retirement is considered to have been filed on a timely basis.

Subd. 6. **Limited list of authorized investment securities.** (a) **Authority.** This subdivision specifies the investment authority for a limited list plan. A limited list plan is a covered pension plan that does not:

(1) have pension fund assets with a market value in excess of $1,000,000;

(2) use the services of an investment advisor registered with the Securities and Exchange Commission in accordance with the Investment Advisers Act of 1940, or registered as an investment advisor in accordance with sections 80A.58, and 80A.60, for the investment of at least 60 percent of its pension fund assets, calculated on market value;

(3) use the services of the State Board of Investment for the investment of at least 60 percent of its pension fund assets, calculated on market value; or

(4) use a combination of the services of an investment advisor meeting the requirements of clause (2) and the services of the State Board of Investment for the investment of at least 75 percent of its pension fund assets, calculated on market value.

(b) **Investment agency appointment authority.** The governing board of a covered pension plan may select and appoint investment agencies to act for or on its behalf.

(c) **Savings accounts; similar vehicles.** A limited list plan is authorized to invest in:

(1) certificates of deposit issued, to the extent of available insurance or collateralization, by a financial institution that is a member of the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation, that is insured by the National Credit Union Administration, or that is authorized to do business in this state and has deposited with the chief administrative officer of the plan a sufficient amount of marketable securities as collateral in accordance with section 118A.03;

(2) guaranteed investment contracts, limited to those issued by insurance companies or banks rated in the top four quality categories by a nationally recognized rating agency or to alternative guaranteed investment contracts where the underlying assets comply with the requirements of this paragraph; and

(3) savings accounts, limited to those fully insured by federal agencies.

(d) **Government-backed obligations.** A limited list plan is authorized to invest in governmental obligations as further specified in this paragraph, including bonds, notes, bills, mortgages, and other

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

evidences of indebtedness, if the issue is backed by the full faith and credit of the issuer or if the issue is rated among the top four quality rating categories by a nationally recognized rating agency. The obligations in which plans are authorized to invest under this paragraph are guaranteed or insured issues of:

(1) the United States, one of its agencies, one of its instrumentalities, or an organization created and regulated by an act of Congress;

(2) the Dominion of Canada or one of its provinces if the principal and interest are payable in United States dollars;

(3) a state or one of its municipalities, political subdivisions, agencies, or instrumentalities; or

(4) any United States government-sponsored organization of which the United States is a member if the principal and interest are payable in United States dollars.

(e) **Corporate obligations.** A limited list plan is authorized to invest in corporate obligations, including bonds, notes, debentures, transportation equipment obligations, or any other longer-term evidences of indebtedness issued or guaranteed by a corporation organized under the laws of the United States or any of its states, or the Dominion of Canada or any of its provinces if:

(1) the principal and interest are payable in United States dollars; and

(2) the obligations are rated among the top four quality categories by a nationally recognized rating agency.

(f) **Mutual fund authority, limited list authorized assets.** Securities authorized under paragraphs (c) to (e) may be owned directly or through shares in exchange-traded funds, or through open-end mutual funds, or as units of commingled trusts.

(g) **Extended mutual fund authority.** Notwithstanding restrictions in other paragraphs of this subdivision, a limited list plan is authorized to invest the assets of the special fund in exchange-traded funds and open-end mutual funds, if their portfolio investments comply with the type of securities authorized for investment under section 356A.06, subdivision 7, paragraphs (c) to (g). Investments under this paragraph must not exceed 75 percent of the assets of the special fund, not including any money market investments through mutual or exchange-traded funds.

(h) **Supplemental fund authority.** The governing body of a limited list plan may certify special fund assets to the State Board of Investment for investment under section 11A.17.

(i) **Assets mix restrictions.** A limited list plan must conform to the asset mix limitations specified in section 356A.06, subdivision 7.

Subd. 7. **Expanded list of authorized investment securities.** (a) **Authority.** A covered pension plan not described by subdivision 6, paragraph (a), is an expanded list plan and shall invest its assets as specified in this subdivision. The governing board of an expanded list plan may select and appoint investment agencies to act for or on its behalf.

(b) **Securities generally; investment forms.** An expanded list plan is authorized to purchase, sell, lend, and exchange the investment securities authorized under this subdivision, including puts and call options and future contracts traded on a contract market regulated by a governmental agency or by a financial institution regulated by a governmental agency. These securities may be owned directly or through shares

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

in exchange-traded or mutual funds, or as units in commingled trusts, subject to any limitations specified in this subdivision.

(c) **Government obligations.** An expanded list plan is authorized to invest funds in governmental bonds, notes, bills, mortgages, and other evidences of indebtedness if the issue is backed by the full faith and credit of the issuer or the issue is rated among the top four quality rating categories by a nationally recognized rating agency. The obligations in which funds may be invested under this paragraph are guaranteed or insured issues of:

(1) the United States, one of its agencies, one of its instrumentalities, or an organization created and regulated by an act of Congress;

(2) the Dominion of Canada or one of its provinces if the principal and interest are payable in United States dollars;

(3) a state or one of its municipalities, political subdivisions, agencies, or instrumentalities; and

(4) a United States government-sponsored organization of which the United States is a member if the principal and interest are payable in United States dollars.

(d) **Investment-grade corporate obligations.** An expanded list plan is authorized to invest funds in bonds, notes, debentures, transportation equipment obligations, or any other longer term evidences of indebtedness issued or guaranteed by a corporation organized under the laws of the United States or any of its states, or the Dominion of Canada or any of its provinces if:

(1) the principal and interest are payable in United States dollars; and

(2) the obligations are rated among the top four quality categories by a nationally recognized rating agency.

(e) **Below-investment-grade corporate obligations.** An expanded list plan is authorized to invest in unrated corporate obligations or in corporate obligations that are not rated among the top four quality categories by a nationally recognized rating agency if:

(1) the aggregate value of these obligations does not exceed five percent of the covered pension plan's market value;

(2) the covered pension plan's participation is limited to 50 percent of a single offering subject to this paragraph; and

(3) the covered pension plan's participation is limited to 25 percent of an issuer's obligations subject to this paragraph.

(f) **Other obligations.** (1) An expanded list plan is authorized to invest funds in:

(i) bankers acceptances and deposit notes if issued by a United States bank that is rated in the highest four quality categories by a nationally recognized rating agency;

(ii) certificates of deposit if issued by a United States bank or savings institution rated in the highest four quality categories by a nationally recognized rating agency or whose certificates of deposit are fully insured by federal agencies, or if issued by a credit union in an amount within the limit of the insurance coverage provided by the National Credit Union Administration;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(iii) commercial paper if issued by a United States corporation or its Canadian subsidiary and if rated in the highest two quality categories by a nationally recognized rating agency;

(iv) mortgage securities and asset-backed securities if rated in the top four quality categories by a nationally recognized rating agency;

(v) repurchase agreements and reverse repurchase agreements if collateralized with letters of credit or securities authorized in this section;

(vi) guaranteed investment contracts if issued by an insurance company or a bank that is rated in the top four quality categories by a nationally recognized rating agency or alternative guaranteed investment contracts if the underlying assets comply with the requirements of this subdivision;

(vii) savings accounts if fully insured by a federal agency; and

(viii) guaranty fund certificates, surplus notes, or debentures if issued by a domestic mutual insurance company.

(2) Sections 16A.58, 16C.03, subdivision 4, and 16C.05 do not apply to certificates of deposit and collateralization agreements executed by the covered pension plan under clause (1), item (ii).

(3) In addition to investments authorized by clause (1), item (iv), an expanded list plan is authorized to purchase from the Minnesota Housing Finance Agency all or any part of a pool of residential mortgages, not in default, that has previously been financed by the issuance of bonds or notes of the agency. The covered pension plan may also enter into a commitment with the agency, at the time of any issue of bonds or notes, to purchase at a specified future date, not exceeding 12 years from the date of the issue, the amount of mortgage loans then outstanding and not in default that have been made or purchased from the proceeds of the bonds or notes. The covered pension plan may charge reasonable fees for any such commitment and may agree to purchase the mortgage loans at a price sufficient to produce a yield to the covered pension plan comparable, in its judgment, to the yield available on similar mortgage loans at the date of the bonds or notes. The covered pension plan may also enter into agreements with the agency for the investment of any portion of the funds of the agency. The agreement must cover the period of the investment, withdrawal privileges, and any guaranteed rate of return.

(g) **Corporate stocks.** An expanded list plan is authorized to invest in stocks or convertible issues of any corporation organized under the laws of the United States or any of its states, any corporation organized under the laws of the Dominion of Canada or any of its provinces, or any corporation listed on an exchange that is regulated by an agency of the United States or of the Canadian national government.

An investment in any corporation must not exceed five percent of the total outstanding shares of that corporation, except that an expanded list plan may hold up to 20 percent of the shares of a real estate investment trust and up to 20 percent of the shares of a closed mutual fund.

(h) **Other investments.** (1) In addition to the investments authorized in paragraphs (b) to (g), and subject to the provisions in clause (2), an expanded list plan is authorized to invest funds in:

(i) equity and debt investment businesses through participation in limited partnerships, trusts, private placements, limited liability corporations, limited liability companies, limited liability partnerships, and corporations;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(ii) real estate ownership interests or loans secured by mortgages or deeds of trust or shares of real estate investment trusts, through investment in limited partnerships, bank-sponsored collective funds, trusts, mortgage participation agreements, and insurance company commingled accounts, including separate accounts;

(iii) resource investments through limited partnerships, trusts, private placements, limited liability corporations, limited liability companies, limited liability partnerships, and corporations; and

(iv) international securities.

(2) The investments authorized in clause (1) must conform to the following provisions:

(i) the aggregate value of all investments made under clause (1), items (i), (ii), and (iii), may not exceed 35 percent of the market value of the fund for which the expanded list plan is investing;

(ii) there must be at least four unrelated owners of the investment other than the expanded list plan for investments made under clause (1), item (i), (ii), or (iii);

(iii) the expanded list plan's participation in an investment vehicle is limited to 20 percent thereof for investments made under clause (1), item (i), (ii), or (iii);

(iv) the expanded list plan's participation in a limited partnership does not include a general partnership interest or other interest involving general liability. The expanded list plan may not engage in any activity as a limited partner which creates general liability;

(v) the aggregate value of all unrated obligations and obligations that are not rated among the top four quality categories by a nationally recognized rating agency authorized by paragraph (e) and clause (1), item (iv), must not exceed five percent of the covered plan's market value; and

(vi) for volunteer firefighter relief associations, emerging market equity and international debt investments authorized under clause (1), item (iv), must not exceed 15 percent of the association's special fund market value.

(i) **Supplemental plan investments.** The governing body of an expanded list plan may certify assets to the State Board of Investment for investment under section 11A.17.

(j) **Asset mix limitations.** The aggregate value of an expanded list plan's investments under paragraphs (g) and (h) and equity investments under paragraph (i), regardless of the form in which these investments are held, must not exceed 85 percent of the covered plan's market value.

Subd. 7a. **Restrictions.** Any agreement to lend securities must be concurrently collateralized with cash or securities with a market value of not less than 100 percent of the market value of the loaned securities at the time of the agreement. For a covered pension authorized to purchase put and call options and futures contracts under subdivision 7, any agreement for put and call options and futures contracts may only be entered into with a fully offsetting amount of cash or securities. Only securities authorized by this section, excluding those under subdivision 7, paragraph (h), clause (1), items (i) to (iv), may be accepted as collateral or offsetting securities.

Subd. 8. **Minimum liquidity requirements.** A covered pension plan described by subdivision 6 or 7, in order to pay benefits as they come due, shall invest a portion of its assets in authorized short-term debt obligations that can be immediately liquidated without accrual of a substantial determinable penalty or loss

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

and that have an average maturity of no more than 90 days. The chief administrative officer of the plan shall determine the minimum liquidity requirement of the plan and shall retain appropriate documentation of that determination for three years from the date of determination.

Subd. 8a. **Collateralization requirement.** (a) The governing board of a covered pension plan shall designate a national bank, an insured state bank, an insured credit union, or an insured thrift institution as the depository for the pension plan for assets not held by the pension plan's custodian bank.

(b) Unless collateralized as provided under paragraph (c), a covered pension plan may not deposit in a designated depository an amount in excess of the insurance held by the depository in the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, or the National Credit Union Administration, whichever applies.

(c) For an amount greater than the insurance under paragraph (b), the depository must provide collateral in compliance with section 118A.03 or with any comparable successor enactment relating to the collateralization of municipal deposits.

Subd. 8b. **Disclosure of investment authority; receipt of statement.** (a) For this subdivision, the term "broker" means a broker, broker-dealer, investment advisor, investment manager, or third-party agent who transfers, purchases, sells, or obtains investment securities for, or on behalf of, a covered pension plan.

(b) Before a covered pension plan may complete an investment transaction with or in accord with the advice of a broker, the covered pension plan shall provide annually to the broker a written statement of investment restrictions applicable under state law to the covered pension plan or applicable under the pension plan governing board investment policy.

(c) A broker must acknowledge in writing annually the receipt of the statement of investment restrictions and must agree to handle the covered pension plan's investments and assets in accord with the provided investment restrictions. A covered pension plan may not enter into or continue a business arrangement with a broker until the broker has provided this written acknowledgment to the chief administrative officer of the covered pension plan.

(d) If any portion of the plan's assets are held by a security broker or its agent, the security broker or its agent must acknowledge in writing annually that sufficient insurance has been obtained from the Securities Investor Protection Corporation, supplemented by additional insurance, if necessary, to cover the full amount of covered pension plan assets held by the security broker or its agent. Uniform acknowledgment forms prepared by the state auditor shall be used by covered pension plans and brokers to meet the requirements of this subdivision.

Subd. 9. **Prohibited transactions.** (a) No fiduciary of a covered pension plan may engage in a prohibited transaction or allow the plan to engage in a transaction that the fiduciary knows or should know is a prohibited transaction.

(b) A prohibited transaction is any of the following transactions, whether direct or indirect:

(1) the sale, exchange, or lease of real estate between the pension plan and a fiduciary of the plan;

(2) the lending of money or other extension of credit between the plan and a fiduciary of the plan;

(3) the furnishing to a plan by a fiduciary for compensation or remuneration, of goods, services other than those performed in the capacity of fiduciary, or facilities;

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

(4) the furnishing to a fiduciary by a plan of goods, services, or facilities other than office and related space, equipment and office supplies, and administrative services appropriate to the recipient's fiduciary position;

(5) the transfer of plan assets to a plan fiduciary for use by or for the benefit of the fiduciary, other than the payment of retirement plan benefits to which a fiduciary is entitled or the payment to a fiduciary of a reasonable salary and of necessary and reasonable expenses incurred by the fiduciary in the performance of the fiduciary's duties; and

(6) the sale, exchange, loan, or lease of any item of value between a plan and a fiduciary of the plan other than for a fair market value and as a result of an arm's-length transaction.

Subd. 10. **Defined contribution plans; application.** (a) To the extent that a plan governed by chapter 352D, 353D, 354B, 354C, or 354D permits a participant or beneficiary to select among investment products for the person's account and the participant or beneficiary exercises that investment self-direction, no fiduciary is liable for any loss which may result from the participant's or beneficiary's exercise of that investment self-direction.

(b) Subdivisions 1, 2, 6, 8, and 8a do not apply to plans governed by chapter 354B or 354C.

History: *1989 c 319 art 7 s 6; 1990 c 570 art 5 s 1; 1994 c 604 art 2 s 3; 1995 c 122 s 2; 1995 c 262 art 6 s 1,2; 1996 c 399 art 2 s 12; 1996 c 438 art 4 s 7; art 10 s 2; 1997 c 202 art 2 s 63; 1998 c 386 art 2 s 90; 2000 c 461 art 12 s 18; 1Sp2001 c 10 art 3 s 26; 2002 c 363 s 41; 1Sp2005 c 8 art 9 s 9; art 10 s 66; 2006 c 196 art 1 s 52; art 2 s 12; 2006 c 271 art 8 s 6; 2007 c 134 art 1 s 11; 2008 c 349 art 14 s 3-5; 2010 c 359 art 13 s 3; 2012 c 286 art 10 s 10,11; 2013 c 111 art 5 s 68,80; 2014 c 296 art 12 s 3,4*

356A.07 BENEFIT SUMMARY; ANNUAL REPORTS; ADDITIONAL DUTIES.

Subdivision 1. **Benefit provisions summary.** The chief administrative officer of a covered pension plan shall prepare and provide each active plan participant with a summary of the benefit provisions of the plan document. The summary must be provided within 30 days of the start or resumption of a participant's membership in the plan, or within 30 days of the date on which the start or resumption of membership was reported to a covered pension plan by a covered governmental entity, whichever is later. The summary must contain a notice that it is a summary of the plan document but is not itself the plan document, and that in the event of a discrepancy between the summary and the plan document as amended, the plan document governs. A copy of the plan document as amended must be furnished to a plan participant or benefit recipient upon request. The chief administrative officer may utilize the services of the covered governmental entity in providing the summary. The summary must be in a form reasonably calculated to be understood by an average plan participant.

Subd. 2. **Annual financial report.** A covered pension plan shall provide each active plan participant and benefit recipient with a copy of the most recent annual financial report required by section 356.20 and a copy of the most recent actuarial evaluation, if any, required by section 356.215, 356.216, or 424A.093, or by Laws 2013, chapter 111, article 5, section 39, or a summary of those reports.

Subd. 3. **Distribution.** A covered pension plan may distribute the summaries required by this section through covered governmental entities so long as the plan has made arrangements with the entities to assure, with reasonable certainty, that the summaries will be distributed, or made easily available, to active plan participants.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 4. **Review procedure.** If a review procedure is not specified by law for a covered pension plan, the chief administrative officer of the plan shall propose, and the governing board of the plan shall adopt and implement, a procedure for reviewing a determination of eligibility, benefits, or other rights under the plan that is adverse to a plan participant or benefit recipient. The review procedure must include provisions for timely notice to the plan participant or benefit recipient and reasonable opportunity to be heard in any review proceeding conducted and may, but need not be, a contested case under chapter 14.

History: *1989 c 319 art 7 s 7; 2013 c 111 art 5 s 69,80*

356A.08 PLAN ADMINISTRATION; ADDITIONAL DUTIES.

Subdivision 1. **Public meetings.** A meeting of the governing board of a covered pension plan or of a committee of the governing board of the covered pension plan is governed by chapter 13D.

Subd. 2. **Limit on compensation.** No fiduciary of a covered pension plan or a direct relative of a fiduciary may receive any direct or indirect compensation, fee, or other item of more than nominal value from a third party in consideration for a pension plan disbursement.

History: *1989 c 319 art 7 s 8; 1Sp2001 c 10 art 4 s 2*

356A.09 FIDUCIARY BREACH; REMEDIES.

Subdivision 1. **Occurrence of breach.** A fiduciary breach occurs if a fiduciary violates the general standard of fiduciary conduct as specified in section 356A.04 in carrying out the activities of a fiduciary. A fiduciary breach also occurs if a fiduciary of a covered pension plan violates the provisions of section 356A.06, subdivision 9.

Subd. 2. **Remedies.** Remedies available for a fiduciary breach by a fiduciary are those specified by statute or available at common law.

History: *1989 c 319 art 7 s 9*

356A.10 COFIDUCIARY RESPONSIBILITY AND LIABILITY.

Subdivision 1. **Cofiduciary responsibility in general.** A cofiduciary has a general responsibility to oversee the fiduciary activities of all other fiduciaries unless the activity has been allocated or delegated in accordance with subdivision 3. A cofiduciary also has a general responsibility to correct or alleviate a fiduciary breach of which the cofiduciary had or ought to have had knowledge.

Subd. 2. **Cofiduciary liability.** A cofiduciary is liable for a fiduciary breach committed by another fiduciary when the cofiduciary has a responsibility to oversee the fiduciary activities of the other fiduciary or to correct or alleviate a breach by that fiduciary.

Subd. 3. **Limitation on cofiduciary responsibility.** A cofiduciary may limit cofiduciary responsibility and liability through the allocation or delegation of fiduciary activities if the allocation or delegation:

(1) follows appropriate procedures;

(2) is made to an appropriate person or persons; and

(3) is subject to continued monitoring of performance.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 4. **Bar to liability in certain instances.** A properly made delegation or allocation of a fiduciary activity is a bar to liability on the part of a fiduciary making the delegation or allocation unless the fiduciary has or ought to have knowledge of the breach and takes part in the breach, conceals it, or fails to take reasonable steps to remedy it.

Subd. 5. **Extent of cofiduciary liability.** Unless liability is barred under subdivision 4, cofiduciary liability is joint and several, but a cofiduciary has the right to recover from the responsible fiduciary for any damages paid by the cofiduciary.

History: *1989 c 319 art 7 s 10*

356A.11 FIDUCIARY INDEMNIFICATION.

Subdivision 1. **Indemnified fiduciaries.** A fiduciary who is a member of the governing board of a pension plan, the State Board of Investment or the Investment Advisory Council, or who is an employee of a covered pension plan or of the State Board of Investment may be indemnified from liability for fiduciary breach. Indemnification is at the discretion of the governing board of the plan or of the State Board of Investment in the case of members of the state board or of the Investment Advisory Council. A decision to indemnify a fiduciary must apply to all eligible fiduciaries of similar rank.

Subd. 2. **Allowable indemnification.** An indemnified fiduciary must be held harmless from reasonable costs or expenses incurred as a result of any actual or threatened litigation or other proceedings.

History: *1989 c 319 art 7 s 11*

356A.12 JURISDICTION; SERVICE OF PROCESS; AND STATUTE OF LIMITATIONS.

Subdivision 1. **Jurisdiction.** The district court has jurisdiction over a challenge of a fiduciary action or inaction.

Subd. 2. **Service of process.** For a fiduciary or cofiduciary alleged in the complaint to be responsible for an alleged breach, personal service of process must be obtained.

Subd. 3. **Limitations on legal actions.** A legal action challenging a fiduciary action or inaction must be timely. Notwithstanding any limitation in chapter 541, an action is timely if it is brought within the earlier of the following periods:

(1) the period ending three years after the date of the last demonstrable act representing the alleged fiduciary breach or after the final date for performance of the act the failure to perform which constitutes the alleged breach; or

(2) the period ending one year after the date of the discovery of the alleged fiduciary breach.

History: *1989 c 319 art 7 s 12*

356A.13 CONTINUING FIDUCIARY EDUCATION.

Subdivision 1. **Obligation of fiduciaries.** A fiduciary of a covered pension plan shall make reasonable effort to obtain knowledge and skills sufficient to enable the fiduciary to perform fiduciary activities adequately. At a minimum, a fiduciary of a covered pension plan shall comply with the program established in accordance with subdivision 2.

Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

Subd. 2. **Continuing fiduciary education program.** The governing boards of covered pension plans shall each develop and periodically revise a program for the continuing education of any of their board members and any of their chief administrative officers who are not reasonably considered to be experts with respect to their activities as fiduciaries. The program must be designed to provide those persons with knowledge and skills sufficient to enable them to perform their fiduciary activities adequately.

History: *1989 c 319 art 7 s 13*

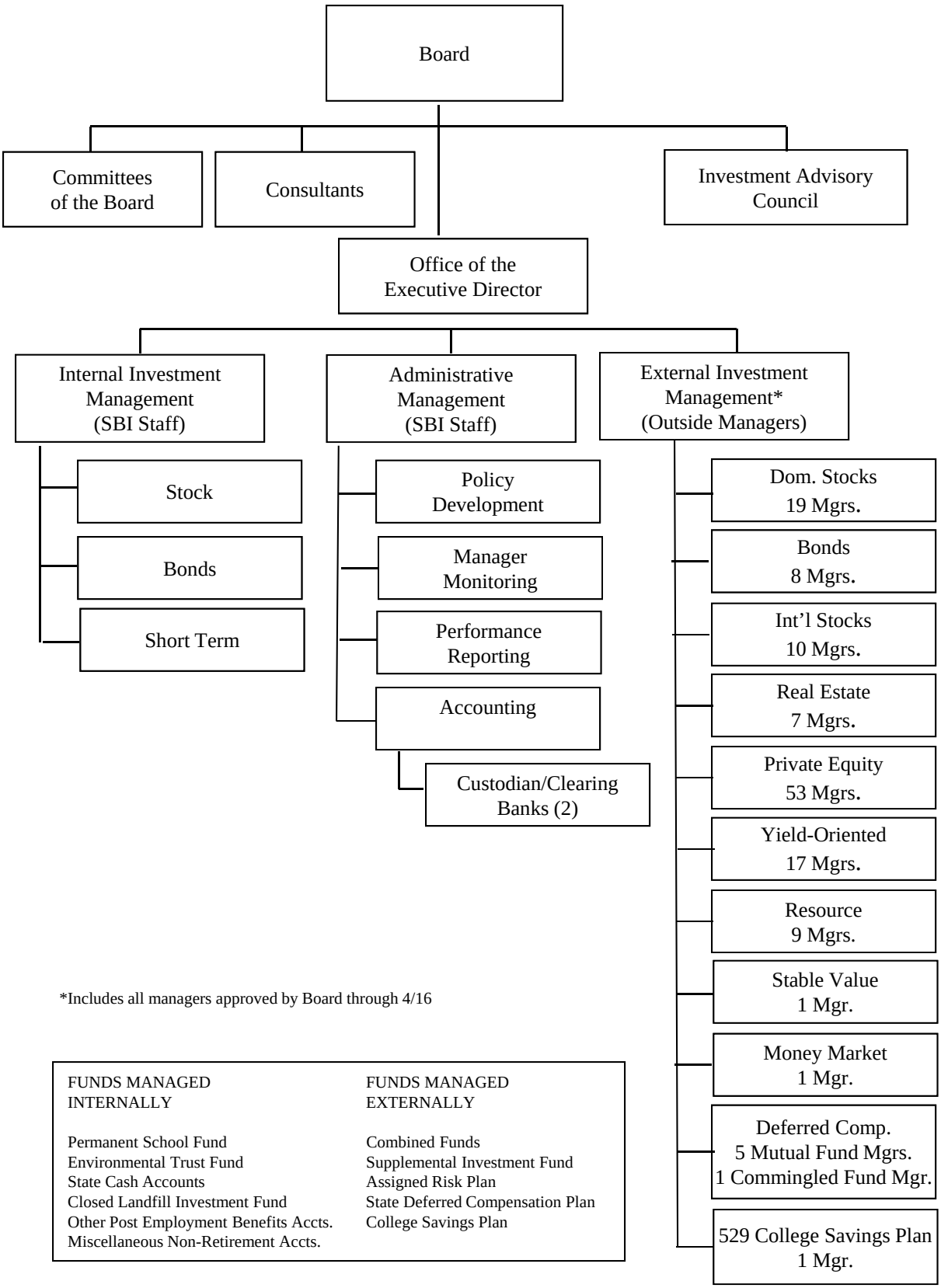
Copyright © 2015 by the Revisor of Statutes, State of Minnesota. All Rights Reserved.

This page intentionally left blank.

EXHIBIT C

STATE BOARD OF INVESTMENT

Functional Organizational Structure

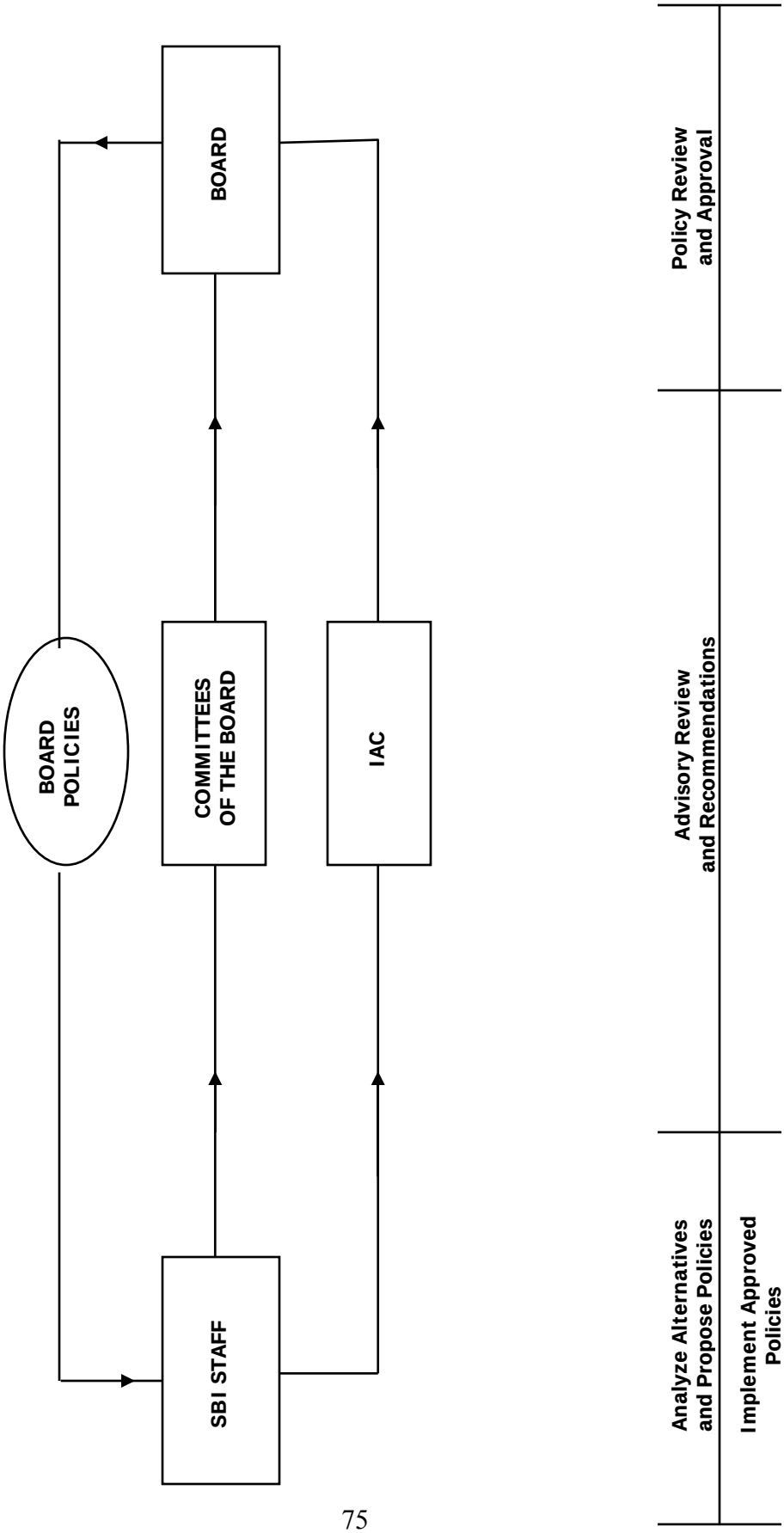


*Includes all managers approved by Board through 4/16

FUNDS MANAGED INTERNALLY	FUNDS MANAGED EXTERNALLY
Permanent School Fund	Combined Funds
Environmental Trust Fund	Supplemental Investment Fund
State Cash Accounts	Assigned Risk Plan
Closed Landfill Investment Fund	State Deferred Compensation Plan
Other Post Employment Benefits Accts.	College Savings Plan
Miscellaneous Non-Retirement Accts.	

This page intentionally left blank.

EXHIBIT D


BOARD
COMMITTEES OF THE BOARD
IAC
BOARD POLICIES
SBI STAFF
Policy Review and Approval
Advisory Review and Recommendations
Analyze Alternatives and Propose Policies
Implement Approved Policies
The Board's consultants provide input throughout the decision-making process.

This page intentionally left blank.

General Requirements

Affidavit of Noncollusion

Each responder must complete the attached Affidavit of Noncollusion and include it with the response.

Conflicts of Interest

Responder must provide a list of all entities with which it has relationships that create, or appear to create, a conflict of interest with the work that is contemplated in this request for proposals. The list should indicate the name of the entity, the relationship, and a discussion of the conflict.

Proposal Contents

By submission of a proposal, Responder warrants that the information provided is true, correct and reliable for purposes of evaluation for potential contract award. The submission of inaccurate or misleading information may be grounds for disqualification from the award as well as subject the responder to suspension or debarment proceedings as well as other remedies available by law.

Disposition of Responses

All materials submitted in response to this RFP will become property of the State and will become public record in accordance with Minnesota Statutes, section 13.591, after the evaluation process is completed. Pursuant to the statute, completion of the evaluation process occurs when the government entity has completed negotiating the contract with the selected vendor. If the Responder submits information in response to this RFP that it believes to be trade secret materials, as defined by the Minnesota Government Data Practices Act, Minnesota Statute § 13.37, the Responder must:

- clearly mark all trade secret materials in its response at the time the response is submitted,
- include a statement with its response justifying the trade secret designation for each item, and
- defend any action seeking release of the materials it believes to be trade secret, and indemnify and hold harmless the State, its agents and employees, from any judgments or damages awarded against the State in favor of the party requesting the materials, and any and all costs connected with that defense. This indemnification survives the State's award of a contract. In submitting a response to this RFP, the Responder agrees that this indemnification survives as long as the trade secret materials are in possession of the State.

The State will not consider the prices submitted by the Responder to be proprietary or trade secret materials.

Notwithstanding the above, if the State contracting party is part of the judicial branch, the release of data shall be in accordance with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time.

Contingency Fees Prohibited

Pursuant to Minnesota Statutes Section 10A.06, no person may act as or employ a lobbyist for compensation that is dependent upon the result or outcome of any legislation or administrative action.

Sample Contract

You should be aware of the State's standard contract terms and conditions in preparing your response. A sample State of Minnesota Professional/Technical Services Contract is attached for your reference. Much of the language reflected in the contract is required by statute. If you take exception to any of the terms, conditions or language in the contract, you must indicate those exceptions in your response to the RFP; certain exceptions may result in your proposal being disqualified from further review and evaluation. Only those exceptions indicated in your response to the RFP will be available for discussion or negotiation.

Organizational Conflicts of Interest

The responder warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts or circumstances which could give rise to organizational conflicts of interest. An organizational conflict of interest exists when, because of existing or planned activities or because of relationships with other persons, a vendor is unable or potentially unable to render impartial assistance or advice to the State, or the vendor's objectivity in performing the contract work is or might be otherwise impaired, or the vendor has an unfair competitive advantage. The responder agrees that, if after award, an organizational conflict of interest is discovered, an immediate and full disclosure in writing must be made to the Assistant Director of the Department of Administration's Materials Management Division ("MMD") which must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. If an organization conflict of interest is determined to exist, the State may, at its discretion, cancel the contract. In the event the responder was aware of an organizational conflict of interest prior to the award of the contract and did not disclose the conflict to MMD, the State may terminate the contract for default. The provisions of this clause must be included in all subcontracts for work to be performed similar to the service provided by the prime contractor, and the terms "contract," "contractor," and "contracting officer" modified appropriately to preserve the State's rights.

Preference to Targeted Group and Economically Disadvantaged Business and Individuals

In accordance with Minnesota Rules, part 1230.1810, subpart B and Minnesota Rules, part 1230.1830, certified Targeted Group Businesses and individuals submitting proposals as prime contractors will receive a six percent preference in the evaluation of their proposal, and certified Economically Disadvantaged Businesses and individuals submitting proposals as prime

contractors will receive a six percent preference in the evaluation of their proposal. Eligible TG businesses must be currently certified by the Materials Management Division prior to the solicitation opening date and time. For information regarding certification, contact the Materials Management Helpline at 651.296.2600, or you may reach the Helpline by email at mmdhelp.line@state.mn.us. For TTY/TDD communications, contact the Helpline through the Minnesota Relay Services at 1.800.627.3529.

Veteran-Owned Small Business Preference

Unless a greater preference is applicable and allowed by law, in accordance with Minn. Stat. § 16C.16, subd. 6a, the Commissioner of Administration will award a 6% preference in the amount bid on state procurement to certified small businesses that are majority owned and operated by veterans.

A small business qualifies for the veteran-owned preference when it meets one of the following requirements. 1) The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business. 2)

The principal place of business is in Minnesota AND the United States Department of Veterans Affairs verifies the business as being a veteran-owned or service-disabled veteran-owned small business under Public Law 109-461 and Code of Federal Regulations, title 38, part 74 (Supported By Documentation). *See* Minn. Stat. § 16C.19(d).

Submit the appropriate documentation with the solicitation response to claim the veteran-owned preference. Statutory requirements and documentation must be met by the solicitation response due date and time to be awarded the preference.

Foreign Outsourcing of Work Prohibited

Unless prohibited by the World Trade Organization's Government Procurement Agreement, *a*ll services under this contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision also applies to work performed by subcontractors at all tiers.

Work Force Certification

For all contracts estimated to be in excess of $100,000, responders are required to complete the attached Affirmative Action Data page and return it with the response. As required by Minnesota Rule 5000.3600, "It is hereby agreed between the parties that Minnesota Statute § 363A.36 and Minnesota Rule 5000.3400 - 5000.3600 are incorporated into any contract between these parties based upon this specification or any modification of it. A copy of Minnesota Statute § 363A.36 and Minnesota Rule 5000.3400 - 5000.3600 are available upon request from the contracting agency."

Equal Pay Certification

If the Response to this solicitation could be in excess of $500,000, the Responder must obtain an Equal Pay Certificate from the Minnesota Department of Human Rights (MDHR) or claim an exemption prior to contract execution. A responder is exempt if it has not employed more than 40 full-time employees on any single working day in one state during the previous 12 months. Please contact MDHR with questions at: 651-539-1095 (metro), 1-800-657-3704 (toll free), 711 or 1-800627-3529 (MN Relay) or at compliance.MDHR@state.mn.us.

Certification Regarding Lobbying

Federal money will be used or may potentially be used to pay for all or part of the work under the contract, therefore the Proposer must complete the attached **Certification Regarding Lobbying** and submit it as part of its proposal.

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion.

Federal money will be used or may potentially be used to pay for all or part of the work under the contract, therefore the Proposer must certify the following, as required by the regulations implementing Executive Order 12549.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

4. The terms *covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded*, as used in this clause, have the meaning set out in the Definitions and Coverages sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this response that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R. 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Insurance Requirements

A. Contractor shall not commence work under the contract until they have obtained all the insurance described below and the State of Minnesota has approved such insurance. Contractor shall maintain such insurance in force and effect throughout the term of the contract.

B. Contractor is required to maintain and furnish satisfactory evidence of the following insurance policies:

1. **Workers' Compensation Insurance:** Except as provided below, Contractor must provide Workers' Compensation insurance for all its employees and, in case any work is subcontracted, Contractor will require the subcontractor to provide Workers' Compensation insurance in accordance with the statutory requirements of the State of Minnesota, including Coverage B, Employer's Liability. Insurance **minimum** limits are as follows:

   $100,000 – Bodily Injury by Disease per employee
   $500,000 – Bodily Injury by Disease aggregate
   $100,000 – Bodily Injury by Accident

   If Minnesota Statute 176.041 exempts Contractor from Workers' Compensation insurance or if the Contractor has no employees in the State of Minnesota, Contractor must provide a written statement, signed by an authorized representative, indicating the qualifying exemption that excludes Contractor from the Minnesota Workers' Compensation requirements.

   If during the course of the contract the Contractor becomes eligible for Workers' Compensation, the Contractor must comply with the Workers' Compensation Insurance requirements herein and provide the State of Minnesota with a certificate of insurance.

2. **Commercial General Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury, including sickness or disease, death, and for care and loss of services as well as from claims for property damage, including loss of use which may arise from operations under the Contract whether the operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by the Contractor under the contract. Insurance **minimum** limits are as follows:

   $2,000,000 – per occurrence
   $2,000,000 – annual aggregate
   $2,000,000 – annual aggregate – Products/Completed Operations

The following coverages shall be included:

Premises and Operations Bodily Injury and Property Damage
Personal and Advertising Injury
Blanket Contractual Liability
Products and Completed Operations Liability
Other; if applicable, please list_____
State of Minnesota named as an Additional Insured, to the extent permitted by law

3. **Commercial Automobile Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury as well as from claims for property damage resulting from the ownership, operation, maintenance or use of all owned, hired, and non-owned autos which may arise from operations under this contract, and in case any work is subcontracted the contractor will require the subcontractor to maintain Commercial Automobile Liability insurance. Insurance **minimum** limits are as follows:

   $2,000,000 – per occurrence Combined Single limit for Bodily Injury and Property Damage

   In addition, the following coverages should be included:

   Owned, Hired, and Non-owned Automobile

4. **Professional/Technical, Errors and Omissions, and/or Miscellaneous Liability Insurance** [**NOTE TO AGENCIES:** *Your agency will need to determine whether to include or exclude provision B. 4. based on the nature of the contract. A professional is someone who possesses expertise on a certain subject and performs work for the state related to that expertise, such as design work. Service and maintenance work are typically not considered professional work even though they may entail some level of expertise. If professional work will not be performed, remove provision B.4. and also amend the fifth bullet in the Additional Insurance Conditions to read: "Include legal defense fees in addition to its liability policy limits." For assistance with determining if provision B. 4. should be included or excluded, please contact the Department of Administration's Risk Management Office at (651) 201-2591.*]

   This policy will provide coverage for all claims the contractor may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Contractor's professional services required under the contract.

   Contractor is required to carry the following **minimum** limits:

   $2,000,000 – per claim or event
   $2,000,000 – annual aggregate

Any deductible will be the sole responsibility of the Contractor and may not exceed $50,000 without the written approval of the State. If the Contractor desires authority from the State to have a deductible in a higher amount, the Contractor shall so request in writing, specifying the amount of the desired deductible and providing financial documentation by submitting the most current audited financial statements so that the State can ascertain the ability of the Contractor to cover the deductible from its own resources.

The retroactive or prior acts date of such coverage shall not be after the effective date of this Contract and Contractor shall maintain such insurance for a period of at least three (3) years, following completion of the work. If such insurance is discontinued, extended reporting period coverage must be obtained by Contractor to fulfill this requirement.

C. Additional Insurance Conditions:

- Contractor's policy(ies) shall be primary insurance to any other valid and collectible insurance available to the State of Minnesota with respect to any claim arising out of Contractor's performance under this contract;

- If Contractor receives a cancellation notice from an insurance carrier affording coverage herein, Contractor agrees to notify the State of Minnesota within five (5) business days with a copy of the cancellation notice, unless Contractor's policy(ies) contain a provision that coverage afforded under the policy(ies) will not be cancelled without at least thirty (30) days advance written notice to the State of Minnesota;

- Contractor is responsible for payment of Contract related insurance premiums and deductibles;

- If Contractor is self-insured, a Certificate of Self-Insurance must be attached;

- Contractor's policy(ies) shall include legal defense fees in addition to its liability policy limits, with the exception of B.4 above;

- Contractor shall obtain insurance policy(ies) from insurance company(ies) having an "AM BEST" rating of A- (minus); Financial Size Category (FSC) VII or better, and authorized to do business in the State of Minnesota; and

- An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Contract.

D. The State reserves the right to immediately terminate the contract if the contractor is not in compliance with the insurance requirements and retains all rights to pursue any legal remedies against the contractor. All insurance policies must be open to inspection by the State, and copies of policies must be submitted to the State's authorized representative upon written request.

E. The successful responder is required to submit Certificates of Insurance acceptable to the State of MN as evidence of insurance coverage requirements prior to commencing work under the contract.

This page intentionally left blank.

STATE OF MINNESOTA
AFFIDAVIT OF NONCOLLUSION

I swear (or affirm) under the penalty of perjury:

1. That I am the Responder (if the Responder is an individual), a partner in the company (if the Responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the Responder is a corporation);

2. That the attached proposal submitted in response to the _____ Request for Proposals has been arrived at by the Responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with, any other Responder of materials, supplies, equipment or services described in the Request for Proposal, designed to limit fair and open competition;

3. That the contents of the proposal have not been communicated by the Responder or its employees or agents to any person not an employee or agent of the Responder and will not be communicated to any such persons prior to the official opening of the proposals; and

4. That I am fully informed regarding the accuracy of the statements made in this affidavit.

Responder's Firm Name _____

Authorized Representative (Please Print) _____

Authorized Signature: _____

Date: _____

Subscribed and sworn to me this _____ day of _____

Notary Public Signature: _____

My commission expires: _____

This page intentionally left blank.

CERTIFICATION REGARDING LOBBYING

For State of Minnesota Contracts and Grants over $100,000

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, A Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____

Organization Name

_____

Name and Title of Official Signing for Organization

By: _____

Signature of Official

_____

Date

This page intentionally left blank.

State Of Minnesota – Affirmative Action Certification

If your response to this solicitation is or could be in excess of $100,000, complete the information requested below to determine whether you are subject to the Minnesota Human Rights Act (Minnesota Statutes 363A.36) certification requirement, and to provide documentation of compliance if necessary. **It is your sole responsibility to provide this information and—if required—to apply for Human Rights certification prior to the due date of the bid or proposal and to obtain Human Rights certification prior to the execution of the contract. The State of Minnesota is under no obligation to delay proceeding with a contract until a company receives Human Rights certification.**

BOX A – For companies which have employed more than 40 full-time employees within Minnesota on any single working day during the previous 12 months. All other companies proceed to BOX B.

Your response will be rejected unless your business: has a current Certificate of Compliance issued by the Minnesota Department of Human Rights (MDHR)

–or–

has submitted an affirmative action plan to the MDHR, which the Department received prior to the date the responses are due.

Check one of the following statements if you have employed more than 40 full-time employees in Minnesota on any single working day during the previous 12 months:

- ❑ We have a current Certificate of Compliance issued by the MDHR. **Proceed to BOX C**. **Include a copy of your certificate with your response.**
- ❑ We do not have a current Certificate of Compliance. However, we submitted an Affirmative Action Plan to the MDHR for approval, which the Department received on _____ (date). **Proceed to BOX C**.
- ❑ We do not have a Certificate of Compliance, nor has the MDHR received an Affirmative Action Plan from our company. **We acknowledge that our response will be rejected. Proceed to BOX C**. **Contact the Minnesota Department of Human Rights for assistance.** (See below for contact information.)

Please note: Certificates of Compliance must be issued by the Minnesota Department of Human Rights. Affirmative Action Plans approved by the Federal government, a county, or a municipality must still be received, reviewed, and approved by the Minnesota Department of Human Rights before a certificate can be issued.

BOX B – For those companies not described in

BOX A Check below.

- ❑ We have not employed more than 40 full-time employees on any single working day in Minnesota within the previous 12 months. **Proceed to BOX C**.

BOX C – For all companies

By signing this statement, you certify that the information provided is accurate and that you are authorized to sign on behalf of the responder. You also certify that you are in compliance with federal affirmative action requirements that may apply to your company. (These requirements are generally triggered only by participating as a prime or subcontractor on federal projects or contracts. Contractors are alerted to these requirements by the federal government.)

Name of Company: _____ Date _____

Authorized Signature: _____

Telephone number: _____

Printed Name: _____ Title: _____

For assistance with this form, contact:

Minnesota Department of Human Rights, Compliance & Community Relations

Mail: The Freeman Building 625 Robert Street North, Saint
TC Metro: (651) 296-5663 Toll Free: 800-657-3704 Paul, MN 55155

Web: www.humanrights.state.mn.us Fax: (651) 296-9042 TTY: (651) 296-1283

Email: compliance.mdhr@state.mn.us

Affirmative Action Certification Page, Revised 6/11 - MDHR

State of Minnesota – Equal Pay Certificate

If your response could be in excess of $500,000, please complete and submit this form with your submission. **It is your sole responsibility to provide the information requested and when necessary to obtain an Equal Pay Certificate (Equal Pay Certificate) from the Minnesota Department of Human Rights (MDHR) prior to contract execution**. **You must supply this document with your submission.** Please contact MDHR with questions at: 651-539-1095 (metro), 1-800-657-3704 (toll free), 711 or 1-800-627-3529 (MN Relay) or at compliance.MDHR@state.mn.us.

Option A – If you have employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the applicable box below:

☐ Attached is our current MDHR Equal Pay Certificate.

☐ Attached is MDHR's confirmation of our Equal Pay Certificate application.

Option B – If you have not employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the box below.

☐ We are exempt. We agree that if we are selected we will submit to MDHR within five (5) business days of final contract execution, the names of our employees during the previous 12 months, date of separation if applicable, and the state in which the persons were employed. Documentation should be sent to compliance.MDHR@state.mn.us.

The State of Minnesota reserves the right to request additional information from you. **If you are unable to check any of the preceding boxes, please contact MDHR to avoid a determination that a contract with your organization cannot be executed.**

Your signature certifies that you are authorized to make the representations, the information provided is accurate, the State of Minnesota can rely upon the information provided, and the State of Minnesota may take action to suspend or revoke any agreement with you for any false information provided.

Authorized Signature	Printed Name	Title
Organization	MN/FED Tax ID#	Date
Issuing Entity		Project # or Lease Address

This page intentionally left blank.

STATE OF MINNESOTA
VETERAN-OWNED PREFERENCE FORM

Unless a greater preference is applicable and allowed by law, in accordance with Minn. Stat. §16C.16, subd. 6a, the state will award a 6% preference on state procurement to certified small businesses that are majority owned and operated by veterans.

Veteran-Owned Preference Requirements - *See* Minn. Stat. § 16C.19(d):

1) The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business.

   or

2) The principal place of business is in Minnesota AND the United States Department of Veterans Affairs verifies the business as being a veteran-owned or service-disabled veteran-owned small business under Public Law 109-461 and Code of Federal Regulations, title 38, part 74 (Supported By Documentation).

Statutory requirements and appropriate documentation must be met **by the solicitation response due date and time** to be awarded the veteran-owned preference.

Claim the Preference

By signing below I confirm that:

My company is claiming the veteran-owned preference afforded by Minn. Stat. § 16C.16, subd. 6a. by making this claim, I verify that:

- The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business.

  or

- My company's principal place of business is in Minnesota **and** the United States Department of Veteran's Affairs verifies my company as being a veteran-owned or service-disabled veteran-owned small business.

  (Supported By Attached Documentation)

Name of Company: _____ Date: _____

Authorized Signature: _____ Telephone: _____

Printed Name: _____ Title: _____

Attach documentation, sign, and return this form with your solicitation response to claim the veteran-owned preference.

This page intentionally left blank.

STATE OF MINNESOTA
RESIDENT VENDOR FORM

In accordance with Laws of Minnesota 2013, Chapter 142, Article 3, Section 16, amending Minn. Stat. § 16C.02, subd. 13, a "Resident Vendor" means a person, firm, or corporation that:

(1) is authorized to conduct business in the state of Minnesota on the date a solicitation for a contract is first advertised or announced. It includes a foreign corporation duly authorized to engage in business in Minnesota;

(2) has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought;

(3) has a business address in the state; and

(4) has affirmatively claimed that status in the bid or proposal submission.

To receive recognition as a Minnesota Resident Vendor ("Resident Vendor"), your company must meet each element of the statutory definition above by the solicitation opening date and time. If you wish to affirmatively claim Resident Vendor status, you should do so by submitting this form with your bid or proposal.

Resident Vendor status may be considered for purposes of resolving tied low bids or the application of a reciprocal preference.

I HEREBY CERTIFY THAT THE COMPANY LISTED BELOW:

1. Is authorized to conduct business in the State of Minnesota on the date a solicitation for a contract is first advertised or announced. *(This includes a foreign corporation duly authorized to engage in business in Minnesota.)*
   ___Yes ___No (must check yes or no)

2. Has paid unemployment taxes or income taxes in the State of Minnesota during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought.
   ___Yes ___No (must check yes or no)

3. Has a business address in the State of Minnesota.
   ___Yes ___No (must check yes or no)

4. Agrees to submit documentation, if requested, as part of the bid or proposal process, to verify compliance with the above statutory requirements.
   ___Yes ___No (must check yes or no)

BY SIGNING BELOW, you are certifying your compliance with the requirements set forth herein and claiming Resident Vendor status in your bid or proposal submission.

Name of Company: _____ Date: _____

Authorized Signature: _____ Telephone: _____

Printed Name: _____ Title: _____

IF YOU ARE CLAIMING RESIDENT VENDOR STATUS, SIGN AND RETURN THIS FORM WITH YOUR BID OR PROPOSAL SUBMISSION.

If you take exception to any of the terms, conditions or language in the contract, you must indicate those exceptions in your response to the RFP; certain exceptions may result in your proposal being disqualified from further review and evaluation. Only those exceptions indicated in your response to the RFP will be available for discussion or negotiation.

Professional and Technical Services Contract

State of Minnesota

SWIFT Contract No.:

This Contract is between the State of Minnesota, acting through its _____ ("State") and _____ ("Contractor").

Recitals

1. Under Minn. Stat. § 15.061 the State is empowered to engage such assistance as deemed necessary.
2. The State is in need of _____.
3. The Contractor represents that it is duly qualified and agrees to perform all services described in this Contract to the satisfaction of the State.

Contract

1. Term of Contract

1.1 Effective date: _____, or the date the State obtains all required signatures under Minn. Stat. § 16C.05, subd. 2, whichever is later. The Contractor must not begin work under this Contract until this Contract is fully executed and the Contractor has been notified by the State's Authorized Representative to begin the work.

1.2 Expiration date: _____, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

1.3 Survival of terms: The following clauses survive the expiration or cancellation of this Contract: 8. Indemnification; 9. State audits; 10. Government data practices and intellectual property; 14. Publicity and endorsement; 15. Governing law, jurisdiction, and venue; and 16. Data disclosure.

2. Contractor's duties

The Contractor, who is not a State employee, will:

_____

_____

3. Time

The Contractor must comply with all the time requirements described in this Contract. In the performance of this Contract, time is of the essence.

SAMPLE

4. Consideration and payment

4.1 Consideration. The State will pay for all services performed by the Contractor under this Contract as follows: *(a) Compensation.* The Contractor will be paid $_____.

(b) Travel expenses. Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Contractor as a result of this Contract will not exceed $_____; provided that the Contractor will be reimbursed for travel and subsistence expenses in the same manner and in no greater amount than provided in the current "Commissioner's Plan" established by the Commissioner of Minnesota Management and Budget which is incorporated in to this Contract by reference. The Contractor will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out-of-state travel. Minnesota will be considered the home state for determining whether travel is out of state.

(c) Total obligation. The total obligation of the State for all compensation and reimbursements to the Contractor under this Contract will not exceed $ _____.

4.2 Payment.

(a) Invoices. The State will promptly pay the Contractor after the Contractor presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services.

Invoices must be submitted timely and according to the following schedule:

_____

_____

(b) Retainage. Under Minn. Stat. § 16C.08, subd. 2(10), no more than 90 percent of the amount due under this Contract may be paid until the final product of this Contract has been reviewed by the State's agency head. The balance due will be paid when the State's agency head determines that the Contractor has satisfactorily fulfilled all the terms of this Contract.

(c) Federal funds. (Where applicable, if blank this section does not apply.) Payments under this Contract will be made from federal funds obtained by the State through _____. The Contractor is responsible for compliance with all federal requirements imposed on these funds and accepts full financial responsibility for any requirements imposed by the Contractor's failure to comply with federal requirements.

5. Conditions of payment

All services provided by the Contractor under this Contract must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations including business registration requirements of the Office of the Secretary of State. The Contractor will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

6. Authorized Representative

The State's Authorized Representative is _____, or his/her successor, and has the responsibility to monitor the Contractor's performance and the authority to accept the services provided under this Contract. If the services are satisfactory, the State's Authorized Representative will certify acceptance on each invoice submitted for payment.

The Contractor's Authorized Representative is _____, or his/her successor. If the Contractor's Authorized Representative changes at any time during this Contract, the Contractor must immediately notify the State.

SAMPLE

7. Assignment, amendments, waiver, and contract complete

7.1 Assignment. The Contractor may neither assign nor transfer any rights or obligations under this Contract without the prior consent of the State and a fully executed assignment agreement, executed and approved by the same parties who executed and approved this Contract, or their successors in office.

7.2 Amendments. Any amendment to this Contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original Contract, or their successors in office.

7.3 Waiver. If the State fails to enforce any provision of this Contract, that failure does not waive the provision or its right to enforce it.

7.4 Contract complete. This Contract contains all negotiations and agreements between the State and the Contractor. No other understanding regarding this Contract, whether written or oral, may be used to bind either party.

8. Indemnification

In the performance of this Contract by Contractor, or Contractor's agents or employees, the Contractor must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the State, to the extent caused by Contractor's:

a) Intentional, willful, or negligent acts or omissions; or
b) Actions that give rise to strict liability; or
c) Breach of contract or warranty.

The indemnification obligations of this section do not apply in the event the claim or cause of action is the result of the State's sole negligence. This clause will not be construed to bar any legal remedies the Contractor may have for the State's failure to fulfill its obligation under this Contract.

9. State audits

Under Minn. Stat. § 16C.05, subd. 5, the Contractor's books, records, documents, and accounting procedures and practices relevant to this Contract are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Contract.

10. Government data practices and intellectual property

10.1 Government data practices. The Contractor and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. ch. 13, (or, if the State contracting party is part of the Judicial Branch, with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time) as it applies to all data provided by the State under this Contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Contractor under this Contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data governed by the Minnesota Government Practices Act, Minn. Stat. ch. 13, by either the Contractor or the State.

If the Contractor receives a request to release the data referred to in this clause, the Contractor must immediately notify and consult with the State's Authorized Representative as to how the Contractor should respond to the request. The Contractor's response to the request shall comply with applicable law.

SAMPLE

10.2 Intellectual property rights.

(a) Intellectual property rights. The State owns all rights, title, and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the works and documents created and paid for under this Contract. The "works" means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Contractor, its employees, agents, and subcontractors, either individually or jointly with others in the performance of this Contract. "Works" includes documents. The "documents" are the originals of any databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Contractor, its employees, agents, or subcontractors, in the performance of this Contract. The documents will be the exclusive property of the State and all such documents must be immediately returned to the State by the Contractor upon completion or cancellation of this Contract. To the extent possible, those works eligible for copyright protection under the United States Copyright Act will be deemed to be "works made for hire." The Contractor assigns all right, title, and interest it may have in the works and the documents to the State. The Contractor must, at the request of the State, execute all papers and perform all other acts necessary to transfer or record the State's ownership interest in the works and documents.

(b) Obligations

(1) Notification. Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Contractor, including its employees and subcontractors, in the performance of this Contract, the Contractor will immediately give the State's Authorized Representative written notice thereof, and must promptly furnish the State's Authorized Representative with complete information and/or disclosure thereon.

(2) Representation. The Contractor must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the works and documents are the sole property of the State, and that neither Contractor nor its employees, agents, or subcontractors retain any interest in and to the works and documents. The Contractor represents and warrants that the works and documents do not and will not infringe upon any intellectual property rights of other persons or entities. Notwithstanding Clause 8, the Contractor will indemnify; defend, to the extent permitted by the Attorney General; and hold harmless the State, at the Contractor's expense, from any action or claim brought against the State to the extent that it is based on a claim that all or part of the works or documents infringe upon the intellectual property rights of others. The Contractor will be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including but not limited to, attorney fees. If such a claim or action arises, or in the Contractor's or the State's opinion is likely to arise, the Contractor must, at the State's discretion, either procure for the State the right or license to use the intellectual property rights at issue or replace or modify the allegedly infringing works or documents as necessary and appropriate to obviate the infringement claim. This remedy of the State will be in addition to and not exclusive of other remedies provided by law.

11. Workers' compensation and other insurance

Contractor certifies that it is in compliance with all insurance requirements specified in the solicitation document relevant to this Contract. Contractor shall not commence work under the Contract until they have obtained all the insurance specified in the solicitation document. Contractor shall maintain such insurance in force and effect throughout the term of the Contract.

SAMPLE

Further, the Contractor certifies that it is in compliance with Minn. Stat. § 176.181, subd. 2, pertaining to workers' compensation insurance coverage. The Contractor's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees or agents and any claims made by any third party as a consequence of any act or omission on the part of these employees or agents are in no way the State's obligation or responsibility.

12. Debarment by State, its departments, commissions, agencies, or political subdivisions

Contractor certifies that neither it nor its principals is presently debarred or suspended by the State, or any of its departments, commissions, agencies, or political subdivisions. Contractor's certification is a material representation upon which the Contract award was based. Contractor shall provide immediate written notice to the State's Authorized Representative if at any time it learns that this certification was erroneous when submitted or becomes erroneous by reason of changed circumstances.

13. Certification regarding debarment, suspension, ineligibility, and voluntary exclusion

Federal money will be used or may potentially be used to pay for all or part of the work under the Contract, therefore Contractor certifies that it is in compliance with federal requirements on debarment, suspension, ineligibility and voluntary exclusion specified in the solicitation document implementing Executive Order 12549. Contractor's certification is a material representation upon which the Contract award was based.

14. Publicity and endorsement

14.1 Publicity. Any publicity regarding the subject matter of this Contract must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Contractor individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from this Contract.

14.2 Endorsement. The Contractor must not claim that the State endorses its products or services.

15. Governing law, jurisdiction, and venue

Minnesota law, without regard to its choice-of-law provisions, governs this Contract. Venue for all legal proceedings out of this Contract, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

16. Data disclosure

Under Minn. Stat. § 270C.65, subd. 3 and other applicable law, the Contractor consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state agencies, and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state laws which could result in action requiring the Contractor to file state tax returns, pay delinquent state tax liabilities, if any, or pay other state liabilities.

17. Payment to subcontractors

(If applicable) As required by Minn. Stat. § 16A.1245, the prime Contractor must pay all subcontractors, less any retainage, within 10 calendar days of the prime Contractor's receipt of payment from the State for undisputed services provided by the subcontractor(s) and must pay interest at the rate of one and one-half percent per month or any part of a month to the subcontractor(s) on any undisputed amount not paid on time to the subcontractor(s).

SAMPLE

18. Termination

18.1 Termination by the State. The State or Commissioner of Administration may cancel this Contract at any time, with or without cause, upon 30 days' written notice to the Contractor. Upon termination, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

18.2 Termination for insufficient funding. The State may immediately terminate this Contract if it does not obtain funding from the Minnesota Legislature, or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Contractor. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. The State will not be assessed any penalty if the Contract is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. The State must provide the Contractor notice of the lack of funding within a reasonable time of the State's receiving that notice.

19. Non-discrimination (In accordance with Minn. Stat. § 181.59)

The Contractor will comply with the provisions of Minn. Stat. § 181.59 which require:

"Every contract for or on behalf of the state of Minnesota, or any county, city, town, township, school, school district, or any other district in the state, for materials, supplies, or construction shall contain provisions by which the contractor agrees:

(1) that, in the hiring of common or skilled labor for the performance of any work under any contract, or any subcontract, no contractor, material supplier, or vendor, shall, by reason of race, creed, or color, discriminate against the person or persons who are citizens of the United States or resident aliens who are qualified and available to perform the work to which the employment relates;

(2) that no contractor, material supplier, or vendor, shall, in any manner, discriminate against, or intimidate, or prevent the employment of any person or persons identified in clause (1) of this section, or on being hired, prevent, or conspire to prevent, the person or persons from the performance of work under any contract on account of race, creed, or color;

(3) that a violation of this section is a misdemeanor; and

(4) that this contract may be canceled or terminated by the state, county, city, town, school board, or any other person authorized to grant the contracts for employment, and all money due, or to become due under the contract, may be forfeited for a second or any subsequent violation of the terms or conditions of this contract."

SAMPLE

[Delete this section if your total Contract value is under $100,000]

20. Affirmative action requirements for contracts in excess of $100,000 and if the Contractor has more than 40 full-time employees in Minnesota or its principal place of business

The State intends to carry out its responsibility for requiring affirmative action by its contractors.

20.1 Covered contracts and contractors. If the Contract exceeds $100,000 and the Contractor employed more than 40 full-time employees on a single working day during the previous 12 months in Minnesota or in the state where it has its principle place of business, then the Contractor must comply with the requirements of Minn. Stat. § 363A. 36 and Minn. R. 5000.3400-5000.3600. A contractor covered by Minn. Stat. § 363A.36 because it employed more than 40 full-time employees in another state and does not have a certificate of compliance, must certify that it is in compliance with federal affirmative action requirements.

20.2 Minn. Stat. § 363A.36. Minn. Stat. § 363A.36 requires the Contractor to have an affirmative action plan for the employment of minority persons, women, and qualified disabled individuals approved by the Minnesota Commissioner of Human Rights ("Commissioner") as indicated by a certificate of compliance. The law addresses suspension or revocation of a certificate of

compliance and contract consequences in that event. A contract awarded without a certificate of compliance may be voided.

20.3 Minn. R. 5000.3400-5000.3600.

(a) General. Minn. R. 5000.3400-5000.3600 implements Minn. Stat. § 363A.36. These rules include, but are not limited to, criteria for contents, approval, and implementation of affirmative action plans; procedures for issuing certificates of compliance and criteria for determining a contractor's compliance status; procedures for addressing deficiencies, sanctions, and notice and hearing; annual compliance reports; procedures for compliance review; and contract consequences for non-compliance. The specific criteria for approval or rejection of an affirmative action plan are contained in various provisions of Minn. R. 5000.3400-5000.3600 including, but not limited to, Minn. R. 5000.3420-5000.3500 and 5000.35525000.3559.

(b) Disabled Workers. The Contractor must comply with the following affirmative action requirements for disabled workers.

(1) The Contractor must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

(3) In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minn. Stat. § 363A.36, and the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

(4) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Commissioner. Such notices must state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled employees and applicants for employment, and the rights of applicants and employees.

(5) The Contractor must notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minn. Stat. § 363A.36, of the Minnesota Human Rights Act and is committed to take affirmative action to employ and advance in employment physically and mentally disabled persons.

(c) Consequences. The consequences for the Contractor's failure to implement its affirmative action plan or make a good faith effort to do so include, but are not limited to, suspension or revocation of a certificate of compliance by the Commissioner, refusal by the Commissioner to approve subsequent plans, and termination of all or part of this Contract by the Commissioner or the State.

(d) Certification. The Contractor hereby certifies that it is in compliance with the requirements of Minn. Stat. § 363A.36 and Minn. R. 5000.3400-5000.3600 and is aware of the consequences for noncompliance.

[**Signatures as required by the State.]**

SAMPLE

This page intentionally left blank.

2016 Investment Consultant RFP
Organizational Summary of Investment Consultant Candidates

		Callan *(Current General Consultant)*	PCA *(Current Special Projects Consultant)*	NEPC	Meketa	Aon Hewitt Investment Consulting (AHIC)	Verus
1	**Established**	1973	1988, LLC	1986, LLC	1974	1974	1986
2	**SEC Registered Investment Advisor**	Yes	Yes	Yes	Yes	Yes	Yes
3	**Headquarters**	San Francisco	Portland	Boston	Boston	Chicago	Seattle
4	**Service Team Location**	Chicago	Portland and New York	Atlanta and Boston	Boston and Chicago	Chicago	Los Angeles
5	**Ownership Structure**	100% employee owned	100% employee owned	100% employee owned	100% employee owned	AHIC is U.S. investment consulting div of Aon Hewitt; NYSE: AON	100% employee-owned
6	**Pass/Fail Requirements** **Primary Consultant experience - 5 years exp with large plan**	Yes	Yes	Yes	Yes	Yes	Yes
	3 Institutional clients > $20bn AUM for 3 consecutive years prior to June 30, 2016	Yes	Yes	Yes	Yes	Yes	Yes
7	**Total Employees**	188	34	251	127	333	107
8	**Distribution of Employees:** **Client facing Consultants** **Research** **Performance** **Operations** **Consultant support, Research and Performance**	46 42 28 57	27 3	63 29 19 6 110	34 29 14 50	208 40 53 32	31 37 17 21
9	**Professionals Gained/Lost (2013-2016)**	+23 / -17	+7 / -3	+16 / -8	+6 / -9	+133 / -118	+54 / -20
10	**Firm Sources of Revenue**	64%: consulting to fund sponsors; 10%: consulting to independent consulting firms and financial intermediaries; 16%: services to investment manager clients; 10%: essentially OCIO	PCA's sole line of business is providing non-discretionary investment consulting services to plan sponsors.	Advisory and discretionary investment consulting are NEPC's sole lines of business.	100% of the firm's revenue is a result of consulting services.	AHIC sole line of business is investment consulting. Note: Aon is a large and diverse organization with multiple revenue sources.	63%: non-discretionary consulting; 37%: discretionary consulting (i.e., OCIO and strategic partnerships)

		Callan *(Current General Consultant)*	PCA *(Current Special Projects Consultant)*	NEPC	Meketa	Aon Hewitt Investment Consulting (AHIC)	Verus
11	**Significant organizational changes in last 3 years?**	No	Expansion of employee ownership	Founder (Richard Charlton) transitioned out of business effective 1/1/2016	Firm has expanded ownership to senior employees; opened 3 new offices	Name Change: Formerly Hewitt EnnisKnupp	April 2015: rebranded from Wurts & Associates to Verus; Jan 2016: merger with Strategic Investment Solutions; Jan 2016: expanded ownership base of the firm from 11 to 22 employee-owners
12	**Litigation against Firm in last 3 years?**	No	State of Calif v Northern Trust and PCA (securities lending related)	No	No	Aon says nothing material; one suit alleges negligence	No
13	**Any SEC action? SEC action resulting in Fine or Censure?**	Sale of Alpha to BONY required increased disclosure with which Callan complied; No fine or censure	No	No	No	No	No
14	**Any issues related to the State's contract noted?**	No	No	Items to be negotiated, but nothing prohibited.	Items to be negotiated, but nothing prohibited.	Items to be negotiated, but nothing prohibited.	No
15	**Retainer Clients**	198	31	347	135	496	148
16	**Assets**	$1.3 T	$1.1 T	$920 B	$788 B	$1.8 T	$346 B
17	**Client Type: % Clients / % Assets** **Public Funds** **Corporate Funds** **Taft Hartley** **Non-Profit** **Health Care** **Private Wealth** **Other**	 36% / 76% 40% / 20% 19% / 3% 1% / 0.2% 4% / 0.8%	100% / 100%	 20% / 58% 31% / 26% 15% / 4% 19% / 6% 10% / 6% 5% / 0%	 29% / 94% 7% / 0.1% 46% / 5% 17% / 0.8% 1% / 0.1%	9% / 72% (No additional detail provided)	 18% / 81% 20% / 10% 32% / 4% 30% / 5%
18	**Consulting Relationship Gains and Losses Jan 2013- June 2016**	+55 / -27	+5 / -4	+92/ -41	+58 / -8	+112 / -79	+29 / -15
19	**Lead Consultant(s)**	Ann Posey / Rod Bare	Allan Emkin / Neil Rue	John Krimmel / KC Connors	Alan Spatrick / John Haggerty / Alexandra Wallace	Steve Cummings / Kristen Doyle	Scott Whalen / Margaret Jadallah
20	**# of Assigned Clients**	Ann (9) ; Rod (8)	Allan (6) ; Neil (4)	John (8) ; KC (Not Provided)	Alan (6) ; John (4) ; Alexandra (4)	Steve (4) ; Kristen (8)	Scott (4) ; Margaret (2)
21	**Money Managers as Clients**	Yes, thru separate Institutional Consulting Group (ICG). ICG is a separate profit center. ICG division provides 16% of Total Revenue.	No	4 Client relationships w/companies that have a money manager subsidy: 1) Provide employer retirement plan; 2) Provide research and advice to selection of 2nd party money managers	No	Yes - "a few large financial services organizations"	No
22	**Broker-Dealer or Broker-Dealer Affiliate?**	No	No	No	No	No	No

		Callan *(Current General Consultant)*	PCA *(Current Special Projects Consultant)*	NEPC	Meketa	Aon Hewitt Investment Consulting (AHIC)	Verus
23	**Receive other compensation from investment managers or third parties?**	No	No	No	No	No	No
24	**Electronic Interface Available**	Yes	Yes	Yes	Yes	Yes	Yes
25	**References Provided**	Yes	Yes	Yes	Yes	Yes	Yes