## MINNESOTA STATE BOARD OF INVESTMENT

MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
June 3, 2015



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

# STATE BOARD OF INVESTMENT AGENDA AND MINUTES June 3, 2015

#### AGENDA STATE BOARD OF INVESTMENT MEETING

Wednesday, June 3, 2015 10:00 A.M.

Retirement Systems Building Room 106 – Main Floor 60 Empire Drive, St. Paul, MN

		TAB
1.	Approval of Minutes of March 4, 2015	IAD
2.	Report from the Executive Director (M. Perry)	
	A. Quarterly Investment Review	A
	(January 1, 2015 – March 31, 2015)	
	B. Administrative Report	В
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	1. Reports on Budget and Travel	
	2. Legislative Update	
	3. Sudan Update	
	4. Iran Update	
	5. Litigation Update	
3.	Report from the SBI Administrative Committee (M. Perry)	$\mathbf{C}$
	A. Review of Executive Director's Proposed Workplan FY16	
	B. Review of Budget Plan for FY16 and FY17	
	C. Review of Continuing Fiduciary Education Plan	
	D. International Equity Manager Country Guidelines and Process	
	E. Review of Executive Director's Evaluation	
	F. Update of Business Continuity Plan	
4.	Investment Advisory Council Report (J. Bailey)	
	A. Drivete Medical Devicat	
	A. Private Markets Report	D
	1. Review of current strategy	
	<ol> <li>Consideration of investment commitments with three existing managers and one new manager</li> </ol>	
	B. Public Markets, Non-Retirement, and Defined Contribution Report	E
5.	Other Items	

#### Minutes State Board of Investment March 4, 2015

The State Board of Investment (SBI) met at 10:00 A.M. Wednesday, March 4, 2015 in Room 106, Retirement Systems Building, 60 Empire Drive, 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 December 2, 2014 meeting were approved.

#### **Executive Director's Report**

Executive Director Mansco Perry referred members to Tab A of the meeting materials, and he reported that the Combined Funds had outperformed its Composite Index over the ten year period ending December 31, 2014 (Combined Funds 7.8% vs. Composite 7.5%) and had provided a real rate of return of 6.7% above inflation over the latest 20 year period (Combined Funds 9.0% vs. CPI 2.3%).

Mr. Perry said that assets increased over the quarter by 1.8% (Combined Funds ending value of \$60.0 versus a beginning value of \$58.9 billion), due to investment returns outweighing net outflows. He said that the asset allocation, which was slightly overweight domestic stocks and slightly underweight international stocks, was rebalanced back to target in January. The Combined Funds return was twenty basis points (bps) above the benchmark for the quarter (Combined Funds 2.5% vs. Composite 2.3%), but twenty bps below the benchmark for the year (Combined Funds 8.6% vs. Composite 8.8%). The Combined Funds outperformed for longer time periods.

Mr. Perry reported that the domestic equity manager group performed in-line with its target for the quarter (Domestic Equities 5.2% vs. Domestic Equity Asset Class Target 5.2%), slightly underperformed for the year (Domestic Equities 12.3% vs. Domestic Equity Asset Class Target 12.6%), and outperformed in longer time periods. He said the international stock manager group outperformed its target for the quarter (International Equities -3.3% vs. International Equity Asset Class Target -3.9%), underperformed for the year (International Equities -4.0% vs. International Equity Asset Class Target -3.9%), but outperformed over longer time periods. Mr. Perry stated that the bond segment slightly underperformed for the quarter (Fixed Income 1.7% vs. Fixed Income Asset Class Target 1.8%) and outperformed its target in all other time periods. He stated that the alternative investments continue to be a strong contributor to performance (1.1% for the quarter and 18.0% for the year). He concluded his report noting that, as of December 31, 2014, the SBI was responsible for managing more than \$80 billion of assets.

Mr. Perry referred members to Tab B of the meeting materials for the administrative report. He reported that fiscal year to date, the SBI was running below budget. Next, he stated that the legislative auditor would issue a letter noting that there were no findings in the audit. Board members will receive a copy of the audit letter when it becomes available. He then noted that approximately 97% of the Duluth Teachers' Retirement Fund assets had been transferred to the SBI. He expected the remaining assets to be transferred by the end of the fiscal year. Next, he stated that Sudan and Iran holdings updates were provided. Following that, he stated that the Minnesota State Retirement System (MSRS) and Public Employees Retirement Association

(PERA) are speaking with the legislature about changing the actuarial rate for those funds to 8%, while Teachers Retirement Association (TRA) hoped to remain unchanged.

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

Mr. Perry then provided an update on staffing. He noted the SBI hired seven new members to the investment staff and one new member to the accounting staff. He also indicated that he may add to staff in the next budget cycle.

Mr. Perry moved on to the action items, beginning with the MSRS request regarding Target Date Funds. MSRS requested that the Board authorize the use of Target Date Funds for unclassified retirement plan participants. Attorney General Swanson moved approval of the recommendation, which reads:

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

Mr. Perry discussed the next action item, which relates to the Metropolitan Council's (Met Council) Other Postemployment Benefits (OPEB) plans. The Met Council requested that the SBI manage a customized fixed income portfolio which would more directly match their liabilities of its OPEB plans, which are closed, with their assets. State Auditor Otto moved approval of the recommendations, which reads:

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

Mr. Perry presented the investment guidelines which he noted are brought to the Board periodically (about every 5 years or so). He noted that in most years he would report any changes to the guidelines as part of his Annual Work Plan as has been past practice. State Auditor Otto moved approval of the recommendation, which reads:

"Staff recommends that the Board approve the Investment Manager Guidelines." The motion passed unanimously.

Mr. Perry proceeded to the topic of the Proxy Voting Committee. The members of this Committee are required to be re-authorized every two years. The current members of the committee are designees of the Board and are as follows: Emily Johnson Piper, Celeste Grant, Bert Black and Christie Eller. Attorney General Swanson moved approval of the recommendation, which reads:

"The Executive Director recommends that the SBI adopt the resolution which reauthorizes the Proxy Voting Committee and delegates proxy voting responsibilities

according to established guidelines." The motion passed unanimously. The resolution is included as Attachment A.

Mr. Perry concluded the action items of his Administrative Report with the topic of Proxy Voting Guidelines. Similar to the Proxy Voting Committee, the Board must approve the guidelines on a periodic basis. After a brief discussion, Secretary of State Simon moved approval of the recommendation, which reads:

"The Proxy Voting Committee recommends that the Board reaffirm the Proxy Voting Guidelines." The motion passed unanimously.

The Chair of the Investment Advisory Council (IAC), Jeff Bailey, reported on the agenda items covered in the February 17<sup>th</sup> IAC meeting. He detailed the six alternative investment proposals that are included in Tab C. Four were existing managers: Blackstone (Real Estate); EnCap Investments (Resource); Oaktree Capital Management (Yield Oriented); and Kohlberg Kravis Roberts (Yield Oriented), and two were new managers: Avenue Capital Group (Yield Oriented) and MHR Fund Management (Private Equity). State Auditor Otto moved approval of all recommendations in Tab C of the meeting materials, which read:

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

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

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$50 million, or 20% of Opportunities

Fund X, whichever is less, and \$100 million, or 20% of Opportunities Fund Xb, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Oaktree upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Oaktree or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$75 million, or 20% of KKR Lending Partners II, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by KKR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on KKR or reduction or termination of the commitment.

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

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$75 million, or 20% of MHR Fund IV, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by MHR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and

**conditions on MHR or reduction or termination of the commitment."** The motion passed unanimously.

Mr. Bailey concluded his report by referring members to Tab D and explaining the streamlined quarterly reporting process. He detailed the reporting changes implemented, which were designed to remove unnecessary paper and focus on pertinent information from the preceding quarter.

Governor Dayton then introduced two citizen groups to discuss the SBI's Israeli bond position. Governor Dayton allowed each group fifteen minutes to speak before the Board and meeting attendees. First, Phil Benson, a representative from Break the Bonds, provided the Board with various petitions and also introduced Senator James Abourezk, the founder of the American-Arab Anti-Discrimination Committee. Senator Abourezk, a former U.S. Senator from South Dakota, read from prepared remarks [which are on file at the SBI office] on the issue of the Israeli bond held by the SBI. His position was that the SBI should not invest in Israel bonds. After Senator Abourezk finished, Steve Hunegs, Executive Director of the Jewish Community Relations Council of Minnesota and the Dakotas, addressed the Board. Mr. Hunegs described the history of the SBI's investment in international bonds and suggested that the SBI continue its investment in Israel bonds. He also suggested that the SBI consider making appropriate investments in Palestine and Palestinian businesses.

After the remarks, Governor Dayton made the following motion:

"That the State Board of Investment declines to divest of its holdings in its bonds issued by the State of Israel and will continue to invest in the fixed and floating rate bonds offered by the State of Israel subject to a determination by the Executive Director that the rate of return is competitive, and that the duration, terms, amount and risk of the investment are consistent with sound investment practices and the prudent investor fiduciary standard of care in Minnesota Statutes 11A.09 and Section 356A.04."

After Secretary of State Simon seconded the motion, a discussion followed. Attorney General Swanson posed a series of questions to Mr. Perry. She noted that members of the Board have a fiduciary duty under a variety of Minnesota Statutes. Additionally, Attorney General Swanson noted that the Board as voting members, the Executive Director, and the SBI staff have a duty to follow the prudent person standard and act in the best interest of the active and retiree participants of the retirement plans, the taxpayers of the State of Minnesota and the State of Minnesota as a whole. Mr. Perry confirmed that was his understanding as well. Attorney General Swanson then noted that her understanding is that the law allows the State Board of Investment to invest in international securities. Mr. Perry agreed and noted that's been adjudicated, as well. Attorney General Swanson stated that the Court of Appeals specifically ruled that the State Board of Investment's investment in Israeli sovereign debt is consistent with the Minnesota Law provision that says we can invest in international securities. Mr. Perry confirmed that's his understanding. In response to questions from Attorney General Swanson, Mr. Perry indicated the State Board of Investment has had investments in Israeli sovereign debt since July of 1993 in seven different issues. He further indicated in responses to questions that the current rate of return on the current issue purchased in 2005 for the ten year period is 2.4% versus the benchmark bond the treasury

bills of 1.54%, the average iMoneyNet.com average of 1.50%, and the pension fund STIF account of 1.80%. He noted that the rate has been accretive to those indexes and has been a competitive rate of return relatively over the twenty-some years the investments have taken place. In response to Attorney General Swanson's question, Mr. Perry indicated there are a wide variety of products in the market now that are similar in terms of amount, term, duration, and rate of return to those in which the Board has invested over the last couple decades. He noted some would be comparable, some would not, but confirmed there are some in the market place which would be comparable in terms of the rate of return. The Attorney General stated that as she reads it, the latter clause of the Governor's resolution, it says "provided that Executive Director determines the rate of return is competitive and that the duration, terms, amount and risk of the investment are consistent with sound investment practices." Attorney General Swanson then stated to Mr. Perry that she reads the second half of the resolution to essentially state that if you believe that there's not a product in the market place that is consistent with prudent investment guidelines and standards, that you would not, under this resolution, be required then to make an investment. Mr. Perry confirmed that was his understanding as well. Attorney General Swanson then asked Governor Dayton to confirm it was consistent with his intent as well. Governor Dayton did so.

State Auditor Otto indicated that the purpose of the SBI is to invest funds and the Board members are fiduciaries of those funds. She also described the policies and procedures that the Board has put in place to guide the SBI's investment decisions. State Auditor Otto said, "We also chose an Executive Director that we believed to be the best and we rely on him as an expert in investment matters. We also have a professional outside investment consultant coupled with the IAC. None of us on the Board were elected for our investment expertise. The system that we have put in place has served us well and has resulted in our investment success over time. Politics should not drive our decisions as we are fiduciaries."

Secretary of State Simon remarked that he was impressed with the SBI and Board's process. He stated that being insulated from political decisions has benefitted the SBI over the years and he wants that to continue. He stated that he was voting based on the fact that it is the fiduciary duty to grow the money in ways that are in the best interest of the people of Minnesota.

Attorney General Swanson stated that it is her belief that the vote can't be a vote based on political or societal considerations. She said that, under the statute, it has to be based upon the fiduciary duty as set forth by the legislature to the best interest of the active members, the retirees, the taxpayers, and the State of Minnesota.

Governor Dayton again moved approval of the motion:

"That the State Board of Investment declines to divest of its holdings in its bonds issued by the State of Israel and will continue to invest in the fixed and floating rate bonds offered by the State of Israel subject to a determination by the Executive Director that the rate of return is competitive, and that the duration, terms, amount and risk of the investment are consistent with sound investment practices and the prudent investor fiduciary standard of care in Minnesota Statutes 11A.09 and Section 356A.04."

Attorney General Swanson, Secretary of State Simon and Governor Dayton voted in favor while State Auditor Otto opposed the motion. The motion passed.

The meeting adjourned at 10:57 a.m.

Respectfully submitted,

Mansco Perry III

Executive Director and Chief Investment Officer

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

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

WHEREAS, the SBI has previously established a Proxy Committee:

#### NOW THEREFORE, BE IT RESOLVED THAT:

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

Adopted this 4<sup>th</sup> day of March, 2015

Governor Mark Dayton Chair, Minnesota

State Board of Investment

## TAB A

#### LONG TERM OBJECTIVES

#### Period Ending 3/31/15

Match or Exceed Composite Index (10 Yr.)	8.0% (1)	0.3 percentage point above the targe
Outperform a composite market index weighted in a		
nanner that reflects the long-term asset allocation of the Combined Funds over the latest 10 year period.		
Provide Real Return (20 Yr.)	8.8%	6.5 percentage point above CPI
Provide returns that are 3-5 percentage points greater		
han inflation over the latest 20 year period.		

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

#### **EXECUTIVE SUMMARY**

#### Combined Funds (Net of Fees)

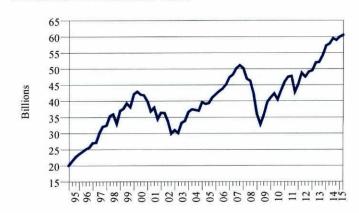
#### **Asset Growth**

The market value of the Combined Funds increased 0.8% during the first quarter of 2015 as positive investment return in public equities and fixed income offset negative net contributions.

## Asset Growth During First Quarter 2015

	(Millions)
Beginning Value	\$59,966
Net Contributions	-468
Investment Return	934
Ending Value	\$60,432

#### **Combined Funds Market Value**



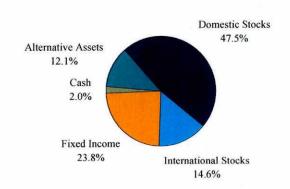
#### **Asset Mix**

The allocation to cash increased due to a rebalance from domestic equities and there was a slight decrease in the alternatives allocation.

	Policy Targets	Actual Mix 3/31/15	Actual Market Value (Millions)
Domestic Stocks	45.0%	47.5%	\$28,680
International Stocks	15.0%	14.6%	8,846
Bonds	18.0%	23.8%	14,385
Alternative Assets*	20.0%	12.1%	7,335
Cash	2.0%	2.0%	1,186
	100.0%	100.0%	\$60,432

<sup>100.0% 100.

\*</sup> Any uninvested allocation is held in bonds.



#### Any uninvested anocation is neigh in bonds

#### Fund Performance (Net of Fees)

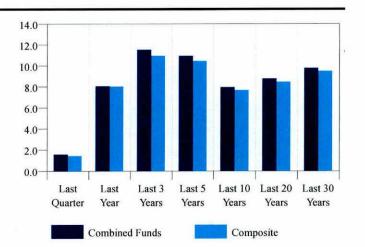
The Combined Funds outperformed its benchmark for the quarter and for the year.

#### Periods Ended 3/31/15

			Last	Last	Last Last	Last	Last		
	Last	Last	3	5	10	20	30		
	Quarter	· Year	Years	Years	Years	Years	Years		
Combined	1.6%	8.1%	11.5%	11.0%	8.0%	8.8%	9.8%		
Funds									
Composite	1 4%	8.0%	10.9%	10 4%	7 7%	8 5%	9 5%		

Note: All periods over one year are annualized.

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



#### **EXECUTIVE SUMMARY**

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

#### **Domestic Stocks**

The domestic stock manager group (active, semi-passive and passive combined) outperformed its target for the quarter and matched the return 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 3/31/15								
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years				
Dom. Stocks	2.2%	12.4%	16.8%	14.9%	8.3%				
Asset Class Target*	1.8%	12.4%	16.4%	14.7%	8.4%				

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

#### **International Stocks**

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

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

	Periods Ended 3/31/15							
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years			
Int'l Stocks	3.8%	-0.6%	7.4%	5.5%	5.9%			
Asset Class Target*	3.5%	-1.0%	6.4%	4.8%	5.5%			

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

#### **Bonds**

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

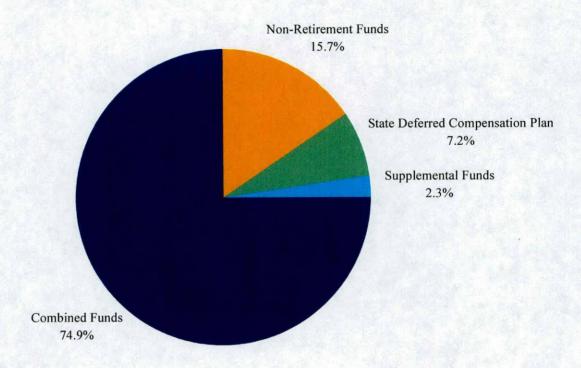
Barclays Aggregate: The Barclays Aggregate Bond Index reflects the performance of the broad bond market for investment grade (Baa or higher) bonds, U.S. treasury and agency securities, and mortgage obligations with maturities greater than one year.

	Periods Ended 3/31/15							
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years			
Bonds	1.7%	5.9%	3.9%	5.3%	5.3%			
Asset Class Target	1.6%	5.7%	3.1%	4.4%	4.9%			

#### **Alternative Investments**

	Periods Ended 3/31/15							
	Last		Last 3	Last 5	Last 10			
	Quarter	Last Year	Years	Years	Years			
Alternatives	-3.0%	8.8%	13.0%	13.2%	13.6%			

## **EXECUTIVE SUMMARY**Funds Under Management



	3/31/15
	Market Value
	(Billions)
Retirement Funds	
Combined Funds	\$60.4
Supplemental Investment Fund	1.9
(Excluding Deferred Compensation Plan Assets)	
State Deferred Compensation Plan	5.8
Non-Retirement Funds	
Assigned Risk Plan	0.3
Permanent School Fund	1.2
Environmental Trust Fund	0.9
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.1
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	8.4
Minnesota College Savings Plan	1.2
Total	\$80.7

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

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## MINNESOTA STATE BOARD OF INVESTMENT

#### QUARTERLY INVESTMENT REPORT

First Quarter 2015 (January 1, 2015 - March 31, 2015)

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#### VARIOUS CAPITAL MARKET INDICES

#### Periods Ended March 31, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity					
Russell 3000 (broad market)	1.8%	12.4%	16.4%	14.7%	8.4%
Russell 1000 (large cap)	1.6	12.7	16.4	14.7	8.3
Russell 2000 (small cap)	4.3	8.2	16.3	14.6	8.8
Dow Jones Wilshire Composite	1.8	12.2	16.4	14.7	8.5
Dow Jones Industrials	0.3	10.6	13.2	13.2	8.2
S&P 500	1.0	12.7	16.1	14.5	8.0
<b>Domestic Fixed Income</b>					
Barclays Aggregate (1)	1.6	5.7	3.1	4.4	4.9
Barclays Gov't/Credit	1.8	5.9	3.4	4.8	5.0
3 month U.S. Treasury Bills	0.0	0.0	0.1	0.1	1.5
International					
MSCI Emerging Markets Free Index (2)	2.2	0.4	0.3	1.7	8.5
MSCI ACWI ex USA (3)	3.5	-1.0	6.4	4.8	5.5
MSCI EAFE (4)	4.9	-0.9	9.0	6.2	4.9
MSCI World ex USA (5)	3.8	-1.4	8.2	5.7	5.0
Salomon Non U.S. Gov't Bond	-4.4	-9.8	-3.3	0.4	2.5
Inflation Measure					
Consumer Price Index CPI-U (6)	0.6%	-0.1%	1.0%	1.6%	2.0%
Consumer Price Index CPI-W (7)	0.5%	-0.6%	0.7%	1.6%	2.1%

<sup>(1)</sup> Barclays Capital Aggregate Bond index. Includes governments, corporates and mortgages.

Note: All periods over one year are annualized.

<sup>(2)</sup> Morgan Stanley Capital International Emerging Markets Free Index (Net index).

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

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

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

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

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

#### FINANCIAL MARKETS REVIEW

#### DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a 1.8% return for the first quarter of 2015. The U.S. economy continued to push forward with some deceleration. A prolonged winter with record and near record levels of cold and snow impacted everything from retail sales to housing starts. Job growth slowed and oil prices continued to decline during the quarter. Within the Russell 3000, Health Care was the best performing sector with a 7.8% return while Energy and Utilities were the weakest sectors with -2.2% return for the quarter. Growth stocks outperformed value stocks during the quarter.

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

Large Growth	Russell 1000 Growth	3.8%
Large Value	Russell 1000 Value	-0.7%
<b>Small Growth</b>	Russell 2000 Growth	6.6%
Small Value	Russell 2000 Value	2.0%

The Russell 3000 index returned 12.4% for the year ending March 31, 2015.

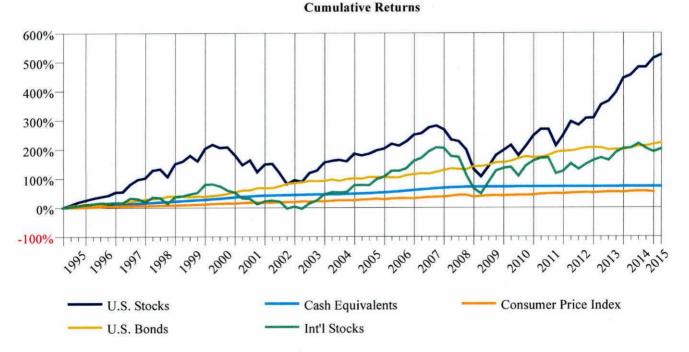
#### DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 1.6% for the quarter. The 2-year U.S. Treasury yield ended the quarter lower by 11 basis points at 0.5%, the 5-year decreased by 20 basis points to 1.4%, the 10-year decreased by 18 basis points to 1.9%, and the 30-year decreased by 14 basis points to 2.5%. Corporate bonds were the biggest driver of return followed by CMBS.

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

U.S. Treasury	1.6%
Agency	1.2%
Corporates	2.3%
Agency MBS	1.1%
Commercial Mortgages	1.8%
Asset-Backed	0.9%

#### PERFORMANCE OF CAPITAL MARKETS



#### FINANCIAL MARKETS REVIEW

#### DEVELOPED INTERNATIONAL MARKETS

In aggregate, developed international stock markets (as measured by MSCI World ex USA index) provided a return of 3.8% for the quarter. World equities posted robust positive returns in local currencies. However, given the strong U.S. dollar, returns in U.S. dollar terms were smaller. Overall global economic growth was modest but equity markets benefited from falling oil prices and monetary policy easing outside of the U.S. The top performing sectors for the quarter were Health Care, Consumer Discretionary and Information Technology. The two worst performing sectors were Energy and Utilities. The quarterly performance of the six largest stock markets, which comprise about 73% of the World ex U.S. index, is shown below:

Japan	10.2%
United Kingdom	-1.0%
France	4.7%
Germany	8.3%
Canada	-6.0%
Switzerland	4.7%

#### **EMERGING INTERNATIONAL MARKETS**

Emerging markets (as measured by MSCI Emerging Markets Free index net) provided a return of 2.2% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	8.1%
Korea	4.3%
Taiwan	4.0%
Brazil	-14.6%
South Africa	3.2%
India	5.4%

The Emerging Markets Free index returned 0.4% during the last year.

The Emerging Markets Free (EMF) index is compiled by MSCI and measures performance of 23 stock markets in Latin America, Asia, Africa and Eastern Europe. EMF includes only those securities foreign investors are allowed to hold. The markets listed above comprise about 73% of the value of the emerging international markets in the index.

#### REAL ESTATE

During the first quarter of 2015, private real estate posted its 21st consecutive quarter of positive returns with the NCREIF Property Index posting a return of 3.6%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. An aggregate \$29 billion in private real estate funds was raised in 1Q 2015, which includes a record \$14.5bn raised by Blackstone Real Estate Partners. BREP VII became the largest private real estate fund to ever close. (Source: NCREIF; Preqin)

#### PRIVATE EQUITY

During the first quarter of 2015, an aggregate \$104 billion in private equity funds was raised across 166 funds. Two-thirds of the capital raised in the quarter is attributable to 20 funds. Limited Partners, as surveyed by Preqin, continue to be bullish on the asset class. This is evidenced by the recent successful fundraises by General Partners and the record level of dry powder, \$1.24 trillion, ready to be deployed. (Source: Preqin)

Buyout activity in 1Q 2015, as measured by deal activity, decreased to 770 compared to the 958 deals in 4Q 2014. This marks the seventh consecutive year where deal activity has decreased from the fourth quarter to the first quarter. The aggregate value of deals increased (\$97 billion vs. \$85 billion), buoyed by the \$40 billion Kraft-Heinz merger. The number of private-equity backed exits declined in 1Q 2015 to 353, but the aggregate value of exits increased to \$100 billion. (Source: Preqin)

#### RESOURCE FUNDS

During the first quarter of 2015, crude oil traded between a range of \$43/bbl and \$54/bbl. The average price for the first quarter of 2015 was \$49/bbl, which was \$24 below the average price from the fourth quarter. Increased supply, particularly in Saudi Arabia and the U.S., combined with weak global demand contributed to the continued decline in oil prices. (Source: Bloomberg, BlackRock)

#### **COMBINED FUNDS**

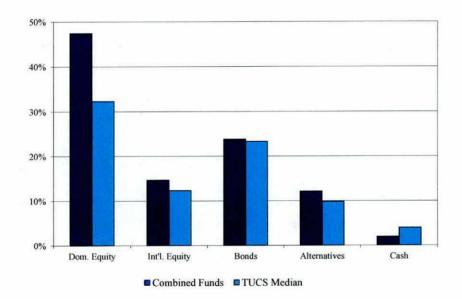
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

#### **Asset Mix Compared to Other Pension Funds**

On 3/31/15, the asset mix of the Combined Funds was:

	\$ Million	%
Domestic Stocks	\$28,680	47.5%
International Stocks	8,846	14.6%
Bonds	14,385	23.8%
Alternative Assets	7,335	12.1%
Unallocated Cash	1,186	2.0%
Total	\$60,432	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:



Combined Funds	
Median Allocation in TUCS	5*

Domestic	Inti			
Equity	Equity	Bonds	Alternatives	Cash
47.5%	14.6%	23.8%	12.1%	2.0%
32.3%	12.3%	23.3%	9.8%**	4.0%

<sup>\*</sup> Public and corporate plans over \$1 billion.

Domostio

<sup>\*\*</sup> May include assets other than alternatives.

#### **COMBINED FUNDS**

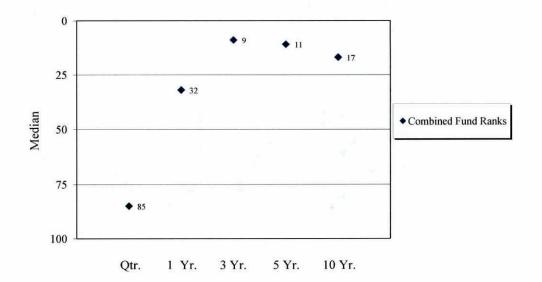
#### **Performance Compared to Other Pension Funds**

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

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

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

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



#### Periods Ended 3/31/15

	Quarter	1 Year	3 Years	5 Years	10 Years
Combined Funds					
Percentile Rank in TUCS*	85th	32nd	9th	11th	17th

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

Note: All periods over one year are annualized.

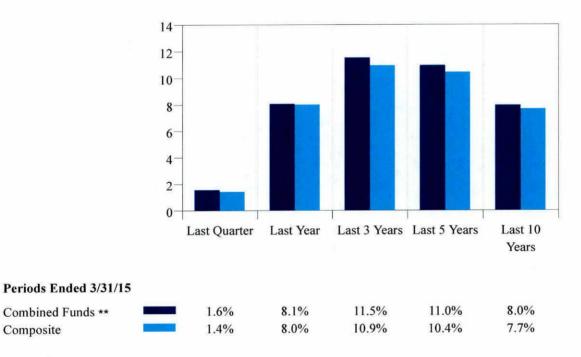
#### **COMBINED FUNDS**

#### Performance Compared to Composite Index

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

	Maret Index	Combined Funds Composite 1Q/15
Domestic Stocks	Russell 3000	45.0%
Int'l Stocks	MSCI ACWI Free ex USA	15.0%
Bonds	Barclays Capital Aggregate	25.3%*
Alternative Investments	Alternative Investments	12.7%*
Unallocated Cash	3 Month T-Bills	2.0%
		100.0%

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



Combined Funds \*\*

Composite

Note: All periods over one year are annualized.

<sup>\*\*</sup> Actual returns are reported net of fees.

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#### STOCK AND BOND MANAGERS

## Performance of Asset Pools (Net of Fees)

#### **Domestic Stocks**

Target: Russell 3000

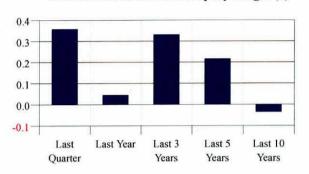
**Expectation**: If one-third of the pool is actively managed, one-third is semi-passively managed, and one-third is passively managed, the entire pool is expected to exceed the target by .18% - .40% annualized over time.

#### Periods Ended 3/31/15

	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Domestic Stocks	2.2%	12.4%	16.8%	14.9%	8.3%
Asset Class Target*	1.8%	12.4%	16.4%	14.7%	8.4%

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

#### Value Added to Domestic Equity Target (1)



#### **International Stocks**

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

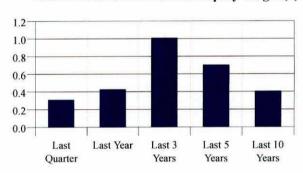
**Expectation**: If at least one-third of the pool is managed actively, no more than one-third is semi-passively managed, and at least one-quarter is passively managed, the entire pool is expected to exceed the target by .25% - .75% annualized, over time.

#### Periods Ended 3/31/15

	Last	Last	Last Last Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Int'l Stocks	3.8%	-0.6%	7.4%	5.5%	5.9%
Asset Class Target*	3.5%	-1.0%	6.4%	4.8%	5.5%

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

#### Value Added to International Equity Target (1)



#### **Bonds**

Target: Barclays Capital Aggregate Bond Index

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

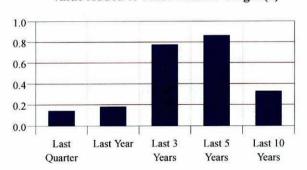
#### Periods Ended 3/31/15

	Last	Last	Last Last Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Bonds	1.7%	5.9%	3.9%	5.3%	5.3%
Asset Class Target	1.6%	5.7%	3.1%	4.4%	4.9%

Note: All periods over one year are annualized.

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

#### Value Added to Fixed Income Target (1)



#### ALTERNATIVE INVESTMENTS

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

Access to the second se	
Alternative	Investments

Expectation: The Alternative investments are measured			Period:	Ended :	3/31/15	
against themselves using actual portfolio returns.		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
	Alternatives	-3.0%	8.8%	13.0%	13.2%	13.6%
	Inflation	0.6%	-0.1%	1.0%	1.6%	2.0%
Real Estate Investments (Equity emphasis)						

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

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 3/31/15						
	Last	Last	Last 3	Last 5	Last 10			
	Quarter	Year	Years	Years	Years			
Real Estate	1.1%	17.3%	12.9%	13.0%	7.0%			

#### Private Equity Investments (Equity emphasis)

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

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 .	3/31/15	
	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Private Equity	1.3%	11.2%	15.0%	14.3%	14.0%

#### Resource Investments (Equity emphasis)

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

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 3/31/15				
	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Resource	-15.0%	-0.1%	6.0%	9.7%	22.0%

#### **Yield Oriented Investments (Debt emphasis)**

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

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 3/31/15			
	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
<b>Yield Oriented</b>	-7.7%	5.0%	13.8%	13.4%	16.1%

#### SUPPLEMENTAL INVESTMENT FUND

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

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

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

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

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

#### **Investment Options**

investment Options	
	3/31/15
	Market Value
	(In Millions)
Income Share Account - a balanced portfolio utilizing both common stocks and bonds.	\$372
Growth Share Account - an actively managed, all common stock portfolio.	\$218
Common Stock Index Account - a passively managed, all common stock	\$482
portfolio designed to track the performance of the entire U.S. stock market.	
<b>International Share Account</b> - a portfolio of non U.S. stocks that incorporates both active and passive management.	\$185
both active and passive management.	
Bond Market Account - an actively managed, all bond portfolio.	\$124
Money Market Account - a portfolio utilizing short-term, liquid debt securities.	\$255
Fixed Interest Account - a portfolio of stable value instruments, including	\$196
security backed contracts and insurance company and bank investment contracts.	
Volunteer Firefighter Account - a balanced portfolio only used by the Voluntary	\$33
Statewide Volunteer Firefighter Plan.	

#### SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

#### INCOME SHARE ACCOUNT

## Investment Objective The primary investment objective of the Income Share Account is similar to that of the Combined Funds. The

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

	Periods Ended 3/31/15					
	Last Ouarter	Last Year			Last 10 Years	
Total Account	1.7%		11.3%		7.5%	
Benchmark*	1.7%	9.5%	10.9%	10.5%	6.9%	

#### Asset Mix

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

	Target	Actual
Stocks	60.0%	60.6%
Bonds	35.0%	34.5%
Cash	5.0%	4.8%
	100.0%	100.0%

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

#### **GROWTH SHARE ACCOUNT**

#### **Investment Objective**

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

		Periods	Ended 3	3/31/15	
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	2.3%	12.4%	16.9%	15.0%	8.2%
Benchmark*	1.8%	12.4%	16.4%	14.7%	8.4%

#### Asset Mix

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

\* Russell 3000.

#### COMMON STOCK INDEX ACCOUNT

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

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

The Account is invested 100% in common stock.

	Periods Ended 3/31/15						
	Last Quarter	Last Year			Last 10 Years		
<b>Total Account</b>	1.8%	12.4%	16.4%	14.7%	8.5%		
Benchmark*	1.8%	12.4%	16.4%	14.7%	8.4%		

<sup>\*</sup> Russell 3000.

#### SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

#### INTERNATIONAL SHARE ACCOUNT

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

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

		Periods Ended 3/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	
Total Account	3.8%	-0.6%	7.4%	5.5%	6.0%	
Benchmark*	3.5%	-1.0%	6.4%	4.8%	5.5%	

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

#### BOND MARKET ACCOUNT

#### **Investment Objective**

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

		Period	s Ended	3/31/15	
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	1.7%	5.9%	3.9%	5.3%	5.3%
Barclays Agg	1.6%	5.7%	3.1%	4.4%	4.9%

#### Asset Mix

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

#### MONEY MARKET ACCOUNT

#### **Investment Objective**

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

	Periods Ended 3/31/15					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	
Total Account	0.0%	0.1%	0.2%	0.2%	1.7%	
3 month T-Bills	0.0%	0.0%	0.1%	0.1%	1.5%	

#### Asset Mix

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

#### SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

#### FIXED INTEREST ACCOUNT

#### **Investment Objective**

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

		Period	s Ended	3/31/15	
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	0.5%	1.8%	2.2%	2.8%	3.7%
Benchmark*	0.3%	1.4%	1.1%	1.1%	2.4%

#### Asset Mix

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

#### 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%	14.9%
Bonds	45.0%	44.9%
Cash	5.0%	5.2%
	100.0%	100.0%

		Period	s Ended	3/31/15	
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	2.0%	6.9%	8.8%	8.5%	-
Benchmark*	2.0%	6.8%	8.1%	8.1%	

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

<sup>\*</sup> The Fixed Interest Benchmark is the 3-year Constant Maturity Treasury Bill +45 basis points.

#### **DEFERRED COMPENSATION PLAN ACCOUNTS**

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

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

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

On March 31, 2015, the market value of the entire Fund was \$5.8 billion.

#### **Investment Options** 3/31/15 Market Value (In Millions) \$992.6 Vanguard Index Institutional Plus Shares (passive) \$535.9 Janus Twenty (active) \$441.3 Vanguard Mid Cap Index Institutional Shares (passive) \$614.3 T. Rowe Price Small-Cap Stock (active) Fidelity Diversified International (active) \$284.1 Vanguard Total International Stock Index Institutional Plus (passive) \$159.1 Vanguard Balanced Index Institutional Shares (passive) \$690.9 \$209.6 Dodge & Cox Income Fund (active) \$191.3 Vanguard Total Bond Market Index Institutional Shares (passive) \$56.1 SIF Money Market Account SIF Fixed Interest Account (stable value) \$1,306.0 \$290.1 State Street Global Advisors MN Target Retirement Funds \$69.1 Income Fund \$69.5 2020 Fund \$51.7 2025 Fund \$33.7 2030 Fund \$25.5 2035 Fund \$15.3 2040 Fund \$10.2 2045 Fund \$7.3 2050 Fund \$3.3 2055 Fund \$4.3 2060 Fund

#### **DEFERRED COMPENSATION PLAN ACCOUNTS**

Vanguard Index Institutional Plus (passive)			Periods End	ed 3/31/15	
A passive domestic stock portfolio that tracks the S&P 500.		Last Quarter	Last Year	Last 3 Years	Last 5 Years
	Fund	1.0%	12.7%	16.1%	14.5%
	S&P 500	1.0%	12.7%	16.1%	14.5%
Janus Twenty (active)		Last		Last 3	Last 5
A concentrated fund of large cap stocks which is expected to		Quarter	Last Year	Years	Years
outperform the S&P 500, over time.	Fund	0.3%	10.9%	14.0%	11.0%
outperform the sect 200, over times	S&P 500	1.0%	12.7%	16.1%	14.5%

#### MID CAP EQUITY

Vanguard Mid Cap Index (passive)		Per	riods En	ded 3/31/	15
A fund that passively invests in companies with medium market capitalizations that tracks the CRSP US Mid-Cap Index.		Last	Last	Last 3	Last 5
capitalizations that tracks the CKSP OS Mid-Cap maex.		Quarter	Year	Years	Years
	Fund	4.3%	14.9%	17.9%	16.1%
	CRSP U.S. Mid Cap	4.3%	15.0%	18.1%	16.2%

#### SMALL CAP EQUITY

T Rowe Price Small Cap (active)		Periods Ended 3/31/15				
A fund that invests primarily in companies with small market		Last		Last 3	Last 5	
capitalizations and is expected to outperform the Russell 2000.	0	Quarter	Last Year	Years	Years	
	Fund	3.9%	8.8%	16.7%	16.9%	
	Russell 2000	4.3%	8.2%	16.3%	14.6%	

#### INTERNATIONAL EQUITY

Fidelity Diversified International (active)		Periods Ended 3/31/15				
A fund that invests primarily in stocks of companies located outside of the United States and is expected to outperform the		Last Quarter	Last Year	Last 3 Years	Last 5 Years	
MSCI index of Europe, Australasia and the Far East (EAFE), over time.	Fund MSCI EAFE	<b>6.4%</b> 4.9%	<b>3.8%</b> -0.9%	<b>11.0%</b> 9.0%	7.7% 6.2%	
Version of Test List countries of Start Lister (consists)			ant Tant	T and 3	Loot	

### 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	Last	Last 3	Last 5
	Quarter	Year	Years	Years
Fund	4.1%	-1.0%	6.7%	
ACWI ex USA IMI	3.7%	-0.5%	6.9%	

#### **DEFERRED COMPENSATION PLAN ACCOUNTS**

LARGE C	AP EC	DUITY
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Vanguard Balanced Index (passive)		Periods Ended 3/31/15			
A fund that passively invests in a mix of domestic stocks and		Last		Last 3	Last 5
bonds. The fund is expected to track a weighted benchmark of		Quarter	Last Year	Years	Years
60% CRSP US Total Market Index/40% Barclays Aggregate.	Fund	1.8%	9.8%	11.0%	10.8%
00/0 Citor ob rotal Market Index 10/0 Bartings 1-881-8	Renchmark	1.8	9.8	11.1	10.8

Dodge & Cox Income Fund (active)		Periods Ended 3/31/15			
A fund that invests primarily in investment grade securities in the U.S. bond market which is expected to outperform the		Last Quarter	Last Year	Last 3 Years	Last 5 Years
Barclays Aggregate, over time.	Fund Barclays Agg	1.3% 1.6%	<b>4.4%</b> 5.7%	<b>4.1%</b> 3.1%	<b>5.0%</b> 4.4%
Vanguard Total Bond Market Index (passive)  A fund that passively invests in a broad, market weighted		Last Quarter	Last Year	Last 3 Years	Last 5 Years
bond index that is expected to track the Barclays Aggregate.	Fund Barclays Agg	1.6% 1.6%	<b>5.6%</b> 5.7%	<b>3.1%</b> 3.1%	<b>4.4%</b> 4.4%
SIF Money Market Account		Last		Last 3	Last 5
A fund that invests in short-term debt instruments which is	Fund	Quarter 0.0%	Last Year 0.1%	Years 0.2%	Years 0.2%
expected to outperform the return on 3-month U.S. Treasury	runu	0.0 /0	0.0%	0.1%	0.1%

#### SIF FIXED INTEREST ACCOUNT

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

	]			
	Last		Last 3	Last 5
	Quarter	Last Year	Years	Years
Fund	0.5%	1.8%	2.2%	2.8%
Benchmark	0.3%	1.4%	1.1%	1.1%

#### MN TARGET RETIREMENT ACCOUNTS

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

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

#### MN COLLEGE SAVINGS PLAN ACCOUNTS

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

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

On March 31, 2015, the market value of the entire Fund as \$1.2 billion.

Invest	tment Options
	3/31/15 Market Valu (In Millions
Age Based Managed Allocation	
Age Band 0-4 Years	\$26.7
Age Band 5-8 Years	\$86.9
Age Band 9-10 Years	\$82.7
Age Band 11-12 Years	\$114.5
Age Band 13-14 Years	\$121.2
Age Band 15 Years	\$56.3
Age Band 16 Years	\$57.1
Age Band 17 Years	\$51.8
Age Band 18 Years and over	\$126.6
Risk Based Managed Allocations	
Aggressive	\$3.9
Moderate	\$49.6
Conservative	\$2.4
Static Options:	
U.S. Large Cap Equity	\$4.3
International Equity	\$2.3
U.S. and International Equity	\$282.9
Equity and Interest Accumulation	\$0.3
100% Fixed Income	\$10.5
Money Market	\$8.6
Principal Plus Interest	\$103.3

#### MN COLLEGE SAVINGS PLAN ACCOUNTS

#### AGE-BASED MANAGED ALLOCATIONS

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

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

#### RISK BASED ALLOCATIONS

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

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

#### U.S. LARGE CAP EQUITY INDEX

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

	Periods Ended 3/31/15						
	Last	Last Last 3					
	Quarter	Last Year	Years	Years			
Fund	0.9%						
S&P 500	1.0%	· <del></del>					

#### 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 3/31/15				
	Last		Last 3	Last 5	
	Quarter	Last Year	Years	Years	
Fund	4.8%	-1.0%			
Benchmark	4.4%	-0.5%			

#### 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 3/31/15				
	Last		Last 3	Last 5	
	Quarter	Last Year	Years	Years	
Fund	3.0%	9.2%	13.3%	12.1%	
Benchmark	2.9%	9.3%	13.6%	12.4%	

#### 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 3/31/15				
	Last		Last 3	Last 5	
	Quarter	Last Year	Years	Years	
Fund	1.1%				
Benchmark	1.0%				

#### 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 End	led 3/31/1	5
	Last		Last 3	Last 5
	Quarter	Last Year	Years	Years
Fund	1.7%	4.8%	1.9%	3.8%
Benchmark	1.7%	5.1%	2.5%	4.4%

#### MONEY MARKET

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

	Pe	Periods Ended 3/31/15					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years			
Fund	0.0%	0.0%	0.0%	-0.1%			
iMoney Net Average All Taxable	0.0%	0.0%	0.0%	0.0%			

#### PRINCIPAL PLUS INTEREST OPTION

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

	Periods Ended 3/31/15					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years		
Fund	0.3%	1.2%	1.3%	1.8%		
3-Month T-Bill	0.0%	0.0%	0.1%	0.1%		

#### 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.

	3/31/15	3/31/15
	Target	Actual
Stocks	20.0%	20.3%
Bonds	80.0%	79.7%
Total	100.0%	100.0%

#### **Investment Management**

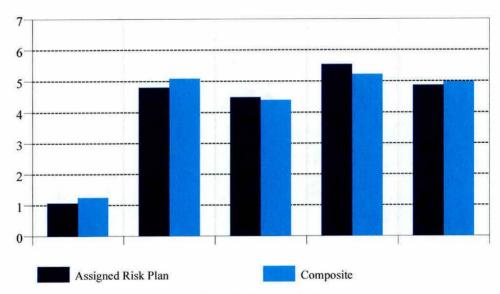
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

#### **Performance Benchmarks**

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

#### Market Value

On March 31, 2015 the market value of the Assigned Risk Plan was \$303 million.



#### Periods Ended 3/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	1.1%	4.8%	4.5%	5.5%	4.9%
Composite	1.2%	5.1%	4.4%	5.2%	5.0%
Equity Segment*	0.6%	11.5%	16.1%	13.0%	8.1%
S&P 500	1.0%	12.7%	16.1%	14.5%	8.0%
Bond Segment*	1.2%	3.0%	1.5%	3.3%	3.8%
Barclays Int Gov Index	1.3%	3.2%	1.5%	2.8%	4.0%

<sup>\*</sup> 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.

	3/31/15	3/31/15
	Target	Actual
Stocks	50.0%	51.1%
Bonds	48.0%	47.0%
Cash	2.0%	1.9%
Total	100.0%	100.0%

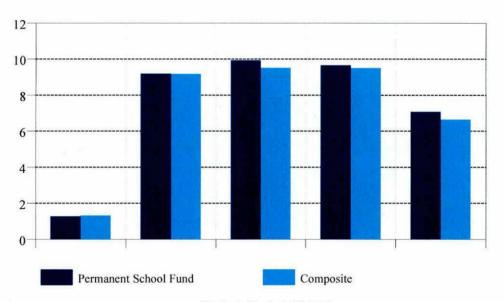
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

#### **Investment Management**

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

#### Market Value

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



#### Periods Ended 3/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	1.3%	9.2%	9.9%	9.7%	7.1%
Composite	1.3%	9.2%	9.5%	9.5%	6.6%
Equity Segment*	1.0%	12.8%	16.1%	14.5%	8.1%
S&P 500	1.0%	12.7%	16.1%	14.5%	8.0%
Bond Segment*	1.7%	5.8%	4.0%	4.7%	5.5%
Barclays Agg	1.6%	5.7%	3.1%	4.4%	4.9%

<sup>\*</sup> Actual returns are calculated net of fees.

Note: All periods over one year are annualized.

#### **ENVIRONMENTAL TRUST FUND**

#### **Investment Objectives**

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

#### Asset Mix

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

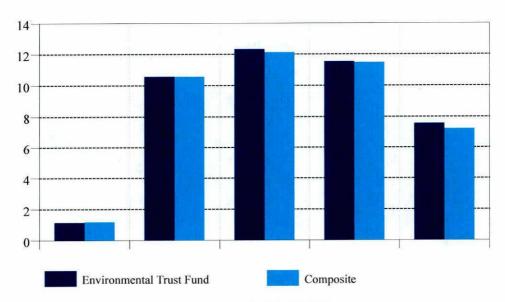
	3/31/15	3/31/15	
	Target	Actual	
Stocks	70.0%	69.7%	
Bonds	28.0%	28.4%	
Cash	2.0%	1.9%	
Total	100.0%	100.0%	

#### **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 March 31, 2015 the market value of the Environmental Trust Fund was \$894 million.



#### Periods Ended 3/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	1.2%	10.6%	12.3%	11.5%	7.6%
Composite	1.2%	10.6%	12.1%	11.5%	7.2%
Equity Segment*	1.0%	12.8%	16.1%	14.5%	8.1%
S&P 500	1.0%	12.7%	16.1%	14.5%	8.0%
Bond Segment*	1.7%	5.8%	4.0%	4.7%	5.5%
Barclays Agg	1.6%	5.7%	3.1%	4.4%	4.9%

<sup>\*</sup> Actual returns are calculated net of fees.

Note: All periods over one year are annualized.

#### CLOSED LANDFILL INVESTMENT FUND

#### **Investment Objectives**

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

#### **Asset Mix**

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

3.5.55555555555555555555555555555555555	3/31/15	3/31/15
V	Target	Actual
Stocks	70.0%	69.5%
Bonds	30.0	30.5
Total	100.0%	100.0%

#### **Investment Management**

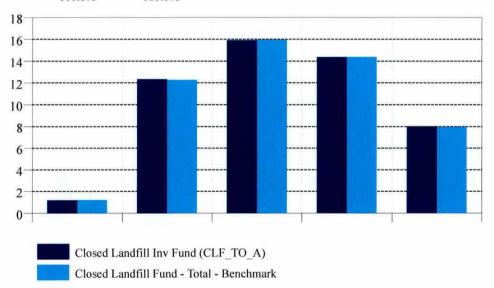
SBI staff manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500.

#### Legislation

In FY 2011 \$48 million was transferred out of the general fund, leaving a balance of \$1 million in the account. Legislation was enacted in 2013 to replenish the principle and earnings back into the fund and FY 2014 was the first of four scheduled payments to the fund.

#### Market Value

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



#### Periods Ended 3/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund (1)	1.2%	12.3%	15.9%	14.4%	8.0%
Composite (3)	1.2%	12.3%	16.0%	14.4%	8.0%
Equity Segment (1)	1.0%	12.8%	16.1%	14.5%	8.1%
S&P 500	1.0%	12.7%	16.1%	14.5%	8.0%
Bond Segment (1,2)	1.7%				
Barclays Agg	1.6%	***			<u>==</u> 1

- (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.

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#### STATE CASH ACCOUNTS

#### Description

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

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

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

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

#### **Investment Objectives**

Safety of Principal. To preserve capital.

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

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

#### Asset Mix

The SBI maximizes current income while preserving capital by investing all cash accounts in high quality, liquid, short-term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

#### **Investment Management**

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

#### Period Ending 3/31/15

	Market Value	Last		Last 3	Last 5	Last 10
	(Millions)	Quarter	Last Year	Years	Years	Years
Treasurer's Cash Pool*	\$8,366	0.3%	0.5%	0.5%	0.5%	2.2%
Custom Benchmark**		0.0%	0.0%	0.0%	0.0%	1.4%
3 month T-Bills		0.0%	0.0%	0.1%	0.1%	1.5%

<sup>\*</sup> Actual returns are calculated net of fees.

<sup>\*\*</sup> 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 March 31, 2015 (in Thousands)

	Cash & ST	<b>Bonds Int</b>	<b>Bonds Ext</b>	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	398,130	0	4,839,316	0	9,648,736	2,976,171	2,467,836	20,330,189
	1.96%		23.80%		47.46%	14.64%	12.14%	100%
Public Employees Retirement Fund	363,774	0	4,219,354	0	8,412,642	2,594,895	2,151,682	17,742,347
	2.05%		23.78%		47.42%	14.63%	12.13%	100%
State Employees Retirement Fund	218,236	0	2,775,484	0	5,533,822	1,706,918	1,415,373	11,649,833
	1.87%		23.82%		47.50%	14.65%	12.15%	100%
Public Employees Police & Fire	142,561	0	1,755,024	0	3,499,206	1,079,337	894,984	7,371,112
	1.94%		23.81%		47.47%	14.64%	12.14%	100%
Highway Patrol Retirement Fund	12,828	0	159,376	0	317,767	98,016	81,275	669,262
	1.92%		23.81%		47.48%	14.65%	12.14%	100%
Judges Retirement Fund	3,568	0	41,685	0	83,113	25,636	21,258	175,260
	2.04%		23.78%		47.42%	14.63%	12.13%	100%
Correctional Employees Retirement	17,101	0	215,401	0	429,472	132,471	109,845	904,290
	1.89%		23.82%		47.49%	14.65%	12.15%	100%
Public Employees Correctional	9,906	0	115,204	0	229,696	70,850	58,748	484,404
	2.04%		23.79%		47.42%	14.63%	12.13%	100%
Legislative Retirement Fund	83	0	1,124	0	2,241	691	573	4,712
	1.76%		23.85%		47.56%	14.66%	12.16%	100%
PERA Minneapolis Retirement	15,342	0	207,313	0	413,348	127,498	105,722	869,223
	1.77%		23.85%		47.55%	14.67%	12.16%	100%
Duluth Teachers Retirement	4,064	0	55,231	0	110,121	33,968	28,166	231,550
	1.76%		23.85%		47.56%	14.67%	12.16%	100%
TOTAL COMBINED FUNDS	1,185,593	0	14,384,512	0	28,680,164	8,846,451	7,335,462	60,432,182
	1.96%		23.80%	150	47.46%	14.63%	12.14%	100%

	Cash & ST	<b>Bonds Int</b>	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
MINNESOTA SUPPLEMENTAL FUNDS								
Income Share Account	18,043 4.85%	128,307 34.51%	0	0	225,451 60.64%	0	0	371,801 100%
Growth Share Account	0	0	0	0	218,283 100.00%	0	0	218,283 100%
Money Market Account	254,573 100.00%	0	0	0	0	0	0	254,573 100%
Common Stock Index	0	0	0	0	481,684 100.00%	0	0	481,684 100%
Bond Market Account	0	0	123,975 100.00%	0	0	0	0	123,975 100%
International Share Account	0	0	0	0	0	185,081 100.00%	0	185,081 100%
Fixed Interest Account	0	0	195,869 100.00%	0	0	0	0	195,869 100%
Volunteer Firefighters Account	1,702 5.22%	0	14,658 44.87%	0	11,445 35.04%	4,861 14.88%	0	32,666 100%
TOTAL SUPPLEMENTAL FUNDS	274,318 14.72%	128,307 6.88%	334,502 17.95%	0	936,863 50.27%	189,942 10.19%	0	1,863,932 100%
MN DEFERRED COMP PLAN	63,899 1.11%	0	2,106,437 36.50%	0	3,099,974 53.72%	500,999 8.68%	0	5,771,309 100%
TOTAL RETIREMENT FUNDS	1,523,810 2.24%	128,307 0.19%	16,825,451 24.72%	0	32,717,001 48.07%	9,537,392 14.01%	7,335,462 10.78%	68,067,423 100%

	Cash & ST	<b>Bonds Int</b>	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
ASSIGNED RISK PLAN	2,130 0.71%	0	239,168 78.99%	0	61,488 20.31%	0	0	302,786 100%
ENVIRONMENTAL FUND	17,353 1.94%	253,866 28.40%	0	622,567 69.66%	0	0	0	893,786 100%
PERMANENT SCHOOL FUND	23,107 1.98%	549,722 46.92%	0	598,711 51.10%	0	0	0	1,171,540 100%
CLOSED LANDFILL FUND	0	21,095 30.53%	0	48,006 69.47%	0	0	0	69,101 100%
MISCELLANEOUS TRUST FUND	491 0.33%	63,044 42.04%	0	86,424 57.63%	0	0	0	149,959 100%
Other Post Employment Funds (OPEB's)	25,158 5.11%	68,586 13.93%	0	398,575 80.96%	0	0	0	492,319 100%
TREASURERS CASH	8,125,062 100.00%	0	0	0	0	0	0	8,125,062 100%
MISCELLANEOUS STATE ACCOUNTS	0	241,268 100.00%	0	0	0	0	0	241,268 100%
MN COLLEGE SAVINGS PLAN	8,551 0.72%	0	561,910 47.14%	0	434,729 36.48%	186,690 15.66%	0	1,191,880 100%
TOTAL CASH AND NON-RETIREMENT	8,201,852 64.90%	1,197,581 9.48%	801,078 6.34%	1,754,283 13.88%	496,217 3.93%	186,690 1.48%	0	12,637,701 100%
GRAND TOTAL	9,725,662 12.05%	1,325,888 1.64%	17,626,529 21.84%	1,754,283 2.17%	33,213,218 41.15%	9,724,082 12.05%	7,335,462 9.09%	80,705,124 100%

# TAB B

#### EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE:

May 27, 2015

TO:

Members, State Board of Investment

FROM:

Mansco Perry III

#### 1. Reports on Budget and Travel

A report on the SBI's administrative budget for the period ending March 31, 2015 is included as **Attachment A**.

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

#### 2. Legislative Update

I will present an update on legislative matters. A summary is included in **Attachment C**.

#### 3. Update on Sudan

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

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

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

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

In the first quarter, SBI managers divested 28,188 shares in companies on the divestment list.

**Attachment D** is a copy of the March 20, 2015 letter sent to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested.

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

#### 4. Update on Iran

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

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

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

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

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

**Attachment F** is a copy of the March 20, 2015 letter sent to each international equity manager and domestic equity manager and fixed income manager containing the end of quarter restricted list and the list of companies to be divested.

#### 5. Litigation Update

SBI legal counsel will give the Board a verbal update on the status of litigation at the Board meeting on June 3, 2015.

# ATTACHMENT A

# STATE BOARD OF INVESTMENT FISCAL YEAR 2015 ADMINISTRATIVE BUDGET REPORT FISCAL YEAR TO DATE THROUGH MARCH 31, 2015

	FISCAL YEAR	FISCAL YEAR
	2015	2015
ITEM	BUDGET	3/31/2015
PERSONAL SERVICES		
FULL TIME EMPLOYEES	\$ 4,151,000	\$ 2,600,909
PART TIME EMPLOYEES	\$ 0	
MISCELLANEOUS PAYROLL	100,000	67,524
SUBTOTAL	\$ 4,251,000	\$ 2,668,433
STATE OPERATIONS		
RENTS & LEASES	242,000	155,146
REPAIRS/ALTERATIONS/MAINTENANCE	12,000	
PRINTING & BINDING	5,000	
PROFESSIONAL/TECHNICAL SERVICES	150,000	
COMPUTER SYSTEMS SERVICES	20,000	
COMMUNICATIONS	30,000	17,406
TRAVEL, IN-STATE	1,000	329
TRAVEL, OUT-STATE	56,000	35,603
SUPPLIES	52,000	E
EQUIPMENT	33,000	937
EMPLOYEE DEVELOPMENT	25,000	17,178
OTHER OPERATING COSTS	221,000	85,301
SUBTOTAL	\$ 847,000	\$ 350,669
TOTAL ADMINISTRATIVE BUDGET	\$ 5,098,000	\$ 3,019,102

# ATTACHMENT B

## STATE BOARD OF INVESTMENT

# Travel Summary by Date SBI Travel January 1, 2015 – March 31, 2015

Purpose	Name(s)	Destination and Date	Total Cost
Manager Monitoring Alternative Investment Managers: Blackstone Capital Partners; Blackstone Real Estate Partners; KKR Manager Search Alternative Investment Managers: Avenue Capital; GSO Capital Partners; Rhone Group LLC; MHR Fund Mgmt. LLC	A. Krech R. Hill	New York, NY 1/5-1/7	\$3,725.84
Conference: Emerging Markets Forum sponsored by Elkind Economics, Inc.	M. Perry	Dallas, TX 1/13-1/14	\$1,101.29
Manager Monitoring Alternative Investment Managers: EnCap Manager Search Alternative Investment Managers: EnerVest	A. Krech	Houston, TX 1/15-1/16	\$1,465.44
Manager Monitoring Fixed Income Managers: Dodge & Cox; PIMCO; Western Asset Mgmt. Manager Search Fixed Income Managers: DoubleLine Capital; TCW	C. Boll A. Griga	Newport Beach, CA Pasadena, CA Los Angeles, CA San Francisco, CA 1/19-1/22	\$4,228.42

# STATE BOARD OF INVESTMENT

# Travel Summary by Date SBI Travel January 1, 2015 – March 31, 2015

Purpose	Name(s)	Destination and Date	Total Cost
Manager Monitoring Fixed Income Managers: PIMCO; Western Asset Mgmt. Manager Monitoring Alternative Investment Manager: Oaktree Capital Mgmt. Manager Search Fixed Income Managers: DoubleLine Capital; TCW	R. Hill	Newport Beach, CA Pasadena, CA Los Angeles, CA 1/19-1/22	\$2,100.75
Manager Monitoring Alternative Investment Manager: TA Realty Annual Meeting	J. Stacy	Boston, MA 3/10-3/11	\$1,603.93
Conference: Government Investment Officers Association (GIOA)	S. Kuettel	Las Vegas, NV 3/10-3/13	\$1,082.95

# Bills of Interest to the Minnesota State Board of Investment 2015 Legislative Session Includes action through 5/27/2015

Name of Bill	HF/SF # and Author	Current Status	Notes
2015 Omnibus Retirement Bill	HF1508 O'Driscoll SF1398 Pappas	Signed into law by Governor Dayton on 5/22/2015	The interest rate assumption outlined in Chapter 356.215 will change from a select and ultimate interest rate assumption to an 8% interest rate assumption for applicable retirement plans within MSRS and PERA. This bill also modifies the financial sustainability triggers for postretirement adjustment mechanisms for MSRS and TRA.
Omnibus State Government Finance Bill	HF495 Anderson SF888 Saxhaug	Signed into law by Governor Dayton on 5/23/2015	Provides general fund appropriations for the Investment Board of \$139,000 in each of the 2016 and 2017 fiscal years.
Omnibus Health & Human Services Bill (Previously tracked as HF161 Zerwas and SF 39 Hoffman: Achieving a Better Life Experience Act (ABLE);	HF1638 Dean SF1458 Lourey	Signed into law by Governor Dayton on 5/22/2015	Amends Statute 13.461 to establish accounts for certain persons with disabilities; subject to Section 529A(b) of IRS Code.  The SBI will consult with the Commissioner of Human Services on the design and plan requirements as needed to invest with a third party for investment management, record keeping or other services.
Omnibus environment and natural resources finance bill (Previously tracked SF2101)	HF846 McNamara SF1764 Tomassoni	Vetoed by Governor Dayton on 5/23/2015	Chapter 84.69 would create the natural resources conservation easement account for DNR. Chapter 103B.103 would create the water and soil conservation easement stewardship account for the Board of Water and Soil Resources (BWSR). Established for farmers to improve water quality.  The SBI's role in this proposal would have been to manage each of these accounts to maximize long-term gain.

	Middle class family tax reductions provided, loopholes closed, tax fairness provided (Previously tracked as HF1707 Drazkowski & HF 1706 Drazkowski: Environmental & Natural Resources Trust Fund Payment Account & Outdoor Heritage Fund Payment Account; SF1655 Saxhaug)	HF848 Davids	This provision was added to the Omnibus tax bill. This bill did not advance during the legislative session.	This proposal had language added to 11A.237 to establish an account for County Joint Trust Fund Payments when requested by a county as required under 97A.056 for outdoor heritage trust fund payment account and in 116P.045 for the environment and natural resources trust fund payment account (both PILTS).  Staff believes the SBI would have the capability of managing the investment of assets in either of these accounts. Staff had indicated that the SBI would not have the capability to manage the administration of individual county accounts.
-8-	Additional language in the Middle class family tax reductions provided, loopholes closed, tax fairness provided (Previously tracked as HF921 Schomacker, Long-Term Care Savings Plan)	HF848 Davids	This provision was added to the Omnibus tax bill. This bill did not advance during the legislative session.	This proposal would have created the MN Long-Term Care Savings Plan in Chapter 16A.728 which would be invested with financial institutions, banks, thrifts, etc.  The MN Long-Term Care Savings Plan would have been established as savings account with no impact to the SBI. However, if MMB were to find an administrator for this account then it would have been set up as a trust where the SBI may have been asked to invest the assets of these accounts.
	Designation of Procurements From Service-Disabled, Veteran Owned Business	HF1106 Davids SF1115 Carlson	Staff is not aware of this language being introduced into any of the bills that were brought before the Governor for passage.	The original proposal would have added new language to Chapter 16C, which would require the Commissioner of the Dept. of Administration to ensure that service-disabled veteran owned business receive bid preferences and a percentage of state procurement.  The most current initiative by the lobbyist would have the board establish policies that are consistent with standard of care required under Statute 11A.09 to encourage external managers to increase business with resident broker-dealers that are majority owned by minorities, women, veterans, and persons with disabilities.

#### ATTACHMENT D

#### Letter to SBI International and Domestic Equity Managers

March 20, 2015

#### Regarding: Sudan Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Sudan Stocks. These securities <u>may not</u> <u>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 Sudan Companies that was attached to the December 19, 2014 letter you received. This new list is effective March 31, 2015.

The following company has been added to the Restricted List:

ASEC Company for Mining (ASCOM)
 Egypt

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

•	Establissements Maurel et Prom	France
•	Schlumberger LTD	Curacao
•	Daqing Oilfield Drilling & Exploration*	China
•	China Petroleum Pipeline Engineering Corp*	China
•	MCM Co. LTD—Soudan*	Morocco
•	Meyas Sand Minerals Co. Ltd*	Canada
•	Panorama Petroleum	Canada

<sup>\*</sup>privately held company

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

If you own securities of companies on the List of Sudan Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must <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.

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

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

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

Enclosures

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

# **ATTACHMENT 1**

Company Name	Country of Origin
Andritz AG	Austria
Orca Gold Inc.	Canada
Statesman Resources Limited	Canada
AKM Industrial Company Limited	China
China Gezhouba Group Company Limited	China
China Machinery Engineering Corporation	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
China Petroleum and Chemical Corporation AKA Sinopec Corp.	China
China Poly Group Corporation	China
Daqing Huake Group Company Limited	China
Dongfeng Motor Group Company Limited	China
Harbin Electric Company Ltd.	China
Jiangxi Hongdu Aviation	China
Jinan Diesel Company Limited	China
Kingdream PLC	China
NORINCO International Cooperation Ltd	China
North Huajin Chemical Industries Co.	China
North Navigation Control Technology Co. Ltd	China
Petrochina Co. Ltd AKA China National Petroleum Corporation (CNPC)	China
Poly Property Group Co. Ltd.	China
Power Construction Corporation of China Ltd.	China
Sichuan Nitrocell Co. Ltd	China
Sinopec Engineering Group Co. Ltd.	China
Sinopec Shanghai Petrochemicals Ltd	China
Sinopec Yizheng Chemical Fibre Co Ltd	China
ASEC Company for Mining (ASCOM)	Egypt
Egypt Kuwait Holding Company	Egypt
Alstom	France
MAN SE	Germany
Renk AG	Germany
Volkswagan AG	Germany
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Alstom India Ltd	India
Alstom T&D India Ltd. (formerly Areva T&D India)	India
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Indian Oil Corporation Ltd.	India
Lanka IOC Limited	India
Mangalore Refinery and Petrochemicals Limited	India
Oil and Natural Gas Corp. Ltd.	India
Oil India Limited	India
Energy House Holding Co KSCC, The	Kuwait
Engen Botswana Ltd. AKA Engen	Malaysia
KLCCP Stapled Group AKA KLCC Property Holdings	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petroliam Nasional Berhad AKA Petronas	Malaysia
Petronas Chemicals Group Berhad	Malaysia

#### **ATTACHMENT 1**

## **Restricted Sudan Stocks**

Company Name	Country of Origin
Petronas Dagangan Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Scomi Engineering Berhad	Malaysia
Scomi Group Berhad	Malaysia
Managem	Morocco
Societe Metallurgique D'imiter	Morocco
GAZ Auto Plant	Russia
GAZ Group	Russia
Pavlovsky Bus Plant	Russia
LS Industrial Systems	South Korea

Note:

List contains parent companies and subsidiaries publicly traded.

AKA means "Also Known As"

Source: EIRIS Conflict Risk Network

Effective Date: March 31, 2015

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

**ATTACHMENT 2** 

# **Sudan Stocks Requiring Divestment**

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

Effective Date: March 31, 2015

# **Historical Divestments**

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this date
China Petroleum and Chemical			
Corporation AKA Sinopec Corp	China	April 30, 2008	October 31, 2008
PetroChina Company	China	April 30, 2008	October 31, 2008
Oil and Natural Gas Corp AKA			
ONGC	India	April 30, 2008	October 31, 2008
Malaysia International Shipping Company AKA MISC Berhad	Malaysia	April 30, 2008	October 31, 2008
Alstom	France	April 30, 2008	October 31, 2008
Dongfeng Motor Group Company			
Limited	China	March 31, 2011	September 30, 201



#### **ATTACHMENT 3**

Security Identifiers for "Scrutinized" Stocks

The following security identifiers correlate with the First Quarter 2015 Sudan Company Report and are current as of February 13, 2015 ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

Company	Primary Company (Athliate Parent)	Exchange	Security Type	Security Name							
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IB	WPK Number	6230834 IN	CUSIP Sici		COMMON	CINS Fondscode
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IN	ADEAYM	6230834 IN		INE878A01011 INE878A01011		
ALSTOM INDIA LTD	ALSTOM	Nati India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IS	AOEAYM	6230834 IN		INE878A01011		
ALSTOM SA	ALSTOM	Equiduct (XEQT)	Common Stock	ALSTOM	ALO BQ	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM ALSTOM	BATS Europe (BATE)	Common Stock	ALSTOM	ALO EB	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM ALSTOM	EN Paris (XPAR) TOM MTF (TMX)	Common Stock	ALSTOM	ALO FP	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Aquis Exchg (AQXE)	Common Stock Common Stock	ALSTOM ALSTOM	ALO MT	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Turquoise (TRQX)	Common Stock	ALSTOM	ALO QX	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Chi-X Alt TS (CHIX)	Common Stock	ALSTOM	ALSP IX	A0F7BK A0F7BK	B0DJ8Q5 FR B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GB	A0F7BK	B0G0412 DE		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GD	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GE	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GF	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GH	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock Common Stock	ALSTOM ALSTOM	AOMD GI AOMD GM	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GR	A0F7BK A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GS	A0F7BK	B0G0412 DE B0G0412 DE		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GY	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Quotrix Exch (XQTX)	Common Stock	ALSTOM	AOMD QT	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM ALSTOM	Tradegate (XGAT)	Common Stock	ALSTOM	AOMD TH	A0F7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	OTC US (OOTC)	Common Stock	ALSTON	AOMFF PQ	A0F7BK	BOGLY93 US		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	OTC US (OOTC)	Common Stock	ALSTOM ALSTOM	AOMFF US AOMFF UV	A0F7BK	B0GLY93 US		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALO EU	A0F7BK A0F7BK	BOGLY93 US BOYLTQ7 GB		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO LI	A0F7BK	BOYLTQ7 GB BOYLTQ7 GB		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO LO	A0F7BK	BOYLTQ7 GB		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XB	A0F7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XD	A0F7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XE	A0F7BK	B0YLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	ALSTOM	ALO XO	A0F7BK	B0YLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XS	A0F7BK	B0YLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro TLX (ETLX)	Common Stock	ALSTOM	ALO XV ALO TE	A0F7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	SIX Swiss Ex (XSWX)	Common Stock	ALSTOM	ALO SE	A0F7BK A0F7BK	B3NVFN8 IT BRTM7F9 CH		FR0010220475	022581074	
ALSTOM SA	ALSTOM	SIX Swiss Ex (XSWX)	Common Stock	ALSTOM	ALO SW	AUF7BK	BRTM7F9 CH		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XL	A0F7BK	Sittimite of		FR0010220475	022581074	
ALSTON SA	ALSTOM	Blockmatch (BLOX)	Common Stock	ALSTOM	ALOP B3	A0F7BK			FR0010220475	022301074	
ALSTOM SA ALSTOM SA	ALSTOM ALSTOM	Blockmatch (BLOX)	Common Stock	ALSTOM	ALOP L3	A0F7BK			FR0010220475		
ALSTOM SA ALSTOM SA	ALSTOM	Blockmatch (BLOX) OTC US (OOTC)	Common Stock	ALSTOM	ALOP S2	A0F7BK			FR0010220475		
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR	ALSTOM ALSTOM	ALSMY PQ ALSMY US	A1CS4B	B3DY4Z2 US	021244207	US0212442075	081982660	
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR	ALSTOM	ALSMY US ALSMY UV	A1CS4B A1CS4B	B3DY4Z2 US	021244207	US0212442075	081982660	
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ALSMIT OV	A1CS4B A0RB87	B3DY4Z2 US 6139890 IN	021244207	US0212442075	081982660	
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IN	AORB87	6139890 IN		INE200A01026 INE200A01026		
ALSTOM T&D INDIA LTD ANDRITZ AG	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IS						
						A0RB87	6139890 IN		INE200A01026		
ANDRITZ AC	ANDRITZ GROUP	Vienna (WBAH)	Common Stock	ANDRITZ AG	ANDR AV	632305	B1WVF68 AT		INE200A01026 AT0000730007	013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB	632305 632305	B1WVF68 AT B1WVF68 AT		AT0000730007 AT0000730007	013042748 013042748	<del></del>
ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX	632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT		AT0000730007 AT0000730007 AT0000730007	013042748 013042748	<del></del>
ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE)	Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ	632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT		AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748	***************************************
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB	632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ	632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF	632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GF AZ2 GF AZ2 GH AZ2 GM	632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GM AZZ GR	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRCX) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GR AZZ GR AZZ GR AZZ GR	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (FORX) Xetra (XETR)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GM AZZ GR AZZ GS AZZ GS AZZ GS	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT 81WVF68 AT 81WVF68 AT 81WVF68 AT 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE 81X9FH2 DE		AT000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRCX) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ A22 GB A22 GD A22 GF A22 GH A22 GR A22 GR A22 GR A22 GR A22 GR A22 GY A22 GY A22 GY	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Chi-X Europe (CHIX) Turquoise (TRCX) Xetra (XETR)	Common Stock Comman Stock Comman Stock Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ A22 GB A22 GB A22 GF A22 GF A22 GR A22 GR A22 GR A22 GR A22 GY A22 G	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WF68 AT B1X9FH2 DE B1X9FH2 DE		AT000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChX Europe (CHX) Turquoise (TRCX) Xebra (XETR) Tradegate (XGAT) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ A22 GB A22 GD A22 GF A22 GH A22 GR A22 GR A22 GR A22 GR A22 GR A22 GY A22 GY A22 GY	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1WVF68 AT B1WVF68 AT B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	A11123105
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Ch-X Europe (CHIX) Turquoise (TROX) Xetra (XETR) Quotrix Exch (XQTX) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GF AZ2 GF AZ2 GH AZ2 GR AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZF US	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWVF68 AT BIX9FH2 DE BIX9FH2 DE		AT000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	A111231D5 A111231O5
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChX Europe (CHX) Turquoise (TRCX) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUS COMP (XLON) ESE Europe (SYLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GH AZ2 GR AZ2 GG AZ2 GY ANDR EU ANDR EU ANDR II	632205 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIX9FH2 DE BIX9FH2 DE		AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Ch-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Quotrix Exch (XOTX) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE EuropeGS (XLON) LSE EuropeGS (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GH AZ2 GR AZ2 GR AZ2 GY AZ2 GY AZ2 GY AZ2 TH AZ2 TH ADRZF US ADRZF US ANDR EU ANDR LI ANDR LI	632205 632205	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT BIWF68 AT BIWF68 AT BIX9FH2 DE BIX9FH2 DE BIX		AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChX Europe (CHX) Turquoise (TRCX) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUT COMP (XLON) LSE EuropeCS (XLON) LSE EuropeCS (XLON) LSE EuropeCS (XLON) LSE EuropeCS (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GH AZ2 GR AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 TH ADRZF US ADRZF US ANDR EU ANDR LI	\$3206 \$3205 \$32205	BIW/F68 AT BIW/F68 AT BIW/F68 AT BIW/F68 AT BIW/F68 AT BIX/9FH2 DE BIX/9FH2 DE		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Ch-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Quotrix Exch (XQTX) Tradegate (XGAT) OTC US (OOTC) Euro Comp (XLON) LSE EuropeOS (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GF AZZ GH AZZ GH AZZ GH AZZ GY AZZ GY AZZ GY AZZ GY AZZ GY AZZ H AZZ H ADRZF UV ANDR EU ANDR LI ANDR LO ANDR XA ANDR XB	632205 632305	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT BIW		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TROX) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) UTC OS (OOTC) Euro Comp (XLON) LSE EuropeOS (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GF AZZ GH AZZ GR AZZ GY ANDR EU ANDR EU ANDR LU ANDR LU ANDR LU ANDR LO ANDR XA ANDR XA ANDR XA	\$3205 \$32205 \$32205	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWSFH2 DE BIXSFH2 DE BIXSFH3 DE		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) Ch-X Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Quotrix Exch (XQTX) Tradegate (XGAT) OTC US (OOTC) Euro Comp (XLON) LSE EuropeOS (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GF AZZ GH AZZ GH AZZ GH AZZ GY AZZ GY AZZ GY AZZ GY AZZ GY AZZ H AZZ H ADRZF UV ANDR EU ANDR LI ANDR LO ANDR XA ANDR XB	632205 632205	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT BIW		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChA: Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Quotric Exch (XQTX) Tradegate (XGAT) OTC US (OOTC) CIT US (OOTC) CUT US (OOTC) CUT US (OOTC) Euro Comp (XLON) LSE EuropeQS (XLON) LSE EuropeQS (XLON) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GF AZZ GH AZZ GH AZZ GH AZZ GY AZZ GY AZZ GY AZZ GY AZZ GY AZZ H AZZ H ADRZF UV ANDR EU ANDR LI ANDR LO ANDR XA ANDR XB	\$3205 \$32205 \$32205	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWSFH2 DE BIXSFH2 DE BIXSFH3 DE		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChA' Europe (CHX) Turquoise (TRCX) Xefra (XETR) Tradegate (XGAT) Tradegate (XGAT) OTC US (ODTC) OTC US (ODTC) OTC US (ODTC) Euro Gomp (XLON) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GF AZZ GF AZZ GF AZZ GY AZZ H ADRZ US ADRZ US ANDR EU ANDR LI ANDR LI ANDR XA ANDR XB ANDR XB ANDR XB ANDR XD ANDR XL ANDR	\$3205 63	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChA' Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Tot US (COTC) Tradegate (XGAT) TOT US (COTC) Tradegate (XGAT) OTC US (COTC) Euro Comp (XLON) LSE Europe QS (XLON) LSE Europe QS (XLON) Euro OTC (XLON) BX Worldcaps (XBRN) SIX Swisse Exc (XSWX)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GB AZZ GC AZZ G	632205 632205	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChA' Europe (CHIX) Turquoise (TROX) Xefra (XETR) Euro CTC (XON) Euro OTC (XLON) Euro SERVINI SIX Swiess Ex (XSWX) BX Worldcape (XBRN) SIX Worldcape (XBRN)	Common Stock	ANDRITZ AG	ANDR AV ANDR AV ANDR EB ANDR IX ANDR TQ A22 GB A22 GF A23 GF A24 GF A25 GF A26 GF A27 GF A27 GF ANDR EU ANDR LI ANDR LI ANDR XA ANDR XB ANDR XB ANDR XB ANDR XC ANDR XC ANDR XV ANDR XV ANDR XV ANDR SEW ANDR SW ANDR SEW	632205 632205 632205 632305	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF62 DE BIX9FH2 DE BIX9FH3 DE BIX9FH3 GB BIX9FH3 GB		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Tot US (COTC) Tradegate (XGAT) OTC US (COTC) CUS (COTC) CUS (COTC) Euro Comp (XLON) LSE EuropeOS (XLON) LSE EuropeOS (XLON) Euro OTC (XLON) BX Worldcaps (XBRN) Euro OTC (XLON) BX Worldcaps (XBRN) BX Worldcaps (XBRN) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GD AZZ GF AZZ GM AZZ GGH AZZ GGH AZZ GGH AZZ GGH AZZ GGH AZZ GT AZZ TH AZZ TH AZZ TH ADRZF UV ANDR EU ANDR LI ANDR LO ANDR XA ANDR XB ANDR SW ANDR SW ANDR SB ANDR SB ANDR SB ANDR SB ANDR SB ANDR SB	632205 632205	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TROX) Xebra (XETR) Xe	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY ANDR X2 GY ANDR X4 ANDR X5 ANDR X8	632205 632305	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW		AT000730007 AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TRQX) Xetra (XETR) Tot US (COTC) Tradegate (XGAT) OTC US (COTC) CUS (COTC) CUS (COTC) Euro Comp (XLON) LSE EuropeOS (XLON) LSE EuropeOS (XLON) Euro OTC (XLON) BX Worldcaps (XBRN) Euro OTC (XLON) BX Worldcaps (XBRN) BX Worldcaps (XBRN) Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GGH AZZ GH AZZ G	632205 632205	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW	034653000	AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChX Europe (CHIX) Turquoise (TRQX) Xetra (XETR) To (SETR) To	Common Stock	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GH AZ2 GR AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 GY AZ2 H ADRZF US ANDR EU ANDR LI ANDR LI ANDR LO ANDR XA ANDR XB A	632205 632305	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT B	034522102	AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChA' Europe (CHIX) Turquoise (TROX) Xefra (XETR) Euro CTC (XON) Euro OTC (XLON)	Common Stock Commo	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GGH AZZ GH AZZ G	632205 632305	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW	034522102	AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TROX) Xetra (XETR) LE GOOTC) Euro Comp (XLON) Euro OTC (XLON) BX Worldcaps (XBRN) SIX Swiss Ex (XSWX) SIX Swis	Common Stock Commo	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GG AZ AZ GG AZ AZ GG AZ AZ AZ GG AZ AZ GG AZ GG AZ AZ GG AZ AZ GG AZ AZ AZ GG AZ AZ AZ AZ GG	632205 632205	BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWWF68 AT BIWF68 AT B		AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TROX) Xetra (XETR) Xe	Common Stock Commo	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR IT Q AZ2 GB AZ2 GB AZ2 GF AZ2 GH AZ2 GR AZ2 GR AZ2 GY AZ2 GT AZ2 TH AZ2 TH ADRZF US ANDR EU ANDR LI ANDR LO ANDR XA ANDR XB ANDR YB ANDR XB ANDR YB ANDR XB ANDR	632205 632205	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIWF68 AT BIX9FH2 DE BIX9FH2 GB BIX9FH2 GB BI	034522102	AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE) ChAZ Europe (CHIX) Turquoise (TROX) Xetra (XETR) LE GOOTC) Euro Comp (XLON) Euro OTC (XLON) BX Worldcaps (XBRN) SIX Swiss Ex (XSWX) SIX Swis	Common Stock Commo	ANDRITZ AG	ANDR AV ANDR EB ANDR IX ANDR TQ AZZ GB AZZ GD AZZ GF AZZ GH AZZ GH AZZ GG AZ AZ GG AZ AZ GG AZ AZ AZ GG AZ AZ GG AZ GG AZ AZ GG AZ AZ GG AZ AZ AZ GG AZ AZ AZ AZ GG	632205 632205	BIWVF68 AT BIWVF68 AT BIWVF68 AT BIWF68 AT BIW	034522102	AT0000730007	013042748 013042748	

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	(A) - Western				
BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS	BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IS	120304	6139715 IN	LUSIP	Sicovam	ISIN INE263A01016	COMMON	CINS For	ndscode
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE) Natl India (XNSE)	Common Stock Common Stock	BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS	BHEL IB BHEL IN	A1JLKM A1JLKM	B6SNRV2 IN B6SNRV2 IN			INE257A01026 INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Nati 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 BHARAT HEAVY ELECTRICALS-	BHEUS IN								
BHARAT HEAVY ELECTRICALS CHINA GEZHOUBA GROUP COMPANY	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Second Lending	SLB CHINA GEZHOUBA GROUP CO LT	BHEL/S IS								
CHINA GEZHOUBA GROUP COMPANY		Shanghai (XSHG)	Common Stock	A CHINA GEZHOUBA GROUP CO LT	600068 CG	A0M31Z	6377214 CN			CNE000000QF1			
LTD CHINA GEZHOUBA GROUP COMPANY	CHINA GEZHOUBA GROUP COMPANY LTD		Common Stock	A CHINA GEZHOUBA GROUP CO LT	600068 CH	A0M31Z	6377214 CN			CNE000000QF1			
POWER CONSTRUCTION CORPORATION		Nth SSE-SEHK (XSSC)	Common Stock	Α	600068 C1	A0M31Z	BP3R693 CN			CNE000000QF1			
OF CHINA LTD POWER CONSTRUCTION CORPORATION		Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CG	A1JNL6	B4TH690 CN			CNE1000017G1			
OF CHINA LTD POWER CONSTRUCTION CORPORATION		Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CH	A1JNL6	B4TH690 CN			CNE1000017G1			
OF CHINA LTD CHINA MACHINERY ENGINEERING	CONSTRUCTION GROUP (SINOHYDRO) CHINA MACHINERY ENGINEERING	Nth SSE-SEHK (XSSC)	Common Stock	SINOHYDRO GROUP LTD-A CHINA MACHINERY ENGINEERIN-	601669 C1		BP3R4M2 CN			CNE1000017G1			
CORPORATION CHINA MACHINERY ENGINEERING	CORPORATION CHINA MACHINERY ENGINEERING	Hong Kong (XHKG)	Common Stock	H CHINA MACHINERY ENGINEERIN-	1829 HK	A1KAFT	B94VG58 HK			CNE100001NP4	086987414		
CORPORATION CHINA MACHINERY ENGINEERING	CORPORATION CHINA MACHINERY ENGINEERING	Frankfurt (XFRA)	Common Stock	H CHINA MACHINERY ENGINEERIN-	C3M GF	A1KAFT				CNE100001NP4	086987414		
CORPORATION	CORPORATION CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	Н	C3M GR	A1KAFT				CNE100001NP4	086987414		
DAQING HUAKE GROUP CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000985 CH	A0M4C2	6277949 CN			CNE000001402			
DAQING HUAKE GROUP CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000985 CS	A0M4C2	6277949 CN			CNE000001402			
JINAN DIESEL ENGINE CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CH	A0M3ZT	6486109 CN			CNE000000MS3			
JINAN DIESEL ENGINE CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CS	A0M3ZT	6486109 CN			CNE000000MS3			
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GB	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GD	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GF	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GM	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV3E	6340078 HK		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF US	A1CV3E	B01DDZ3 US		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF UV	A1CV3E	B01DDZ3 US		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Sth SSE-SEHK (SHSC)	Common Stock	KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP	135 H1	A1CV3E	BP3RW39 HK		952131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC Exchange (OOTC)	ADR	ADR CNPC HONG KONG LTD-UNSP	KLYCY PQ	A1J7V7	B3L2812 US	50126A101		US50126A1016			
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP sks	OTC Exchange (OOTC)	ADR	ADR CNPC HONG KONG LTD-UNSP	KLYCY US	A1J7V7	B3L2812 US	50126A101		US50126A1016			
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC Exchange (OOTC)	ADR	ADR	KLYCY UV	A1J7V7	B3L2812 US	50126A101		US50126A1016			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GB	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GD	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GF	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GH	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GM	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GR	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GS	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GY	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Quotrix Exch (XQTX)	Common Stock	PETROCHINA CO LTD-H	PC6 QT	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 TH	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0M4YQ	6226576 HK			CNE1000003W8			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF US	A0M4YQ	B01DNL9 US			CNE1000003W8		Y6883Q104	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF UV	A0M4YQ	B01DNL9 US			CNE1000003W8		Y6883Q104	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Sth SSE-SEHK (SHSC)	Common Stock	PETROCHINA CO LTD-H	857 H1	A0M4YQ	BP3RWW8 HK			CNE1000003W8		and an area of the	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CG	AONANC	B28SLD9 CN			CNE1000007Q1			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	AONANG	B28SLD9 CN			CNE1000007Q1			
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Nth SSE-SEHK (XSSC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	AONANC	BP3R206 CN				033421664		
PETROCHINA CO LTD	CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UB	936983	2568841 US	74646E100		US71646E1001			
										- 31 10 100 1			

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Tiele	Ziwov to	2500	TI WATER		a transfer and the	S E-MAN	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka				Ticker	WPK Number	Contrates and the	CUSIP Sicovam	ISIN	COMMON	CINS	Fondscode
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UD	936983	2568841 US	74646E100	US71646E1001	011511449		
	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UF	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UN	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UP	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UT	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UX	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VJ	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VK	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VY	936983	2568841 US	74646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GB	936983	4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	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				
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 4633327 DE	71646E100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD -ADR	PTR SP	936983		7 1040E 100	US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD -ADR	PC6A TH		B3KTK63 SG	745455400	US71646E1001	011511449		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	97-23-3	936983	D00 I0 I0 177	74646E100	US71646E1001	011511449		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	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		
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock		AIQ GR	A0D86T	B06L0H3 DE		HK8298013897	021553654		
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)		MARCH CONVICTAL ROOM LINE	NORINGO INTL COOPERATION -A		A0M35W	6112125 CN		CNE000000VZ9			
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A		A0M35W	6112125 CN		CNE000000VZ9			
NORTH HUAJIN CHEMICAL INDUSTRIES	CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A		A0M30T	6796143 CN		CNE000000NY9			
NORTH NAVIGATION CONTROL	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A NORTH NAVIGATION CONTROL T-	000059 CS	A0M30T	6796143 CN		CNE000000NY9			
TECHNOLOGY CO. LTD. NORTH NAVIGATION CONTROL	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	A NORTH NAVIGATION CONTROL T-	600435 CG	A0M4L5	6649946 CN		CNE000001F88			
TECHNOLOGY CO. LTD. NORTH NAVIGATION CONTROL	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	A NORTH NAVIGATION CONTROL T-	600435 CH	A0M4L5	6649946 CN		CNE000001F88			
TECHNOLOGY CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Nth SSE-SEHK (XSSC)	Common Stock	A	600435 C1	A0M4L5	BP3RB54 CN		CNE000001F88			
SICHUAN NITROCELL CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	AORPGJ	B39G5K4 CN		CNE100000BW7			
SICHUAN NITROCELL CO. LTD. CHINA PETROLEUM & CHEMICAL CORP	CORPORATION (CNGC/NORINCO) CHINA PETROCHEMICAL CORP aka	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A CHINA PETROLEUM & CHEMICAL-	002246 CS	AORPGJ	B39G5K4 CN		CNE1000008W7			
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shanghai (XSHG)	Common Stock	A CHINA PETROLEUM & CHEMICAL-	600028 CH	A0M4G4	6373728 CN		CNE0000018G1			
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	H CHINA PETROLEUM & CHEMICAL	386 HK	A0M4XN	6291819 HK		CNE1000002Q2	012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL CHINA PETROLEUM & CHEMICAL	CHU GB	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL  CHINA PETROLEUM & CHEMICAL	CHU GD	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H	CHU GF	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL H	CHU GH	A0M4XN	7027756 DE		CNE1000002Q2	012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GM	A0M4XN	7027756 DE			012150504		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GR	A0M4XN	7027756 DE			012150504		
aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL H	CHU GS	A0M4XN	7027756 DE			012150504		
CHINA PETROLEUM & CHEMICAL CORP  aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL H	CHU GY	A0M4XN	7027756 DE		CNE1000002Q2			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Quotrix Exch (XQTX)	Common Stock	CHINA PETROLEUM & CHEMICAL H	CHU QT		7027756 DE		CNE1000002Q2			
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		V15010104	
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				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		Y15010104	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sth SSE-SEHK (SHSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-		A0M4XN	BD1XKK4 US BP3RSM0 HK		CNE1000002Q2		Y15010104	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-	600028 CG				CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-		A0M4G4	6373728 CN		CNE1000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	600028 C1	A0M4G4	BP3R240 CN		CNE1000018G1			
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-	SNP UB	578971	2639189 US	16941R108	US16941R1086			
Jana Sinor de Gora	Sinto, Ed GROOF	New York (XNYS)	ADR	ADR	SNP UD	578971	2639189 US	16941R108	US16941R1086	011899374		I

Company	Primary Company (Affiliate/Parent)	Access to the second second								
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka	Exchange	Security Type	CHINA PETROLEUM & CHEMICAL-	Ticker	WPK Number	SEDOL	CUSIP	ISIN	COMMON CINS Fandscode
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP UF	578971	2639189 US	16941R108	US16941R1086	011899374
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP UN	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP UP	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP US	578971	2639189 US		US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP UT	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR	SNP UX	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP VJ	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP VK	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP	SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP VY	578971	2639189 US	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	CHUA GB	578971	BORSWOO DE	16941R108		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	CHUA GF	578971	BORSWOO DE		US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	(a) (appoint)			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	BORSWOO DE	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-	CHUA GR	578971	BORSW00 DE	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	CHUA GS	578971	BORSWOO DE	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR	CHUA GY	578971	BORSWOO DE	16941R108	US16941R1086	011899374
KINGDREAM PLC	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEM-ADR	CHUA TH	578971		16941R108	US16941R1086	011899374
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CH	A0M37A	6136385 CN		CNE000000XK7	1
KINGDREAM PLC	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A SINOPEC ENGINEERING GROUP-	000852 CS	A0M37A	6136385 CN		CNE000000XK7	
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Sth SSE-SEHK (SHSC)	Common Stock	H SINOPEC ENGINEERING GROUP-	2386 H1	A1T97T	B92NYC9		CNE100001NV2	093502256
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	H SINOPEC ENGINEERING GROUP-	2386 HK	A1T97T	B92NYC9		CNE100001NV2	093502256
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	H SINOPEC ENGINEERING GROUP-	1NS GF	A1T97T	B96WKB3		CNE100001NV2	
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	H SINOPEC ENGINEERING GROUP-	1NS GM	A1T97T	B96WKB3		CNE100001NV2	
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	H SINOPEC ENGINEERING GROUP-	1NS GR	A1T97T	B96WKB3		CNE100001NV2	
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	H	1NS GS	A1T97T	B96WKB3		CNE100001NV2	
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Quotrix Exch (XQTX)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS QT	A1T97T	B96WKB3 DE		CNE100001NV2	
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GB	923923	4601197 DE		BMG8165U1009	011563384
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GF	923923	4601197 DE		BMG8165U1009	
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GR	923923	4601197 DE		BMG8165U1009	Section Control of the Control of th
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GS	923923	4601197 DE		BMG8165U1009	SALIA SARRESTANIA Bi-CAMBANASTANIA
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 HK	923923	6162692 HK		BMG8165U1009	
SINOPEC KANTON HOLDINGS LTD SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 H1	923923	BP3RXQ9 HK		BMG8165U1009	
LTD	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 CG	A0M3RA	6802794			011303304
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE- A	600688 CH	A0M3RA	6802794		CNE000000BB2	
LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	SINOPEC SHANGHAI PETROCHE-	600688 C1	A0M3RA	BP3R596 CN		CNE000000BB2	
LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEN		ADM4Y5			CNE000000BB2	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM	SGJH GD		5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEN	P	A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)		SINOPEC SHANGHAI PETROCHEN		A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP		Common Stock	SINOPEC SHANGHAI PETROCHEN		A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
DAVIDE DE LOS CONTROL DE LA CO	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM		A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM		A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEN	SGJH GS	A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM	SGJH GY	A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Quotrix Exch (XQTX)	Common Stock	H SINOPEC SHANGHAI PETROCHEM	SGJH QT	A0M4Y5	5888632 DE	908303	CNE1000004C8	005096162
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	H SINOPEC SHANGHAI PETROCHEM	338 HK	A0M4Y5	6797458 HK	908303	CNE1000004C8	005096162
LTD SINOPEC SHANGHAI PETROCHEMICALS		Sth SSE-SEHK (SHSC)	Common Stock	H	338 H1	A0M4Y5	BP3RXR0 HK	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAL-SPONS ADR	SHI UB	887169	2800059 US	908289	US82935M1099	012248750
LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UD	887169	2800059 US	908289	US82935M1099	012248750
LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UF	887169	2800059 US	908289	US82935M1099	012248750
LTD	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHIUN	887169	2800059 US	908289	US82935M1099	S. S. M. March S. Living J.
										10000000000000000000000000000000000000

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS Fondso
NOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR		Advistation			100000000			CINS Fondso
NOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR			887169	2800059 US		908289	US82935M1099	012248750	
NOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			SINOPEC SHANGHAI-SPONS ADR		887169	2800059 US		908289	US82935M1099	012248750	
NOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR		887169	2800059 US		908289	US82935M1099	012248750	
NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI VJ	887169	2800059 US		908289	US82935M1099	012248750	
TD NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHIVK	887169	2800059 US		908289	US82935M1099	012248750	
D NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHIVY	887169	2800059 US		908289	US82935M1099	012248750	
TD NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GB	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
'D NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GF	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
D NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GM	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
D NOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHIGR	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
D	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHIGS	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
D	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Singapore (XSES)	ADR	SINOPEC SHANGHAI -SPONS ADI	R SHI SP	887169	B3MNGN2	82935M109	908289	US82935M1099		
IOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR		887169		02933W109			012248750	
OPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A			2800059 US		908289	US82935M1099	012248750	
OPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP					A0M3V6	6986740			CNE000000HS3		
IOPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A		A0M3V6	6986740			CNE000000HS3		
JOPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK		917709	CNE1000004D6	008069662	
OPEC YIZHENG CHEMICAL FIBRE CO	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFF US	A0M4Y6	B01XVL5 US			CNE1000004D6	008069662	
0	SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFF UV	A0M4Y6	B01XVL5 US			CNE1000004D6	008069662	
LY 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	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTC	CMJ GB	885546	B1HJJS7 DE			HK0119000674	004580702	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTC	CMJGF	885546	B1HJJS7 DE			HK0119000674	004580702	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD	CMJ GR	885546	B1HJJS7 DE			HK0119000674	004580702	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTC	CMJGS	885546	B1HJJS7 DE			HK0119000674	004580702	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP CO LTC	PHKIF US	885546	B23CST1 US			HK0119000674	004580702	Y7064G105
LY 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	
LY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Receipt	POLY PROPERTY GROUP CO LTC	PHKIY PQ		BJTXRN4 US			US7316541090		
LY PROPERTY GROUP CO LTD DINGFENG MOTOR GROUP COMPANY	CHINA POLY GROUP CORPORATION DONGFENG MOTOR GROUP COMPANY	OTC US (OOTC)	Receipt	POLY PROPERTY GROUP CO LTC			BJTXRN4 US			US7316541090		
NITED	LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD H	DNFGF PQ	A0M4XY	B0XZY65 US			CNE 100000312	023857456	Y21042109
NGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD H	DNFGF UV	A0M4XY	B0XZY65 US			CNE 100000312		Y21042109
NGFENG MOTOR GROUP COMPANY IITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKG)	Common Stock	DONGFENG MOTOR GRP CO LTD H	- 489 HK	A0M4XY	B0PH5N3 HK					121042109
IITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD		A0M4XY				CNE100000312	023857456	
NGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD	D4D GF		BOTBB66 DE			CNE100000312	023857456	
NGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY LIMITED			DONGFENG MOTOR GRP CO LTD		A0M4XY	BOTBB66 DE			CNE100000312	023857456	
NGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD		A0M4XY	B0TBB66 DE			CNE100000312	023857456	
NGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD		A0M4XY	BOTBB66 DE			CNE100000312	023857456	
MITED INGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D GS	A0M4XY	BOTBB66 DE			CNE100000312	023857456	
IITED NGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D GY	A0M4XY	BOTBB66 DE			CNE100000312	023857456	
MITED INGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Quotrix Exch (XQTX)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D QT	A0M4XY	BOTBB66 DE			CNE100000312	023857456	
NTED NGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	OTC US (OOTC)	Common Stock	H DONGFENG MOTOR GRP CO LTD	DNFGF US	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109
IITED NGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Hong Kong (XHKG)	Common Stock	H	489 H1	A0M4XY	BP3RTP0 HK			CNE100000312	023857456	
NITED NGFENG MOTOR GROUP COMPANY	LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD	DNFGY PQ		B3SQPT4 US	257738203		US2577382037		
IITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	ADR	DONGFENG MOTOR GRP-H-UNS ADR	DNFGY US		B3SQPT4 US	257738203		US2577382037		
NGFENG MOTOR GROUP COMPANY IITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD H	DNFGY UV		B3SQPT4 US	257738203		US2577382037		
YPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Kuwait (XKUW)	Common Stock	EGYPT KUWAIT HOLDING CO SAE		A0H1G7	B0S8H15 KW			EG69082C013		
YPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EC	A0H1G7	BOQMD00 EG			EGS69082C013		
YPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE		A0H1G7	BOQMDO0 EG			EGS69082C013		
ERGY HOUSE HOLDING CO KSCC/THE		Kuwait (XKUW)	Common Stock	ENERGY HOLDING CO KSCC/THE		A0KD4C	B13BW99 KW			KW0EQ0601801		
Z AUTO PLANT IZ AUTO PLANT	GAZ GROUP GAZ GROUP	MICEX Main (MISX) MICEX Main (MISX)	Common Stock Common Stock	GAZ-CLS GAZ-CLS	GAZA RM GAZA RX	903426 903426	B5BKBJ9 RU		950579	RU0009034268	034991693	
Z AUTO PLANT	GAZ GROUP GAZ GROUP	MICEX Main (MISX) MICEX Main (MISX)	Preference	GAZ-CLS-PFD	GAZAP RM	910283	B5BKBJ9 RU B5BKC29 RU		950579	RU0009034268 RU0009102834	034991693	
			Preference	GAZ-CLS-PFD	GAZAP RX	910283	B5BKC29 RU			RU0009102834		
AZ AUTO PLANT NYLOVSKY BUS PLANT NYLOVSKY BUS PLANT	GAZ GROUP GAZ GROUP	MICEX Main (MISX)	Common Stock	PAVLOVSKY BUS-CLS	PAZA RM	908324	B57MPG4 RU			RU0009083240		

HARBIN ELECTRIC CO LTD	Primary Company (Atfiliate/Parent) HARBIN ELECTRIC CO LTD	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	ISIN	COMMON	N CINS Fondscode
	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GB	A0M4X8	B1HJDX0 DE	930709	CNE10000003C0		onio juliacode
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock Common Stock	HARBIN ELECTRIC CO LTD-H HARBIN ELECTRIC CO LTD-H	HP6H GF HP6H GR	A0M4X8 A0M4X8	B1HJDX0 DE B1HJDX0 DE	930709	CNE10000003C0		
	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF US	A0M4X8	B3BHKK0 US	930709 930709	CNE10000003C0 CNE10000003C0		V0000000
CHENNAI PETROLEUM CORPORATION	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF UV	A0M4X8	B3BHKK0 US	930709	CNE10000003C0	011043780	Y30683109 Y30683109
LIMITED	NDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IB	A0B968	6121563 IN				10000103
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL					7100000	0121303 114		INE178A01016		
CHENNAI PETROLEUM CORPORATION	INDIAN OIL CORP LID aka lOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTE	MRLIN	A0B968	6121563 IN		INE178A01016		
LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MPIIS	A0B968	C121502 IN				
INDIAN OIL CORP LTD	NDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IB	A0B9FM	6121563 IN 6253767 IN		INE178A01016		
	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE) Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IN	A0B9FM	6253767 IN		INE242A01010 INE242A01010		
LANKA IOC PLC	NDIAN OIL CORP LTD aka IOCL	Colombo (XCOL)	Common Stock Common Stock	INDIAN OIL CORPORATION LTD LANKA IOC PLC	IOCL IS LIOC SL	A0B9FM	6253767 IN		INE242A01010		
JIANGXI HONGDU AVIATION INDUSTRY J	JIANGXI HONGDU AVIATION INDUSTRY CO		Goldmon Otock	DAMON IOC FEC	LIOUSL	A0D83L	B0591G4 LK		LK0345N00005		
	LTD JIANGXI HONGOU AVIATION INDUSTRY CO	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CG	ADM4EK	6304375 CN		CNE0000015N3		
COLTD	LTD	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	000040 011	100000000000000000000000000000000000000	Carron and an annual an annual and an annual an annual and an annual an annual and an annual an annual and an annual and an annual and an annual and an annual an annual and an annual				
JIANGXI HONGDU AVIATION INDUSTRY	JIANGXI HONGDU AVIATION INDUSTRY CO		Common Stock	SIANGAI HONGDO AVIATION-A	600316 CH	A0M4EK	6304375 CN		CNE0000015N3		
	LTD LS INDUSTRIAL SYSTEMS CO. LTD	Nth SSE-SEHK (XSSC)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 C1	A0M4EK	BP3R8J7 CN		CNE0000015N3		
	LS INDUSTRIAL SYSTEMS CO. LTD	Korea (XKRX) Korea (XKRX)	Common Stock Common Stock	LS INDUSTRIAL SYSTEMS	010120 KP	895497	6378217 KR		KR7010120004		
MAN SE N	MAN SE	Equiduct (XEQT)	Common Stock	LS INDUSTRIAL SYSTEMS MAN SE	010120 KS MAN BQ	895497	6378217 KR		KR7010120004		
	MAN SE	BX Worldcaps (XBRN)	Common Stock	MAN SE	MAN BW	593700 593700	5563520 DE 5563520 DE	944020	DE0005937007	001117254	
	MAN SE MAN SE	BATS Europe (BATE)	Common Stock	MAN SE	MAN EB	593700	5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254	
MAN SE	MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	MAN SE MAN SE	MAN GB	593700	5563520 DE	944020	DE0005937007	001117254	
MAN SE N	MAN SE	Xetra (XETR)	Common Stock	MAN SE MAN SE	MAN GD MAN GF	593700 593700	5563520 DE	944020	DE0005937007	001117254	
	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GH	593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254	
	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock	MAN SE	MAN GI	593700	5563520 DE	944020	DE0005937007	001117254	
MAN SE	MAN SE	Xetra (XETR)	Common Stock Common Stock	MAN SE MAN SE	MAN GM MAN GR	593700	5563520 DE	944020	DE0005937007	001117254	
	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GS	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254	
	MAN SE MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GY	593700	5563520 DE	944020	DE0005937007	001117254	
MAN SE N	MAN SE	Quotrix Exch (XQTX) BX Worldcaps (XBRN)	Common Stock Common Stock	MAN SE MAN SE	MAN QT MAN SW	593700	5563520 DE	944020	DE0005937007	001117254	
	MAN SE	Tradegate (XGAT)	Common Stock	MAN SE	MAN SW MAN TH	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254	
	MAN SE MAN SE	Turquoise (TRQX)	Common Stock	MAN SE	MAN TQ	593700	5563520 DE	944020	DE0005937007	001117254	
MAN SE	MAN SE	Chi-X Europe (CHIX) SIX Swiss Ex (XSWX)	Common Stock Common Stock	MAN SE MAN SE	MANG IX MAN SE	593700	5563520 DE	944020	DE0005937007	001117254	
	MAN SE	OTC US (OOTC)	Common Stock	MAN SE	MAGOF US	593700 593701	5628883 CH B0318P0 US	944020	DE0005937007	001117254	
	MAN SE MAN SE	OTC US (OOTC)	Common Stock	MAN SE	MAGOF UV	593701	B0318P0 US	944020 944020	DE0005937007 DE0005937007	001117254	D51716104 D51716104
WWW.TE	MAN SE	Euro Comp (XLON)  LSE EuropeQS (XLON)	Common Stock Common Stock	MAN SE MAN SE	MAN EU	593700	B10LRX1 GB		DE0005937007	001117254	D31/16104
MAN SE N	MAN SE	LSE EuropeQS (XLON)	Common Stock	MAN SE	MAN LO	593700 593700	B10LRX1 GB	944020	DE0005937007	001117254	
	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XA	593700	B10LRX1 GB B10LRX1 GB	944020 944020	DE0005937007 DE0005937007	001117254	
	MAN SE MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XB	593700	B10LRX1 GB	344020	DE0005937007	001117254	
MAN SE N	MAN SE	Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	MAN SE MAN SE	MAN XD	593700	B10LRX1 GB		DE0005937007	001117254	
	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XE MAN XO	593700 593700	B10LRX1 GB B10LRX1 GB		DE0005937007	001117254	
	MAN SE MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XS	593700	B10LRX1 GB		DE0005937007 DE0005937007	001117254	
	MAN SE	Euro OTC (XLON) Euro TLX (ETLX)	Common Stock Common Stock	MAN SE MAN SE	MAN XV	593700	B10LRX1 GB		DE0005937007	001117254	
MAN SE N	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN TE MAN XL	593700 593700	B88FOL3 IT	944020	DE0005937007	001117254	
	MAN SE MAN SE	Blockmatch (BLOX)	Common Stock	MAN SE	MAND B3	593700			DE0005937007 DE0005937007	001117254	
	MAN SE	UBS MTF (XUBS)	Common Stock	MAN SE	MAND S2	593700			DE0005937007	001117254	
MAN SE N	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GB MAN3 GD	593703	5563531 DE	944021	DE0005937031	001114816	
	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GF	593703 593703	5563531 DE 5563531 DE	944021 944021	DE0005937031	001114816	
	MAN SE MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GH	593703	5563531 DE	944021	DE0005937031 DE0005937031	001114816	
MAN SE N	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GI MAN3 GM	593703	5563531 DE	944021	DE0005937031	001114816	
	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GM MAN3 GR	593703 593703	5563531 DE 5563531 DE	944021	DE0005937031	001114816	
	MAN SE MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GS	593703	5563531 DE	944021 944021	DE0005937031 DE0005937031	001114816	
MAN SE	MAN SE	Xetra (XETR) Quotrix Exch (XQTX)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GY	593703	5563531 DE	944021	DE0005937031	001114816	
MAN SE N	MAN SE	Turquoise (TRQX)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 QT MAN3 TQ	593703 593703	5563531 DE 5563531 DE	944021	DE0005937031	001114816	
	MAN SE MAN SE	Equiduct (XEQT)	Preference	MAN SE-VORZUGSAKTIEN	MAN3D BQ	593703	5563531 DE	944021 944021	DE0005937031 DE0005937031	001114816	
MAN SE M	MAN SE	Chi-X Europe (CHIX) Euro Comp (XLON)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3D IX	593703	5563531 DE	944021	DE0005937031	001114816	
MAN SE M	MAN SE	Euro OTC (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 EU MAN3 XD	593703 593703	B28K2R6 GB B28K2R6 GB		DE0005937031	001114816	
	MAN SE MAN SF	Euro OTC (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 XS	593703	B28K2R6 GB		DE0005937031 DE0005937031	001114816	
MAN SE M	MAN SE	Tradegate (XGAT) OTC US (OOTC)	Preference ADR	MAN SE-VORZUGSAKTIEN MAN SE-UNSSPONSORED ADR	MAN3 TH	593703		944021	DE0005937031	001114816	
MAN SE M	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR MAN SE-UNSSPONSORED ADR	MAGOY PQ MAGOY US	A0YF6N A0YF6N		1641101	US5616411014	054361637	
	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY UV	AOYF6N		51641101 51641101	US5616411014 US5616411014	054361637 054361637	
	MAN SE MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	ADR ADR	MAN SE-UNSSPONSORED ADR	MANC GF	A0YF6N	B5900P0 DE 56	51641101	US5616411014	054361637	
MAN SE M	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR MAN SE-UNSSPONSORED ADR	MANC GR MANC GS	A0YF6N	B5900P0 DE 56	1641101	US5616411014	054361637	
	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GB	A0YF6N 785000	B5900P0 DE 56 5555969 DE	916291	US5616411014 DE0007850000	054361637	
DATE OF THE PARTY	MAN SE MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GF	785000	5555969 DE	916291	DE0007850000	001121936	
RENK AG M	MAN SE	Frankfurt (XFRA)	Common Stock Common Stock	RENK AG RENK AG	ZAR GM ZAR GR	785000	5555969 DE	916291	DE0007850000	001121936	
	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GS	785000 785000	5555969 DE 5555969 DE	916291 916291	DE0007850000 DE0007850000	001121936	
	MAN SE MAN SE	Euro Comp (XLON) Euro OTC (XLON)	Common Stock	RENK AG	ZAR EU	785000	B28LK31 GB	310231	DE0007850000	001121936 001121936	
RENK AG M	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG RENK AG	ZAR XA ZAR XD	785000 785000			DE0007850000	001121936	
	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG	ZAR XL	785000			DE0007850000 DE0007850000	001121936	
	MAN SE MAN SE	LSE EuropeQS (XLON)	Common Stock	VOLKSWAGEN AG	VOW LI	766400	0308908 DE		DE0007664005	001121936	
VOLKSWAGEN AG M	MAN SE	LSE EuropeQS (XLON) EURO OTC (XLON)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW LO	766400	0308908 DE		DE0007664005	001115308	
	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XA VOW XB	766400 766400	0308908 GB 0308908 GB		DE0007664005	001115308	
VOLKSWAGEN AG M VOLKSWAGEN AG M	MAN SE MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XD	766400	0308908 GB		DE0007664005 DE0007664005	001115308	
VOLKSWAGEN AG M	MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Common Stock Common Stock	VOLKSWAGEN AG	VOW XE	766400	0308908 GB		DE0007664005	001115308	
VOLKSWAGEN AG M	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW XO VOW XS	766400 766400	0308908 GB 0308908 GB		DE0007664005	001115308	
	MAN SE MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XV	766400	0308908 GB		DE0007664005 DE0007664005	001115308	
	MAN SE	SIX Swiss Ex (XSWX) SIX Swiss Ex (XSWX)	Common Stock Common Stock	VOLKSWAGEN AG	VOW BW	766400	5496994 CH		DE0007664005	001115308	
			Common Stock	VOLKSWAGEN AG	VOW SE	766400	5496994 CH		DE0007664005	001115308	

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	San We We	W. No.					
VOLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG	VOW SW	766400	THE REAL PROPERTY AND PARTY AND PERSONS ASSESSMENTS	CUSIP		COMMON CINS Fondscode
VOLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Common Stock	VOLKSWAGEN AG	VW EB	766400	5496994 CH 5496994 CH	996800	DE0007664005 DE0007664005	001115308 001115308
OLKSWAGEN AG	MAN SE	EN Amsterdam (XAMS)	Common Stock	VOLKSWAGEN AG	VWA NA	766400	5497016 NL	330000	DE0007664005	001115308
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	Luxembourg (XLUX) Equiduct (XEQT)	Common Stock Common Stock	VOLKSWAGEN AG	VOW LX	766400	5497061 LU		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW BQ VOW EB	766400 766400	5497102 DE 5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GB	766400	5497102 DE		DE0007664005 DE0007664005	001115308 001115308
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GD	766400	5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW GF VOW GH	766400	5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GH	766400 766400	5497102 DE 5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GM	766400	5497102 DE		DE0007664005 DE0007664005	001115308 001115308
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GR	766400	5497102 DE		DE0007664005	001115308
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW GS VOW GY	766400 766400	5497102 DE 5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Quotrix Exch (XQTX)	Common Stock	VOLKSWAGEN AG	VOW QT	766400	5497102 DE		DE0007664005 DE0007664005	001115308 001115308
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	Tradegate (XGAT)	Common Stock	VOLKSWAGEN AG	VOW TH	766400	5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Turquoise (TRQX) Chi-X Europe (CHIX)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW TQ	766400	5497102 DE		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VOWG IX VLKAF PQ	766400 766400	5497102 DE B01DRL7 US		DE0007664005 DE0007664005	001115308
OLKSWAGEN AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VLKAF US	766400	B01DRL7 US		DE0007664005	001115308
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	OTC US (OOTC) EuroTLX (ETLX)	Common Stock Common Stock	VOLKSWAGEN AG	VLKAF UV	766400	B01DRL7 US		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW TE VOW EU	766400 766400	B7N7B69 IT		DE0007664005	001115308
OLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Common Stock	VOLKSWAGEN AG	VOWCHF EU	766400			DE0007664005	001115308
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Blockmatch (BLOX)	Common Stock	VOLKSWAGEN AG	VOWD B3	766400			DE0007664005 DE0007664005	001115308
OLKSWAGEN AG	MAN SE MAN SE	UBS MTF (XUBS) LSE EuropeQS (XLON)	Common Stock Preference	VOLKSWAGEN AG	VOWD S2	766400	2010000000		DE0007664005	
VOLKSWAGEN AG	MAN SE	LSE EuropeQS (XLON)	Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	50IT LI 50IT LO	766403 766403	0309291 GB 0309291 GB		DE0007664039	001117432
VOLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XA	766403	0309291 GB		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XB	766403	0309291 GB		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 XD	766403	0309291 GB		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XE VOW3 XI	766403 766403	0309291 GB 0309291 GB		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XL	766403	0309291 GB		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3 XO	766403	0309291 GB		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 XX	766403	0309291 GB		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VOW3 XV VW/V BW	766403 766403	0309291 GB 5497146 CH		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VW/V SE	766403	5497146 CH		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	SIX Swiss Ex (XSWX) Equiduct (XFQT)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VW/V SW	766403	5497146 CH		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	BATS Europe (BATE)	Preference	VOLKSWAGEN AG-PREF	VOW3 BQ VOW3 EB	766403 766403	5497168 DE 5497168 DE		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GB	766403	5497168 DE		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GD	766403	5497168 DE		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 GF	766403	5497168 DE		DE0007664039	001117432
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GH VOW3 GI	766403 766403	5497168 DE 5497168 DE		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GM	766403	5497168 DE		DE0007664039 DE0007664039	001117432 001117432
VOLKSWAGEN AG VOLKSWAGEN AG	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GR	766403	5497168 DE		DE0007664039	001117432
VOLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 GS VOW3 GY	766403	5497168 DE		DE0007664039	001117432
VOLKSWAGEN AG	MAN SE	Chi-X Europe (CHIX)	Preference	VOLKSWAGEN AG-PREF	VOW3 GT	766403 766403	5497168 DE 5497168 DE		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	Quotrix Exch (XQTX)	Preference	VOLKSWAGEN AG-PREF	VOW3 QT	766403	5497168 DE		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	Aquis Exchg (AQXE) Tradegate (XGAT)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3 QX	766403	5497168 DE		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	Turquoise (TRQX)	Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 TH VOW3 TQ	766403 766403	5497168 DE 5497168 DE		DE0007664039	001117432
/OLKSWAGEN AG	MAN SE	Luxembourg (XLUX)	Preference	VOLKSWAGEN AG-PREF	VOWP LX	766403	5497221 LU		DE0007664039 DE0007664039	001117432 001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF PQ	766403	B1GXSC7 US		DE0007664039	001117432
OLKSWAGEN AG	MAN SE	OTC US (OOTC) OTC US (OOTC)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VLKPF US	766403	B1GXSC7 US		DE0007664039	001117432
VOLKSWAGEN AG	MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VLKPF UV VOW3 EU	766403 766403	B1GXSC7 US		DE0007664039	001117432
/OLKSWAGEN AG /OLKSWAGEN AG	MAN SE MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3CHF EU	766403			DE0007664039 DE0007664039	001117432 001117432
OLKSWAGEN AG	MAN SE	Blockmatch (BLOX) Liquidnet (LIQU)	Preference	VOLKSWAGEN AG-PREF	VOW3D B3	766403			DE0007664039	
OLKSWAGEN AG	MAN SE	UBS MTF (XUBS)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3D L3 VOW3D S2	766403 766403			DE0007664039	
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-NEW	VOWN GB	A13ST1	BV8VNB3 DE		DE0007664039 DE000A13ST10	116718049
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-NEW	VOWN GD	A13ST1	BV8VNB3 DE		DE000A13ST10	116718049
OLKSWAGEN AG	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	VOLKSWAGEN AG-NEW VOLKSWAGEN AG-NEW	VOWN GF VOWN GH	A13ST1	BV8VNB3 DE		DE000A13ST10	116718049
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-NEW	VOWN GR	A13ST1 A13ST1	BV8VNB3 DE BV8VNB3 DE		DE000A13ST10	116718049
OLKSWAGEN AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-NEW	VOWN GY	A13ST1	BV8VNB3 DE		DE000A13ST10 DE000A13ST10	116718049 116718049
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Euro Comp (XLON) OTC US (OOTC)	Preference ADR	VOLKSWAGEN AG-NEW	VOWN1EUR EU	A13ST1	V 2000 - 1000 -		DE000A13ST10	116718049
OLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR VOLKSWAGEN AG-SPONS ADR	VLKAY PQ VLKAY US	879511 879511	2930484 US	928662303	US9286623031	011526233
OLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY UV	879511	2930484 US 2930484 US	928662303 928662303	US9286623031 US9286623031	011526233
OLKSWAGEN AG OLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GF	879511	B62V8T7 DE	928662303	US9286623031	011526233 011526233
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	ADR ADR	VOLKSWAGEN AG-SPONS ADR VOLKSWAGEN AG-SPONS ADR	VOW4 GR	879511	B62V8T7 DE	928662303	US9286623031	011526233
OLKSWAGEN AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PR		879511 A0DPR2	862V8T7 DE 2265960 US	928662303 928662402	US9286623031	011526233
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PR		A0DPR2	2265960 US	928662402	US9286624021 US9286624021	042872202 042872202
OLKSWAGEN AG OLKSWAGEN AG	MAN SE MAN SE	OTC US (OOTC) Frankfurt (XFRA)	ADR ADR	VOLKSWAGEN AG-SPONS ADR PR	VLKPY UV	A0DPR2	2265960 US	928662402	US9286624021	042872202
OLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PE VOLKSWAGEN AG-SPONS ADR PE	VOW5 GB	A0DPR2 A0DPR2	B603118 DE B603118 DE	928662402	US9286624021	042872202
OLKSWAGEN AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PR	VOW5 GR	AUDPR2	B603118 DE B603118 DE	928662402 928662402	US9286624021 US9286624021	042872202 042872202
OLKSWAGEN AG IANAGEM	MAN SE MANAGEM	Frankfurt (XFRA) Casablanca (XCAS)	ADR	VOLKSWAGEN AG-SPONS ADR PR	VOW5 GY	A0DPR2	B603118 DE	928662402	US9286624021	042872202
OCIETE METALLURGIQUE D'IMITER	MANAGEM	Casablanca (XCAS) Casablanca (XCAS)	Common Stock Common Stock	MANAGEM SOCIETE METALLURGI D'IMITER	MNG MC SMI MC	165414	6287454 MA		MA0000011058	
IANGALORE REFINERY &			to the control of the control	MANGALORE REFINERY &	OMI MIO	256307	6007759 MA		MA0000010068	
ETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED	MRPL IB	AONANW	6121530 IN		INE103A01014	
ANGALORE REFINERY & ETROCHEMICALS LIMITED	OII & NATURAL GAS CORD	Mumbal (VDC)		MANGALORE REFINERY &						
ANGALORE REFINERY &	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED MANGALORE REFINERY &	MRPL IN	AONANW	6121530 IN		INE103A01014	
ETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED	MRPL IS	AONANW	6121530 IN		INE 102 ACTOL	
IL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Nati India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IN	A1H6P4	6139362 IN		INE103A01014 INE213A01029	
IL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP OIL & NATURAL GAS CORP	Nati India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IB	A1H6P4	6139362 IS		INE213A01029	
	SIE S HAT DANK GAS GURF	Nati India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IS	A1H6P4	6139362 IS		INE213A01029	
IL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONGC/S IN				NA	
									N.A.	

Company	Primary Company (Affikate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	COMMON CINS Fondsco
DIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONCORE				2007431	
DIL INDIA LTD	OIL INDIA LTD	Nati India (XNSE)	Common Stock	OIL INDIA LTD	OINL IB	AAWADE			N.A.	
IL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IN	A0X9PF A0X9PF	B409HQ9 IN		INE274J01014	
IL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IS	A0X9PF	B409HQ9 IN		INE274J01014	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CN		B409HQ9 IN		INE274J01014	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CV	A1T8LS	B84J7Q3 CA	68558N102	CA68558N1024	091768224
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DS	A1T8LS	B84J7Q3 CA	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DV	ATTELS	B84J7Q3 CA	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC		A1TBLS	B84J7Q3 CA	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TG ORG TJ	A1T8LS	B84J7Q3 CA	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC		A1T8LS	B84J7Q3 CA	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock		ORG TN	A1T8LS	B84J7Q3 CA	68558N102	CA68558N1024	091768224
RCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF PQ	A1T8LS	B8JYMF7 US	68558N104	CA68558N1024	091768224
RCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock		CANWF US	A1T8LS	B8JYMF7 US	68558N103	CA68558N1024	091768225
RCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)		ORCA GOLD INC	CANWF UV	A1T8LS	B8JYMF7 US	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GB	A1T8LS	B9L55S9 DE	68558N102	CA68558N1024	091768224
RCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GF	A1T8LS	B9L55S9 DE	68558N102	CA68558N1024	
RCA GOLD INC	ORCA GOLD INC		Common Stock	ORCA GOLD INC	HJ6A GR	A1T8LS	<b>B9L55S9 DE</b>	68558N102	CA68558N1024	
HOA GOLD INC		Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GS	A1T8LS	B9L55S9 DE	68558N102	CA68558N1024	
NGEN BOTSWANA LTD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Value of the second sec			Cacheronical				31.00000111021	001100224
NOCH BOTSWANA LID		Gaborone (XBOT)	Common Stock	ENGEN	ENGN BG	546632	B063G04		BW0000000058	
LCCP STAPLED GROUP	PETROLIAM NASIONAL BERHAD aka								244000000000	
ALAYSIA INTERNATIONAL SHIPPING	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD	KLCCSS MK	A1T91X	B92NSW7 MY		MYL5235SS008	
	PETROLIAM NASIONAL BERHAD aka								W1 C323333000	
OMPANY aka MISC BHD	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	MISC BHD	MISC MK	880504	6557997 MY		905279 MYL3816OO005	003527883
ALAYSIA MARINE AND HEAVY	PETROLIAM NASIONAL BERHAD aka					000004	0001001 1111		905279 MYL381600003	003527883
NGINEERING HOLDINGS BHD	PETRONAS	Bursa Malays (XKLS)	Common Stock	MALAYSIA MARINE AND HEAVY EN	MMHF MK	A1C7U6	B3W5NN7		100 51000000	9740.00000
	PETROLIAM NASIONAL BERHAD aka			PETRONAS CHEMICALS GROUP		A10700	DOVADIAIA		MYL518600001	055049394
ETRONAS CHEMICALS GROUP BHD	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	BHD	PCHEM MK	A1C891	DEVOCTO IN		page and order or or	
	PETROLIAM NASIONAL BERHAD aka			5.16	E CHIEM MIX	AICOSI	B5KQGT3 MY		MYL5183OO008	055800235
ETRONAS DAGANGAN BHD	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS DAGANGAN BHD	PETD MK	895131				
	PETROLIAM NASIONAL BERHAD aka		Common Clock	I E INONAO DAGANGAN BRD	PEIDWK	895131	6695938 MY		MYL568100001	005378044
ETRONAS GAS BHD	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS GAS BHD	PTG MK	******	122222222222			
COMI ENERGY SERVICES BHD	SCOMI GROUP BERHAD	Bursa Malays (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	896633	6703972 MY		MYL6033OO004	
COMI ENGINEERING BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENGINEERING BHD		215406	6081593		MYL704500007	
COMI GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENGINEERING BHD	SEB MK	903056	6098452 MY		MYL7366OO007	
TATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock		SGB MK	120745	B00PKJ3 MY		MYL715800008	
ATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CN	A1J2NC	B80L116 CA	857652200	CA8576522004	025302885
TATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)		STATESMAN RESOURCES LTD	SRR CV	A1J2NC	B80L116 CA	857652200	CA8576522004	025302885
THE PARTY OF THE P	CHALLOW HE HE COOK CES LIMITED	Venture (A15A)	Common Stock	STATESMAN RESOURCES LTD	SRR TG	A1J2NC	B80L116 CA	857652200	CA8576522004	115183605

# ATTACHMENT E

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

Alstom Tabl India Ltd Alstom Tab India Ltd. Alstom Tab India Ltd. Alstom Tab India Ltd. Andritz AG ASEC Company for Mining Bharat Electronics Limited Bharat Heavy Electricals Limited India Bharat Heavy Electricals Limited Caterpillar Inc. China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Hydraulic and Hydroelectric Construction Group (Sinohydro) China China Hydraulic and Hydroelectric Construction Group (Sinohydro) China Power Development Company Sinohydro Bureau 7 Co. Ltd. Sinohydro Engineering Bureau 8 Co. Ltd Sinohydro Engineering Bureau 8 Co. Ltd Sinohydro Engineering Bureau 8 Co. Ltd China Mational Petroleum Corporation China Geroup Co. Ltd. Jiman Diesel Engine Co. Ltd. China Ch	Company Name	Country of Origin
Andritz AG ASEC Company for Mining Bharat Electroines Limited Bharat Heavy Electricals Limited Bharat Heavy Electricals Limited Caterpillar Inc. US China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Hydraulic and Hydroelectric Construction Group (Sinohydro) Power Development Company Sinohydro Bureau 7 Co. Ltd. Sinohydro Bureau 7 Co. Ltd. China Machinery Engineering Bureau 8 Co. Ltd China Machinery Engineering Bureau 8 Co. Ltd China Machinery Engineering Bureau 8 Co. Ltd China Machinery Engineering Corporation CNPC General Capital Ltd. China Machinery Engineering Corporation CNPC General Capital Ltd. China Machinery Engineering Corporation CNPC General Capital Ltd. China Machinery Engineering Corporation CNPC HK Overseas Capital Ltd. China Machinery Engineering Corporation CNPC HK Overseas Capital Ltd. China Morth Industries Group Co. Ltd. Kunlun Energy Co. Ltd. Kunlun Energy Co. Ltd. China North Industries Group Corporation AKM Industrial Co. Ltd. China North Industries Group Corporation AKM Industrial Co. Ltd. China North Navigation Control Technology Co. Ltd Sichuan Nitroell Co. Ltd China Petrochemical Corporation (Sinopec Group) China China Sinopec Bignieering Group Co. Ltd. Sinopec Engineering Group Co. Ltd. Sinopec Engineering Froup Co. Ltd. Sinopec Group Overseas Development 2012 Ltd. Sinopec Group Overseas Development	Alstom	France
Andritz AG ASEC Company for Mining Bharat Electronics Limited Bharat Heavy Electricals Limited Caterpillar Inc. China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Hydraulic and Hydroelectric Construction Group (Sinohydro) China Power Construction Corporation of China Ltd. Sinchydro Engineering Bureau S Co. Ltd China Power Development Company Sinohydro Engineering Corporation China Marchine Perfoleering Corporation China Marchine Group Co. Ltd. China India Diesel Engine Co. Ltd. China Jinan Diesel Engine Co. Ltd. China Lindia China Co. Ltd. China Ordina Co. Ltd. China North Huagin Chemical Industries North Huagin Chemical Industries North Huagin Chemical Industries North Navigation Control Technology Co. Ltd Sichuan Nitrocell Co. Ltd China Petroleum and Chemical Corporation a.k.a. Sinopec Corp China Petroleum and Chemical Corporation a.k.a. Sinopec Corp Kingdream PLC Sinopec Group Oversease Development 2012 Ltd. Sinopec Group Oversease Development 2013 Ltd. China Petroleum and Chemical Corporation a.k.a. Sinopec Corp Kingdream PLC Sinopec Group Oversease Development 2013 Ltd. China Sinopec Group Oversease Development 2013 Ltd. China Sinopec Group Oversease Development 2013 Ltd. Sinopec Group Oversease Development 2013 Ltd. China China Petroleum and Chemical Corporation China Petroleum and Chemical Corporation China China Petroleum Corporation Co. Ltd. China Sinopec Group Oversease Development 2013 Ltd. Sinopec Group Oversease Development 2014 Ltd. China Sinopec Group Co. Ltd. China Sinopec Group Co. Ltd. China China Petroleum Co		
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Bharat Electronics Limited India Caterpillar Inc. China Gabrouba Group Company Ltd. China Gabrouba Group Company Ltd. China Hydraulic and Hydroelectric Construction Group (Sinohydro) China Power Construction Corporation of China Ltd. Sinchuan Power Development Company Sinohydro Bureau 7 Co. Ltd. Sinohydro Engineering Bureau S Co. Ltd China Machiner Engineering Corporation China Chica China Chi		
Bharat Heavy Electricals Limited Caterpillar Inc. China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Gezhouba Group Company Ltd. China Power Construction Corporation of China Ltd. Sichuan Power Development Company Sinchydro Bureau 7 Co. Ltd. Sinchydro Bureau 7 Co. Ltd. China Machinery Engineering Bureau 8 Co. Ltd China Machinery Engineering Bureau 8 Co. Ltd China Machinery Engineering Groproration China Machinery Engineering Corporation China China Machinery Engineering Corporation China China Machinery Engineering Corporation China Petroleum and Chemical Corporation a.k.a. Sinopec Corp China China China Sinopec Group Overseas Development 2012 Ltd. Sinopec Group Overseas Development 2013 Ltd. Sinopec Group Overseas Development 2013 Ltd. Sinopec Group Coverseas Development 2013 Ltd. Sinopec Group		
Caterpollar Inc.         China           China Gebnuba Group Company Ltd.         China           China Hydraulic and Hydroelectric Construction Group (Sinohydro)         China           Power Construction Corporation of China Ltd.         China           Sichuan Power Development Company         China           Sinohydro Bureau R Co. Ltd.         China           China Matolina Petroleum Corporation         China           China Matolina Petroleum Corporation         China           CNPC HK Overseas Capital Ltd.         Ghina           CNPC HK Overseas Capital Ltd.         China           Mulni Energy Co. Ltd.         China           Jinan Diesel Engine Co. Ltd.         China           Kunlun Energy Co. Ltd.         China           Vertochina Co. Ltd.         China           North Mulatifia Co. Ltd.         China           North Mulatifia Co. Ltd.         China           North Hulpin Chemical Industries         China           North Navigation Control Technology Co. Ltd         China           Sichuan Nitroell Co. Ltd         China           China Petrochemical Corporation (Sinopec Group)         China           China Petrochemical Corporation a.k.a. Sinopec Corp         China           Kingdeam PLC         Sinopec Singual 2013 Ltd.         British V		
China Hydraulic and Hydroelectric Construction Group (Sinohydro)         China           Power Construction Corporation of China Ltd.         China           Sichuan Power Development Company         China           Sinohydro Engineering Bureau 8 Co. Ltd         China           China National Petroleum Gorporation         China           China National Petroleum Gorporation         China           CNPC HK Overseas Capital Ltd.         British Virgin Islands           Daqing Huake Group Co. Ltd.         China           Jinan Diesel Engine Co. Ltd.         China           Kunlun Energy Co. Ltd.         China           PetroChina Co. Ltd.         China           North Morth Industries Group Corporation         China           North Maying Co. Ltd.         China           North Navigation Control Technology Co. Ltd         China           North Navigation Control Technology Co. Ltd         China           Sichuan Nitrocell Co. Ltd         China           China Petrochemical Corporation (Sinopec Group)         China           China Petrochemical Corporation (Sinopec Group)         China           China Petrochemical Corporation (Sinopec Group)         China           Sinopec Capital 2013 Ltd.         British Virgin Islands           Sinopec Engineering Group Co. Ltd.         British Virgin Islands<		US
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Note: List contains parent companies and subsidiaries publicly traded

# EIRIS Conflict Risk Network (CRN) List of Companies in Sudan for "Substantial Action" <u>List Effective March 31, 2015</u>

Company Name	Country of Origin
Atlas Copco AB	Sweden
Wartsila OYJ	Finland

# EIRIS Conflict Risk Network (CRN) List of Companies in Sudan with "No Publicly Traded Equity" or "Not Relevant under the CRN Targeted Divestment Model" List Effective March 31, 2015

Abdel Hadi Abdullah Al-Qahtani & Sons Group of Companies Abdel Moniem International Petroleum Co. Ltd. (Petromoniem) ACES (Arab Center for Engineering Studies) Khartoum ACES (Arab Center for Engineering Studies) Khartoum Africa Energy Sa Nigeria Ltd. Ansan Wikfs Investments Ltd. Ansan Wikfs Investments Ltd. Ansan Wikfs Investments Ltd. Arcadia Petroleum Ltd. Altonov APS Engineering Company Roma S.p.A. Arcadia Petroleum Ltd. UK Blue Coat Systems USA China International Water & Electric Corporation Concorp Petroleum Limited Sudan Concorp Petroleum Limited Sudan Daedong Industrial Machinery Co., Ltd Sudien Usy Switzerland European Marmot Co. Group Sudan Hamia II AS Nonway Hi-Tech Petroleum Group Co., Ltd. Sudan HTC Yemen International Ltd. Sudan HTC Yemen International Ltd. Sudan HTC Yemen International Ltd. UR United Kingdom La Mancha Resources Lahmeyer International Amncha Resources Lahmeyer International Mott MacDonald Nott MacDonald Nile Petroleum S.A. Luxembourg Petroneeds Service International Company Petroneeds Service International Company PetroTrans Company Ltd. UK Nongon Quest Qualitas FZCO United Arab Emirates Shandong Electric Power Construction Corporation SMEC Holdings Limited Sudan Strandong Petroleum S.A. Sirp Projetos e Participacoes Sirp Projetos e Participacoes Sudan Strandong Petroleum Corporation (Sudapet) Turkey Star Petroleum Corporation (Sudapet) Turkey Star Petroleum Corporation (Sudapet) Turkey Star Petroleum Corporation (Sudapet) UK UAE for Gold Minerals and Investment Company Ltd. United Arab Emirates Switzerland	Company Name	Country of Origin
ACES (Arab Center for Engineering Studies) Khartoum Africa Energy Sa Nigeria Ltd. Ansan Wikfs Investments Ltd. Antonov APS Engineering Company Roma S.p.A. Arcadia Petroleum Ltd. UK Blue Coat Systems China International Water & Electric Corporation Concorp Petroleum Limited Daedong Industrial Machinery Co., Ltd Dindir Petroleum International European Marmot Co. Group Express Petroleum and Gas Company GIAD Motor Co Ltd. Hemia II AS Hinternational European Marmot Co., Ltd. UK Hinternational Geoscience Services) Ltd. UK Home II AS Hinternational Ltd. GS (International Geoscience Services) Ltd. United Kingdom La Mancha Resources Lahmeyer International Lahmeyer International Mott MacDonald Sudan Mott MacDonald Fetroleum S.A. Petrolrans Company Ltd. Quest Qualitas FZCO United Arab Emirates RAM Energy STUE Belspetsvneshetchnika Shandong Electric Power Construction Corporation SMEC Holdings Limited Soma Group Studan STR Projetos e Participacoes Sudan Sudan Petroleum S.A. STR Projetos e Participacoes Sudan Petroleum Gold Ltd. UK	Abdel Hadi Abdullah Al-Qahtani & Sons Group of Companies	Saudi Arabia
Africa Energy Sa Nigeria Ltd.       Nigeria Yemen Ansan Wikfs Investments Ltd.       Yemen Ukraine         Ansan Wikfs Investments Ltd.       Ukraine         APS Engineering Company Roma S.p.A.       Italy         Arcadia Petroleum Ltd.       UK         Blue Coat Systems       USA         China International Water & Electric Corporation       China         Concorp Petroleum Limited       Sudan         Daedong Industrial Machinery Co., Ltd       Sudan         Daedong Industrial Machinery Co., Ltd       Sudan         Dindir Petroleum International       Jordan         European Marmot Co. Group       Switzerland         European Marmot Co. Group       Switzerland         Eyress Petroleum and Gas Company       Nigeria         GIAD Motor Co Ltd.       Sudan         Hemia II AS       Norway         Hi-Tech Petroleum Group Co., Ltd.       Yemen         IGS (International Edoscience Services) Ltd.       United Kingdom         La Mancha Resources       Canada         Lahmeyer International       Germany         MAM Holding Group Co. Ltd.       UK         Mile Petroleum S.A.       Luxembourg         Petroneeds Service International Company       Sudan         Petroleum S.A.       Luxembourg	Abdel Moniem International Petroleum Co. Ltd. (Petromoniem)	Sudan
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Shandong Electric Power Construction Corporation  SMEC Holdings Limited  Soma Group  Star Petroleum S.A.  STR Projetos e Participacoes  Sudanese Petroleum Pipeline Holding Co. Ltd.  Sudan Petroleum Corporation (Sudapet)  Toro Gold Ltd.  UAE for Gold Minerals and Investment Company Ltd.  China  Australia  Australia  Spain  Spain  Spain  Sudan  Sudan  Sudan  Sudan  UK  United Arab Emirates		
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Soma Group Star Petroleum S.A. Spain STR Projetos e Participacoes Sudanese Petroleum Pipeline Holding Co. Ltd. Sudan Petroleum Corporation (Sudapet) Toro Gold Ltd. UAE for Gold Minerals and Investment Company Ltd.  Turkey Spain Spain Sudan Sudan Sudan Sudan UK United Arab Emirates	이는 내용하는 이번 하면 이번에 들어 있다면 보면 보면 보다면 보다면 되었다. 이 전문에 가장하는 이 경우에 가장하는 사람들이 되었다. 그렇지 않는 사람들이 되었다. 그렇지 않는 사람들이 되었다.	
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Toro Gold Ltd.  UAE for Gold Minerals and Investment Company Ltd.  UK  United Arab Emirates	[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	7.00
UAE for Gold Minerals and Investment Company Ltd.  United Arab Emirates		

Source: EIRIS Conflict Risk Network (February 27, 2015)

# ATTACHMENT F

# Letter to SBI International and Domestic Equity Managers

March 20, 2015

Regarding: Iran Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Iran Companies. These securities <u>may not</u> <u>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 December 19, 2014 letter you received. This new list is effective March 31, 2015.

The following company has been added to the Restricted List:

Gazprom

Russia

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

Daelim Industrial

South Korea

Nagarjuna Fertilizers & Chemicals Ltd. India

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

If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must <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.

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

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

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

**Enclosures** 

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

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

**COMPANY NAME** COUNTRY Bharat Petroleum Corporation Ltd. India China Petroleum & Chemical Corp China India Gail (India) Ltd. Turkey Gubre Fabrikalari T.A.S. Gazprom OAO Russia China Harbin Electric Company Ltd. Indian Oil Corporation Ltd. India L G International South Korea Marie Tecnimont S.p.A. Italy Japan Mitsui & Co. Ltd Oil & Natural Gas Corporation Ltd. India China PetroChina Co. Ltd. **Toyota Tsusho Corporation** Japan

Effective Date: March 31, 2015

# **ATTACHMENT 2**

# LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of	Divest 50 Percent	Divest 100 Percent
	Origin	By this Date	By this Date
There are currently no companies requiring divestment			

Effective Date: March 31, 2015

# HISTORICAL DIVESTMENTS

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

# ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

Bharat Petroleum & Chemical Corp	COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	COUNTRY
China Petroleum & Chemical Corp         B4CSP22         US16941R1086         386         16941R108         China           China Petroleum & Chemical Corp         2654375         US16941R1086         386         16941R108         China           China Petroleum & Chemical Corp         B0RSW00         US16941R1086         386         16941R108         China           China Petroleum & Chemical Corp         7027756         CNE1000002Q2         386         16941R108         China           China Petroleum & Chemical Corp         6291819         CNE1000002Q2         386         16941R108         China           China Petroleum & Chemical Corp         62373728         CNE0000012Q2         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE0000012Q1         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE000013Q1         386         16941R108         China           China Petroleum & Chemical Corp         63273728         CNE000013Q1         386         16941R108         China           China Petroleum & Chemical Corp         62373728         CNE000013Q1         386         16941R108         China           Gall (India) Ltd.         621707         VS325535 <t< td=""><td>Bharat Petroleum Corporation Ltd.</td><td>6099723</td><td>INE029A01011</td><td>500547</td><td></td><td>India</td></t<>	Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547		India
China Petroleum & Chemical Corp         2654375         US16941R1086         386         16941R108         China Petroleum & Chemical Corp         BORSW00         US16941R108         386         16941R108         China China Petroleum & Chemical Corp         DOIXR4         CNE1000002Q2         386         16941R108         China China China Petroleum & Chemical Corp         PO27756         CNE1000002Q2         386         16941R108         China China Petroleum & Chemical Corp         G373728         CNE1000002Q2         386         16941R108         China China China China China Petroleum & Chemical Corp         G373728         CNE10000012Q2         386         16941R108         China China China China China China China China Petroleum & Chemical Corp         G373728         CNE0000018G1         386         16941R108         China	China Petroleum & Chemical Corp	2639189	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp         BORSWOO         US16941R1086         386         16941R108         China           China Petroleum & Chemical Corp         BD1XRR4         CNE100000202         386         16941R108         China           China Petroleum & Chemical Corp         6291819         CNE100000202         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE0000018G1         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE0000018G1         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE0000018G1         386         16941R108         China           Gali (India) Ltd.         B1HIDL7         U336268T2069         532155         36268T206         India           Gail (India) Ltd.         B2NTDNI         U336268T2069         532155         36268T206         India           Gail (India) Ltd.         2498517         U336268T1079         532155         36268T206         India           Gail (India) Ltd.         6133405         INE129A01019         532155         36268T206         India           Gail (India) Ltd.         6133405         INE129A01019         532155         36268T206 <td>China Petroleum &amp; Chemical Corp</td> <td>B4QSP22</td> <td>US16941R1086</td> <td>386</td> <td>16941R108</td> <td>China</td>	China Petroleum & Chemical Corp	B4QSP22	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp         BO1XRR4         CNE1000002Q2         386         16941R108         China           China Petroleum & Chemical Corp         7027756         CNE1000002Q2         386         16941R108         China           China Petroleum & Chemical Corp         6291819         CNE1000001861         386         16941R108         China           China Petroleum & Chemical Corp         6373728         CNE000001861         386         16941R108         China           China Petroleum & Chemical Corp         617878         CNE000001861         386         16941R108         China           Gail (India) Ltd.         81HJU07         U336268172069         532155         3626817206         India           Gail (India) Ltd.         82NTDN1         U336268172069         532155         3626817206         India           Gail (India) Ltd.         8033102         U33626817069         532155         3626817206         India           Gail (India) Ltd.         3235490         U33626817079         532155         3626817206         India           Gail (India) Ltd.         6133405         INEL29A01019         532155         3626817206         India           Gaziprom OAO         53385003         U33682817078         GAZP         Russia	China Petroleum & Chemical Corp	2654375	US16941R1086	386	16941R108	China
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Gazprom OAO         B0338T0         US3682873068         GAZP         Russia           Gazprom OAO         5385003         US3682873068         GAZP         Russia           Gazprom OAO         5259528         US3682872078         GAZP         Russia           Gazprom OAO         B54DNZ5         US3682872078         GAZP         Russia           Gazprom OAO         BNC9DM8         US3682872078         GAZP         Russia           Gazprom OAO         2016629         US3682872078         GAZP         Russia           Gazprom OAO         5140989         US3682871078         GAZP         Russia           Gazprom OAO         2398899         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         BSPL4L7         RU0007661625         GAZP         Russia           Gazprom OAO         BSNH841         ARDEUT114261         GAZP         Russia           Gazprom OAO         BSNH841         TRAGUBRF91E2         GU	Control of the Contro					
Gazprom OAO         5385003         US3682873068         GAZP         Russia           Gazprom OAO         5259528         US3682872078         GAZP         Russia           Gazprom OAO         BS4DNZ5         US3682872078         GAZP         Russia           Gazprom OAO         BNC9DM8         US3682872078         GAZP         Russia           Gazprom OAO         2016629         US3682872078         GAZP         Russia           Gazprom OAO         5140989         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         BS9L4L7         RU0007661625         GAZP         Russia           Gazprom OAO         BS9H841         ARDEUT114261         GAZP         Russia           Gazprom OAO         BSNB481         ARDEUT14261         GAZP         Russia           Gazprom OAO         BSH841         ARDEUT14261         GAZP<						
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Gazprom OAO         BNC9DM8         US3682872078         GAZP         Russia           Gazprom OAO         2016629         US3682872078         GAZP         Russia           Gazprom OAO         5140989         US3682872078         GAZP         Russia           Gazprom OAO         2398899         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         BS914L7         RU0000861625         GA						
Gazprom OAO         2016629         US3682872078         GAZP         Russia           Gazprom OAO         5140989         US3682872078         GAZP         Russia           Gazprom OAO         2398899         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         B0ZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         B591417         RU0007661625         GAZP         Russia           Gazprom OAO         B591417         RU0007661625         GAZP         Russia           Gazprom OAO         B591417         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B1HJDXO         CNE1000003C0         1133         China           Harbin Electric Company Ltd.						
Gazprom OAO         5140989         US3682872078         GAZP         Russia           Gazprom OAO         2398899         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         B594L7         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B1HJDX0         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India	- · · ·					
Gazprom OAO         2398899         US3682871088         GAZP         Russia           Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         B5914L7         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B3BHKK0         CNE100003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE100003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE100003C0         1133         China           India Oil Corporation Ltd.         6253767         INE242A01010         530965         India						
Gazprom OAO         3313181         US3682871088         GAZP         Russia           Gazprom OAO         4364928         RU0007661625         GAZP         Russia           Gazprom OAO         B0ZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         B59L4L7         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B18HJDX0         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           India Oil Corporation Ltd.         6223767         INE242A01010         530965         India           L G International         6537115         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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Gazprom OAO         BOZNNX7         RU0007661625         GAZP         Russia           Gazprom OAO         B59L4L7         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B3BHKK0         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India           L G International         B02PV43         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058						
Gazprom OAO         B59L4L7         RU0007661625         GAZP         Russia           Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B3BHKK0         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India           L G International         B02PV43         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BB	<sup>51</sup>					
Gazprom OAO         B2NH841         ARDEUT114261         GAZP         Russia           Gubre Fabrikalari T.A.S.         B03MTC7         TRAGUBRF91E2         GUBRF         Turkey           Gubre Fabrikalari T.A.S.         B188YV1         TRAGUBRF91E2         GUBRF         Turkey           Harbin Electric Company Ltd.         2407665         US4114591005         1133         China           Harbin Electric Company Ltd.         B3BHKK0         CNE1000003C0         1133         China           Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India           L G International         B02PV43         KR7001120005         A001120         Korea South           L G International         6537115         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Maire Tec						
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Harbin Electric Company Ltd.         6422761         CNE1000003C0         1133         China           Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India           L G International         B02PV43         KR7001120005         A001120         Korea South           L G International         6537115         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B2N7CX8         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan						
Indian Oil Corporation Ltd.         6253767         INE242A01010         530965         India           L G International         B02PV43         KR7001120005         A001120         Korea South           L G International         6537115         KR7001120005         A001120         Korea South           Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B2N7CX8         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan	100					
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Maire Tecnimont S.p.A.         B68TGK2         US56064T1016         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B2N7CX8         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan						
Maire Tecnimont S.p.A.         B2N7CX8         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan					56064T101	
Maire Tecnimont S.p.A.         BBHGQ65         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan	· · · · · · · · · · · · · · · · · · ·					
Maire Tecnimont S.p.A.         B4XXV22         IT0004931058         MT         56064T101         Italy           Maire Tecnimont S.p.A.         BBGTNT7         IT0004931058         MT         56064T101         Italy           Mitsui & Co. Ltd         4597058         XS0029348686         8031         606827202         Japan	***************************************				56064T101	
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Mitsui & Co. Ltd B1HHX89 US6068272029 8031 606827202 Japan						

# ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	COUNTRY	
Mitsui & Co. Ltd	B0ZGPX0	JP3893600001	8031	606827202	Japan	
Mitsui & Co. Ltd	B03KWZ5	JP3893600001	8031	606827202	Japan	
Mitsui & Co. Ltd	5736463	JP3893600001	8031	606827202	Japan	
Mitsui & Co. Ltd	4594071	JP3893600001	8031	606827202	Japan	
Mitsui & Co. Ltd	6597302	JP3893600001	8031	606827202	Japan	
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01029	500312		India	
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01011	500312		India	
PetroChina Co. Ltd.	B569834	US71646E1001	857	71646E100	China	
PetroChina Co. Ltd.	<b>B3KTK63</b>	US71646E1001	857	71646E100	China	
PetroChina Co. Ltd.	2568841	US71646E1001	857	71646E100	China	
PetroChina Co. Ltd.	4633327	US71646E1001	857	71646E100	China	
PetroChina Co. Ltd.	B28SLD9	CNE1000007Q1	857	71646E100	China	
PetroChina Co. Ltd.	B17HOR7	CNE1000003W8	857	71646E100	China	
PetroChina Co. Ltd.	5939507	CNE1000003W8	857	71646E100	China	
PetroChina Co. Ltd.	B01DNL9	CNE1000003W8	857	71646E100	China	
PetroChina Co. Ltd.	6226576	CNE1000003W8	857	71646E100	China	
PetroChina Co. Ltd.	B1C5SR2	ARDEUT113958	857	71646E100	China	
Toyota Tsusho Corporation	B3DTSN3	US89240C1062	8015		Japan	
Toyota Tsusho Corporation	B6361P8	JP3635000007	8015		Japan	
Toyota Tsusho Corporation	B3BK3N3	JP3635000007	8015		Japan	
Toyota Tsusho Corporation	6900580	JP3635000007	8015		Japan	

# Letter to SBI Fixed Income Managers

March 20, 2015

# Regarding: Iran Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Iran Companies. These securities <u>may not</u> <u>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 December 19, 2014 letter you received. This new list is effective March 31, 2015.

The following company has been added to the Restricted List:

Gazprom

Russia

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

Daelim Industrial

- South Korea
- Nagarjuna Fertilizers & Chemicals Ltd. India

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

If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must <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.

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

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

# Enclosures

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

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

**COMPANY NAME** COUNTRY Bharat Petroleum Corporation Ltd. India China Petroleum & Chemical Corp China Gail (India) Ltd. India Gubre Fabrikalari T.A.S. Turkey Gazprom OAO Russia China Harbin Electric Company Ltd. Indian Oil Corporation Ltd. India L G International South Korea Marie Tecnimont S.p.A. Italy Mitsui & Co. Ltd Japan Oil & Natural Gas Corporation Ltd. India PetroChina Co. Ltd. China **Toyota Tsusho Corporation** Japan

Effective Date: March 31, 2015

# **ATTACHMENT 2**

# LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of	Divest 50 Percent	Divest 100 Percent
	Origin	By this Date	By this Date
There are currently no companies requiring divestment			

Effective Date: March 31, 2015

# HISTORICAL DIVESTMENTS

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

# TAB C

# SBI ADMINISTRATIVE COMMITTEE REPORT

DATE:

May 27, 2015

TO:

Members, State Board of Investment

FROM:

**SBI Administrative Committee** 

The SBI Administrative Committee met on April 29, 2015 to consider the following agenda items:

- Review of Executive Director's Proposed Workplan for FY16
- Review of Budget Plan for FY16 and FY17
- Review of Continuing Fiduciary Education Plan
- Review of the International Equity Manager Country Guidelines and Process
- Review of Executive Director's Evaluation and Salary Process
- Update of Business Continuity Plan

The SBI Administrative Committee agenda and actions were presented to the Investment Advisory Council at its May 19, 2015 meeting. The Investment Advisory Council endorsed all of the SBI Administrative Committee recommendations as presented below.

Action is required by the SBI on the first five items.

# 1. Review of Executive Director's Proposed Workplan for FY16.

The Executive Director's Proposed Workplan for FY16 was presented. As in previous workplans, the FY16 plan follows the same category order found in the Executive Director's position description. The plan is a compilation of on-going responsibilities as well as the new initiatives the Executive Director will undertake during the next fiscal year.

A summary of the proposed plan is shown in **Attachment A** on **page 5** of this Tab. Supporting information was sent to each Board member in April 2015 as part of the FY16 Management and Budget Plan document.

The Committee is recommending approval of the proposed workplan and the Investment Advisory Council endorses the Committee's recommendation.

# RECOMMENDATION:

The Committee recommends that the SBI approve the FY16 Executive Director's Workplan. Further, the Committee recommends that the Workplan serve as the basis for the Executive Director's performance evaluation for FY16.

# 2. Review of Budget Plan for FY16 and FY17.

The SBI's Administrative budget is set annually by the Board with direct charge-back to entities that invest with the SBI. The Legislature also provides an appropriation from the general fund to support management of general fund assets.

An overview of the budget is **Attachment B** on **page 7** of this tab. Supporting information was sent to each Board member in April 2015 as part of the FY16 Management and Budget Plan.

The Committee is recommending approval of the proposed budget and the Investment Advisory Council endorses the Committee's recommendation.

## RECOMMENDATION:

The Committee recommends that the SBI approve the FY16 and FY17 Administrative Budget Plan, as presented to the Committee, and that the Executive Director have the flexibility to reallocate funds between budget categories if the Executive Director deems necessary.

# 3. Review of Continuing Fiduciary Education Plan.

Minnesota Statutes, Chapter 356A requires each public pension plan to establish a continuing education plan for its fiduciaries. The plan approved by the Committee is in **Attachment C** on **page 9** of this Tab. Please note that the travel allocation policy for Board members and their designees is included in the plan.

# RECOMMENDATION:

The Committee recommends that the SBI adopt the attached Continuing Fiduciary Education Plan.

# 4. Review of the International Equity Manager Country Guidelines Report and Process.

# Report

Staff presented and the SBI Administrative Committee approved the updated International Equity Manager Country Guidelines report. Please note that this report was sent to each Board Member in April 2015.

# **Process**

Staff presented a history of the International Equity Manager Country Guidelines and made a recommendation to discontinue the process, effective upon approval by the Board, and update the International Equity Manager Investment Guidelines appropriately as noted in **Attachment D** on **page 11**.

## RECOMMENDATION:

The SBI Administrative Committee concurs with Staff's recommendation that the SBI authorize the Executive Director to discontinue the International Equity Manager Country Guidelines Process, effective upon approval.

Further, if the SBI approves the discontinuance of the International Equity Manager Country Guidelines Process, the SBI Administrative Committee recommends that the SBI authorize the Executive Director to make the appropriate revisions to the International Equity Investment Manager Guidelines to reflect that the provisions of the International Equity Manager Country Guidelines are no longer in effect.

# 5. Review of Executive Director's Evaluation and Salary Process.

The Committee discussed the process that will be used by the Board to evaluate the Executive Director for FY15. The Committee members agreed to review the current process and timeline and determine if any changes to the process and/or timeline should be recommended.

## RECOMMENDATION:

The Committee recommends that the SBI delegate the review of the current evaluation process and timeline to the Administrative Committee. The Administrative Committee will determine if any changes to the evaluation and salary process and/or timeline for the Executive Director's FY15 performance evaluation should be recommended. In addition, the Administrative Committee recommends that the following procedures should continue until the Committee recommends any changes to the process.

- The SBI deputies/designees will develop an appropriate evaluation form for use by each member, which will reflect the categories in the Executive Director's position description and workplan.
- Governor's office will coordinate distribution and collection of the evaluation forms and will forward the completed forms to the Executive Director. Board members are encouraged to meet individually with the Executive Director to review their own evaluation.

# 6. Update of Business Continuity Plan.

Staff updated the Committee regarding the SBI's Business Continuity Plan. The plan provides information and procedures required to respond to an emergency.

# ATTACHMENT A

# STATE BOARD OF INVESTMENT Executive Director's Proposed Workplan

# **FY16**

(Categories A, B, C, D, E correspond to the position description)

A.	. <b>D</b>	EVELOPMENT OF INVESTMENT POLICIES	Projected Time Frame
	1.	Asset Class Structure Reviews for the Combined Funds	In progress
	2.	Asset Allocation for the Combined Funds	FY16-FY17
В.		MPLEMENTATION OF INVESTMENT POLICIES PPROVED BY THE SBI	
	1.	Meet or Exceed the Performance Objectives	Ongoing
	2.	Investments with New and Existing Alternative Asset Managers	Ongoing
	3.	Manager Search Process	Ongoing
	4.	Conduct Investment Manager Compliance Review of Guidelines and Contracts	Ongoing
	5.	Implement State Law Concerning Iran	Ongoing
	6.	Implement State Law Concerning Sudan	Ongoing
C.		EVIEW AND CONTROL OF INVESTMENT OLICIES	
	1.	Monitor and Evaluate Investment Manager Performance	Ongoing
	2.	Manager Guidelines	May – Jun.
	3.	Provide Staff Support to Proxy Committee for Proxy Voting and Shareholder Initiatives	Jul. – Jun.
	4.	Monitor Implementation of Northern Ireland Mandate	Oct. – Mar.
	5.	Provide Staff Support for Corporate Actions and Miscellaneous Legal Issues	Jul. – Jun.

# D. ADMINISTRATION AND MANAGEMENT

Coordinate Financial Audit by Legislative Auditor
 Prepare 2016 Legislative Package
 Prepare Fiscal Year 2017 Management and Budget Plan
 Annual Update of Business Continuity Plan
 Accounting Process Improvements
 Prepare Annual SIF Investment Options
 Jul. – Dec.
 Apr. – Jun.
 May – Sep.

6. Prepare Annual SIF Investment Options Prospectus and Information Booklet for the Voluntary Statewide Volunteer Firefighter Plan (VSVFP)

# E. COMMUNICATION AND REPORTING

Prepare reports on investment results
 Prepare Status Reports
 Meet with SBI and IAC
 Meet with Board's designees
 Prepare Fiscal Year 2015 Annual Report
 Coordinate Public Pension Plan Performance Reporting Disclosure
 Conduct Manager Roundtables
 Qtly
 Ongoing
 Periodic

# F. OTHER ITEMS

During the course of the year, the Executive Director may encounter other significant items which must be addressed that were not contemplated at the time the annual workplan was developed. Any such items will be reported in the Executive Director's Workplan Status Report.

# ATTACHMENT B

# Administrative Budget Fiscal Year 2016 & 2017 Budget Plan Overview

The Fiscal Year 2016/2017 budget request is based on budget procedures instituted by Department of Minnesota Management and Budget.

New statutory authority was passed during the 2006 legislative session to establish a fixed amount from the General Fund and to have the balance of the MSBI's budget billed to organizations that use the MSBI's services. This authority was used to generate the fiscal year 2015 budget and also is the basis for the 2016 and 2017 budget projections. The 2016 budget includes the addition of three new positions, additional office space and one-time moving/remodel costs.

We have included a 3% projected salary increase in the budget for all staff in Fiscal Year 2016 and 2017. The 3% salary increase extends to the Executive Director in order to accommodate a salary increase that may be approved by the Board in the Executive Director annual evaluation process. The actual salary increases for non-investment staff will be determined by legislative negotiated contracts per bargaining unit. The investment staff salary increase, if any, will be determined in accordance with the SBI Salary Plan.

We had budgeted moving and remodel costs in FY15, however the timing of the remodel requires the budget to be established in FY16. We have received better estimates of the remodel cost and the additional amount is included in FY16.

In prior years, the SBI was exempted from paying indirect expenses. However, per Minnesota Management and Budget, they will no longer grant the SBI an exemption. Based upon the estimates we have received from Minnesota Management and Budget we are anticipating \$250,000 in indirect expenses for FY16.

On **page 8** we show the incremental budget impact of the additional budget items for FY16 and FY17.

# STATE BOARD OF INVESTMENT FISCAL YEARS 2016 And 2017 BUDGET PLAN MSBI OPERATING FUND SUMMARY

	DESCRIPTION		FY2015 BUDGET	PR	FY2015 ROJECTED	P	FY2016 ROPOSED	P	FY2017 PROPOSED
	PERSONAL SERVICES								ALOX OSED
	FULL TIME EMPLOYEES	\$	4,151,000	\$	3,500,171	\$	4,591,000	\$	4,713,000
	PART TIME EMPLOYEES		a		-		-		-
	OTHER BENEFITS		100,000		74,070		100,000		100,000
	SUBTOTAL	\$	4,251,000	\$	3,574,241	\$	4,691,000	\$	4,813,000
	STATE OPERATIONS								
	RENTS & LEASES		242,000		207,000		282,000		285 000
	REPAIRS/ALTERATIONS/MAINTENANCE		12,000		10,456		372,000		285,000 14,000
	PRINTING & BINDING		5,000		10,851		7,000		8,000
	PROFESSIONAL/TECHNICAL SERVICES		150,000		20,212		150,000		150,000
	COMPUTER SYSTEMS SERVICES		20,000		11,996		20,000		21,000
	COMMUNICATIONS		30,000		26,080		40,000		41,000
	TRAVEL, IN-STATE		1,000		646		1,000		1,000
	TRAVEL, OUT-STATE		56,000		66,236		119,000		119,000
	SUPPLIES		52,000		21,932		122,000		23,000
8	EQUIPMENT		33,000		3,000		25,000		35,000
	EMPLOYEE DEVELOPMENT		25,000		26,438		35,000		35,000
	OTHER OPERATING COSTS		221,000		152,561		140,000		140,000
	INDIRECT COSTS						250,000		275,000
	SUBTOTAL	\$	847,000	\$	557,409	-\$	1,563,000	\$	1,147,000
	TOTAL MSBI OPERATING FUND	\$	5,098,000	\$	4,131,650	-\$	6,254,000	\$	5,960,000
	PERCENT INCREASE (DECREASE) OVER PRIOF	R YEAR	BUDGET		- 11		22.7%		-4.7%
0	ADDITIONAL BOOTTONG ADDED 2015								
	ADDITIONAL POSTIONS ADDED 2016					\$	454,000	\$	465,000
	ADDITIONAL MOVING COSTS					\$	335,000		
	NEW EXPENSE - INDIRECT COSTS					_\$	250,000	\$	275,000
	TOTAL ADDITIONAL COSTS					\$	1,039,000	\$	740,000
(	PPERATING EXPENDITURES WITHOUT ADDITI	ONAL	COSTS			\$	5,215,000	\$	5,220,000
9	PERCENT INCREASE OVER PRIOR YEAR BUDG	ET WI	ΓΗΟUT ADDI	TIONA	AL COSTS		2.3%		0.1%

## ATTACHMENT C

# CONTINUING FIDUCIARY EDUCATION PLAN

# **REQUIRED BY MS 356A.13**

The State Board of Investment (SBI) undertakes the following activities related to fiduciary education. Taken as a group, these activities shall constitute the plan for continuing fiduciary education required by Minnesota Statutes 356A.13 (copy attached). In addition, pursuant to statutory requirements of qualification, the SBI executive director and many members of the Board's Investment Advisory Council (IAC) can be reasonably considered to be experts with respect to their duties as fiduciaries.

# 1. Briefing for New Board/IAC Members

Shortly after election to the Board or appointment to the IAC, each new member is briefed on SBI operations and policies. As part of the briefing, SBI's legal counsel will review the member's fiduciary obligations and responsibilities as specified in Minnesota Statutes Chapters 11A and 356A.

# 2. Development and Review of Investment Policies

The SBI adopts comprehensive investment policies for each fund under its control. The policies cover investment objectives, asset allocation, management structure, and performance evaluation. Policy papers or reports on these topics are developed and written by SBI staff in conjunction with the IAC and consultants. Relevant research and analyses from the academic and professional investment fields are used to formulate these policy guidelines.

After the Board formally adopts them, these written policies guide the management of all assets under the SBI's control. The SBI intends to review its stated investment policies periodically. This review may occur within the framework of the SBI's regular quarterly meetings or may take place at special meetings or seminars specifically designated for this purpose.

# 3. Input from Board's Consultants

The SBI retains outside investment consultants to advise the Board members on a wide variety of investment management issues. As part of their contracts with the SBI, the consultants offer to meet with the Board members or their designees to discuss investment-related issues. These individual consultations occur throughout the year. In addition, the general consultant is available at each meeting of the Board and IAC. These meetings are supplemented by quarterly reports on investment performance prepared by the general consultant.

# 4. Manager Roundtables

The SBI intends to convene small groups of its external money managers to discuss issues related to investment management and the financial markets. These roundtable discussions will be held periodically throughout the year and will be open to Board members and their designees, IAC members and other interested parties. It is anticipated that 2-3 roundtables will be held each year.

# 5. Travel Allocation

The SBI allocates \$5,000 annually to each Board member (or their designee) for costs associated with attendance at investment-related seminars and conferences. This allocation is used at the discretion of each Board member.

#### 2014 Minnesota Statutes

# 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.

Subd. 2. Continuing fiduciary education program. The governing boards 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.

# ATTACHMENT D

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:

April 22, 2015

TO:

Members, SBI Administrative Committee

FROM:

Mansco Perry III, Executive Director and Chief Investment Officer

LeaAnn M. Stagg, Chief Operating Officer

**SUBJECT: International Equity Manager Country Guidelines Process** 

# Background

Prior to 1992, the SBI did not participate in international equity investing. However, many large public pension plans had already begun investing in international securities. By 1990, the average allocation to non-US equites for large public pension plans had reached 5% (NASRA). The SBI continued to research international investing and decided to take advantage of the experience of other pension plans before entering into the international equity markets.

In 1992, after significant research, the SBI developed an international investing position paper making the case for international equity investing. Research showed that the key portfolio benefits of international investing included a broader investment opportunity, greater portfolio diversification and the potential for higher returns. By 1990, approximately 31% of the world equity market value (in US \$) was represented by the US, according to the All Country World Index (ACWI). By not participating in the non-US equity market, the SBI was overlooking a broad part of the global investment opportunity set. Furthermore, by diversifying across world markets that did not move in lock-step with that of the US, the SBI determined that international investing could reduce risk/volatility of the total portfolio and increase the potential for higher long-term returns.

At the time of the SBI's initiation into international equities, a Task Force was formed to help recommend guidelines concerning the SBI's international equity investment program. The role of the Task Force was to make recommendations concerning worker and human rights in the non-US markets countries. Working with an international consultant, it was determined that worker and human rights were appropriate indicators of the potential for economic and social disruptions that could ultimately have an adverse effect on the financial markets of a country. The concern of the Task Force was the potential for financial market disruption in the emerging market economies.

Using material compiled from US State Department reports, the Task Force examined several worker and human rights factors, grouped the non-US countries into three broad categories and made the following investing recommendations:

- Group I: These countries had legal protections or practices that generally respected worker and human rights. The developed countries fell into this grouping. Because these countries had strong protections for worker and human rights, there was little concern that economic and social disruptions could occur that would have an adverse effect on financial markets. Managers were not restricted from investing in Group I countries.
- Group II: These countries had legal protections for worker and human rights but violations of these rights had been cited in the state department reports. Generally, these were emerging markets/emerging democracies. Because violations of legally protected worker and human rights continued to occur in these countries, there was some concern that economic and social disruptions could occur and adversely affect the financial markets within these countries.
- Group III: These countries lacked basic protections for worker and human rights and did not appear to be making adequate progress in establishing an appropriate legal structure to address these issues. Generally, these were emerging markets/emerging democracies. Because of the basic lack of human and worker rights, the potential for economic, political and social unrest existed that could adversely affect the stability of the financial markets within these countries. With a written notification to the SBI, international equity managers were allowed to invest in the markets of Group II and/or Group III countries if the managers believed it would be a breach of their fiduciary responsibility not to do so. [NOTE: From the time the SBI first implemented the country guidelines, all investment managers provided the SBI with a letter indicating their intent to invest in both Group II and Group III countries so as not to breach their fiduciary duty outlined in the investment management agreements with the SBI.]

Since 1992, the country guidelines were updated periodically. While the Administrative Committee continued to approve the updated country guidelines, over time, the responsibility of updating these country rankings moved from the Task Force to the SBI Staff.

Staff believes that it is appropriate to immediately discontinue the International Equity Manager Country Guidelines process. While appropriate at the time of SBI's initial venture into international markets, international equity investing has been a part of the average large public pension plan's strategic asset allocation for almost 25 years and has become mainstream. At the end of 2014, the average large pension plan's international equity asset allocation stood at 22%, more than quadruple the 5% allocation to international equities in 1990 (NASRA). The key portfolio benefits of international investing - a broader investment opportunity, greater portfolio diversification and the potential for higher returns - has been borne out by experienced institutional investors.

In addition, it is important to note that the country guideline process has not changed the way the SBI's international equity investment managers have invested pension assets. The investment management agreements give full discretion to the managers and they must comply with the fiduciary standard outlined in MS Chapters 11A and 356A. In practice, all international equity

managers have provided the SBI with documentation of their intent to invest in Group II and Group III countries in order to not breach their fiduciary duty outlined in the investment management agreements with the SBI.

# RECOMMENDATION:

Staff recommends that the SBI Administrative Committee and the Board approve the proposal to discontinue the International Equity Manager Country Guideline Process, effective upon approval.

Staff further recommends that Staff be directed to revise the sections of the investment manager guidelines which refer to the International Equity Manager Country Guidelines.

# TAB D

# INVESTMENT ADVISORY COUNCIL REPORT

DATE:

May 27, 2015

TO:

Members, State Board of Investment

FROM:

Members, Investment Advisory Council

The Investment Advisory Council met on May 19, 2015 to review the following information and action agenda items:

• Review of current strategy.

• Consideration of new commitments.

1)	Real Estate	TA Realty	(existing manager)
2)	Private Equity	CarVal Investors	(existing manager)
3)	Private Equity	Blackstone	(existing manager)
4)	Resources	EnerVest	(new manager)

Board action is required on the last four items.

## **INFORMATION ITEM:**

# 1) Review of Current Strategy.

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

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

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

# **ACTION ITEMS:**

1) Investment with an existing real estate manager, TA Realty LLC ("TA Realty"), in The Realty Associates Fund XI, L.P. ("Fund XI").

TA Realty is seeking investors for a new \$1.5 billion real estate fund, Fund XI. This fund is a successor to ten real estate funds managed by TA Realty. The SBI has invested in eight of the prior funds. Fund XI intends to invest in a diversified portfolio of properties that will attempt to generate returns through current income as well as increases in property value.

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

More information on Fund XI 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 Fund XI whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by TA Realty 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 TA Realty or reduction or termination of the commitment.

# 2) Investment with an existing private equity manager, CarVal Investors, LLC ("CarVal"), in CVI Credit Value Fund III L.P. ("CVI III").

CarVal is seeking investors for a new \$2.0 billion credit fund, CVI III. This fund is a successor to two previous credit funds managed by CarVal. The SBI invested in both of the prior credit funds. Like the prior funds, CVI III will focus on generating returns though investments in distressed and credit-intensive assets.

In addition to reviewing the attractiveness of the CVI 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 the CVI III fund is included as **Attachment D**.

# RECOMMENDATION:

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

# 3) Investment with an existing private equity manager, The Blackstone Group L.P. ("Blackstone"), in Blackstone Capital Partners VII L.P. ("BCP VII").

Blackstone is seeking investors for a new \$17.5 billion private equity fund, BCP VII. This fund is a successor to six private equity funds managed by Blackstone. The SBI invested in four of the previous funds. Like the previous funds, this fund will seek to earn returns through a diversified portfolio of private equity investments.

In addition to reviewing the attractiveness of the Blackstone 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 BCP 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 \$150 million, or 20% of BCP 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 Blackstone upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Blackstone or reduction or termination of the commitment.

4) Investment with a new resource manager, EnerVest, Ltd. and EnerVest Institutional GP ("EnerVest"), in EnerVest Energy Institutional Fund XIV ("EnerVest XIV").

EnerVest is seeking investors for a new \$2.5 billion resource fund, EnerVest XIV. This fund is a successor to 13 previous resource funds managed by EnerVest. The SBI did not invest in any of the prior EnerVest funds. EnerVest seeks to generate returns through the purchase, management and development of oil and gas properties in North America.

In addition to reviewing the attractiveness of the EnerVest XIV 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 EnerVest XIV 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 EnerVest XIV, 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 EnerVest 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 EnerVest or reduction or termination of the commitment.

# **Minnesota State Board of Investment**

# Pooled Alternative Investments Combined Funds March 31, 2015

Combined Funds Market Value

\$60,432,181,784

Amount Available for Investment

\$4,890,270,930

	Current Level	Target Level	Difference
Market Value (MV)	\$7,196,165,427	\$12,086,436,357	\$4,890,270,930
MV +Unfunded	\$12,006,889,019	\$21,151,263,624	\$9,144,374,605

	Unfunded						
Asset Class	Market Value	Commitment	Total				
Private Equity	\$4,488,817,103	\$2,758,214,630	\$7,247,031,733				
Real Estate	\$630,929,724	\$125,209,769	\$756,139,493				
Resource	\$1,321,873,352	\$1,018,732,625	\$2,340,605,977				
Yield-Oriented	\$754,545,248	\$908,566,568	\$1,663,111,816				
Total	\$7,196,165,427	\$4,810,723,592	\$12,006,889,019				

# Cash Flows March 31, 2015

Year	Capital Calls	Distributions	Net Invested		
2015 (as of 3/31)	\$330,212,123	(\$446,256,269)	(\$116,044,146)		
2014	\$1,378,984,263	(\$2,133,698,037)	(\$754,713,774)		
2013	\$1,257,559,066	(\$2,522,817,494)	(\$1,265,258,428)		
2012	\$882,478,614	(\$1,458,621,458)	(\$576,142,844)		

# ATTACHMENT B

# Minnesota State Board of Investment

- Alternative Investments -As of March 31, 2015

AS OF WarCR 31, 2015									
Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years	
I. REAL ESTATE									
Blackstone									
Blackstone Real Estate Partners V	100,000,000	97,030,342	77,712,120	104,394,421	4,174,052		1.88		
Blackstone Real Estate Partners VI	100,000,000	98,999,590	82,950,510	114,018,943	3,258,508		1.99		
Blackstone Real Estate Partners VII	100,000,000	81,046,212	87,174,688	34,287,759	22,493,937	20.68	1.50	3,34	
Blackstone Strategic Partners (CSFB)	25,000,000	26 762 910	0 601 001	5 620 450	0.006	0.04	0.56	0.75	
Strategic Partners III RE Strategic Partners IV RE	25,000,000 50,000,000	25,752,810 49,589,253	8,681,821 23,011,661	5,630,459 23,638,743	9,006 998,960	-8.84 -1.49	0.56 0.94		
Colony Capital	30,000,000	49,369,233	23,011,001	23,036,743	998,900	-1.47	0.54	0.78	
Colony Investors II	80,000,000	78,482,328	2,600	90,022,404	0	4.68	1.15	20.00	
Colony Investors III	100,000,000	100,000,000	4,622,700	172,242,105	0	14.57	1.77	17.25	
Silverpeak Real Estate Partners			4 - 4						
Silverpeak Legacy Pension Partners II	75,000,000	78,148,608	33,205,050	51,959,762	8,267,485	1.84	1.09	9.75	
Silverpeak Legacy Pension Partners III	150,000,000	68,992,179	21,948,010	5,545,717	81,007,821	-14.53	0.40	6.86	
TA Associates Realty									
Realty Associates Fund VII	75,000,000	75,000,000	39,418,000	38,085,059	0	0.49	1.03	10.3	
Realty Associates Fund VIII	100,000,000	100,000,000	64,656,149	19,365,961	0	-2.52	0.84	8.75	
Realty Associates Fund IX	100,000,000	100,000,000	86,846,035	57,232,492	0	10.47	1.44	6.60	
Realty Associates Fund X  Real Estate Total	100,000,000 1,155,000,000	95,000,000 1,048,041,322	100,700,380 <b>630,929,724</b>	7,892,743 <b>724,316,568</b>	5,000,000 <b>125,209,769</b>	11.35	1.14 1.29	3.08	
	1,133,000,000	1,040,041,322	030,929,724	724,310,300	123,203,703		1.23		
I. RESOURCE Apache Corp.									
1986 Net Profits Interest	30,000,000	30,000,000	2,756,040	59,395,796	0	12.22	2.07	28.25	
EIG Global Energy Partners	50,000,000	20,000,000	2,750,0.10	27,223,770		12.22	2.07	20.2.	
EIG Energy Fund XIV	100,000,000	108,766,259	48,856,231	83,494,608	7,007,944	6.60	1.22	7.95	
EIG Energy Fund XV	150,000,000	129,957,172	114,267,676	43,615,624	20,042,828	9.41	1.21	4.81	
EIG Energy Fund XVI	200,000,000	55,500,000	35,755,709	0	144,500,000	-65.41	0.64	1.55	
EnCap Energy									
EnCap Energy Capital Fund VII	100,000,000	93,799,632	19,913,079	127,334,751	6,753,111	18.31	1.57	7.75	
EnCap Energy Capital Fund VIII	100,000,000	75,754,284	66,835,781	19,095,384	24,245,716	6.71	1.13	4.50	
Encap Energy Fund IX	100,000,000	45,460,429	43,276,373	243	54,539,571	-6.12	0.95	2.31	
Energy & Minerals Group	100 000 000	00.146.651	142 055 000	106 650 450	1 1/5 502	21.25		0.00	
NGP Midstream & Resources	100,000,000	99,146,651	143,955,828	106,650,473	1,167,583	24.37	2.53	8.00	
The Energy & Minerals Group Fund II	100,000,000 200,000,000	77,639,779 128,335,819	136,120,872	287,474	22,590,693	31.02	1.76	3.52	
The Energy & Minerals Group Fund III	200,000,000	128,333,819	125,635,120	174,250	71,677,354	-4.03	0.98	1.07	
Energy Capital Partners  Energy Capital Partners II-A	100,000,000	77,710,914	105,930,328	28,412,880	26,229,619	20.07	1.73	4.70	
Energy Capital Partners III	200,000,000	40,795,138	34,326,498	20,412,000	159,204,862		0.84	1.28	
First Reserve			,,	380	,,	21.01	0.01	1.20	
First Reserve Fund X	100,000,000	100,000,000	562,108	182,429,002	0	31.08	1.83	10.41	
First Reserve Fund XI	150,000,000	150,292,121	50,617,612	82,460,680	0	-2.74	0.89	8.27	
First Reserve Fund XII	150,000,000	153,330,385	88,813,106	61,540,282	9,553,655	-0.63	0.98	6.41	
First Reserve Fund XIII	200,000,000	22,412,551	19,345,992	2,279,302	177,587,449	-23.72	0.96	1.41	
NGP									
Natural Gas Partners IX	150,000,000	157,974,089	69,070,845	187,991,214	5,202,410			7.44	
NGP Natural Resources X	150,000,000	107,831,586	112,247,963	8,725,692	42,168,414	7.19		3.47	
Natural Gas Capital Resources XI	150,000,000	2,638,585	2,535,160	0	147,361,415	-5.52	0.96	0.31	
Sheridan Sheridan Production Partners I	100,000,000	100,000,000	55,109,002	82,750,000	0	8.24	1.38	8.00	
Sheridan Production Partners II	100,000,000	100,000,000	45,379,030	7,000,000		-27.62	0.52	4.50	
Sheridan Production Partners III-B	100,000,000	1,100,000	563,000	0	98,900,000		0.51	0.31	
Resource Total	2,830,000,000	1,858,445,393	1,321,873,352	1,083,637,653	1,018,732,625		1.29	30.200.00	
I. YIELD-ORIENTED									
Audax Group									
Audax Mezzanine Fund III	100,000,000	68,437,758	43,924,791	35,249,842	40,070,238	8.57	1.16	4.99	
Citicorp Mezzanine									
CM Liquidating Partnership	100,000,000	88,029,296	5,217,087	132,324,719	0	15.95	1.56	15.41	
Crescent Capital Group	## 000 000	(0.0(0.040		1.54.040.000	20 -01 0-0				
TCW/Crescent Mezzanine Partners III	75,000,000	68,868,042	5,823,578	156,868,939	29,701,079	35.99	2.36	14.00	
Gold Hill Venture Lending	40,000,000	40,000,000	2 125 526	62 255 021	0	10.57	1.61	10.51	
Gold Hill Venture Lending Gold Hill 2008	25,852,584	25,852,584	2,135,526 22,705,471	62,355,021 16,020,728	0	10.57 12.60	1.61 1.50	10.51 6.75	
S Mezzanine Partners	23,032,304	23,032,304	22,703,471	10,020,720	0	12.00	1.30	0.73	
GS Mezzanine Partners 2006 Institutional	100,000,000	74,999,888	15,045,490	115,467,794	5,000,112	4.57	1.74	8.98	
GS Mezzanine Partners V	150,000,000	112,057,963	28,589,059	132,561,345	52,327,832	9.94	1.44	7.44	
Cohlberg Kravis Roberts			,,	,,	,,		2		
KKR Lending Partners II L.P.	75,000,000	0	0	0	75,000,000	0.00	0.00	0.07	
Merit Capital Partners	(\$1) \$2				- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	5250	
	60,000,000	67 242 241	502 506	112,755,951	2,756,759	15.51	1.98	15.24	
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	503,596	112,733,931	2,150,155	13.31			
William Blair Mezzan. Cap. Fd. III Merit Mezzanine Fund IV Merit Mezzanine Fund V	75,000,000 75,000,000	70,178,571 57,795,918	28,015,429 53,012,357	73,220,957 14,775,256	4,821,429 17,204,082	8.06 6.92	1.44	10.29	

## Minnesota State Board of Investment

- Alternative Investments -As of March 31, 2015

	Total	Funded	Market		Unfunded	IRR		Period
Investment	Commitment	Commitment	Value	Distributions	Commitment	%	MOIC*	Years
Merit Energy Partners								
Merit Energy Partners B	24,000,000	24,000,000	20,411,135	177,126,751	0	24.49	8.23	
Merit Energy Partners C Merit Energy Partners D	50,000,000 88,000,000	50,000,000 70,938,303	42,726,709	483,461,062	0	31.14	10.52	
Merit Energy Partners D  Merit Energy Partners E	100,000,000	39,983,197	59,293,854 38,170,557	295,643,618 65,313,722	0	23.30 14.56	5.00 2.59	
Merit Energy Partners F	100,000,000	59,522,861	39,608,699	27,251,921	0	2.35	1.12	
Merit Energy Partners H	100,000,000	81,860,748	66,051,456	7,499,078	18,139,252	-6.33	0.90	30 A THE R
Merit Energy Partners I	200,000,000	4,100,000	4,100,000	0	195,900,000	0.00	1.00	
Oaktree Capital Management								
Oaktree Opportunities Fund X, L.P.	50,000,000	0	0	0	50,000,000	0.00	0.00	0.07
Oaktree Opportunities Fund Xb, L.P.	100,000,000	0	0	0	100,000,000	0.00	0.00	0.07
Pimco Bravo** Pimco Bravo Fund OnShore Feeder I	7,944,741	3,958,027	3,105,254	852,773	3,986,714	0.00	1.00	0.25
Pimco Bravo Fund OnShore Feeder II	7,618,670	5,243,670	5,243,670	0 0	2,375,000	0.00	2.47	0.25
Portfolio Advisors	,,010,070	5,515,676	3,213,070	· ·	2,373,000	0.00	4.77	0.23
DLJ Investment Partners II	27,375,168	23,164,217	720,880	34,829,566	0	10.57	1.53	15.24
DLJ Investment Partners III	100,000,000	57,419,984	15,098,102	59,411,216	44,579,305	6.41	1.30	8.77
Prudential Capital Partners								
Prudential Capital Partners I	100,000,000	97,768,017	0	153,982,506	6,975,419	11.06	1.57	13.95
Prudential Capital Partners II	100,000,000	95,078,645	20,494,598	116,519,453	5,323,323	8.69	1.44	9.75
Prudential Capital Partners III	100,000,000	93,721,919	67,926,295	72,104,441	9,184,548	12.96	1.49	5.95
Prudential Capital Partners IV Summit Partners	100,000,000	48,449,682	47,920,566	3,499,387	51,550,318	6.50	1.06	3.20
Summit Fartners Summit Subordinated Debt Fund II	45,000,000	40,500,000	159,568	93,649,473	4,500,000	56.28	2.32	17.66
Summit Subordinated Debt Fund III	45,000,000	42,690,965	7,007,897	53,666,733	2,850,000	8.60	1.42	11.12
Summit Subordinated Debt Fund IV	50,000,000	44,355,903	21,461,632	34,727,987	9,144,097	8.89	1.27	7.01
TCW Asset Management								
TCW Direct Lending LLC	100,000,000	12,241,017	8,500,000	3,741,017	91,500,000	-4.01	1.00	0.21
Windjammer Capital Investors	// 700 0/1	52 005 145	1 565 500	70 740 570			9799	25272527
Windjammer Mezzanine & Equity Fund II Windjammer Senior Equity Fund III	66,708,861 75,000,000	52,095,147 64,461,690	1,567,598 41,881,114	79,742,572 103,974,003	14,360,347 13,129,720	8.87 20.12	1.56	15.00
Windjammer Senior Equity Fund IV	100,000,000	40,403,440	38,123,281	3,798,730	60,631,737	3.05	2.26 1.04	9.24 3.10
Yield-Oriented Total	2,712,500,024	1,715,420,695	754,545,248	2,722,396,563	911,011,309	5.05	2.03	5.10
		•	West Straff (produced by close stra					
IV. PRIVATE EQUITY								
Adams Street Partners  Adams Street Global Secondary Fund 5	100,000,000	44,070,000	36,912,081	8,427,257	55 020 000	2.44	1.02	2.70
Advent International	100,000,000	44,070,000	30,912,081	0,421,231	55,930,000	3.44	1.03	2.78
Advent International GPE VI-A	50,000,000	47,850,005	57,520,221	33,387,980	2,149,995	18.40	1.90	7.00
Advent International GPE VII	90,000,000	55,080,000	65,787,222	4,140,083	34,920,000	19.04	1.27	2.53
Affinity Ventures				1.000 1107 <b>6</b> 1999.7	56-70 <b>-</b> 65-0-111-2-601-00000			
Affinity Ventures IV	4,000,000	4,000,000	2,331,826	1,541,970	0	-0.69	0.97	10.75
Affinity Ventures V	5,000,000	4,500,000	2,699,471	1,218,342	500,000	-3.90	0.87	6.74
APAX Partners	200 000 000	(4 707 01 (	(0.51/.1/0	0	125 252 004	. 10		
Apax VIII - USD aPriori	200,000,000	64,727,016	69,546,460	0	135,272,984	6.10	1.07	2.06
DLJ Merchant Banking Partners III	125,000,000	121,880,175	5,439,948	282,306,716	3,119,825	19.42	2 36	14.50
Banc Fund	122,000,000	121,000,175	5,157,715	202,500,710	5,117,025	17.72	2.50	14.50
Banc Fund VII	45,000,000	45,000,000	42,863,760	812,725	0	-0.37	0.97	10.00
Banc Fund VIII	98,250,000	98,250,000	130,708,558	13,949,973	0	13.11	1.47	6.93
Banc Fund IX	82,250,000	17,272,500	17,351,090	0	64,977,500	1.36	1.00	0.80
Blackstone					225			
Blackstone Capital Partners IV	70,000,000	72,205,775	19,276,930	176,030,952	2,065,533	37.33	2.70	12.72
Blackstone Capital Partners V Blackstone Capital Partners VI	140,000,000 100,000,000	130,735,397	89,651,381	127,143,806	11,187,308	7.50	1.66	9.16
Blackstone Capital Partners VI Blackstone Strategic Partners (CSFB/ DLJ)	100,000,000	58,216,327	68,750,901	6,988,010	42,592,396	12.36	1.30	6.68
DLJ Strategic Partners	100,000,000	95,050,622	2,290,630	170,948,907	3,399,378	22.40	1.82	14.19
Strategic Partners II-B	100,000,000	83,843,190	4,069,790	156,338,282	10,356,810	35.14	1.91	11.70
Strategic Partners III VC	25,000,000	24,430,232	8,752,036	23,839,414	569,768	6.29	1.33	9.83
Strategic Partners III-B	100,000,000	76,591,271	42,678,093	74,385,664	16,566,633	7.17	1.53	9.83
Strategic Partners IV-B	100,000,000	90,112,549	34,185,327	110,918,838	2. 2	13.72	1.61	7.01
Strategic Partners IV VC	40,500,000	39,191,505	24,701,032	32,574,898	1,143,601	10.01	1.46	6.78
Strategic Partners V	100,000,000	72,236,412	74,335,315	43,319,562	5 6	30.42	1.63	3.62
Strategic Partners VI	150,000,000	36,416,518	39,505,913	0	113,583,482	21.51	1.08	0.96
BLUM Capital Partners Blum Strategic Partners II	50,000,000	40,185,889	71,500	89,708,870	2,127,584	22.42	2.23	13.70
Blum Strategic Partners II	75,000,000	78,121,020	10,940,740	72,849,189	471,064	0.36	1.07	9.83
Blum Strategic Partners IV	150,000,000	170,916,780	78,913,395	93,378,466	5,896,033	-0.08	1.01	7.36
Dium Strategic Fartners IV		,,	,,		-,,	200		
CarVal Investors	8 80							
CarVal Investors  CVI Global Value Fund	200,000,000	190,000,000	60,359,005	256,379,513	10,000,000	9.96	1.67	8.22
CarVal Investors	200,000,000 100,000,000 150,000,000	190,000,000 95,000,000 142,500,000	60,359,005 121,233,298 165,284,625	256,379,513 64,481,100 428,690		9.96 20.22 9.74	1.67 1.95 1.16	8.22 4.50 2.42

# **Minnesota State Board of Investment**

- Alternative Investments -As of March 31, 2015

	Total Commitment	Funded Commitment	Market	Distributions	Unfunded Commitment	IRR	MOIC*	Perio
Investment	Commitment	Commitment	Value	Distributions	Commitment	70	MOIC*	Year
Chicago Growth Partners (William Blair)	50 000 000	10.150.000	1 661 680	C4 202 0CC	1 (50 000	7.00		140
William Blair Capital Partners VII	50,000,000	48,150,000	1,551,579	64,292,866 49,419,393	1,650,000 300,000		1.37 1.13	
Chicago Growth Partners I	50,000,000 60,000,000	52,441,998 56,858,323	9,941,071 49,330,460	40,955,768	2,889,677		1.13	
Chicago Growth Partners II Court Square Capital Partners	00,000,000	30,636,323	49,550,400	40,933,708	2,889,077	10.22	1.09	7.03
Court Square Capital Partners	100,000,000	80,813,422	722,315	180,966,005	1,934,741	28.91	2.25	13.30
Court Square Capital Partners II	175,000,000	157,785,790	103,315,878	136,817,560	18,261,408		1.52	
Court Square Capital Partners III	175,000,000	68,073,303	63,192,095	9,314,816	113,168,888	4.91	1.07	2.83
Crescendo								
Crescendo IV	101,500,000	101,500,000	12,556,062	34,972,153	0	-7.46	0.47	15.00
CVC Capital Partners								
CVC European Equity Partners V	133,526,254	125,296,263	84,793,894	88,936,187	8,229,991		1.39	7.01
CVC Capital Partners VI	246,253,978	22,459,586	14,877,921	545,893	224,302,002	-39.45	0.69	1.73
Diamond Castle Partners	100 000 000	01.160.507	7 222 820	01 266 006	0.070.000	1.20	1.00	0.54
Diamond Castle Partners IV	100,000,000	91,160,587	7,333,839	91,366,896	8,879,898	1.39	1.08	8.56
DSV Partners	10 000 000	10,000,000	21 620	20 106 092	0	10.61	3.92	29.9
DSV Partners IV	10,000,000	10,000,000	31,639	39,196,082	U	10.01	3.92	29.9
Elevation Partners Elevation Partners	75,000,000	69,116,776	2,854,050	107,494,921	5,883,224	11.42	1.60	9.83
Fox Paine & Company	75,000,000	05,110,770	2,054,050	107,474,721	5,005,224	11.72	1.00	2.0
Fox Paine & Company Fox Paine Capital Fund II	50,000,000	46,299,626	13,069,957	77,327,771	11,953,212	19.13	1.95	14.7
GHJM Marathon Fund	50,000,000	10,277,020	15,007,751	,,,,,,,,,,,	11,700,212		1170	
GHJM Marathon Fund V	50,000,000	50,030,209	10,105,640	87,263,440	46,502	12.46	1.95	10,4
TrailHead Fund	20,000,000	10,014,187	10,452,108	6,955	9,985,813	1.84	1.04	3.1
GS Capital Partners	3 3	53	65 (65)	(45)				
GS Capital Partners 2000	50,000,000	50,000,000	3,547,133	109,659,356	0	23.45	2.26	14.5
GS Capital Partners V	100,000,000	73,958,901	20,276,762	181,358,802	3,441,099	17.76	2.73	10.0
GS Capital Partners VI	100,000,000	78,782,346	33,004,455	79,013,911	23,641,482	5.71	1.42	8.1
GTCR Golder Rauner								
GTCR VI	90,000,000	90,000,000	2,247,198	77,813,800	0	-3.85	0.89	16.
GTCR VII	131,250,000	130,265,615	351,547	306,551,141	984,385		2.36	15.
GTCR IX	75,000,000	69,539,933	45,331,603	74,060,530	5,460,067		1.72	8.7
GTCR X	100,000,000	82,948,604	104,947,121	22,381,366	17,051,396	17.63	1.54	4.3
GTCR Fund XI	110,000,000	16,775,000	16,524,197	0	93,225,000	-2.53	0.99	1.3
IarbourVest**	2 100 112	2.040.612	1.621.164	360 440	157 500	0.00	1.00	0.2
Dover Street VII Cayman Fund L.P.	2,198,112 3,504,430	2,040,612 3,203,710	1,671,164 2,852,435	369,449 180,827	157,500 300,720	0.00 -5.41	1.00 0.95	0.2
HarbourVest Intl PE Partners V-Cayman US Harbourvest Intl PE Partners VI-Cayman	4,160,442	2,515,880	2,382,028	0	1,644,562	-5.41	0.95	0.2
HarbourVest Partners VIII Cayman Buyout	4,506,711	3,856,711	3,609,812	353,042	650,000	2.86	1.03	0.2
Harbour Vest Partners VIII-Cayman Venture	7,190,898	6,875,898	6,506,551	369,345	315,000	0.00	1.00	0.2
Iellman & Friedman	,,,,,,,,,	0,075,070	0,200,221	202,012				
Hellman & Friedman Capital Partners V	160,000,000	146,115,880	4,007,453	413,762,577	15,917,142	27.94	2.86	10.3
Hellman & Friedman Capital Partners VI	175,000,000	168,728,257	57,490,784	258,846,784	7,394,362	12.40	1.87	8.0
Hellman & Friedman Capital Partners VII	50,000,000	36,336,410	38,081,114	4,803,269	13,663,590	9.31	1.18	5.9
( Investment Partners								
K Fund VII	177,225,326	93,322,993	71,127,481	7,279,701	83,902,333	-20.17	0.84	1.5
Ohlberg Kravis Roberts								
KKR Millennium Fund	200,000,000	200,000,000	64,765,025	347,053,152	0	16.45	2.06	12.3
KKR 2006 Fund	200,000,000	208,782,222	156,784,577	169,704,265	11,648,497	8.42	1.56	8.5
eonard Green & Partners						4.00	4.00	
Green Equity Investors VI	200,000,000	99,391,474	104,128,313	3,192,925	101,859,543	6.79	1.08	3.0
exington Capital Partners	100 000 000	00.265.207	42 120 520	07 907 553	1 624 702	0.26	1 42	0.2
Lexington Capital Partners VI-B	100,000,000	98,365,297	43,120,520	97,807,552	1,634,703	8.35 17.78	1.43	9.2 5.8
Lexington Capital Partners VII	200,000,000 150,000,000	155,558,883	121,706,133 10,500,000	103,435,832	45,525,987 139,500,000	0.00	1.45 1.00	1.0
Lexington Capital Partners VIII	130,000,000	10,500,000	10,300,000	U	139,300,000	0.00	1.00	1.0
lerced Capital Merced Partners II	75,000,000	63,768,881	15,357,345	112,510,597	0	24.33	2.01	8.0
Merced Partners III	100,000,000	100,000,000	89,447,566	38,997,107	0	7.95	1.28	4.9
Merced Partners IV	125,000,000	90,625,000	89,224,844	0	34,375,000	-2.06	0.98	1.7
ordic Capital			and the same of the same of	,5	.,,			-00
Nordic Capital Fund VIII	172,917,607	69,966,726	55,632,374	49,418	102,950,881	-26.92	0.80	1.5
orth Sky Capital**		,						
North Sky Capital LBO Fund III, LP	1,070,259	720,259	720,259	25,000	350,000	3.53	1.03	0.2
North Sky Capital Venture Fund III, LP	1,384,080	1,277,830	1,214,080	63,750	106,250	0.00	1.02	0.2
aktree Capital Management	5 5	S. S.	488	- 1	100			
Oaktree Principal Fund VI	100,000,000	5,000,000	5,000,000	0	95,000,000	0.00	1.00	0.25
aine & Partners								
Paine & Partners Capital Fund IV	75,000,000	1,662,841	2,173	0	73,337,159	-98.55	0.00	0.30
ermal Capital**								
Permal PE Opportunities IV, L.P.	5,337,098	3,947,098	3,300,483	660,487	1,390,000	0.36	1.00	0.25

#### Minnesota State Board of Investment

- Alternative Investments -As of March 31, 2015

A PROPERTY OF THE PARTY OF THE	Total	Funded	Market		Unfunded	IRR	100	Period
Investment	Commitment	Commitment	Value	Distributions	Commitment	%	MOIC*	Years
PERMIRA								
Permira V	174,027,168	68,748,354	55,539,068	174,697	105,278,815	-24.40	0.81	1.25
Public Pension Capital Management								
Public Pension Capital	92,000,000	0	0	0	92,000,000	0.00	0.00	0.87
RWI Ventures								
RWI Ventures I	7,603,265	7,603,265	493,449	6,094,262	0	-4.54	0.87	8.75
Sightline Healthcare								
Sightline Healthcare Fund III	20,000,000	20,000,000	668,519	6,268,468	0	-11.56	0.35	16.19
Sightline Healthcare Fund IV	7,700,000	7,753,673	837,772	6,502,834	0	-1.29	0.95	11.51
Silver Lake Partners								
Silver Lake Partners II	100,000,000	89,909,750	43,971,688	117,684,268	11,681,453	10.70	1.80	10.75
Silver Lake Partners III	100,000,000	85,588,441	79,757,908	78,166,538	15,397,854	18.63	1.85	8.00
Silver Lake Partners IV	100,000,000	21,644,250	30,983,311	92,857	78,448,607	48.00	1.44	2.51
Split Rock Partners								
Split Rock Partners	50,000,000	46,572,727	32,612,197	3,961,529	3,427,273	-3.92	0.79	9.91
Split Rock Partners II	60,000,000	50,705,000	42,011,343	7,770,098	9,295,000	-0.73	0.98	6.92
Summit Partners	in the man the second and professional second secon	a de compres acompres de Paris de 1900.						
Summit Ventures V	25,000,000	24,125,000	98,429	33,274,796	875,000	8.11	1.38	17.00
Summit Partners Growth Equity Fund VIII	100,000,000	58,500,000	54,967,614	10,098,648	41,500,000	8.67	1.11	3.90
T. Rowe Price	85,786,939	85,786,939	44,953,261	50,971,880	0	10.60	1.12	
Thoma Cressey		,	, , , , , , , , , , , , , , , , , , , ,	,,		10.00	****	
Thoma Cressey Fund VI	35,000,000	33,915,000	570,911	34,128,882	1,085,000	0.27	1.02	16.61
Thoma Cressey Fund VII	50,000,000	50,000,000	7,933,989	98,172,406	0	23.63	2.12	14.60
Thoma Cressey Fund VIII	70,000,000	68,932,574	50,999,766	135,801,525	770,000	16.17	2.71	8.91
Thomas, McNerney & Partners	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		50,555,700	155,001,525	770,000	10.17	2.71	0.71
Thomas, McNerney & Partners I	30,000,000	29,400,000	9,463,777	10,504,694	600,000	-7.61	0.68	12.40
Thomas, McNerney & Partners II	50,000,000	46,125,000	59,488,950	24,574,160	3,875,000	13.31	1.82	8.75
Varde Fund	20,000,000	10,125,000	53,100,350	24,574,100	5,075,000	15.51	1.02	0.75
Varde Fund IX	100,000,000	100,000,000	38,439,947	160,499,128	0	14.57	1.99	6.77
Varde Fund X	150,000,000	150,000,000	220,191,417	9,607,615	0	11.56	1.53	4.94
Varde Fund XI	200,000,000	180,000,000	199,700,820	0,007,019	20,000,000	7.56	1.11	1.72
Vestar Capital Partners	200,000,000	100,000,000	177,700,020		20,000,000	7.50	1.11	1.72
Vestar Capital Partners IV	55,000,000	52,761,494	2,290,807	95,631,368	2,238,506	13.57	1.86	15.29
Vestar Capital Partners V	75,000,000	75,091,634	63,332,871	23,470,406	233,595	2.60	1.16	9.28
Vestar Capital Partners VI	100,000,000	34,307,585	37,024,794	4,464,332	65,692,415	16.79	1.10	3.52
Warburg Pincus	100,000,000	34,307,303	37,024,774	4,404,332	03,092,413	10.79	1.21	3.32
Warburg Pincus Equity Partners	100,000,000	100,000,000	4,697,863	158,591,853	0	10.02	1.63	16.76
Warburg Pincus Private Equity VIII	100,000,000	100,000,000	37,977,497	194,539,381	0	15.30	2.33	12.96
Warburg Pincus Private Equity IX	100,000,000	100,000,000	25,608,356	149,110,706	0	10.15	1.75	9.68
Warburg Pincus Private Equity X	150,000,000	150,000,000	107,145,011	102,164,922	0	7.94	1.75	7.43
Warburg Pincus Private Equity XI	200,000,000	118,800,000	136,578,670	8,554,600	81,200,000	16.89	1.22	2.27
Wayzata	200,000,000	118,800,000	130,378,070	8,334,000	81,200,000	10.69	1.22	2.21
Wayzata Opportunities Fund	100,000,000	93,180,000	24,379,503	142,295,234	6,820,000	9.34	1.79	9.28
Wayzata Opportunities Fund II	150,000,000	57,450,000	52,447,738	149,723,664	** TO STATE OF THE PARTY OF THE			
Wayzata Opportunities Fund III	150,000,000	38,700,000	35,846,804	C-03 41 10 10 10 10 10 10 10 10 10 10 10 10 10	92,550,000	16.87	3.52	7.44
	130,000,000	38,700,000	33,840,804	136,917	111,300,000	-8.32	0.93	2.79
Welsh, Carson, Anderson & Stowe Welsh, Carson, Anderson & Stowe VIII	100,000,000	100,000,000	122 002	120 660 662	0	2.12	1.20	16.60
State for the state of the state and the state of			133,893	128,668,552	1 250 000	3.12	1.29	16.69
Welsh, Carson, Anderson & Stowe IX	125,000,000	123,750,000	18,334,098	186,559,084	1,250,000	11.18	1.66	14.76
Welsh, Carson, Anderson & Stowe X	100,000,000	98,000,000	59,080,853	96,860,713	2,000,000	7.63	1.59	9.29
Welsh, Carson, Anderson & Stowe XI	100,000,000	90,931,929	75,102,626	57,085,613	9,068,071	13.57	1.45	6.69
Welsh, Carson, Anderson & Stowe XII	150,000,000	0	0	0	150,000,000	0.00	0.00	0.25
Private Equity Total	10,454,142,567	7,711,499,129	4,488,817,103	7,556,886,526	2,756,479,535		1.56	
Alternatives Total	17,151,642,591	12,333,406,539	7,196,165,428	12,087,237,310	4,811,433,238		1.56	

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

<sup>\*</sup> MOIC: Multiple of Invested Capital

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

#### REAL ESTATE MANAGER SUMMARY PROFILE

### I. Background Data

The Realty Associates Fund XI, L.P.
Real Estate Limited Partnership
\$1.5 billion capital commitment target
TA Realty LLC
Michael A. Ruane
TA Realty LLC 28 State Street, 10 <sup>th</sup> Floor
Boston, MA 02109
Phone: 617-476-2700

# II. Organization and Staff

TA Realty LLC ("TA Realty" or the "Firm") is a Boston-based private real estate investment management firm established in 1982. Since that time, the Firm has invested and managed in excess of \$23.2 billion of real estate on behalf of endowments, foundations, public and private pension funds, and other institutional investors. During its three decades in the business, TA Realty has acquired over 910 commercial (office, industrial, and retail) and multifamily properties located in more than 35 markets throughout the U.S.

The Firm has successfully implemented its investment strategy through a series of ten value-added, closed-end, commingled funds, as well as a select number of customized core separate accounts for certain large institutions.

The Firm employs 75 professionals with extensive experience in property acquisitions, asset management, portfolio management, valuations, dispositions, finance, accounting, and operations.

# III. Investment Strategy

TA Realty is a value investor focused on pursuing the steady growth of income produced by real estate investments, while minimizing downside risk. Since the Firm's inception, it has maintained a consistent investment philosophy during multiple real estate and economic cycles. The Firm is focused on creating diversified real estate portfolios that will generate strong cash flow, benefit from an active asset management approach, and result in the long-term creation of value over the life of the Fund. TA Realty seeks to construct diversified portfolios of real estate investments with characteristics that allow them to dynamically add value over time, maximizing both income and property value while also protecting cash flow and moderating overall portfolio risk.

TA Realty believes there are clear benefits to diversifying across property type, geography, and investment size. Various markets and property types perform differently during real estate and economic cycles, thus diversification helps enhance risk-adjusted returns. It has been the Firm's experience that diversification can offset the effects of underperforming markets, property types or individual investments. Moreover, by targeting an average investment size of \$25-\$30 million, TA Realty also acquires more individual assets to further diversify the Fund's investment risk.

In the current environment, TA Realty believes debt maturities, bank-owned real estate, expiring closed-end funds, changing REIT strategies, estate sales, and expiring joint ventures are expected to force owners to bring quality assets to the market. These factors will provide long-term investors with a unique opportunity to acquire quality commercial real estate at favorable prices. TA Realty's deep relationships with banks, other lending institutions, senior industry professionals, and local operators are expected to yield significant investment opportunities during the acquisition period for the Fund. At TA Realty, favorable pricing is a key tenet of the Firm's acquisition strategy, which it applies consistently across all market environments and at every stage of the real estate cycle.

TA Realty seeks to buy assets priced below replacement cost with one or more of the following attributes:

- Under-leased and undermanaged assets with solid fundamentals
- Established rents that are below market levels
- Supply-constrained geographic locations
- Assets in need of repositioning and value-add strategy
- High-quality assets burdened by distressed ownership

Using its broad network of third-party local market relationships cultivated over three decades, TA Realty aims to identify opportunities to acquire such assets before they reach the general market. The Firm's ability to source investments like these is aided by its reputation as an all-cash buyer who can act quickly to close transactions.

TA Realty has successfully applied this philosophy in ten other funds across a wide variety of market and real estate cycles. As a result, the Firm is confident that, together with its low leverage discipline, primary focus on income and real estate investment fundamentals, it can generate positive results for investors in this, TA Realty's eleventh fund.

#### IV. Investment Performance

The historical performance of TA Realty Funds as of December 31, 2014 is presented below:

Fund	Inception Date	Total Commitments	SBI Investment	Net IRR from Inception*	Net MOIC from Inception*
Advent Realty L.P.	1987	\$164 million	\$0	2.4%	1.2
Advent Realty II L.P.	1990	\$333 million	\$0	11.6%	2.1
Realty Associates Fund III	1994	\$488 million	\$40 million	10.9%	2.1
Realty Associates Fund IV	1996	\$450 million	\$50 million	12.8%	2.2
Realty Associates Fund V	1999	\$563 million	\$50 million	10.3%	1.8
Realty Associates Fund VI	2002	\$739 million	\$50 million	8.6%	1.5
Realty Associates Fund VII †	2004	\$917 million	\$75 million	0.5%	1.0
Realty Associates Fund VIII ‡	2006	\$1,742 million	\$100 million	-2.7%	0.8
Realty Associates Fund IX ‡	2008	\$1,493 million	\$100 million	10.8%	1.4
Realty Associates Fund X ‡	2012	\$1,562 million	\$100 million	12.7%	1.1

<sup>\*</sup> Net IRR and Multiple of Invested Capital (MOIC) were provided by TA Realty. Data for Funds I-VI is actual through fund liquidation. Data for Funds VII-X assumes a theoretical liquidation of the portfolios at 12/31/14 values. Funds VII-IX are immature and, therefore, returns may not be indicative of future results.

#### V. General Partner's Investment

The Sponsor General Partner's Capital Commitment to the Fund shall be equal to a minimum of one percent (1.0%) of the total Capital Commitments of the investors in the Fund.

#### VI. Takedown Schedule

Commitments are expected to be drawn as needed, with a minimum of 30 days' prior written notice; provided that not less than 10 business days' prior written notice will be required for the Fund's first draw down and any other draw down for which the Advisory Committee has consented to such shorter notice period.

#### VII. Management Fee

The annual percentage rates for the management fee are as follows:

- i. 0.50% of capital commitments during year one of the Partnership term rising to 1.15% of capital commitments during year three of the Partnership term,
- ii. a range of 1.25% to 1.00% of aggregate invested equity during years four through seven of the Partnership term, and
- iii. 0.60% of aggregate invested equity for all periods after year seven.

<sup>†</sup> Fund in liquidation

<sup>‡</sup> Active Fund

#### VIII. Distributions

Generally, distributions of cash from operations and disposition proceeds shall be made to the Partners of the Fund in the following order and priority:

First, to return inflation adjusted contributed capital to the Partners using a sliding scale of 95% to 82.5% to the Partners and 5% to 17.5% to the Sponsor General Partner until the Partners (which includes the Sponsor General Partner in respect of its contributed capital) have been distributed an amount equal to an 8% real return (i.e., an inflation adjusted, 8% IRR computed under the formula in the Partnership Agreement);

Thereafter, 80% to the investors and 20% to the Sponsor General Partner.

Distribution activity is more fully described in the Fund XI PPM.

#### IX. Investment Period and Term

Generally, the investment period will be two years from the final closing, subject to possible extension.

The term of the Partnerships will continue for a period of seven years from the date when at least 90% of all Capital Commitments of the Operating Partnership have been invested, or committed for investment in Real Estate Investments or the expiration of the capital call period. The term may be extended by up to three one-year extensions.

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

#### PRIVATE EQUITY MANAGER SUMMARY PROFILE

## I. Background Data

Name of Fund:	CVI Credit Value Fund III L.P.
Type of Fund:	Private Equity
Target Fund Size:	\$2.0 billion
Fund Manager:	CarVal Investors, LLC
Manager Contact:	Ryan M. Savell
	9320 Excelsior Boulevard
	Hopkins, MN 55343
	P: 952.984.3548

# II. Organization and Staff

CarVal Investors, LLC ("CarVal" or the "Firm") was founded by Cargill in 1987 and became an independent wholly-owned subsidiary of Cargill in 2006. CarVal has invested approximately \$76 billion in over 5,040 transactions, including opportunistic investments in corporate securities, liquidations, whole loan portfolios, real estate and real estate loans, and special opportunities (including structured credit).

CarVal is headquartered in Minneapolis, with operations in London, Luxembourg, New York, Paris, Shanghai, and Singapore. CarVal employs more than 175 people worldwide, including approximately 70 investment professionals and approximately 105 professionals dedicated to legal, tax, operational, accounting and administrative functions. The investment activities of CarVal are overseen by the senior leadership team which leads investment strategies and geographic locations. The senior leadership team members average 11 years of service with CarVal and its predecessor and are assisted by 17 investment managing directors and other investment professionals. The members of the senior leadership team are John Brice, President and CIO, Peter Vorbrich, CFO, and Gerardo Bernaldez, Seth Cohen, Lucas Detor, James Ganley, and Jody Gunderson, all of whom are Senior Managing Directors.

CarVal has had a consistent and active presence in Europe since 1993, and currently has a team of approximately 40 employees based in its London office. CarVal's longstanding presence in Europe has allowed the Firm to pursue negotiated deal opportunities at attractive prices.

CarVal believes that its experience in alternative investment management and global presence will afford investors opportunities for attractive returns.

# III. Investment Strategy

CVI Credit Value Fund III LP (the "Fund") is being formed to capitalize on investment opportunities in distressed and credit-intensive assets within its four strategies of loan portfolios, corporate securities, liquidations and structured credit, as well as other special opportunities. CarVal believes there are four key themes that underpin the current market opportunity and position the Firm to take advantage of these conditions:

- Post-crisis reform: Added regulation has forced banks to sell select businesses and assets;
- <u>The stabilization of Europe</u>: European economies have appeared to stabilize and slowly begin to recover; however European banks are selling into the recovery because of their continued need to deleverage;
- The end of commodity super cycle: Falling commodity prices are creating headwinds in emerging market economies, which should create opportunities with over-levered corporate borrowers needing to deleverage; and
- Quantitative easing tapering: The actions of the U.S. Federal Reserve in recent years have had global impact, and the reduction in fiscal stimulus is no exception. The threat of rising interest rates has driven increased volatility in fixed income markets, which CarVal believes makes bonds risky assets again.

The changing landscape and uncertainty from global dislocation has created what CarVal believes to be compelling credit investment opportunities. CarVal believes it is well positioned to capitalize on this dislocation, as volatility creates entry points and uncorrelated opportunities within the Firm's four core strategies (loan portfolios, structured credit, liquidations and corporate securities).

CarVal believes the opportunity created by the dislocation in the market today is attractive across the Firm's four boxes. The Firm will seek to construct a portfolio that CarVal believes creates an optimal mix of risk, return and volatility across asset classes, yet anticipates that the Fund's opportunities may be more heavily weighted in developed-market loan portfolios and corporate securities in emerging markets. CarVal believes the wave of liquidations, which began with Lehman Brothers and which has been an area of focus for the Firm in recent years, is likely at its tail at this point in the cycle. However, as we enter the later stages of the economic recovery cycle, the Firm anticipates that the Fund will be well positioned for the next wave if corporate distress, restructuring, and bankruptcies.

#### IV. Investment Performance

Previous fund performance as of March 31, 2015 for CarVal and the SBI's investments with previous funds, where applicable, is shown below. (The SBI also invested in a Global Value Fund managed by the same investment team.)

Fund	Inception Date	Total Invested Capital	SBI Commitment	Net IRR from Inception*	Net MOIC from Inception*	Fund Status
CVI I	2010	\$813 million	\$100 million	20.2%	2.0	Liquidating
CVI II	2012	\$2.2 billion	\$150 million	9.7%	1.2	Active

<sup>\*</sup> 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.

#### V. General Partner's Investment

The total capital commitment of certain members of the Senior Investment Team and other senior investment professionals to the Fund, the Offshore Fund will be an amount equal to at least one percent (1%) of the aggregate capital commitments.

#### VI. Takedown Schedule

Limited Partners will receive no less than (i) three (3) business days' advance notice prior to the drawdown in respect of the initial closing or any additional closing and (ii) ten (10) days' advance notice of any drawdown in respect of capital contributions to fund investments and meet expenses or other obligations of the Fund.

#### VII. Management Fee

The management fee will be paid, quarterly in arrears, at a rate equal to:

- (i) during the investment period, 1.50% per annum of capital contributions as of the end of the quarter, and
- (ii) thereafter 1.50% per annum multiplied by the lesser of (x) the net asset value of each investor's capital account as of the beginning of the quarter, or (y) such investor's aggregate capital contributions made less amounts distributed to such investor representing a return of capital.

For Limited Partners that commit \$150 million to the Fund and have committed \$250 million across all Credit Value Funds, a reduced fund management fee of 1.25% will apply.

#### VIII. Distributions

During the investment period, investment gains will be distributed to investors, no less frequently than annually. After the investment period, investment gains will be distributed to investors, no less frequently than quarterly. Distributions (other than a final distribution) will not be required unless the Fund holds at least \$10 million in distributable cash or investment gain.

Distributions will be made in the following order and priority:

First, 100% to such investor until such investor has received an amount equal to such investor's capital contributions made to the Fund prior to the date of distribution;

Second, 100% to such investor until the excess of the cumulative distribution to such investor over such investor's capital contributions to date represents an 8% annual rate of return on its outstanding capital contributions (the "Preferred Return");

Third, 100% (or, in the case of limited partners that commit \$150 million to the Fund and have committed \$250 million across all Credit Value Funds, 50%) to the General Partner until cumulative distributions equal 20% of the sum of the cumulative distributions to such investor in excess of its capital contributions to date plus the cumulative distributions to the General Partner in respect of such investor; and

Thereafter, 80% to such investor and 20% to the General Partner.

# IX. Key Person Termination

An event occurring during the investment period if (A) either (i) both John Brice and Peter Vorbrich or (ii) any three (3) of John Brice, Peter Vorbich, Gerardo Bernaldez, Seth Cohen, Lucas Detor, James Ganley and Jody Gunderson fail to devote for any reason substantially all of their business time to the Fund, followed by a continuance of such event for a period of thirty (30) days, (B) there is a transfer or disposition, directly or indirectly, to Cargill of a majority of the carried interest distributions or (C) carried interest distributions received by the General Partner are paid to persons other than employees of the General Partner, the Manager and their Affiliates, the investment period of the Fund will be suspended.

# X. Investment Period and Term

The Investment Period will last for a period of three years from final closing, subject to an extension with approval of the Investor Advisory Committee.

The Fund will terminate six years from final closing, subject to two one-year extensions at the sole discretion of the general partner. Thereafter, any extensions require consent of two-thirds majority at the interest of investors.

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

#### PRIVATE EQUITY MANAGER SUMMARY PROFILE

# I. Background Data

Name of Fund:	Blackstone Capital Partners VII L.P.
Type of Fund:	Private Equity Limited Partnership
Total Fund Size:	\$17.5 billion
Fund Manager:	The Blackstone Group L.P.
Manager Contact:	Erik L. Lisher
	345 Park Avenue
	New York, NY 10154
	(212) 583-5296

# II. Organization and Staff

The Blackstone Group L.P. (together with its affiliates, "Blackstone" or the "Firm") is sponsoring Blackstone Capital Partners VII L.P. ("BCP VII" or the "Partnership"), a private investment fund that will focus on making control and control-oriented private equity investments on a global basis. The Partnership's focus will generally be on large cap companies in the United States and Western Europe. Blackstone will continue to pursue its thematic, sector-based approach to private equity investing. They intend to remain a value-oriented investor with a focus on building their portfolio companies through continual investment in them and improving their operations.

Blackstone was founded in 1984 by Stephen A. Schwarzman and Peter G. Peterson and is headquartered in New York, NY. Blackstone's alternative asset management businesses include investment vehicles focused on private equity, real estate, hedge fund solutions, credit, secondary funds and tactical opportunities. Blackstone has over 240 investment professionals and 18 offices throughout North America, Europe, Asia and the Middle East.

BCP VII will be led by Joseph Baratta and a single global Investment Committee comprised of Stephen A. Schwarzman, Hamilton E. James, Prakash Melwani, and other senior investment professionals.

# III. Investment Strategy

Blackstone is one of the world's most experienced investment firms, and BCP VII represents the Firm's seventh global private equity fund. Since their first private equity fund was raised in 1987, their global private equity funds have committed over \$43 billion of capital in 191 portfolio companies with a total enterprise value of over \$350 billion through September 30, 2014.

Blackstone believes in a disciplined, value-oriented approach to private equity investing, thematic and sector-based deal sourcing, and focus on improving the operations of the businesses in which they invest. Investment decisions are made by a single, global Investment Committee consisting of the most experienced private equity investment professionals at Blackstone. The Firm pursues a flexible, opportunistic investment approach that is not anchored to any single geography, industry, and transaction type or deal size. Blackstone's investment strategies and core themes continually evolve, in anticipation of, or in response to changes in the global economy, local markets, regulation, capital flows and geopolitical trends. Blackstone seeks to generate strong unlevered returns, which allows them to maintain value discipline and create a margin of safety at inception regardless of the entry or exit cycle timing.

Blackstone invests in four key transaction types:

- 1) Large Buyouts (Total Enterprise Value greater than \$4 billion);
- 2) Mid-Cap Buyouts (TEV less than \$4 billion);
- 3) Buy & Build Platforms (multiple acquisitions behind a single management team and platform); and
- 4) Growth Equity/Development Projects (significant minority investments in mature companies and greenfield development projects in energy/power).

In addition, Blackstone has historically invested in seven key sectors: Industrials, Energy, Healthcare, Services, Consumer/Retail/Leisure, Technology/Media/Telecommunications, and Financial Services. Within each sector, Blackstone seeks to use its experience as a global private equity investor to access the most interesting and proprietary deal flow. They believe their deal sourcing abilities are enhanced by the established relationships of their portfolio company management teams and advisory network of industry executives. Blackstone seeks to diligence top-down factors that affect the macro environment and bottom-up factors that will drive returns in their investments. The investment diligence begins with understanding the market size, industry risks, and growth and penetration rates. Blackstone then diligences the underlying assets, including the company's individual product lines, cost-saving opportunities and ability to leverage Blackstone's platform. They seek to identify undervalued assets experiencing cyclical downturns, consolidation platforms within fragmented industries and companies which they believe can grow well in excess of GDP. After an investment is made, Blackstone's operating intervention team, which includes a team of Portfolio Operations professionals, seeks to implement crossportfolio synergies and implement best practices within the functional areas of procurement, healthcare cost containment, lean process, talent management and sustainability.

Each investment that Blackstone makes must include an operating intervention plan, which can take many forms:

- Consolidation of fragmented industries
- Margin enhancement
- New product or business line development
- Geographic expansion
- Management upgrade
- · Corporate carve-out
- Development capital (for energy/power investments)
- Capital expenditures program to increase and/or improve capacity

The vetting of the specific operating intervention plan is core to the Investment Committee's decision-making process. Post-closing, Blackstone monitors and periodically modifies the intervention plan (and the required resources) in order to optimize the long-term impact on the portfolio company.

Blackstone believes the following key themes will continue to drive their investment decision-making in the near- to medium-term:

- <u>Transformational Operating Intervention</u>: Blackstone actively targets companies
  in which significant equity value can be created through identifiable, executable
  strategic and operational change. Initiatives may focus on areas such as entry into
  new geographies, upgrading of existing management, pricing, cost reduction,
  acquisitions and/or deployment of capital to fund new businesses or product lines.
- Growth/Buy & Build Platforms: Blackstone seeks to invest in scalable businesses
  with superior and entrepreneurial management teams operating within large,
  fragmented industries. Blackstone seeks to consolidate such industries through
  acquisitions, driving revenue and margin expansion via synergies and scale
  benefits.
- <u>Mismatch between Requirement for Capital and its Supply</u>: Blackstone seeks out investments in sectors and companies where the need for capital greatly exceeds its readily available supply.
- <u>Cyclical/Market Dislocation Opportunities</u>: Blackstone's industry sector teams
  closely monitor industry outlooks, valuation expectations and growth potential in
  order to capitalize on cyclical opportunities that enable them to buy good businesses
  or assets at below mid-cycle levels of profit or below replacement cost.

#### IV. Investment Performance

Previous fund performance as of March 31, 2015 for investments in Funds I through VI is shown below:

Fund	Inception Date	Total Invested Capital	SBI Commitment	Net IRR from Inception *	Net MOIC from Inception*	Fund Status
BCP I	1987	\$679 million	N/A	19%	1.9x	Realized
BCP II	1993	\$1.3 billion	\$47 million	32%	2.1x	Realized
BCP III	1997	\$4.0 billion	N/A	14%	1.9x	Realized
BCP IV	2002	\$7.5 billion	\$70 million	37%	2.7x	Liquidating
BCP V	2006	\$20.1 billion	\$140 million	8%	1.7x	Liquidating
BCP VI	2011	\$8.3 billion	\$100 million	12%	1.3x	Active

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

#### V. General Partner's Investment

The general partner will make aggregate capital commitments to the Partnership equal to \$500 million, plus up to an additional 7.5% to each investment on a side-by-side basis.

#### VI. Takedown Schedule

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

#### VII. Fees

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

a. During the investment period, 1.50% per annum charged on capital commitments.

b. After the earlier of (i) the end of the investment period and (ii) the time management fees in connection with a successor fund have begun to accrue (the "Management Fee Step-Down Date"), the management fee will equal the product of (x) the applicable management fee percentage of the limited partner minus 0.25% multiplied by (y) the limited partner's capital contributions with respect to investments that have not been disposed of; provided that the applicable management fee percentage shall be further reduced by 0.25% per annum at the two-year anniversary of the Management Fee Step-Down Date and the end of each two-year period thereafter; provided further that the applicable management fee percentage shall not be so reduced below 0.75% per annum.

No management fee shall be charged for the six (6) month period for any limited partner that is admitted to the Partnership on the initial closing date, which is anticipated to occur during the second quarter of 2015.

Management fees will be reduced by 100% in the case of all limited partners of the Partnership's share of net break-up, topping, commitment, monitoring, transaction, directors', and organization fees.

#### VIII. Distributions

Distributions will be made in the following order and priority:

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

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

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

Thereafter, 80% to the limited partner and 20% to the general partner.

# IX. Key-Person Termination

If at any time prior to the end of the investment period, either (a) two of three of Stephen A. Schwarzman, Hamilton E. James and Joseph Baratta or (b) a majority of the sixteen Senior Managing Directors as identified by the general partner on or prior to the initial closing date (the "Designated SMDs") cease to devote the Required Involvement (as defined below) (either, a "Key Person Event"), the general partner will promptly give notice to the limited partners. Thereafter, the investment period will be terminated 180 days after such notice, unless, on or before such 180<sup>th</sup> day, the consent of the majority of the limited partners is obtained to continue the investment period (a "Key Person Vote"). Prior to the occurrence of a Key Person Event, the general partner may specifically replace a person referred to above so long as such replacement person is approved by 66 2/3% of the members of the limited partner advisory committee.

"Required Involvement" shall mean (i) with respect to Stephen A. Schwarzman and Hamilton E. James, devoting substantially all of their business time to Blackstone, and (ii) with respect to Joseph Baratta and the other Designated SMDs, devoting substantially all of their business time to businesses related to the Partnership, the parallel funds, any successor and predecessor funds thereto, and any related entities and Blackstone's corporate private equity activities generally.

#### X. Investment Period and Term

The investment period for Fund VII terminates six years after the investment period start date, which is anticipated to occur during the second quarter of 2015. The fund term is eleven years, subject to two one-year extensions if approved by 66 2/3% of the members of the limited partner advisory committee.

<sup>\*</sup> 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.

#### RESOURCE MANAGER SUMMARY PROFILE

# I. Background Data

Name of Fund:	EnerVest Energy Institutional Fund XIV A
Type of Fund:	Delaware Limited Partnership
Target Fund Size:	\$2.5 billion
Fund Manager:	EnerVest, Ltd. and EnerVest Institutional GP
Manager Contact:	Rainey Janke 1001 Fannin, Suite 800
	Houston, TX 77002
	713-495-6503

#### II. Organization and Staff

EnerVest was formed in 1992 by John Walker and Jon Rex Jones to acquire, develop, operate and manage oil and gas properties. Along with CEO John Walker, key members of the EnerVest team include Jim Vanderhider, Phil DeLozier, Ken Mariani, Steve McDaniel, Dave Kyte and Jud Walker. Based in Houston, the firm currently has an interest in approximately 36,000 wells in 15 states. EnerVest and its affiliates operate approximately 28,000 of these wells (representing 90% of the firm's asset value), which make EnerVest the largest upstream operating GP in the Unites States. In total EnerVest has 1,280 employees, of which 90% work for EnerVest Operating.

A key distinction of EnerVest is that it manages and operates the assets owned through the funds. This approach differs from other funds that serve primarily as capital providers by financing the acquisition and development activities of independent portfolio companies. This direct investing strategy eliminates the layer of fees that typically occur at the portfolio company level.

# III. Investment Strategy

The strategy for Fund XIV will be the same as prior EnerVest funds. EnerVest acquires and operates oil and gas properties, aggressively manages and develops the properties, reduces costs, and sells the assets. On occasion Fund XIV may also invest in equity interests of companies in order to acquire their assets. Fund XIV will focus on building a portfolio of properties with a base of proved developed production (PDP) of approximately 60% of portfolio reserves, but with proved and probable reserves possessing significant development potential. The objective of this strategy will be to generate current return from the producing reserves and provide attractive incremental returns from the development of the non-producing reserves.

Fund XIV will focus primarily on asset acquisitions of long-lived, onshore proved and probable oil and gas reserves in North America with meaningful development upside. In particular, the Fund will primarily invest in properties that give EnerVest and/or its affiliates the right to serve as operator, and, consequently, the ability to control the timing and implementation of development activities and other initiatives focused on increasing production, cash flows, and reserves. The Fund will target transactions with a value of between \$100 million to \$500 million, but may opportunistically pursue larger transactions.

Deals are sourced from key relationships with advisors and producers. Before investment, each deal is subjected to due diligence with a focus on value and ultimate return potential. Valuation is limited to currently producing reserves leaving any additional production through technological advancement, efficiencies or expansion as an upside. The success of this strategy relies on the execution of the management team's business plan rather than changing commodity prices. Approximately 500 deals are screened each year, 35-50 are fully evaluated and only 15-20% are won in a bidding process. Each fund has 10-15 anchor investments.

During the life of an investment EnerVest creates value through a variety of ways, including partnering with other firms, creating operating efficiencies by building concentrated asset bases in a region, and focusing on extensive development drilling programs. Seven regional asset portfolio teams focus on production and cash flow growth, pursue field development and accretive add-on acquisitions, and embrace technological solutions with service providers. Hedging is used to mitigate commodity risk.

Finally, an exit that optimizes IRR is achieved by selling assets as large packages at a premium during favorable market conditions and/or through industry relationships.

#### IV. Investment Performance

The historical investment performance of EnerVest as of December 31, 2014 is presented below:

Fund	Inception Date	Total Commitments (in millions)	MSBI Investment (in millions)	Net IRR from Inception*	Net MOIC from Inception *	Fund Status
Single Investor Partnerships	1994	\$382	\$0	26%	2.0x	Realized
EnerVest, LP	1998	\$196	\$0	15%	1.7x	Realized
EnerVest IX	2001	\$239	\$0	69%	8.0x	Realized
EnerVest X	2005	\$647	\$0	8%	1.5x	Liquidating
EnerVest XI	2007	\$1,485	\$0	19%	2.4x	Liquidating
EnerVest XII	2010	\$2,400	\$0	7%	1.2x	Liquidating
EnerVest XIII	2012	\$3,300	\$0	4	<u>~</u>	Active

<sup>\*</sup> 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 EnerVest.

#### V. General Partner's Investment

The General Partner will make a cash commitment equal to 1.5% of the aggregate commitments to the Fund.

#### VI. Takedown Schedule

Limited Partners will receive 7 business days' advance notice prior to each investment capital call.

# VII. Management Fee

The management fee will be 2% of aggregate commitments during the commitment period, paid quarterly in advance. Following the commitment period the fee will be 1.5% of aggregate capital contributions, less amounts distributed to partners as a return of capital and any write down or write off of an investment.

#### VIII. Distributions

Distributions will be made in the following order and priority:

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

Second, 100% to the limited partner until it has received a 9% annual return, compounded annually, on its aggregate capital contributions.

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

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

#### IX. Investment Period and Term

The Initial Closing occurred on April 24, 2015 and the Final Closing will occur within 120 days.

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

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

## X. Key-Person Event

A temporary expiration of the investment period will occur if either (A) any two of John B. Walker, Kenneth Mariani and James M. Vanderhider or (B) any four of: the three aforementioned Principals, Judson B. Walker, Steven A. McDaniel, Phil C. DeLozier or David G. Kyte fail to devote sufficient time to Fund XIV. If, within 120 days of the Key Person Event, 66 2/3% of Investors by interest do not approve a management plan submitted by the General Partner, the investment period will permanently expire.

<sup>\*</sup> 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.

# TAB E

## INVESTMENT ADVISORY COUNCIL REPORT

DATE:

May 27, 2015

TO:

Members, State Board of Investment

FROM:

Members, Investment Advisory Council and SBI Staff

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

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

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

The report includes the following sections:

•	Public Markets Economic and Market Overview	Page 3
•	Public Markets Manager Activity	5
•	Non-Retirement Manager Update	7
•	Deferred Compensation Manager Update	8
•	Manager Performance Summaries	A-1

# Public Markets Economic and Market Overview First Quarter 2015

#### Overview

Three months after the Federal Open Market Committee's decision to conclude its asset purchase program in October, a fresh QE plan was launched across the Atlantic. In January, the European Central Bank's executive board proposed buying approximately €60 billion (\$70 billion\*) a month in bonds for at least a year. The Bank plans to purchase Eurozone government bonds, debt instruments issued by European Union institutions, and private debt instruments. European Markets reacted positively to the news as evidenced by the MSCI Europe ex UK Index advancing by 19.1% (in local terms) in the quarter.

Domestically, the price of oil and speculation on the timeline of an interest rate increase dominated headlines and conversation amongst experts and pundits. Minutes from the Federal Open Market Committee meeting in March show that meeting participants differ over the appropriate timing of a Fed Funds rate increase. Several members suggested a June increase given the positive economic data and outlook, while others pointed to subdued inflation due to energy prices and the appreciating dollar as reasons to wait until 2016. However, members reiterated their expectation that, even when employment and inflation reach targeted levels, the Fed Funds rate may remain below normal long-term levels for some time.

For the third consecutive quarter, the price of a light, sweet crude oil futures contract declined. In a volatile quarter, the price per barrel dipped to a 52-week low of \$43.46/barrel on March 17<sup>th</sup> before rebounding to close the quarter at \$47.60/barrel. American consumers benefitted again from the sell-off as the price for a gallon of gasoline was below \$2.15 per gallon for six straight weeks.

In financial markets, listed equity markets advanced for the quarter. The Health Care and Consumer Discretionary sectors carried the *Russell 3000 Index* to a quarterly gain of 1.8%, compensating for the underperforming Energy and Utilities sectors. Globally, international markets, as represented by the *MSCI World ex-US Index*, increased 3.8% and the *MSCI Emerging Markets Free (net) Index* added 2.2%.

In Fixed Income markets, the *Barclays Aggregate Index* gained 1.6% in a choppy quarter. Rates were fairly volatile during the quarter as strong jobs reports in January and February pushed rates higher, but the trend reversed in March after the release of weak economic data. 30-year U.S. Treasury yields fell from 2.8% to 2.5% and 10-year yields slid from 2.2% to 1.9%. Convertibles, coming off a strong performance in 2014, added 3.3% for the quarter, followed by High Yield, which increased by 2.5%.

#### **SBI Portfolio**

Quarterly performance for the SBI's portfolio outpaced the overall markets. For the equity allocation, domestic equities returned 2.2%, which was 40 basis points (bps) greater than the *Russell 3000 Index*, and international and emerging market stocks advanced by 3.8%, which bested

its aggregate benchmark by 30 bps. The fixed income allocation added 1.7%, which slightly beat the *Barclays Aggregate Index* by 10 bps.

#### **Domestic Equity**

Domestically, large cap growth managers slightly trailed the *Russell 1000 Growth Index* as poor stock selection, particularly in the Consumer Discretionary sector, was a drag on performance. Conversely, large cap value managers beat the *Russell 1000 Value Index* for the quarter. Stock selection, particularly in the Healthcare sector, boosted returns. Within small cap equity, active small cap growth managers collectively exceeded the *Russell 2000 Growth Index*. Stock selection in the Healthcare sector set the pace, while stock picking in the Consumer Staples, Financials, and Consumer Discretionary sectors also contributed to the outperformance. It was a similar story for active small cap value managers as the overall sleeve outpaced the *Russell 2000 Value Index* for the quarter. Stock selection in the Financials sector provided the largest boost to performance, while stock picking in the out-of-favor Energy sector also buoyed relative returns.

#### **International Equity**

International equities posted strong returns in local currencies, but the appreciating U.S. dollar meant returns in USD terms were smaller. Active managers outperformed the MSCI World ex-USA Index (net) for the quarter, as stock selection and sector allocation added alpha. Sector allocation was positive in Utilities, Energy, and Consumer Discretionary. Stock selection was positive in Consumer Staples, Materials, and Energy. Semi-passive managers outperformed the benchmark due to stock selection in Healthcare, Energy and Consumer Discretionary.

# **Emerging Markets Equity**

Within Emerging Markets, the portfolio underperformed MSCI Emerging Markets Free (net) Index. During the quarter, active managers detracted from overall performance due to poor stock selection in China, Korea, and the Information Technology sector. The passive Emerging Markets portfolio produced negative tracking error primarily due to an underweight in restricted stocks (Iran and Sudan) in the benchmark, coupled with the subsequent overweight positions in non-restricted names.

#### **Fixed Income**

For the SBI's Fixed Income allocation, both the active and semi-passive mangers topped the *Barclays Aggregate Index* for the quarter. Security selection in the Corporate sector, combined with an overweight to CMBS positions, contributed to the outperformance. An overall underweight to duration in the aggregate portfolio detracted from performance as rates fell throughout March.

Sources: Bloomberg, FactSet, J.P. Morgan, Minutes of the Federal Open Market Committee, MSCI, U.S. Energy Information Administration, Wall Street Journal

<sup>\*</sup> Estimated USD equivalent given a \$1.161/€ foreign exchange rate on January 21, 2015.

# Public Markets Manager Activity First Quarter 2015

#### **Manager Summary**

For the quarter, the vast majority of investment managers performed in line with our expectations and no commentary was necessary. There were some noteworthy manager developments for the quarter involving McKinley, Mellon Capital, PIMCO, and SSgA.

# **McKinley**

The firm has experienced asset losses and staff turnover in past few years. Despite these challenges, performance has improved over recent periods as momentum has regained favor for the domestic small cap growth and international developed equity portfolios. Staff will continue to monitor.

#### **Mellon Capital**

On March 11, 2015, the SBI was informed that the Head of Active Equity Strategies, Warren Chiang, was resigning from his position effective March 20, 2015. In this position, Mr. Chiang was responsible for managing a team of portfolio managers and researchers that worked on all U.S. and international enhanced and active equity funds. As a reminder, Mellon uses a team approach to manage a quantitative, semi-passive, large cap portfolio for the SBI that is, by design, not overly reliant on any one individual. Staff does not expect any material change to the process, but will continue to monitor the portfolio.

#### **PIMCO**

In February, PIMCO's Chief Economist, Paul McCulley, stepped down from his position. Mr. McCulley had returned to PIMCO on a part time basis in May 2014 after the departure of Mohmed El-Erian. PIMCO hired former Morgan Stanley chief economist, Joachim Fels, to replace McCulley as its new economist. Staff has no concerns with the change, but will monitor the situation. Additionally, on Wednesday, April 29<sup>th</sup>, PIMCO announced that former Federal Reserve Chairman Ben Bernanke would become a Senior Advisor to the firm contributing his economic expertise to the firm's investment process.

#### SSgA

In April 2015, Ron O'Hanley was named CEO and President of SSgA. He succeeded Scott Powers who announced his intention to retire from the firm. Staff has no concerns with the change, but will monitor the situation.

# 2015 Manager Meetings

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

In	vestment Manager	Asset Class
•	AQR Capital Management, LLC	International Equity
•	Pyramis Global Advisors Trust Company	International Equity
•	State Street Global Advisors (SSgA)	International Equity
•	Goldman Sachs Asset Management	Fixed Income
•	BlackRock Financial Management, Inc.	Fixed Income
•	Barrow, Hanley, Mewhinney & Strauss, Inc.	Domestic Equity
•	Earnest Partners, LLC	Domestic Equity
•	LSV Asset Management	Domestic Equity
•	Goldman Sachs Asset Management, L.P.	Domestic Equity
•	Next Century Growth Investors, LLC	Domestic Equity
•	Peregrine Capital Management, Inc.	Domestic Equity

# Non-Retirement Manager Update First Quarter 2015

## **Domestic Equities**

#### **GE Asset Management**

The performance in the domestic equity portfolio lagged its benchmark, the S&P 500, for the quarter and for the year. Stock selection in information technology, energy, and financials were the key performance detractors for the quarter and year. An overweight in financials also impacted returns for the quarter.

#### **Internal Stock Pool**

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

#### Fixed Income

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

The fixed income portfolio slightly underperformed its benchmark, the Barclays Intermediate Government, for the quarter and for the year. The underperformance for the quarter and the year was primarily from the portfolio's slightly shorter duration relative to the benchmark.

#### **Internal Bond Pool**

The performance in the bond portfolio outperformed its benchmark for the quarter and for the year. For the quarter, an overweight to corporate bonds contributed to performance. For the year, relative performance benefited from a flattening yield curve position and security selection.

# Deferred Compensation Managers First Quarter 2015

# **Domestic Equities**

#### **Janus Twenty**

The domestic equity portfolio underperformed its benchmark, the S&P 500, for the quarter and for the year. Stock selection has the largest impact on performance due to the portfolio's concentrated investment strategy. Stocks in information technology, consumer discretionary and the consumer staples sectors were the largest detractors to performance for the quarter and the year.

### Vanguard Institutional Index Plus

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

### Vanguard Mid-Cap Index

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

#### T. Rowe Price

The small cap equity portfolio underperformed the benchmark, the Russell 2000, for the quarter but outperformed for the year. For the year, positive stock selection in healthcare, industrial, and consumer discretionary sectors benefited returns.

#### **International Equities**

#### **Fidelity Diversified International**

The portfolio outperformed the benchmark, the MSCI EAFE Free, for the quarter and the year. Sector allocation contributed to relative outperformance for the quarter and the year with an overweight in health care and underweight positions in the utilities and energy sectors. Stock selection was also positive for the quarter and the year primarily from financials and health care holdings.

#### Vanguard Total International Stock Index

The portfolio outperformed its benchmark, the FTSE Global All Cap ex US Index, for the quarter and underperformed for the year. Tracking error for this portfolio is due to fair value pricing. The price adjustments should even out over time.

#### **Fixed Income**

# **Dodge & Cox Income Fund**

The portfolio underperformed the benchmark, the Barclays Aggregate, for the quarter and the year primarily from the portfolio's defensive duration positioning. The quarter return also lagged from exposure to Brazil-related credit holdings that experienced headline risk and a credit rating downgrade.

# Vanguard Total Bond Market Index

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

# **Balanced and Conservative Options**

#### Vanguard Balanced

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

#### **Galliard Capital Management**

The stable value portfolio outperformed its benchmark, the 3 Year Constant Maturity Treasury plus 0.45%, for the quarter and the year. For the quarter, the portfolio benefited from holdings in intermediate corporate bonds, and high quality ABS and CMBS. For the year, an overweight to non-Treasury sectors and positions in intermediate corporate bonds continued to benefit returns.



# STATE BOARD OF INVESTMENT

# **Domestic Equity Manager Performance Summaries**

First Quarter 2015

# MINNESOTA STATE BOARD OF INVESTMENT

# **Domestic Equity**

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# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

# Periods Ended March 31, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	3.2	12.5	16.3	16.2
Russell 1000 Growth Index	3.8	16.1	16.3	15.6
Russell 1000 Value Aggregate	0.9	10.6	17.3	13.8
Russell 1000 Value Index	-0.7	9.3	16.4	13.8
Russell 2000 Growth Aggregate	10.2	7.5	15.5	14.7
Russell 2000 Growth Index	6.6	12.1	17.7	16.6
Russell 2000 Value Aggregate	3.1	8.8	17.8	16.0
Russell 2000 Value Index	2.0	4.4	14.8	12.5
Active Manager Aggregate	3.0	10.7	16.5	14.8
Benchmark	2.1	11.3	16.3	14.6
Semi-Passive Aggregate	1.9	13.7	17.1	15.2
Benchmark	1.6	12.7	16.4	14.7
Passive Manager (BlackRock)	1.8	12.4	16.4	14.7
Russell 3000 Index	1.8	12.4	16.4	14.7
Total Aggregate	2.2	12.4	16.8	14.9
Russell 3000 Index	1.8	12.4	16.4	14.7

# Calendar Years

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

# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

## Periods Ended March 2015

## Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Russell 1000 Growth Index	3.8	16.1	16.3	15.6	
INTECH	5.4	17.3	17.5	16.5	8.1
Benchmark	3.8	16.1	16.3	15.6	8.7
Jacobs Levy	4.3	16.4	16.9	16.9	7.7
Benchmark	3.8	16.1	16.3	15.6	8.7
Sands Capital	0.6	9.1	16.0	19.6	10.5
Benchmark	3.8	16.1	16.3	15.6	8.7
Winslow-Large Cap	3.2	16.0	15.1	15.1	9.8
Benchmark	3.8	16.1	16.3	15.6	8.7
Zevenbergen Capital	2.7	6.0	16.1	14.4	10.3
Benchmark	3.8	16.1	16.3	15.6	9.2
Aggregate	3.2	12.5	16.3	16.2	
Russell 1000 Value Index	-0.7	9.3	16.4	13.8	
Barrow, Hanley	0.5	9.7	17.1	13.5	8.2
Benchmark	-0.7	9.3	16.4	13.8	7.7
Earnest Partners	1.7	13.7	14.7	12.1	6.5
Benchmark	-0.7	9.3	16.4	13.8	7.0
LSV Asset Mgmt.	1.0	11.2	20.0	15.7	9.3
Benchmark	-0.7	9.3	16.4	13.8	7.7
Systematic Financial Mgmt.	0.4	8.6	15.8	12.7	7.7
Benchmark	-0.7	9.3	16.4	13.8	7.7
Aggregate	0.9	10.6	17.3	13.8	

Note: All aggregates include the performance of terminated managers

<sup>(1)</sup> Since inception by the SBI. Time period varies for each manager.

# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

### Periods Ended March 2015

## Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Small Cap					
Russell 2000 Growth Index	6.6	12.1	17.7	16.6	
McKinley Capital	10.1	11.1	22.2	18.3	8.0
Benchmark	6.6	12.1	17.7	16.6	9.5
Next Century Growth	10.3	3.9	11.3	12.7	3.4
Benchmark	6.6	12.1	17.7	16.6	4.8
Aggregate	10.2	7.5	15.5	14.7	
Russell 2000 Value Index	2.0	4.4	14.8	12.5	<del></del>
Goldman Sachs	3.1	8.5	17.2	16.1	10.3
Benchmark	2.0	4.4	14.8	12.5	8.2
Hotchkis & Wiley	2.0	12.3	21.9	18.2	9.7
Benchmark	2.0	4.4	14.8	12.5	8.2
Martingale Asset Mgmt.	4.7	9.8	19.6	16.5	8.3
Benchmark	2.0	4.4	14.8	12.5	8.2
Peregrine Capital	3.0	5.9	14.7	14.2	11.0
Benchmark	2.0	4.4	14.8	12.5	10.1
Aggregate	3.1	8.8	17.8	16.0	
Active Mgr. Aggregate (2)	3.0	10.7	16.5	14.8	

Note: All aggregates include the performance of terminated managers

<sup>(1)</sup> Since inception by the SBI. Time period varies for each manager.

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

# COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS

## Periods Ended March 2015 Versus Manager Benchmarks

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Semi-Passive Managers (2)					
BlackRock Institutional	2.2	14.4	17.2	15.3	9.7
Benchmark	1.6	12.7	16.4	14.7	9.4
INTECH	2.0	11.8	16.4	14.7	14.7
Benchmark	1.6	12.7	16.4	14.7	14.7
JP Morgan	1.4	13.6	17.5	15.3	9.7
Benchmark	1.6	12.7	16.4	14.7	9.4
Mellon Capital	2.1	15.0	17.3	15.6	9.1
Benchmark	1.6	12.7	16.4	14.7	9.4
Semi-Passive Aggregate (R1000)	1.9	13.7	17.1	15.2	
Passive Manager (R3000)					
BlackRock Institutional	1.8	12.4	16.4	14.7	9.1
Benchmark	1.8	12.4	16.4	14.7	9.0
Total Aggregate (3)	2.2	12.4	16.8	14.9	10.5
Benchmark	1.8	12.4	16.4	14.7	10.7
Russell 3000 Index	1.8	12.4	16.4	14.7	11.0
Russell 1000 Index	1.6	12.7	16.4	14.7	11.1
Russell 2000 Index	4.3	8.2	16.3	14.6	9.7

Note: All aggregates include the performance of terminated managers.

<sup>(1)</sup> Since retention by the SBI. Time period varies for each manager.

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

<sup>(3)</sup> 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.

# COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS

	March 31, 2015		December 31, 2014	
	Market Value	Percent	Market Value	Percent
Russell 1000 Growth Aggregate	\$2,971,562,468	10.0%	\$2,880,098,945	9.7%
INTECH	\$619,544,923	2.1%	\$587,683,894	2.0%
Jacobs Levy	\$711,647,175	2.4%	\$682,462,223	2.3%
Sands Capital	\$699,793,568	2.4%	\$695,508,374	2.4%
Winslow-Large Cap	\$316,899,187	1.1%	\$307,025,537	1.0%
Zevenbergen Capital	\$623,677,615	2.1%	\$607,418,917	2.1%
Russell 1000 Value Aggregate	\$3,039,990,343	10.3%	\$3,014,224,554	10.2%
Barrow Hanley	\$839,452,455	2.8%	\$835,071,337	2.8%
Earnest Partners	\$575,157,031	1.9%	\$565,730,766	1.9%
LSV Asset Mgmt.	\$850,708,432	2.9%	\$842,112,563	2.8%
Systematic Financial Mgmt.	\$774,672,424	2.6%	\$771,309,888	2.6%
Russell 2000 Growth Aggregate	\$831,264,455	2.8%	\$754,327,910	2.6%
McKinley Capital	\$426,038,197	1.4%	\$386,855,528	1.3%
Next Century Growth	\$405,226,258	1.4%	\$367,472,382	1.2%
Russell 2000 Value Aggregate	\$1,141,657,104	3.9%	\$1,107,007,845	3.7%
Goldman Sachs	\$282,508,633	1.0%	\$274,081,551	0.9%
Hotchkis & Wiley	\$266,267,538	0.9%	\$260,975,024	0.9%
Martingale Asset Mgmt.	\$228,590,747	0.8%	\$218,423,911	0.7%
Peregrine Capital	\$364,290,185	1.2%	\$353,527,360	1.2%
Semi-Passive Manager Aggregate	\$11,590,320,730	39.1%	\$11,371,158,446	38.5%
BlackRock Institutional	\$2,548,181,271	8.6%	\$2,492,259,601	8.4%
NTECH	\$2,773,098,556	9.4%	\$2,718,869,730	9.2%
JP Morgan	\$3,291,043,568	11.1%	\$3,244,616,246	11.0%
Mellon Capital	\$2,977,997,335	10.1%	\$2,915,412,870	9.9%
Passive Manager	\$10,042,233,399	33.9%	\$10,431,160,851	35.3%
BlackRock Institutional	\$10,042,233,399	33.9%	\$10,431,160,851	35.3%
Total Portfolio	\$29,617,028,499	100.0%	\$29,557,978,551	100.0%

# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

## Calendar Year Returns Russell Style Manager Benchmarks

	2014	2013	2012	2011	2010
LARGE CAP					
Russell 1000 Growth Index	13.0	33.5	15.3	2.6	16.7
INTECH	12.8	34.1	17.8	0.1	19.5
Jacobs Levy	12.9	37.0	13.0	6.6	19.5
Sands Capital	9.1	42.4	24.2	2.7	26.8
Winslow - Large Cap	11.0	37.4	13.7	0.1	16.8
Zevenbergen Capital	3.4	60.6	8.0	-9.8	22.9
Aggregate	9.6	42.0	15.5	-0.4	19.3
Russell 1000 Value Index	13.5	32.5	17.5	0.4	15.5
Barrow, Hanley	13.0	35.5	15.5	1.7	10.4
Earnest Partners	14.0	32.0	10.7	-4.7	18.5
LSV Asset Mgmt.	14.0	41.2	20.4	-0.8	14.0
Systematic Financial Mgmt.	11.6	35.0	18.2	-7.4	18.1
Aggregate	13.1	36.5	16.9	-2.1	15.0
SMALL CAP					
Russell 2000 Growth Index	5.6	43.3	14.6	-2.9	29.1
McKinley Capital	2.0	51.6	23.2	-7.9	28.5
Next Century Growth	-6.5	50.3	1.9	-4.5	29.6
Aggregate	-3.4	47.2	12.0	-5.6	29.1
Russell 2000 Value Index	4.2	34.5	18.1	-5.5	24.5
Goldman Sachs	7.4	39.3	16.6	1.3	27.0
Hotchkis & Wiley	13.0	46.0	24.1	-10.8	43.4
Martingale Asset Mgmt.	7.3	43.1	20.1	-5.2	27.4
Peregrine Capital	4.1	37.3	18.8	-4.1	27.3
Aggregate	7.5	40.8	19.6	-4.5	30.5
200	9.3	40.2	15.4	2.7	10.7
Active Mgr. Aggregate	9.3	40.2	15.4	-2.7	19.7

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.

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

# COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS

## Calendar Year Returns Versus Manager Benchmarks

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

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



# STATE BOARD OF INVESTMENT

# **International Manager Performance Summaries**

First Quarter 2015

# MINNESOTA STATE BOARD OF INVESTMENT

## **International Managers**

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## COMBINED RETIREMENT FUNDS INTERNATIONAL MANAGERS Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Developed Markets (2)					
Acadian	3.2	-1.9	10.7	7.9	5.4
Benchmark	3.8	-1.4	8.2	5.7	5.3
Columbia	6.3	3.9	9.4	8.0	2.3
Benchmark	3.8	-1.4	8.2	5.7	3.2
J.P. Morgan	3.5	-0.8	7.7	6.0	5.3
Benchmark	3.8	-1.4	8.2	5.7	5.3
Marathon Asset Management	6.0	0.6	11.4	8.9	8.6
Benchmark	3.8	-1.4	8.2	5.7	5.2
McKinley	2.6	-1.1	10.4	6.9	4.9
Benchmark	3.8	-1.4	8.2	5.7	5.3
Pyramis (Fidelity)	4.8	0.2	10.4	7.9	7.0
Benchmark	3.8	-1.4	8.2	5.7	5.3
Aggregate	4.7	0.3	10.1	7.5	
Benchmark	3.8	-1.4	8.2	5.7	
Active Emerging Markets (3)					
Capital International	0.8	-2.9	-1.3	-0.8	9.6
Benchmark	2.2	0.4	0.3	1.7	10.4
Morgan Stanley	3.0	1.1	2.6	3.4	11.1
Benchmark	2.2	0.4	0.3	1.7	10.4
Aggregate	2.0	-0.8	0.7	1.2	
Benchmark	2.2	0.4	0.3	1.7	
Semi-Passive Developed Markets (2)					
AQR	4.2	-1.7	10.5	7.1	5.9
Benchmark	3.8	-1.4	8.2	5.7	5.3
Pyramis (Fidelity)	4.4	0.1	9.8	7.3	6.3
Benchmark	3.8	-1.4	8.2	5.7	5.3
tate Street	4.7	-2.4	9.5	5.7	4.9
Benchmark	3.8	-1.4	8.2	5.7	5.3
Aggregate	4.4	-1.1	9.9	6.8	
Benchmark	3.8	-1.4	8.2	5.7	

<sup>(1)</sup> Since inception by the SBI. Time period varies for each manager.

<sup>(2)</sup> 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).

<sup>(3)</sup> 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 March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Passive Developed Markets (2)					
State Street	3.9	-1.0	8.6	6.2	6.5
Benchmark	3.8	-1.4	8.2	5.7	6.2
Passive Emerging Markets (3)					
State Street	2.1	0.7	0.6		4.5
Benchmark	2.2	0.4	0.3	==	4.4
Equity Only (4) (6)	3.8	-0.6	7.4	5.5	6.8
Benchmark	3.5	-1.0	6.4	4.8	6.3
Total Program (5) (6)	3.8	-0.6	7.4	5.5	7.0
Benchmark	3.5	-1.0	6.4	4.8	6.3
SBI Int'l Equity Target (6)	3.5	-1.0	6.4	4.8	6.3
MSCI ACWI Free ex USA (7)	3.5	-1.0	6.4	4.8	6.6
MSCI World ex USA (net)	3.8	-1.4	8.2	5.7	6.3
MSCI EAFE Free (net)	4.9	-0.9	9.0	6.2	6.2
MSCI Emerging Markets Free (8)	2.2	0.4	0.3	1.7	7.8

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

## COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Periods Ended March 2015

	March 31, 2015		December 31, 2014	
	Market Value	Percent	Market Value	Percent
Active Developed Markets	\$2,464,566,267	27.3%	\$2,354,028,295	27.0%
Acadian	\$373,770,189	4.1%	\$362,126,886	4.2%
Columbia	\$359,111,476	4.0%	\$337,832,839	3.9%
J.P. Morgan	\$300,732,818	3.3%	\$290,645,723	3.3%
Marathon	\$766,639,960	8.5%	\$723,097,215	8.3%
McKinley	\$304,996,757	3.4%	\$297,369,509	3.4%
Pyramis (Fidelity)	\$359,315,067	4.0%	\$342,956,124	3.9%
Active Emerging Markets	\$1,512,584,171	16.7%	\$1,483,506,291	17.0%
Capital International	\$709,042,540	7.8%	\$703,454,876	8.1%
Morgan Stanley	\$803,541,632	8.9%	\$780,051,415	9.0%
Semi-Passive Developed Markets	\$1,187,620,262	13.1%	\$1,137,362,640	13.1%
AQR	\$348,563,174	3.9%	\$334,360,307	3.8%
Pyramis (Fidelity)	\$523,088,657	5.8%	\$501,140,966	5.8%
State Street	\$315,968,431	3.5%	\$301,861,368	3.5%
Passive Developed Markets	\$3,572,038,192	39.5%	\$3,437,102,775	39.5%
State Street	\$3,572,038,192	39.5%	\$3,437,102,775	39.5%
Passive Emerging Markets	\$299,583,312	3.3%	\$293,452,816	3.4%
State Street	\$299,583,312	3.3%	\$293,452,816	3.4%
Total Portfolio	\$9,036,392,203	100.0%	\$8,705,452,818	100.0%

# COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS

#### Calendar Year Returns

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

<sup>(1)</sup> 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).

<sup>(2)</sup> 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).

<sup>(3)</sup> Equity managers only. Includes impact of terminated managers.

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

# COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS

#### Calendar Year Returns

	2014	2013	2012	2011	2010
Passive Developed Markets (1)					
State Street	-3.9	21.4	16.7	-11.9	9.9
Benchmark	-4.3	21.0	16.4	-12.2	8.9
Passive Emerging Markets (2)					
State Street	-2.1	-2.5	18.5	144	
Benchmark	-2.2	-2.6	18.2		
Equity Only (3) (4)	-4.0	17.8	17.6	-14.2	12.3
Benchmark	-3.9	15.3	16.8	-13.7	11.2
Total Program (4)	-4.0	17.8	17.6	-14.2	12.3
Benchmark	-3.9	15.3	16.8	-13.7	11.2
SBI Int'l Equity Target (5)	-3.9	15.3	16.8	-13.7	11.2
MSCI ACWI Free ex USA (net)	-3.9	15.3	16.8	-13.7	11.2
MSCI World ex USA (net)	-4.3	21.0	16.4	-12.2	8.9
MSCI EAFE Free (net)	-4.9	22.8	17.3	-12.1	7.7
MSCI Emerging Markets Free (net)	-2.2	-2.6	18.2	-18.4	18.9

<sup>(1)</sup> 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).

<sup>(2)</sup> 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).

<sup>(3)</sup> Equity managers only. Includes impact of terminated managers.

<sup>(4)</sup> 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**

First Quarter 2015

# MINNESOTA STATE BOARD OF INVESTMENT

## **Bond Managers**

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(by calendar year)	

## COMBINED RETIREMENT FUNDS **BOND MANAGERS** Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Managers					
Barclays Aggregate Index	1.6	5.7	3.1	4.4	
Aberdeen	1.9	6.5	4.3	5.9	5.9
Benchmark	1.6	5.7	3.1	4.4	5.8
Columbia (RiverSource)	1.7	5.6	3.9	5.4	5.8
Benchmark	1.6	5.7	3.1	4.4	5.8
Dodge & Cox	1.4	5.0	4.5	5.4	6.8
Benchmark	1.6	5.7	3.1	4.4	5.8
PIMCO	1.8	5.9	4.2	5.5	7.2
Benchmark	1.6	5.7	3.1	4.4	5.3
Western	2.0	6.5	4.5	6.0	9.0
Benchmark	1.6	5.7	3.1	4.4	7.8
Active Mgr. Aggregate	1.8	5.9	4.3	5.6	
Semi-Passive Managers					
BlackRock	1.7	5.9	3.4	4.7	5.8
Benchmark	1.6	5.7	3.1	4.4	5.8
Goldman	1.7	5.9	3.6	5.0	6.1
Benchmark	1.6	5.7	3.1	4.4	5.8
Neuberger	1.8	6.1	3.4	4.9	7.0
Benchmark	1.6	5.7	3.1	4.4	6.8
Semi-Passive Mgr. Aggregate	1.7	5.9	3.5	4.9	
Benchmark	1.6	5.7	3.1	4.4	
Historical Aggregate (2)	1.7	5.9	3.9	5.3	8.0
Benchmark	1.6	5.7	3.1	4.4	7.9
Barclays Aggregate Index (3)	1.6	5.7	3.1	4.4	7.9

Since inception by the SBI. Time period varies for each manager.
 Includes performance of terminated managers.
 Prior to July 1994, this index reflects the Solomon BIG.

# COMBINED RETIREMENT FUNDS BOND MANAGERS Periods Ending March 2015

	March 31, 2015		December 31, 2014	
	Market Value	Percent	Market Value	Percent
Semi-Passive	\$7,369,598,888	50.3%	\$7,244,056,550	50.3%
BlackRock	\$1,981,234,260	13.5%	\$1,947,308,427	13.5%
Goldman	\$2,764,439,384	18.9%	\$2,718,585,651	18.9%
Neuberger	\$2,623,925,245	17.9%	\$2,578,162,472	17.9%
Active Managers	\$7,281,769,910	49.7%	\$7,154,968,713	49.7%
Aberdeen	\$1,135,120,809	7.7%	\$1,113,715,771	7.7%
Columbia (RiverSource)	\$1,233,576,958	8.4%	\$1,212,656,160	8.4%
Dodge & Cox	\$1,549,603,158	10.6%	\$1,527,752,600	10.6%
PIMCO	\$1,647,750,431	11.2%	\$1,618,556,451	11.2%
Western	\$1,715,718,554	11.7%	\$1,682,287,731	11.7%
Total Portfolio	\$14,651,368,799	100.0%	\$14,399,025,263	100.0%

## COMBINED RETIREMENT FUNDS BOND MANAGERS Calendar Year Returns

	2014	2013	2012	2011	2010
Active Managers					
Aberdeen	6.7	-1.5	7.7	8.0	10.7
Benchmark	6.0	-2.0	4.2	7.8	6.5
Columbia (RiverSource)	5.8	-1.0	6.9	8.1	8.1
Benchmark	6.0	-2.0	4.2	7.8	6.5
Oodge & Cox	6.0	0.9	8.5	5.0	7.8
Benchmark	6.0	-2.0	4.2	7.8	6.5
IMCO	5.5	-1.3	9.3	4.5	12.1
Benchmark	6.0	-2.0	4.2	7.8	6.5
Vestern	7.0	-1.4	7.8	7.1	10.9
Benchmark	6.0	-2.0	4.2	7.8	6.5
active Mgr. Aggregate	6.2	-0.8	8.1	6.4	10.0
Benchmark	6.0	-2.0	4.2	7.8	6.5
emi-Passive Managers					
lackRock	6.0	-1.8	5.0	8.0	6.5
enchmark	6.0	-2.0	4.2	7.8	6.5
oldman	6.1	-1.7	5.4	8.3	8.0
enchmark	6.0	-2.0	4.2	7.8	6.5
euberger	6.1	-2.0	5.4	7.6	9.1
enchmark	6.0	-2.0	4.2	7.8	6.5
emi-Passive Mgr. Aggregate	6.1	-1.8	5.3	8.0	7.9
enchmark	6.0	-2.0	4.2	7.8	6.5
istorical Aggregate	6.1	-1.3	6.7	7.2	9.0
enchmark	6.0	-2.0	4.2	7.8	6.5
arclays Aggregate Index	6.0	-2.0	4.2	7.8	6.5

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



# STATE BOARD OF INVESTMENT

# **Non-Retirement Manager Performance Summaries**

First Quarter 2015

# MINNESOTA STATE BOARD OF INVESTMENT

## Non-Retirement Managers

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(by calendar year)	

# NON-RETIREMENT MANAGERS Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	0.6	11.5	16.1	13.0	10.2
S&P 500 Index	1.0	12.7	16.1	14.5	9.8
RBC Global Asset Management (2)	1.2	3.0	1.5	3.3	5.4
Barclays Intermediate Government	1.3	3.2	1.5	2.8	5.6
Internal Stock Pool	1.0	12.8	16.1	14.5	9.5
S&P 500 Index	1.0	12.7	16.1	14.5	9.4
Internal Bond Pool - Trust	1.7	5.8	4.0	4.7	6.6
Barclays Aggregate	1.6	5.7	3.1	4.4	6.1

<sup>(1)</sup> Since retention by the SBI. Time period varies for each manager.

<sup>(2)</sup> 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 March 2015

	March 31, 2015		December 31, 2014	
	Market Value	Percent	Market Value	Percent
GE Asset Management	\$62,882,075	2.1%	\$62,501,700	2.1%
RBC Global Asset Management	\$239,904,006	8.0%	\$233,126,786	7.9%
Internal Stock Pool	\$1,751,018,858	58.2%	\$1,735,303,024	58.5%
Internal Bond Pool - Trust	\$954,266,690	31.7%	\$933,621,102	31.5%
Total Portfolio	\$3,008,071,630	100.0%	\$2,964,552,613	100.0%

# NON-RETIREMENT MANAGERS Calendar Year Returns

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

<sup>(1)</sup> 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

First Quarter 2015

# MINNESOTA STATE BOARD OF INVESTMENT

## Deferred Compensation Plan and Minnesota College Savings Plan

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### MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS

#### Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (2)
Large Cap Equity					
Janus Twenty	0.3	10.9	14.0	11.0	4.2
S&P 500	1.0	12.7	16.1	14.5	4.6
Vanguard Institutional Index Plus	1.0	12.7	16.1	14.5	4.6
S&P 500	1.0	12.7	16.1	14.5	4.6
Mid Cap Equity					
Vanguard Mid-Cap Index	4.3	14.9	17.9	16.1	10.6
CRSP US Mid Cap (3)	4.3	15.0	18.1	16.2	10.6
Small Cap Equity					
T. Rowe Price Small-Cap Stock	3.9	8.8	16.7	16.9	10.6
Russell 2000	4.3	8.2	16.3	14.6	8.0
Balanced					
Vanguard Balanced Index Inst. Fund	1.8	9.8	11.0	10.8	7.5
60% CRSP US Tot Mkt, 40% Barclays Agg (4)	1.8	9.8	11.1	10.8	7.5
Fixed Income					
Dodge & Cox Income Fund	1.3	4.4	4.1	5.0	6.1
Barclays Aggregate	1.6	5.7	3.1	4.4	5.6
Vanguard Total Bond Market Index Inst.	1.6	5.6	3.1	4.4	4.8
Barclays Aggregate	1.6	5.7	3.1	4.4	4.8
SIF Money Market (1)	0.0	0.1	0.2	0.2	4.0
3 Month T-Bills	0.0	0.0	0.1	0.1	3.6
SIF Fixed Interest (1)					
Galliard Capital Management	0.5	1.8	2.2	2.8	4.8
3-Year Constant Maturity Treasury +45bp	0.3	1.4	1.1	1.1	3.7
International					
Fidelity Diversified International	6.4	3.8	11.0	7.7	7.1
MSCI EAFE Free	4.9	-0.9	9.0	6.2	4.1
Vanguard Total International Stock Index	4.1	-1.0	6.7	1. <del>47.</del>	3.1
FTSE Global All Cap ex US (5)	3.7	-0.5	6.9	-	3.3

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

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

# MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS

### Periods Ended March 2015

MN Target Retirement Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
SSgA			4.0		#111#
Income Fund	1.5	3.4	4.9		5.4
Income Fund Benchmark	1.5	3.5	5.1	***	5.5
2015 Fund	1.5	3.5	5.5		6.5
2015 Fund Benchmark	1.5	3.6	5.7	-	6.6
2020 Fund	1.8	4.5	7.4		8.2
2020 Fund Benchmark	1.8	4.6	7.5		8.3
2020 Tuna Beneminark	1.0		W		
2025 Fund	2.1	5.6	9.1		9.5
2025 Fund Benchmark	2.0	5.7	9.2	-	9.6
2030 Fund	2.4	6.4	10.1		10.2
2030 Fund Benchmark	2.2	6.5	10.2		10.3
2025 F I	2.5		10.9		10.6
2035 Fund	2.5	6.6	10.8		10.6
2035 Fund Benchmark	2.3	6.7	10.8		10.7
2040 Fund	2.6	6.7	11.2		10.5
2040 Fund Benchmark	2.4	6.8	11.2		10.6
2045 Fund	2.7	6.7	11.6		10.6
2045 Fund Benchmark	2.6	6.8	11.6		10.6
2050 Fund	2.8	6.7	11.6	-	10.6
2050 Fund Benchmark	2.6	6.8	11.7		10.7
2030 Fund Benefimark	2.0	0.0	11.7		10.7
2055 Fund	2.8	6.7	11.6	**	10.6
2055 Fund Benchmark	2.6	6.8	11.7		10.7
2060 Fund	2.8	6.7	11.6		10.6
2060 Fund Benchmark	2.6	6.8	11.7		10.7

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

<sup>(1)</sup> Since retention by the SBI. Time period varies for each manager.

## MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS Periods Ended March 2015

SSgA Index Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
S&P 500 Index Fund	0.9	12.7	16.1		15.2
S&P 500	1.0	12.7	16.1	-	15.2
DI LIDE Dall Calcat Commadity Index Fund	-5.4	-24.6			-9.7
DJ-UBS Roll Select Commodity Index Fund  DJ-UBS Roll Select Commodity Index	-3.4 -5.4	-24.6 -24.6			-9.7 -9.5
DJ-UBS Roll Select Commodity Index	-3.4	-24.0		-	-9.3
Russell Small/Mid Cap Index Fund	5.2	10.4		A MARKET	21.3
Russell Small Cap Completeness Index	5.2	10.3	<b></b>		21.3
Global All-Cap Equity ex-US Index Fund	4.2	-1.1	6.8		3.3
MSCI ACWI ex USA IMI	3.5	-1.3	6.5	) <u>444</u>	3.0
Global Real Estate Securities Index Fund	4.4	16.1	12.3		9.9
FTSE EPRA/NAREIT Dev Liquid	4.0	15.3	11.6		9.2
Long Government Bond Index Fund	3.9	21.0	7.6		11.1
Barclays Long Government	3.9	21.0	7.6		11.1
Bond Index Fund	1.6	5.8	3.1		3.9
Barclays Aggregate	1.6	5.7	3.1		3.9
Inflation Protected Bond Index Fund	1.4	3.1	0.6		2.6
Barclays U.S. TIPS	1.4	3.1	0.6	-	2.6
High Yield Bond Index Fund	2.6	1.6	6.8		7.1
Barclays U.S. High Yield Very Liquid	2.6	1.6	7.0	<b>**</b>	7.3
U.S. Short-Term Gov/Credit Index Fund	0.6	1.0	0.9		1.6
Barclays 1-3 Yr Govt/Credit	0.6	1.1	1.0		1.0

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

<sup>(1)</sup> Minnesota Target Retirement Funds inception date is July 2011.

# MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS

#### Calendar Year Returns

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

Numbers in blue include returns prior to retention by SBI.

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

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

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

MN Target Retirement Funds	2014	2013	2012	2011	2010
SSgA					
Income Fund	3.6	5.1	9.7	4.6	9.6
Income Fund Benchmark	3.8	5.3	9.8	4.8	10.1
2015 Fund	4.0	5.6	11.0	6.9	12.1
2015 Fund Benchmark	4.2	5.8	11.0	7.1	12.5
2020 Fund	5.3	8.8	12.5	7.3	13.6
2020 Fund Benchmark	5.5	9.1	12.5	7.4	13.9
2025 Fund	5.9	13.2	13.7	5.9	14.6
2025 Fund Benchmark	6.2	13.5	13.7	6.0	14.7
2030 Fund	6.3	16.0	14.3	4.9	15.1
2030 Fund Benchmark	6.6	16.3	14.1	5.0	15.3
2035 Fund	6.4	18.1	14.9	3.5	15.7
2035 Fund Benchmark	6.7	18.5	14.7	3.6	15.8
2040 Fund	6.4	19.7	15.5	1.5	15.9
2040 Fund Benchmark	6.6	20.0	15.3	1.6	16.1
2045 Fund	6.2	21.3	16.0	0.0	16.2
2045 Fund Benchmark	6.5	21.6	15.8	0.1	16.2
2050 Fund	6.2	21.4	15.9	0.1	16.1
2050 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2055 Fund	6.2	21.4	15.9	0.1	16.1
2055 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2060 Fund	6.2	21.4	16.0		
2060 Fund Benchmark	6.5	21.7	15.8		( <del></del>

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

Numbers in blue include returns prior to retentional by SBI.

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

SSgA Index Funds	2014	2013	2012	2011	2010
S&P 500 Index Fund	13.7	32.4	16.0	2.1	15.1
S&P 500	13.7	32.4	16.0	2.1	15.1
DJ-UBS Roll Select Commodity Index Fund	-15.3	-9.3			
OJ-UBS Roll Select Commodity Index	-15.2	-9.1		1	
Russell Small/Mid Cap Index Fund	7.5	38.4	Total	-	
Russell Small Cap Completeness Index	7.4	38.5			-
Global All-Cap Equity ex-US Index Fund	-4.2	15.4	18.2		-
MSCI ACWI ex USA IMI	-3.9	15.8	17.0	100	22
Global Real Estate Securities Index Fund	15.5	2.7	28.9	-5.4	19.1
FTSE EPRA/NAREIT Dev Liquid	15.0	2.5	27.5	-5.8	18.4
ong Government Bond Index Fund	24.6	-12.5	3.8	29.2	9.5
Barclays Long Government	24.7	-12.5	3.8	29.1	9.4
Bond Index Fund	6.0	-2.1	4.2	7.8	6.6
Barclays Aggregate	6.0	-2.0	4.2	7.8	6.5
nflation Protected Bond Index Fund	3.6	-8.6	6.9	13.5	6.2
Barclays U.S. TIPS	3.6	-8.6	7.0	13.6	6.3
High Yield Bond Index Fund	2.1	6.6	14.8	5.7	12.5
Barclays U.S. High Yield Very Liquid	2.1	6.6	15.4	6.1	15.1
J.S. Short-Term Gov/Credit Index Fund	0.7	0.6	3.9	1.5	2.4
Barclays 1-3 Yr Govt/Credit	0.8	0.6	1.3	1.6	2.8

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.

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

*	March 31, 2015 Market Value	Percent	December 31, 2014 Market Value	Percent
Large Cap Equity	\$1,528,503,642	26.5%	\$1,524,049,341	26.8%
Janus Twenty	\$535,876,974	9.3%	\$540,394,987	9.5%
Vanguard Institutional Index Plus	\$992,626,668	17.2%	\$983,654,354	17.3%
Mid Cap Equity	\$441,260,377	7.6%	\$416,082,332	7.3%
Vanguard Mid-Cap Index	\$441,260,377	7.6%	\$416,082,332	7.3%
Small Cap Equity	\$614,281,356	10.6%	\$598,147,784	10.5%
T. Rowe Price Small-Cap Stock	\$614,281,356	10.6%	\$598,147,784	10.5%
Fixed Income	\$457,025,343	7.9%	\$450,557,752	7.9%
Dodge & Cox Income Fund	\$209,588,575	3.6%	\$206,412,954	3.6%
Vanguard Total Bond Market Index Inst.	\$191,335,955	3.3%	\$183,654,799	3.2%
Money Market	\$56,100,813	1.0%	\$60,489,998	1.1%
Stable Value	\$1,306,026,420	22.6%	\$1,324,889,661	23.3%
Galliard Stable Value Composite	\$1,306,026,420	22.6%	\$1,324,889,661	23.3%
Balanced	\$690,936,059	12.0%	\$675,243,700	11.9%
Vanguard Balanced Index Inst. Fund	\$690,936,059	12.0%	\$675,243,700	11.9%
International	\$443,159,705	7.7%	\$419,226,751	7.4%
Fidelity Diversified International	\$284,063,983	4.9%	\$269,050,778	4.7%
Vanguard Total International Stock Index	\$159,095,722	2.8%	\$150,175,973	2.6%
Target Retirement Funds	\$290,116,977	5.0%	\$268,405,190	4.7%
Income Fund	\$69,144,923	1.2%	\$35,278,724	0.6%
2015 Fund		0.0%	\$33,995,510	0.6%
2020 Fund	\$69,484,910	1.2%	\$61,837,438	1.1%
2025 Fund	\$51,740,192	0.9%	\$48,514,935	0.9%
2030 Fund	\$33,654,589	0.6%	\$29,852,538	0.5%
2035 Fund	\$25,511,669	0.4%	\$22,987,776	0.4%
2040 Fund	\$15,334,358	0.3%	\$13,284,576	0.2%
2045 Fund	\$10,246,534	0.2%	\$9,156,925	0.2%
2050 Fund	\$7,342,078	0.1%	\$6,782,522	0.1%
2055 Fund	\$3,317,374	0.1%	\$2,993,718	0.1%
2060 Fund	\$4,340,348	0.1%	\$3,720,526	0.1%

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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Equity					
MNCSP US Intl Equity Allocation	3.0	9.2	13.3	12.1	6.7
MNCSP US Intl Equity Allocation Benchmark	2.9	9.3	13.6	12.4	7.8
MNCSP Equity Interest Allocation	1.1	-			3.6
MNCSP Equity Interest Benchmark	1.0				3.4
MNCSP Intl Eq Index Allocation	4.8	-1.0			5.6
MNCSP Intl Eq Index Allocation Benchmark	4.4	-0.5			6.2
MNCSP US LC Equity Allocation	0.9	-	N <del>ata</del>	2	8.2
MNCSP US LC Equity Allocation Benchmark	1.0	9 <del>00</del>		100	8.4
Fixed Income					
MNCSP Fixed Income Allocation	1.7	4.8	1.9	3.8	4.3
MNCSP Fixed Income Allocation Benchmark	1.7	5.1	2.5	4.4	5.1
MNCSP Principal Interest Allocation	0.3	1.2	1.3	1.8	2.8
MNCSP Principal Interest Allocation Benchmark	0.0	0.0	0.1	0.1	1.4
MNCSP Money Market Allocation	0.0	0.0	0.0	-0.1	0.3
MNCSP Money Market Allocation Benchmark	0.0	0.0	0.0	0.0	0.4

<sup>(1)</sup> Since retention by the SBI. Time periods varies for each option

## MINNESOTA COLLEGE SAVINGS PLAN ALLOCATION OPTIONS Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Allocation Options					
MNCSP Aggressive Allocation	2.8				5.4
MNCSP Aggressive Allocation Benchmark	2.6		-	-	5.4
MNCSP Moderate Allocation	2.5	7.4	8.8	8.8	5.1
MNCSP Moderate Allocation Benchmark	2.4	7.7	9.2	9.4	5.9
MNCSP Conservative Allocation	1.7			N <del>ame</del>	2.2
MNCSP Conservative Allocation Benchmark	1.6	( <del></del>	S <b>==</b> 0		2.2
Managed Allocation Options					
MNCSP Managed 0-4 Yrs	2.7	22		-	5.4
*MNCSP Managed 0-4 Yrs - Bench	2.6				5.4
MNCSP Managed 5-8 Yrs	2.5		(€€)	E	5.0
*MNCSP Managed 5-8 Yrs - Bench	2.5	-			5.0
MNCSP Managed 9-10 Yrs	2.4				4.6
*MNCSP Managed 9-10 Yrs - Bench	2.4			-	4.6
MNCSP Managed 11-12 Yrs	2.3				4.1
*MNCSP Managed 11-12 Yrs - Bench	2.2				4.1
MNCSP Managed 13-14 Yrs	2.0				3.6
*MNCSP Managed 13-14 Yrs - Bench	2.0	-	:##B		3.6
MNCSP Managed 15 Yrs	1.7				3.0
*MNCSP Managed 15 Yrs - Bench	1.6	; <b></b>			2.9
MNCSP Managed 16 Yrs	1.6	1246°	1888		2.7
*MNCSP Managed 16 Yrs - Bench	1.4				2.5
MNCSP Managed 17 Yrs	1.3		2 <u>255</u>	-	2.3
*MNCSP Managed 17 Yrs - Bench	1.2	-	**	-	2.1
MNCSP Managed 18+ Yrs	1.2	ins.	u <del>nia</del> s		2.0
*MNCSP Managed 18+ Yrs - Bench	1.0				1.6

<sup>(1)</sup> Since retention by the SBI. Time period varies for each option.

# MINNESOTA COLLEGE SAVINGS PLAN ALLOCATION OPTIONS UNDERLYING FUNDS Periods Ended March 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
TIAA-CREF:Bond Indx;Inst	1.6	5.7	2.9	4.3	
Barclays Aggregate Index	1.6	5.7	3.1	4.4	4.9
TIAA-CREF:EM Eq Idx;Inst	2.5	0.1	-0.1	( <del>ex</del>	
MSCI:Emer Markets	2.3	0.8	0.7	2.1	8.8
TIAA-CREF:Eq Idx;Inst	1.8	12.3	16.4	14.7	8.3
Russell 3000 Index	1.8	12.4	16.4	14.7	8.4
TIAA-CREF:Hi-Yld;Inst	2.9	2.3	7.0	8.4	-
ML:1-3 BB US HY CP	1.5	2.4	5.9	6.3	7.0
TIAA-CREF:Infl Bond;Inst	1.4	2.9	0.4	4.1	4.3
Barclays:US TIPS Index	1.4	3.1	0.6	4.3	4.6
TIAA-CREF:Itl Eq Ix;Inst	5.4	-1.0	9.1	6.3	5.0
MSCI:EAFE US\$	4.9	-0.9	9.0	6.2	4.9
TIAA-CREF:Money Mkt;Inst	0.0	0.0	0.0	0.0	1.6
MFR Avg All-Taxble	0.0	0.1	0.1	0.1	1.4
TIAA-CREF:Real Est;Inst	5.2	24.8	13.6	15.6	8.4
NAREIT All Equity Index	4.0	22.7	14.0	15.6	9.5
TIAA-CREF:S&P500 Idx;Ins	0.9	12.6	16.0	14.4	7.9
S&P 500 Index	1.0	12.7	16.1	14.5	8.0