AGENDA INVESTMENT ADVISORY COUNCIL MEETING

Tuesday, February 17, 2015 12:00 Noon State Board of Investment Retirement Systems Building Room 117 – Main Floor 60 Empire Drive, St. Paul, MN

1.	Approval of Minutes of November 18, 2014	TAE
2.	Report from the Executive Director	A
	A. Quarterly Investment Review (October 1, 2014 – December 31, 2014)	
	 B. Administrative Report Reports on Budget and Travel FY14 Audit Report Duluth Teachers Retirement Fund Association Update Target Date Funds for Unclassified Plan Participants Metropolitan Council Other Postemployment Benefits Sudan Update Iran Update Legislative Update Litigation Update Staff Announcements 	В
3.	Retirement Plans Presentation	
	Material to be provided at meeting.	
4.	Private Markets Report	C
	A. Review of current strategy	
	B. Consideration of investment commitments with four existing managers and two new managers	
5.	Public Markets, Non-Retirement, and Defined Contribution Report	D
6.	Other items	

INVESTMENT ADVISORY COUNCIL

MINUTES

February 17, 2015

Minutes Investment Advisory Council November 18, 2014

The Investment Advisory Council (IAC) met at 12:00 P.M. Tuesday, November 18, 2014 in the Board Room – First Floor, 60 Empire Drive, St. Paul, Minnesota.

MEMBERS PRESENT: Denise Anderson, Jeff Bailey, Dave Bergstrom, John Bohan, Kerry

Brick, Doug Gorence, Laurie Hacking, Kristin Hanson (for Jim Schowalter), Jay Kiedrowski, Gary Martin, Malcolm McDonald,

Mary Vanek, and Elaine Voss.

MEMBERS ABSENT: Dennis Duerst and Kim Faust.

SBI STAFF: Mansco Perry, LeaAnn Stagg, Patricia Ammann, Tammy

Brusehaver, Stephanie Gleeson, Inma Conde Goldman, Aaron Griga, Ryan Hill, Andrew Krech, Steve Kuettel, Cassandra Boll,

Mike Menssen, Charlene Olson, and Melissa Mader.

OTHERS ATTENDING: Ann Posey and Rod Bare, Callan Associates Inc.; Bert Black,

Celeste Grant, Christie Eller, Emily Johnson Piper, and Cumah Blake, Office of the Governor; Don Leathers and John Fisher, REAM; Jay Stoffel, Teachers Retirement Association; Zachary Yzermans, Carmen Marg-Patton, and Natalie Mehlhorn, Office of the Legislative Auditor; Edgar Hernandez, SEIU; David Smith, Minnesota Break the Bonds; and Gordon Voss, private citizen.

The minutes of the August 19, 2014 meeting were approved.

Executive Director's Report

Mr. Perry referred members to Tab A of the meeting materials. He reported that the Combined Funds had outperformed its Composite Index over the ten year period ending September 30, 2014 (Combined Funds 8.3% vs. Composite 8.0%) and had provided a real rate of return of 6.5% above inflation over the latest 20 year period (Combined Funds 8.9% vs. CPI 2.4%).

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

Mr. Perry reported that the domestic stock manager group performed in-line with its target for the quarter (Domestic Stocks 0.0% vs. Domestic Equity Asset Class Target 0.0%), slightly underperformed for the year (Domestic Stocks 17.6% vs. Domestic Equity Asset Class Target 17.8%), and outperformed in longer time periods. He said the international stock manager group

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

Mr. Perry referred members to Tab B of the meeting materials for an update on the budget and travel for the quarter. He stated that the SBI was currently below budget. Next, he noted the FY14 Legislative Auditor report was being completed by year end and would be distributed to IAC members as soon as it is available. He also mentioned that a draft copy of the FY14 annual report would be distributed in December to Board and IAC members for review. The final version was expected to be published in January. Mr. Perry stated that the Sudan and Iran legislative updates were provided.

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

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

Mr. Perry informed Board members that, going forward, Staff will streamline and improve the manager reports. The goal is to focus on longer term performance and summary manager information. IAC members were reminded they are welcome to contact SBI staff should they desire to read additional manager commentary or to request a Private Placement Memorandum for an Alternative Investment manager.

Mr. Perry asked for an update on the funded status of the pension funds present. Mr. Bergstrom stated that as of June 30^{th} , MSRS was approximately 91.4% funded. Ms. Vanek reported that PERA was roughly 81% funded and Ms. Hacking stated that TRA was slightly higher at 83% funded as of June 30^{th} .

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

Mr. Bailey led a brief discussion regarding the quarterly report changes to ensure that all IAC members were comfortable with the proposed changes. Members who wanted to continue receiving specific information were directed to contact staff to receive manager documents.

Mr. Perry introduced Mr. Hill and Mr. Krech, members of the SBI Alternative Investment team, to discuss the six alternative investment recommendations. Mr. Hill and Mr. Krech described each

of the six recommendations in detail to IAC members and answered questions. The six deals were NGP Energy Capital Management (Resource); Sheridan Production Partners (Resource); Welsh, Carson, Anderson & Stowe (Private Equity); Paine & Partners (Private Equity); Oaktree Capital Management (Private Equity); and TCW Direct Lending Group (Yield Oriented). Mr. McDonald moved approval of all six alternative investment recommendations and Ms. Voss seconded the motion. The motion passed.

Mr. Perry introduced the second presentation, Transition Management, which was led by Ms. Brusehaver. Given the topic of transition management was initially brought to the committee in August, Ms. Brusehaver provided an update to the RFI process and recommended that the SBI retain five large and experienced managers to provide transition management services. The managers were BlackRock, Inc., Citigroup Global Markets Inc., Northern Trust Investments, Inc., Russell Implementation Services Inc., and State Street Bank Global Markets. Mr. Kiedrowski moved approval and Ms. Anderson seconded the motion. The motion passed.

Mr. Perry introduced the third presentation, led by Ms. Stagg, which apprised the IAC members of the issue surrounding the internally managed S&P 500 Index portfolio. Given the Dodd–Frank Wall Street Reform and Consumer Protection Act and the resulting impact on the Staff's ability to trade futures contracts, the SBI requested authorization to retain an external manager to manage the Internal Stock Fund if Staff is unable to enter into a new futures trading agreement. Mr. McDonald moved approval and Mr. Bergstrom seconded the motion. The motion passed.

Mr. Perry updated members on the manager retention policy. A paper detailing the policy was included under Tab D.

Mr. Perry introduced Mr. Griga and Ms. Boll to provide an update on Pacific Investment Management Company (PIMCO). Mr. Griga and Ms. Boll discussed staff turnover, organizational changes, the investment process, and the impact on the SBI's separately managed account. While there was no action item regarding PIMCO, the SBI staff will be monitoring the situation closely and will keep the IAC apprised of any developments. In addition, the SBI will develop a list of potential candidates in the event it becomes necessary to replace PIMCO.

The meeting adjourned at 3:04 p.m.

Respectfully submitted,

Mansco Perry III

Executive Director and Chief Investment Officer

TAB A

LONG TERM OBJECTIVES

Period Ending 12/31/14

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

⁽¹⁾ Performance is calculated net of fees.

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

EXECUTIVE SUMMARY

Combined Funds (Net of Fees)

Asset Growth

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

Asset Growth During Fourth Quarter 2014 (Millions)

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

Combined Funds Market Value

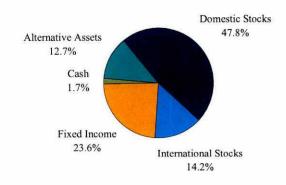


Asset Mix

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

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

^{*} Any uninvested allocation is held in bonds.



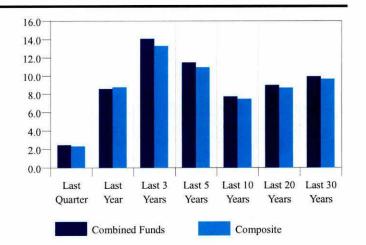
Fund Performance (Net of Fees)

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

Periods Ended 12/31/14

Note: All periods over one year are annualized.

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



EXECUTIVE SUMMARY

Stock and Bond Manager Performance (Net of Fees)

Domestic Stocks

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

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

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

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

International Stocks

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

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

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

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

Bonds

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

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

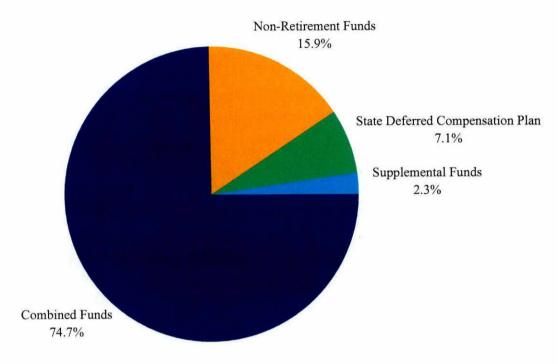
		Periods Ended 12/31/14					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years		
Bonds	1.7%	6.1%	3.8%	5.5%	5.0%		
Asset Class Target	1.8%	6.0%	2.7%	4.4%	4.7%		

Alternative Investments

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

EXECUTIVE SUMMARY

Funds Under Management



	12/31/14 Market Value (Billions)
Retirement Funds	
Combined Funds	\$60.0
Supplemental Investment Fund	1.8
(Excluding Deferred Compensation Plan Assets)	
State Deferred Compensation Plan	5.7
Non-Retirement Funds	
Assigned Risk Plan	0.3
Permanent School Fund	1.2
Environmental Trust Fund	0.9
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.1
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	8.6
Minnesota College Savings Plan	1.2
Total	\$80.3

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MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Fourth Quarter 2014 (October 1, 2014 - December 31, 2014)

Table of Contents Page Capital Market Indices_____ Financial Markets Review________3 Combined Funds 5 Stock and Bond Manager Pools______9 Alternative Investments _______10 Supplemental Investment Fund_______11 Fund Description Income Share Account Growth Share Account Common Stock Index Account International Share Account Bond Market Account Money Market Account Fixed Interest Account Volunteer Firefighter Account Deferred Compensation Plan 15 Assigned Risk Plan 21 Permanent School Fund 22 Environmental Trust Fund_______23 Closed Landfill Investment Fund_____ State Cash Accounts_____ Composition of State Investment Portfolios _______26

VARIOUS CAPITAL MARKET INDICES

Periods Ended December 31, 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity					
Russell 3000 (broad market)	5.2%	12.6%	20.5%	15.6%	7.9%
Russell 1000 (large cap)	4.9	13.2	20.6	15.6	8.0
Russell 2000 (small cap)	9.7	4.9	19.2	15.5	7.8
Dow Jones Wilshire Composite	5.2	12.5	20.4	15.7	8.1
Dow Jones Industrials	5.2	10.0	16.3	14.2	7.9
S&P 500	4.9	13.7	20.4	15.5	7.7
Domestic Fixed Income					
Barclays Aggregate (1)	1.8	6.0	2.7	4.4	4.7
Barclays Gov't/Credit	1.8	6.0	2.8	4.7	4.7
3 month U.S. Treasury Bills	0.0	0.0	0.1	0.1	1.5
International	e				
MSCI Emerging Markets Free Index (2)	-4.5	-2.2	4.0	1.8	8.4
MSCI ACWI ex USA (3)	-3.9	-3.9	9.0	4.4	5.1
MSCI EAFE (4)	-3.6	-4.9	11.1	5.3	4.4
MSCI World ex USA (5)	-3.7	-4.3	10.5	5.2	4.6
Salomon Non U.S. Gov't Bond	-2.9	-2.7	-1.9	0.9	2.6
Inflation Measure					
Consumer Price Index CPI-U (6)	-1.4%	0.8%	1.3%	1.7%	2.1%
Consumer Price Index CPI-W (7)	-1.8%	0.3%	1.1%	1.7%	2.1%

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

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

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

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

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

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

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

FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a 5.2% return for the fourth quarter of 2014. While the fourth quarter marked the end of quantitative easing, the rally in U.S. equities resumed, with gains fueled by Fed reassurance, foreign central bank stimulus, and encouraging domestic economic reports. Within the Russell 3000, Consumer Discretionary was the best performing sector with a 8.7% return while Energy was the weakest with a -13.3% return for the quarter. Small cap stocks outperformed large cap stocks during the quarter.

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

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

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

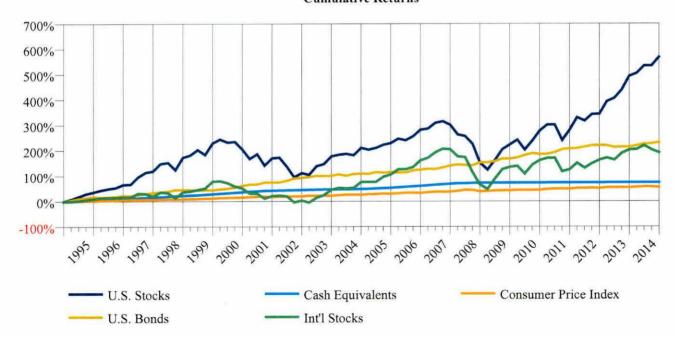
DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 1.8% for the quarter. Yields on shorter U.S. Treasuries decreased slightly during the quarter, while the long end decrease was more pronounced, resulting in a flattening of the yield curve. The 2-year U.S. Treasury ended the year lower than Q3 by 7 basis points at 0.7%, the 5-year decreased by 15 basis points to 1.7%, the 10-year decreased by 33 basis points to 2.2%, and the 30-year decreased by 45 basis points to 2.8%. Sector returns were evenly distributed, with United States Treasury Bonds slightly outperforming the benchmark during the quarter, and asset backed securities lagging.

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

U.S. Treasury	1.9%
Agency	1.5%
Corporates	1.7%
Agency MBS	1.8%
Commercial Mortgages	1.5%
Asset-Backed	0.6%

PERFORMANCE OF CAPITAL MARKETS Cumulative Returns



FINANCIAL MARKETS REVIEW

DEVELOPED INTERNATIONAL MARKETS

In aggregate, developed international stock markets (as measured by MSCI World ex USA Index net) provided a return of -3.7% for the quarter. World equities posted slightly positive returns in local currencies, however given the strong U.S. dollar, returns in U.S. dollar terms were negative. Important macroeconomic forces were weakness in Europe and Japan and the slowing down of economic growth in China. The top performing sectors for the quarter were Consumer Discretionary, Information Technology and Consumer Staples. The two worst performing sectors were Energy and Materials. The quarterly performance of the six largest stock markets, which comprise about 73% of the World ex U.S. index, is shown below:

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

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

EMERGING INTERNATIONAL MARKETS

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

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

The Emerging Markets Free index returned -2.2% during the last year.

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

REAL ESTATE

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

PRIVATE EQUITY

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

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

RESOURCE FUNDS

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

COMBINED FUNDS

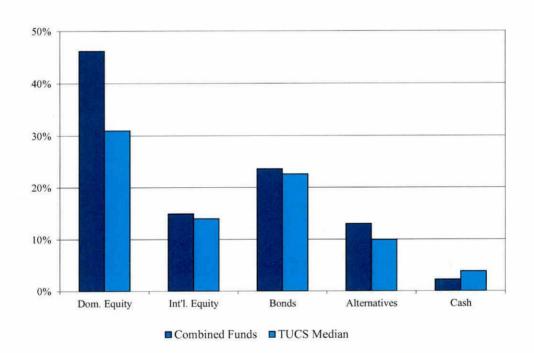
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

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

	\$ Million	%
Domestic Stocks	\$28,639	47.8%
International Stocks	8,511	14.2%
Bonds	14,139	23.6%
Alternative Assets	7,640	12.7%
Unallocated Cash	1,036	1.7%
Total	\$59,965	100.0%

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



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

^{*} Public and corporate plans over \$1 billion.

^{**} May include assets other than alternatives.

COMBINED FUNDS

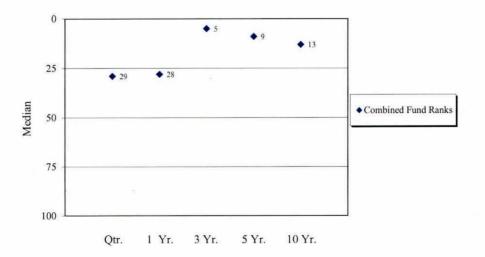
Performance Compared to Other Pension Funds

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

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

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

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



Periods Ended 12/31/14

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

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

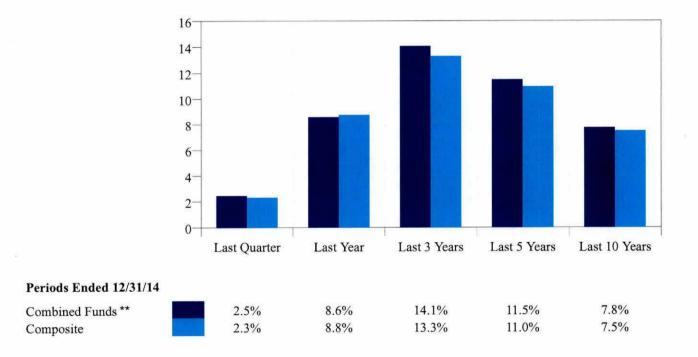
COMBINED FUNDS

Performance Compared to Composite Index

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

	Maret Index	Combined Funds Composite 4Q/14
Domestic Stocks	Russell 3000	45.0%
Int'l Stocks	MSCI ACWI Free ex USA	15.0%
Bonds	Barclays Capital Aggregate	25.0%*
Alternative Investments	Alternative Investments	13.0%*
Unallocated Cash	3 Month T-Bills	2.0%
11-11-11-11-11-11-11-11-11-11-11-11-11-		100.0%

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



^{**} 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

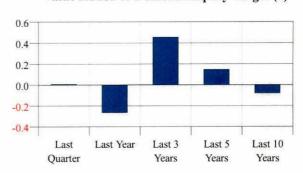
Expectation: If one-third of the pool is actively managed, one-third is semi-passively managed, and one-third is passively managed, the entire pool is expected to exceed the target by .18% - .40% annualized over time.

Periods Ended 12/31/14

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

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

Value Added to Domestic Equity Target (1)



International Stocks

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

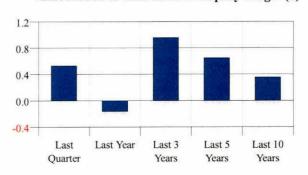
Expectation: If at least one-third of the pool is managed actively, no more than one-third is semi-passively managed, and at least one-quarter is passively managed, the entire pool is expected to exceed the target by .25% - .75% annualized, over time.

Periods Ended 12/31/14

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

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

Value Added to International Equity Target (1)



Bonds

Target: Barclays Capital Aggregate Bond Index

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

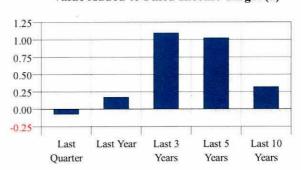
Periods Ended 12/31/14

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

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)

	THE WATER OF			
Altern	ative	nves	tmen	ts

Expectation: The Alternative investments are measured			Periods	Ended 1	2/31/14	
against themselves using actual portfolio returns.		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
	Alternatives	1.1%	18.0%	15.5%	14.6%	15.2%
	Inflation	-1.4%	0.8%	1.3%	1.7%	2.1%

Real Estate Investments (Equity emphasis)

Expectation:	Real	estate	investments	are	expected	to
exceed the rate	of infl	ation by	5% annualize	ed, o	ver 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.

	CALL TO SE	Periods	Ended 1	2/31/14	
	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Real Estate	3.6%	16.9%	12.8%	11.1%	7.6%

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

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

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

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

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

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

INCOME SHARE ACCOUNT

Investment Objective

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

	Periods Ended 12/31/14					
	Last Quarter	Last Year		Last 5 Years	Last 10 Years	
Total Account	3.8%	9.5%	13.7%	11.4%	7.2%	
Benchmark*	3.8%	9.6%	13.0%	11.1%	6.6%	

Asset Mix

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

	Target	Actual
Stocks	60.0%	61.5%
Bonds	35.0%	34.2%
Cash	5.0%	4.3%
	100.0%	100.0%

* 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 12/31/14					
т	Last Quarter	Last Year	Last 3 Years		Last 10 Years	
Total Account	5.2%	12.2%	21.2%	15.8%	7.7%	
Benchmark*	5.2%	12.6%	20.5%	15.6%	7.9%	

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.

	Periods Ended 12/31/14						
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years		
Total Account	5.2%	12.6%	20.5%	15.7%	8.0%		
Benchmark*	5.2%	12.6%	20.5%	15.6%	7.9%		

The Account is invested 100% in common stock.

* 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 12/31/14					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	
Total Account	-3.3%	-4.0%	9.9%	5.1%	5.6%	
Benchmark*	-3.9%	-3.9%	9.0%	4.4%	5.2%	

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

BOND MARKET ACCOUNT

Investment Objective

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

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

Asset Mix

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

MONEY MARKET ACCOUNT

Investment Objective

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

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

Asset Mix

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

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.

	93	Periods	Ended	12/31/14	
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	0.5%	1.8%	2.3%	2.9%	3.7%
Benchmark*	0.4%	1.3%	1.1%	1.2%	2.5%

^{*} The Fixed Interest Benchmark is the 3-year Constant Maturity Treasury Asset Mix Bill +45 basis points.

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%	36.0%
International Stocks	15.0%	14.7%
Bonds	45.0%	44.5%
Cash	5.0%	4.8%
	100.0%	100.0%

		Periods	Ended 1	12/31/14	
	Last Quarter	Last Year		Last 5 Years	Last 10 Years
Total Account	2.1%	6.5%	10.3%	8.8%	
Benchmark*	2.0%	6.5%	9.6%	8.3%	

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

DEFERRED COMPENSATION PLAN ACCOUNTS

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

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

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

On December 31, 2014, the market value of the entire Fund was \$5.7 billion.

Investment Options

Investment Options	12/31/14 Market Value (In Millions)
Vanguard Index Institutional Plus Shares (passive)	\$984
Janus Twenty (active)	\$540
Vanguard Mid Cap Index Institutional Shares (passive)	\$416
T. Rowe Price Small-Cap Stock (active)	\$598
Fidelity Diversified International (active)	\$269
Vanguard Total International Stock Index Institutional Plus (passive)	\$150
Vanguard Balanced Index Institutional Shares (passive)	\$675
Dodge & Cox Income Fund (active)	\$206
Vanguard Total Bond Market Index Institutional Shares (passive)	\$184
SIF Money Market Account	\$60
SIF Fixed Interest Account (stable value)	\$1,325
State Street Global Advisors MN Target Retirement Funds	\$268
Income Fund 2015 Fund \$3	
2010 1 0110	
2020 Fund \$6 2025 Fund \$4	
2030 Fund \$3	
2035 Fund \$2	
2040 Fund \$	13
	89
	57
2020 1 4110	\$3
2060 Fund	54

DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE	CAP	EQ	UITY
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Vanguard Index Institutional Plus (passive)		Periods Ended 12/31/14					
A passive domestic stock portfolio that tracks the S&P 500.		Last Quarter	Last Year	Last 3 Years	Last 5 Years		
	Fund	4.9%	13.7%	20.4%	15.4%		
	S&P 500	4.9%	13.7%	20.4%	15.5%		
Janus Twenty (active)		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	5.9%	8.9%	21.1%	11.7%		
outperform the sear soo, over times	S&P 500	4.9%	13.7%	20.4%	15.5%		

MID CAP EQUITY

Vanguard Mid Cap Index (passive)		Per	iods End	ed 12/31/	14
A fund that passively invests in companies with medium market capitalizations that tracks the CRSP US Mid-Cap Index.		Last Quarter	Last Year	Last 3 Years	Last 5 Years
	Fund	6.6%	13.8%	21.3%	17.1%
	CRSP U.S. Mid Cap	6.6%	13.8%	21.4%	17.1%

SMALL CAP EQUITY

T Rowe Price Small Cap (active)		P	Periods End	ed 12/31/1	4
A fund that invests primarily in companies with small market		Last		Last 3	Last 5
capitalizations and is expected to outperform the Russell 2000.		Quarter	Last Year	Years	Years
,,,	Fund	9.2%	6.9%	20.2%	18.1%
	Russell 2000	9.7%	4.9%	19.2%	15.5%

INTERNATIONAL EQUITY

Fidelity Diversified International (active)		Periods Ended 12/31/14			4
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),	Fund	-1.1%	-3.2%	13.1%	6.5%
over time.	MSCI EAFE	-3.6%	-4.9%	11.1%	5.3%

Vanguard Total International Stock Index (passive)

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

	Last	Last	Last 3	Last 5
	Quarter	Year	Years	Years
Fund	-4.2%	-4.1%	9.3%	
ACWI ex USA IMI	-3.7%	-3.1%	9.5%	

DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE	CAP	EO	UITY
-------	-----	----	------

Vanguard Balanced Index (passive)		I	Periods Ende	ed 12/31/14	1
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	3.9%	10.0%	13.2%	11.4%
	Benchmark	3.9	10.0	13.2	11.4

Dodge & Cox Income Fund (active)		Periods Ended 12/31/14			
A fund that invests primarily in investment grade securities in the U.S. bond market which is expected to outperform the Barclays Aggregate, over time.	Fund Barclays Agg	Last Quarter 0.9% 1.8%	Last Year 5.5% 6.0%	Last 3 Years 4.6% 2.7%	Last 5 Years 5.2% 4.4%
Vanguard Total Bond Market Index (passive) A fund that passively invests in a broad, market weighted bond index that is expected to track the Barclays Aggregate.	Fund Barclays Agg	Last Quarter 1.7% 1.8%	Last Year 5.9% 6.0%	Last 3 Years 2.6% 2.7%	Last 5 Years 4.4% 4.4%
SIF Money Market Account A fund that invests in short-term debt instruments which is expected to outperform the return on 3-month U.S. Treasury Bills.	Fund 3-Mo. Treas.	Last Quarter 0.0% 0.0%	Last Year 0.1% 0.0%	Last 3 Years 0.2% 0.1%	Last 5 Years 0.2% 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.

	P	Periods Ended 12/31/14				
	Last		Last 3	Last 5		
	Quarter	Last Year	Years	Years		
Fund	0.5%	1.8%	2.3%	2.9%		
Benchmark	0.4%	1.3%	1.1%	1.2%		

MN TARGET RETIREMENT ACCOUNTS

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

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

MN COLLEGE SAVINGS PLAN ACCOUNTS

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

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

On December 31, 2014, the market value of the entire Fund as \$1.2 billion.

Investment Options 12/31/14 Market Value (In Millions) Age Based Managed Allocation \$26 Age Band 0-4 Years \$88 Age Band 5-8 Years \$84 Age Band 9-10 Years \$113 Age Band 11-12 Years Age Band 13-14 Years \$117 Age Band 15 Years \$54 \$54 Age Band 16 Years \$49 Age Band 17 Years \$124 Age Band 18 Years and over **Risk Based Managed Allocations** Aggressive \$2 Moderate \$47 Conservative \$2 **Static Options:** \$2 U.S. Large Cap Equity \$2 International Equity \$278 U.S. and International Equity Equity and Interest Accumulation \$0.2 \$10 100% Fixed Income \$9 Money Market \$104 Principal Plus Interest

MN COLLEGE SAVINGS PLAN ACCOUNTS

AGE-BASED MANAGED ALLOCATIONS

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

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

RISK BASED ALLOCATIONS

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

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

U.S. LARGE CAP EQUITY INDEX

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

	Periods Ended 12/31/14				
	Last		Last 3	Last 5	
	Quarter	Last Year	Years	Years	
Fund	4.8%				
S&P 500	4.9%	1			

INTERNATIONAL EQUITY INDEX

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

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

U.S. AND INTERNATIONAL EQUITY INDEX

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

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

MN COLLEGE SAVINGS PLAN ACCOUNTS

EQUITY AND INTEREST ACCUMULATION

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

	Periods Ended 12/31/14			
	Last		Last 3	Last 5
	Quarter	Last Year	Years	Years
Fund	2.7%		(***)	
Benchmark	2.6%			

100% FIXED INCOME

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

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

MONEY MARKET

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

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

PRINCIPAL PLUS INTEREST OPTION

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

	Periods Ended 12/31/14			
	Last		Last 3	Last 5
	Quarter	Last Year	Years	Years
Fund	0.3%	1.3%	1.4%	1.9%
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.

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

Investment Management

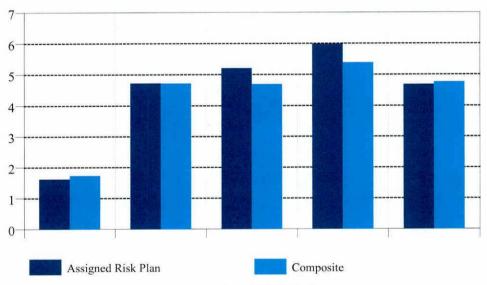
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

Performance Benchmarks

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

Market Value

On December 31, 2014 the market value of the Assigned Risk Plan was \$296 million.



Periods Ended 12/31/14

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

^{*} Actual returns are calculated net of fees.

PERMANENT SCHOOL FUND

Investment Objectives

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

Asset Mix

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

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

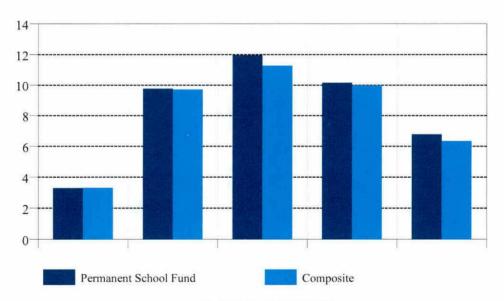
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

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 December 31, 2014 the market value of the Permanent School Fund was \$1.2 billion.



Periods Ended 12/31/14

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

^{*} Actual returns are calculated net of fees.

ENVIRONMENTAL TRUST FUND

Investment Objectives

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

Asset Mix

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

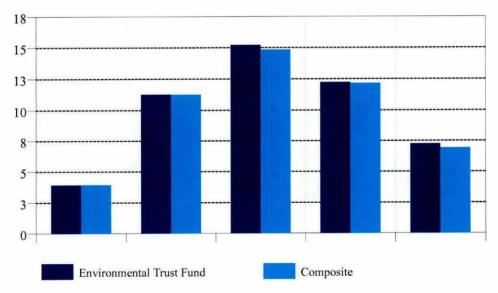
	12/31/14	12/31/14	
	Target	Actual	
Stocks	70.0%	70.5%	
Bonds	28.0%	27.6%	
Cash	2.0%	1.9%	
Total	100.0%	100.0%	

Investment Management

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

Market Value

On December 31, 2014 the market value of the Environmental Trust Fund was \$883 million.



Periods Ended 12/31/14

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

^{*} Actual returns are calculated net of fees.

CLOSED LANDFILL INVESTMENT FUND

Investment Objectives

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

Asset Mix

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

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

Investment Management

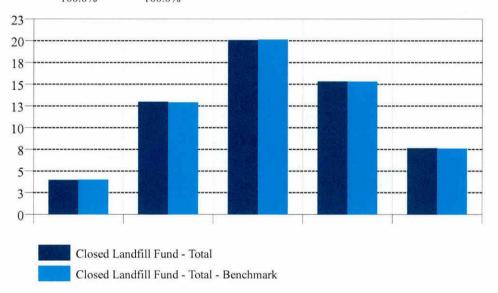
SBI staff manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500.

Legislation

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

Market Value

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



Periods Ended 12/31/14

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

⁽¹⁾ Actual returns are calculated net of fees.

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

(3) The benchmark of the fund is the S&P 500 from mid July 1999 to 9/9/14. As of 9/10/14 the benchmark consist of S&P 500 (70%) and Barclays Aggregate (30%). Note: All periods over one year are annualized.

STATE CASH ACCOUNTS

Description

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

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

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

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

Investment Objectives

Safety of Principal. To preserve capital.

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

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

Asset Mix

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

Investment Management

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

Period Ending 12/31/14

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

^{*} Actual returns are calculated net of fees.

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

MINNESOTA STATE BOARD OF INVESTMENT Composition of State Investment Portfolios By Type of Investment Market Value December 31, 2014 (in Thousands)

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	345,396	0	4,778,175	0	9,677,966	2,876,204	2,581,937	20,259,678
	1.71%		23.58%		47.77%	14.20%	12.74%	100%
Public Employees Retirement Fund	313,068	0	4,141,463	0	8,388,336	2,492,937	2,237,883	17,573,687
	1.78%		23.57%		47.73%	14.19%	12.73%	100%
State Employees Retirement Fund	185,350	0	2,730,246	0	5,529,984	1,643,461	1,475,317	11,564,358
	1.60%		23.60%		47.82%	14.21%	12.76%	100%
Public Employees Police & Fire	125,980	0	1,727,639	0	3,499,250	1,039,945	933,548	7,326,362
	1.72%		23.58%		47.76%	14.19%	12.74%	100%
Highway Patrol Retirement Fund	10,896	0	157,311	0	318,626	94,693	85,005	666,531
	1.63%		23.60%		47.80%	14.21%	12.75%	100%
Judges Retirement Fund	3,159	0	41,236	0	83,521	24,821	22,282	175,019
	1.80%		23.56%		47.72%	14.18%	12.74%	100%
Correctional Employees Retirement	15,262	0	210,805	0	426,974	126,893	113,910	893,844
	1.71%		23.58%		47.77%	14.20%	12.74%	100%
Public Employees Correctional	9,134	0	111,241	0	225,314	66,961	60,111	472,761
	1.93%		23.54%		47.66%	14.16%	12.71%	100%
Legislative Retirement Fund	89	0	1,396	0	2,828	841	755	5,909
	1.51%		23.62%		47.86%	14.23%	12.78%	100%
PERA Minneapolis Retirement	26,023	0	206,633	0	418,529	124,383	111,657	887,225
	2.93%		23.29%	11.00.12	47.17%	14.02%	12.58%	100%
Duluth Teachers Retirement	2,120	0	33,203	0	67,251	19,986	17,942	140,502
	1.51%		23.63%		47.86%	14.22%	12.77%	100%
TOTAL COMBINED FUNDS	1,036,477	0	14,139,348	0	28,638,579	8,511,125	7,640,347	59,965,876
	1.73%	20054	23.58%		47.76%	14.19%	12.74%	100%

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	-

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

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

TAB B

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE:

February 10, 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 December 31, 2014 is included as **Attachment A**.

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

2. Results of FV14 Financial Audit

Each member of the State Board of Investment and the Investment Advisory Council will receive a copy of the final report when it becomes available.

3. Duluth Teachers Retirement Fund Association (DTRFA) Update

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

The SBI and DTRFA have worked together on the asset transfer over the past several months. To date, the assets of all seven DTRFA comingled funds as well as the two separate accounts have been successfully transferred to the SBI. In addition, the ownership for five private equity limited partnerships have all been transferred to the SBI. Both DTRFA buildings were sold and proceeds have been incorporated into the DTRFA assets. Finally, the DTRFA began the liquidation of the two remaining funds. The assets that were able to be liquidated from these two funds have been successfully transferred to the SBI. There are a few remaining assets that will transfer to the SBI once they are able to be liquidated.

4. Target Date Funds for Unclassified Plan Participants

The Minnesota State Retirement System (MSRS) has requested that the SBI add target date funds to the investment lineup in the state's Unclassified Plan. A target

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

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

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

RECOMMENDATION:

SBI staff recommends that Unclassified Plan participants be allowed to invest in Target Date Funds, as currently provided by SSgA.

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

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

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

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

RECOMMENDATION:

SBI Staff recommends the establishment of 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.

SBI Staff also recommends approval of the investment guidelines for the separate OPEB sub-account for the Met Council.

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

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

In the fourth quarter, SBI managers divested 226 shares in companies on the divestment list.

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

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

7. Update on Iran

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

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

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

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

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

Attachment G is a copy of the December 19, 2014 letter sent to each international equity manager and domestic equity manager and fixed income manager containing the end of quarter restricted list and the list of companies to be divested.

8. Legislative Update

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

9. Litigation Update

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

10. Staff Announcements

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

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

STATE BOARD OF INVESTMENT

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

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

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

Metropolitan Council OPEB Investments

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

Statutory Authorities

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

Establishment of a Separately Managed Sub Account for the Met Council

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

OPEB Asset Allocation Decision

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

SBI Investment Approach

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

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

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

A1. ELIGIBLE INVESTMENTS

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

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

A2. SEPARATE ACCOUNT AND DAILY PRICING

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

A3. LEVERAGE

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

The Manager may not short or lend out individual securities.

A4. TRADE PROCESSING AND PRICING

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

Letter to SBI International and Domestic Equity Managers

December 19, 2014

Regarding: Sudan Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Sudan Stocks. These securities <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 September 25, 2014 letter you received. This new list is effective December 31, 2014.

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

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

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

Volkswagen AG

Germany

If you own securities of companies on the List of Sudan Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must <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
Patricia Ammann, Investment Officer, DC & Trust Services
Tammy Brusehaver, Investment Officer, Public Markets
Inma Conde Goldman, Investment Officer, Public Markets
Stephanie Gleeson, Investment Officer, Public Markets
Robert Weiler, Investment Office, Public Markets

Restricted Sudan Stocks

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

Restricted Sudan Stocks

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

Note: List contains parent companies and subsidiaries publicly traded.

AKA means "Also Known As"

Source: EIRIS Conflict Risk Network

SBI Effective Date: December 31, 2014

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

Sudan Stocks Requiring Divestment

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

Note: AKA means "Also Known As"

Source: Conflict Risk Network

SBI Effective Date: December 31, 2014



Security Identifiers for "Scrutinized" Stocks

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

ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

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ANDRIZ AG ANDRIZ GROUP BX Worldeaps (XRR) Common Stock ANDRIZ AG ANDR SE 63205 BHZLBM4 CH AT0000730007 013042748 ANDRIZ AG ANDRIZ GROUP BUCKMITZ AG ANDR SW 632305 BHZLBM4 CH AT0000730007 013042748 ANDRIZ AG ANDRIZ GROUP Buckmatch (BLOX) Common Stock ANDRIZ AG ANDR SW 632305 BHZLBM4 CH AT0000730007 013042748 ANDRIZ AG ANDRIZ GROUP Liquidinat (LIDU) Common Stock ANDRIZ AG ANDR V 3 632305 AT0000730007 ANDRIZ AG ANDRIZ GROUP UBS MTF (XUBS) Common Stock ANDRIZ AG ANDR V 52 632305 AT0000730007						ANDR BW		BHZL8M4 CH				
ANDRITZ 6G ANDRITZ 6ROLIP Blockmatch (BLOX) Common Stock ANDRITZ AG ANDRV 8 52305 BHLLBMA CH AT0000730007 013042748 ANDRITZ 6G ANDRITZ 6ROLIP Liquidhi (LIQU) Common Stock ANDRV 3 52305 AT0000730007 ANDRITZ AG ANDRV 3 52305 AT0000730007 ANDRITZ AG ANDRV 3 52305 AT0000730007	ANDRITZ AG										013042748	
ANDRITZ AG ANDRITZ GROUP Liquidnet (LIQU) Common Stock ANDRITZ AG ANDRV \(\) 632305 ANDR	ANDRITZ AG							BHZL8M4 CH			013042748	
ANDRITZ AG ANDRITZ GROUP UBS MTF (XUBS) Common Stock ANDRITZ AG ANDRY S2 632305 AT0000730007	ANDRITZ AG	ANDRITZ GROUP										
	ANDRITZ AG		UBS MTF (XUBS)		ANDRITZ AG	ANDRV S2						
	JANDRIIZ AG	ANURITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY PQ		B3DY4P2 US	034522102			

TO THE PROPERTY OF THE PARTY OF													
ANDRITZ AG	Primary Company (Affiliate/Parent) ANDRITZ GROUP	OTC US (OOTC)	ADR	Security Name		WPK Number	SEDOL		ovam	ISIN 1	COMMON	CINS	Fondscode
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Common Stock	ANDRITZ AG-UNSPON ADR BHARAT ELECTRONICS LIMITED	ADRZY US BHE IB	120304	B3DY4P2 US 6139715 IN	034522102		US0345221024 INE263A01016			
BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	Nati India (XNSE) Nati India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IN	120304	6139715 IN			INE263A01016			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Common Stock Common Stock	BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS	BHE IS BHEL IB	120304 A1JLKM	6139715 IN B6SNRV2 IN			INE263A01016 INE257A01026			
BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED BHARAT HEAVY ELECTRICALS LIMITED	Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IN	A1JLKM	B6SNRV2 IN			INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Nati India (XNSE)	Second Lending	BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS-SL	BHELIS B BHEL/S IN	A1JLKM	B6SNRV2 IN			INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Nati India (XNSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SL									
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT		Nacasanas	. Sett/2007. Oldo						
	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT	600068 CG 600068 CH	A0M31Z A0M31Z	6377214 CN			CNE000000QF1			
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY I TO	Nth SSE-SEHK (XSSC)	Common Stock	CHINA GEZHOUBA GROUP CO LT	600068 C1	ADM31Z	6377214 CN BP3R693 CN			CNE000000QF1			
OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CG	A1JNL6	B4TH690 CN			CNE0000000F1 CNE1000017G1			
OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CH	A1JNL6	B4TH690 CN			CNE1000017G1			
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Nth SSE-SEHK (XSSC)	Common Stock	SINOHYDRO GROUP LTD-A	601669 C1		BP3R4M2 CN						
CHINA MACHINERY ENGINEERING CORPORATION	CHINA MACHINERY ENGINEERING CORPORATION		DECEMBER AND DESCRIPTION OF THE PARTY.							CNE1000017G1			
CHINA MACHINERY ENGINEERING	CHINA MACHINERY ENGINEERING	Hong Kong (XHKG)	Common Stock	CHINA MACHINERY ENGINEERIN-	H 1829 HK	AIKAFT	B94VG58 HK			CNE100001NP4	086987414		
CORPORATION CHINA MACHINERY ENGINEERING	CORPORATION CHINA MACHINERY ENGINEERING	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERIN-	H C3M GF	A1KAFT				CNE100001NP4	086987414		
CORPORATION	CORPORATION	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERIN-	H C3M GR	A1KAFT							
DAQING HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka				and the second s	io-sinizo-si	39856			CNE100001NP4	085987414		
	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	AOM3ZT	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	AOM3ZT	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	95	2131	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	95	2131	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	95		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	A1CV3E	5387753 DE	95	2131	BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E	5387753 DE			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV3E	5387753 DE			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV3E	6340078 HK			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF PQ	A1CV3E	B01DDZ3 US			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF US	A1CV3E	B01DDZ3 US			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF UV	A1CV3E	B01DDZ3 US			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sth SSE-SEHK (SHSC)	Common Stock	KUNLUN ENERGY CO LTD	135 H1	A1CV3E	BP3RW39 HK			BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY PQ	A1J7V7	B3L2812 US	50126A101		US50126A1016	030032003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY US	A1J7V7	B3L2812 US	50126A101		US50126A1016			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY UV	A1J7V7	B3L2812 US	50126A101		US50126A1016			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GB	ADM4YQ	5939507 DE	301204101		CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GD	A0M4YQ	5939507 DE						
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GF	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GH	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GM	A0M4YQ	5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GR	A0M4YQ A0M4YQ	5939507 DE 5939507 DE			CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H						CNE1000003W8			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka		NAMES OF THE PARTY		PC6 GS	A0M4YQ	5939507 DE		1	CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GY	A0M4YQ	5939507 DE			CNE1000003VV8	011014674		
	CHINA NATIONAL PETROLEUM CORP aka	Quotrix Exch (XQTX)	Common Stock	PETROCHINA CO LTD-H	PC6 QT	A0M4YQ	5939507 DE		1	CNE1000003W8	011014674		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 TH	A0M4YQ	5939507 DE			CNE1000003W8	011014674		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0M4YQ	6226576 HK)	CNE1000003W8	011014674		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF US	A0M4YQ	B01DNL9 US		9	CNE1000003W8	011014674	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	011014674	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	011014674		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CG	AONANC	B28SLD9 CN		9	CNE1000007Q1	033421664		
PETROCHINA CO LTD	CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	AONANC	B28SLD9 CN			CNE1000007Q1			
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Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicoyam ISIN	COMMON	CINS Fondscode
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Nth SSE-SEHK (XSSC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	AONANC	BP3R206 CN		CNE100000701	033421664	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UB	936983		740405400	United States and Stat		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR			2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UD	936983	2568841 US	74646E100	US71646E1001	011511449	
Laboration of White Control of the C	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 CNPC	New York (XNYS)			PTR UN	936983	2568841 US	74646E100	US71646E1001	011511449	
	CHINA NATIONAL PETROLEUM CORP aka		ADR	PETROCHINA CO LTD -ADR	PTR UP	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US	74646E100	US71646E1001	011511449	
	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTRUT	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UX	936983	2568841 US	74646E100	US71646E1001	011511449	
	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VJ	936983	2568841 US	74646E100	US71646E1001	011511449	
	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VK	936983	2568841 US	74646E100	US71646E1001	011511449	
	CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VY	936983	2568841 US	74646E100	US71646E1001	011511449	
	CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GB	936983	4633327 DE	71646E100	US71646E1001	011511449	
	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GF	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GM	936983	4633327 DE	71646E100	US71646E1001	011511449	
	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GR	936963	4633327 DE	71646E100	US71646E1001	011511449	
	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GS	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GY	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Singapore (XSES)	ADR	PETROCHINA CO LTD -ADR	PTR SP	936983	B3KTK63 SG		US71646E1001	011511449	
	CNPC CHINA NATIONAL PETROLEUM CORP aka	Mexico (XMEX)	ADR	PETROCHINA CO LTD -ADR	PTRN MM	936983	B569834 MX	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD -ADR	PC6A TH	936983		74646E100	US71646E1001	011511449	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	1639 HK	AOD86T	B02J0J3 HK	THE STREET	HK8298013897	021553654	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GB	AOD86T	806L0H3 DE		HK8298013897	021553654	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GR	A0D86T	B06L0H3 DE		HK8298013897	021553654	
NORINCO INTERNATIONAL COOPERATION LTD.	CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE000000VZ9	321333331	
NORINCO INTERNATIONAL COOPERATION LTD.	CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CS	A0M35VV	6112125 CN		CNE000000VZ9		
COLTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A		A0M30T	6796143 CN		CNE000000NY9		
COLTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A		A0M30T	6796143 CN		CNE000000NY9		
TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-		A0M4L5	6649946 CN		CNE000001F88		
	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-		A0M4L5	6649946 CN		CNE000001F88	(0.0)	
NORTH NAVIGATION CONTROL	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Nth SSE-SEHK (XSSC)	Common Stock	NORTH NAVIGATION CONTROL T-		A0M4L5					
	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	AORPGJ	BP3RB54 CN		CNE000001F88		
	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	75 (ASTO) (TABLE)	ADRPGJ	B39G5K4 CN		CNE100000BW7		
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP					20200000	B39G5K4 CN		CNE100000BW7		
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL		A0M4G4	6373728 CN		CNE0000018G1	Pathodological W	
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG) Frankfurt (XFRA)		CHINA PETROLEUM & CHEMICAL-		A0M4XN	6291819 HK		CNE1000002Q2		
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GB	A0M4XN	7027756 DE			012150504	
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	SECOND CONTRACTOR OF THE SECOND SECON		H CHINA PETROLEUM & CHEMICAL -	CHU GD	A0M4XN	7027756 DE		CNE1000002Q2		
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GF	A0M4XN	7027756 DE			012150504	
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL	CHU GH	A0M4XN	7027756 DE		CNE1000002Q2	012150504	
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GM	A0M4XN	7027756 DE		CNE1000002Q2	012150504	
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GR	A0M4XN	7027756 DE		CNE1000002Q2	012150504	
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GS	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 -	CHU GY	A0M4XN	7027756 DE		CNE1000002Q2	012150504	
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Quotrix Exch (XQTX)	Common Stock	Н	сни ат	A0M4XN	7027756 DE		CNE1000002Q2	012150504	
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP		OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	SNPMF PQ	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
aka SINOPEC CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	SNPMF US	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
aka SINOPEC CORP		OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	SNPMF UV	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
aka SINOPEC CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Sth SSE-SEHK (SHSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	1 386 H1	A0M4XN	BP3RSM0 HK		CNE1000002Q2	012150504	
	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CG	A0M4G4	6373728 CN		CNE1000018G1		

CHINA PETROLEUM & CHEMICAL CORP	Primary Company (Affiliate/Parent) CHINA PETROCHEMICAL CORP aka	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP Sicov	m ISIN	COMMON CINS Fondscode
aka SINOPEC CORP	SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 C1	A0M4G4	BP3R240 CN		CNE1000018G1	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP UB	578971				
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-			2639189 US	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP UD	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 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	SNP UM	578971	2639189 US	16941R108	US16941R1086	011899374
aka SINOPEC CORP	SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP UN	578971	2639189 US	16941R108		AND PROCESSION F
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP UP				US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-	270 M () () () () () () () () () (578971	2639189 US	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP	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	SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP VJ	578971	2639189 US	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	SNP VK					SAME PROPERTY.
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-		578971	2639189 US	16941R108	US15941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	SNP VY	578971	2639189 US	16941R108	US16941R1086	011899374
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	CHUA GB	578971	BORSWOO DE	16941R108	US16941R1086	011899374
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR	CHUA GF	578971	BORSWOODE	16941R108	US16941R1086	011899374
aka SINOPEC CORP	SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	CHUA GM	578971	BORSWOO DE	16941R108	US16941R1086	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR	CHUA GR					011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-		578971	BORSWOO DE	16941R108	US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR CHINA PETROLEUM & CHEMICAL-	CHUA GS	578971	BORSWOO DE	16941R108	US16941R1086	011899374
AKA SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR	CHUA GY	578971	BORSWOO DE	16941R108	US16941R1086	011899374
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Mexico (XMEX)	ADR	CHINA PETROLEUM & CHEM - ADR	SNPN MM	578971	B4QSP22 MX	16941R108	US16941R1086	011899374
aka SINOPEC CORP	SINOPEC GROUP	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEM-ADR	CHUA TH	578971		16941R108	US16941R1086	011899374
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CH	A0M37A	6136385 CN	3383777488		011033374
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock						CNE000000XK7	
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP				000852 CS	A0M37A	6136385 CN		CNE000000XK7	
	CHINA PETROCHEMICAL CORP aka	Sth SSE-SEHK (SHSC)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 H1	A1T97T	B92NYC9		CNE100001NV2	093502256
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 HK	A1T97T	B92NYC9		CNE100001NV2	093502256
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GF	A1T97T	B96WKB3		CNE100001NV2	
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GM	A1T97T	B96WKB3		CNE100001NV2	
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	INS GR	A1T97T				
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP						B96WKB3		CNE100001NV2	
	CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-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	896WKB3 DE		CNE100001NV2	
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP sks	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GB	923923	4601197 DE		BMG8165U1009	D11563384
SINOPEC KANTON HOLDINGS LTD	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GF	923923	4601197 DE		BMG8165U1009	011563384
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GR	923923	4601197 DE			
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP								BMG8165U1009	011563384
18 V 18 V 19 V 19 V 19 V 19 V 19 V 19 V	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GS	923923	4601197 DE		BMG8165U1009	011563384
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 HK	923923	6162692 HK		BMG8165U1009	011563384
SINOPEC KANTON HOLDINGS LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 H1	923923	BP3RXQ9 HK		BMG8165U1009	011563384
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 CG	AOMSRA	6802794		CNE000000BB2	
LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 CH	AOM3RA	6802794		CNE000000BB2	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	SINOPEC SHANGHAI PETROCHE-A		A0M3RA	BP3R596 CN			
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			SINOPEC SHANGHAI PETROCHEM					CNE000000BB2	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM-	SGJH GB	A0M4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM-	SGJH GD	AOM4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	н	SGJH GF	AOM4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
LTD	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM- H	SGJH GH	A0M4Y5	5888632 DE	90830		
LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM- H	SGJH GM	A0M4Y5	5888632 DE	90830		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-						005096162
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka			SINOPEC SHANGHAI PETROCHEM-	SGJH GR	ADM4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM-	SGJH GS	AOM4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H SINOPEC SHANGHAI PETROCHEM-	SGJH GY	A0M4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Quotrix Exch (XQTX)	Common Stock	Н	SGJH QT	AOM4Y5	5888632 DE	90830	3 CNE1000004C8	005096162
LTD	SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC SHANGHAI PETROCHEM- H	338 HK	A0M4Y5	6797458 HK	90830		
							1115	90030	- CI4E 1000004C8	WWW.00102

Gompany	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	1 EAUVAN	CINS	PARAMETERS NO.
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC SHANGHAI PETROCHE H	M- SPTJF US	A0M4Y5	B01XTG6 US			CNE1000004C8	Recovers.	STATE STATE OF THE	Fonuscode
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC SHANGHAI PETROCHE	M- SPTJF UV	A0M4Y5	B01XTG6 US				005096162		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sth SSE-SEHK (SHSC)	Common Stock	SINOPEC SHANGHAI PETROCHE	M- 338 H1	AOM4Y5				CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	- SPEC 2 (4)		BP3RXR0 HK		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR			887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	100500	SINOPEC SHANGHAI-SPONS ADI		887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP		ADR	SINOPEC SHANGHAI-SPONS ADI		887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIUN	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHI UP	887169	2800059 US		908289	U\$82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	SHIUT	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHI UX	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIVJ	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIVK	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIVY	887169	2800059 US		908289	US82935M1099	012248750		
LTD SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIGB	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		0
LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADI	R SHIGF	887169	5734638 DE	82935M109	908289	US82935M1099			1
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADI	SHIGM	887169	5734638 DE	82935M109	908289		012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADM						US82935M1099	012248750)
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADM		887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Singapore (XSES)	ADR			887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			SINOPEC SHANGHAI -SPONS AD		887169	B3MNGN2	82935M109	908289	US82935M1099	012248750		
SINOPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADM		887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC YIZHENG CHEMICAL FIBRE CO	CHINA PETROCHEMICAL CORP aka	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CG	A0M3V6	6986740			CNE000000HS3			
SINOPEC YIZHENG CHEMICAL FIBRE CO	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CH	A0M3V6	6986740			CNE000000HS3			
SINOPEC YIZHENG CHEMICAL FIBRE CO	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK		917709	CNE1000004D6	008069662		
LTD SINOPEC 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		WHAT!
LTD	SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFF UV	AOM4Y6	B01XVL5 US		115	CNE1000004D6	008069662		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Hong Kong (XHKG)	Common Stock	POLY PROPERTY GROUP CO LT	119 HK	885546	6220987 HK			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LT	CMJ GB	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LT	CMJ GF	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LT	CMJ GR	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTG	CMJGS	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP CO LTI	PHKIF US	885546	B23CST1 US			HK0119000674	004580702	Y7064G105	
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP CO LTG		885546	B23CST1 US			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Sth SSE-SEHK (SHSC)	Common Stock	POLY PROPERTY GROUP CO LTI		885546	врзкојз нк				- Control of the Cont	Y7064G105	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP COLTE		A0M4XY	BOXZY65 US			HK0119000674	004580702	SURVINO ESTA:	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTC		ADM4XY				With the second second	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKG)	Common Stock	DONGFENG MOTOR GRP CO LTE			B0XZY65 US				023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)		DONGFENG MOTOR GRP CO LTD	P. C.	A0M4XY	BOPH5N3 HK			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	WATERCHIED AND CHARLES	Common Stock	DONGFENG MOTOR GRP CO LTD		A0M4XY	BOTBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD		A0M4XY	BOTBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D GM	ADM4XY	BOTBB66 DE			CNE100000312	023857456		
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D GR	A0M4XY	BOTBB66 DE			CNE100000312	023857456		1
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTD	D4D GS	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
LIMITED DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY	Frankfurt (XFRA)	Common Stock	H DONGFENG MOTOR GRP CO LTE	D4D GY	A0M4XY	BOTBB66 DE			CNE100000312	023857456		
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Quotrix Exch (XQTX)	Common Stock	Н	D4D QT	A0M4XY	BOTBB66 DE			CNE100000312	023857456		
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD	DNFGF US	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109	
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED DONGFENG MOTOR GROUP COMPANY	Hong Kong (XHKG)	Common Stock	DONGFENG MOTOR GRP CO LTD	489 H1	A0M4XY	BP3RTP0 HK				023857456		
LIMITED DONGFENG MOTOR GROUP COMPANY	LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTC	DNFGY PQ		B3SQPT4 US	257738203		US2577382037	THE STATE OF THE S		
LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	ADR	DONGFENG MOTOR GRP-H-UNS ADR	DNFGY US		B3SQPT4 US	257738203		US2577382037			
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	otc us (ootc)	Common Stock	DONGFENG MOTOR GRP CO LTD	DNFGY UV		B3SQPT4 US	257738203		US2577382037			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Kuwait (XKUW)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHOLDIN KK	A0H1G7	BOS8H15 KW	201100200		EG69082C013			
		The state of the s					DOGG 113 KVV			EG09082C013			

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL CUSIP	O leanning	1 Indiana		
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO					CHANGE COLL	Verification and processing the second secon	Sicovam	5544070.03	COMMON	CINS Fondscode
EGYPT KUWAIT HOLDING CO		Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE		A0H1G7	BOQMDO0 EG		EGS69082C013		
character control and control	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EY	A0H1G7	BOQMD00 EG		EGS69082C013		
ENERGY HOUSE HOLDING CO KSCC/THE		Kuwait (XKUW)	Common Stock	ENERGY HOLDING CO KSCC/THE ETABLISSEMENTS MAUREL ET	ENERGYH KK	A0KD4C	B13BW99 KW		KW0EQ0601801		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Equiduct (XEQT)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MAU BQ	853155	805DY78 FR	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	BATS Europe (BATE)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MAU EB	853155	B05DY78 FR	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	EN Paris (XPAR)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MAU FP	853155	805DY78 FR	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Chi-X Europe (CHIX)	Common Stock	PROM	MAU IX	853155	B05DY78 FR	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Turquoise (TRQX)	Common Stock	PROM	MAU TQ	853155	B05DY78 FR	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GB	853155	BOGLRZO DE	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	PROM	ETX GD	853155	B06LRZ0 DE	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GF	853155	BOGLRZO DE	005107	FR0000051070		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET	ETX GR	853155				003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET		2007-2007-2	B06LRZ0 DE	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM		San San San Calabras		ETABLISSEMENTS MAUREL ET	ETX GS	853155	B06LRZ0 DE	005107	FR0000051070	003285910	
	ETABLISSEMENTS MAUREL ET PROM	Quotrix Exch (XQTX)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	ETX QT	853155	BOGLRZO DE	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Tradegate (XGAT)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	ETX TH	853155	B06LRZ0 DE	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	OTC US (OOTC)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MRELF US	853155	BOGMN99 US		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	OTC US (OOTC)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MRELF UV	853155	BOSMN99 US		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	LSE EuropeQS (XLON)	Common Stock	PROM ETABLISSEMENTS MAUREL ET	MAU LI	853155	B28K469 GB	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	LSE EuropeQS (XLON)	Common Stock	PROM	MAU LO	853155	B28K469 GB	005107	FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	PROM PROM	MAU XB	853155	B28K469 GB		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XD	853155	B28K469 GB		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XE	853155	B28K469 GB		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XS	853155	B28K469 GB		FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XV	853155	B28K469 GB		FR0000051070		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro Comp (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET	MAU EU	853155	020N409 GB			003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Blockmatch (BLOX)	Common Stock	ETABLISSEMENTS MAUREL ET					FR0000051070	003285910	
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	UBS MTF (XUBS)		ETABLISSEMENTS MAUREL ET	MAUP B3	853155			FR0000051070		
GAZ AUTO PLANT GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock Common Stock	GAZ-CLS	MAUP S2 GAZA RM	853155 903426	B5BKBJ9 RU	950579	FR0000051070 RU0009034268	034991693	
GAZ AUTO PLANT	GAZ GROUP GAZ GROUP	MICEX Main (MISX) MICEX Main (MISX)	Common Stock Preference	GAZ-CLS GAZ-CLS-PFD	GAZA RX GAZAP RM	903426 910283	B5BKBJ9 RU B5BKC29 RU	950579	RU0009034268 RU0009102834	034991693	
GAZ AUTO PLANT PAVLOVSKY BUS PLANT	GAZ GROUP GAZ GROUP	MICEX Main (MISX) MICEX Main (MISX)	Preference Common Stock	GAZ-CLS-PFD PAVLOVSKY BUS-CLS	GAZAP RX PAZA RM	910283 908324	B5BKC29 RU B57MPG4 RU		RU0009102834 RU0009083240		
PAVLOVSKY BUS PLANT HARBIN ELECTRIC CO LTD	GAZ GROUP HARBIN ELECTRIC CO LTD	MICEX Main (MISX) Hong Kong (XHKG)	Common Stock Common Stock	PAVLOVSKY BUS-CLS HARBIN ELECTRIC CO LTD-H	PAZA RX 1133 HK	908324 A0M4X8	857MPG4 RU 6422761 HK	930709	RU0009083240		
HARBIN ELECTRIC CO LTD HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD HARBIN ELECTRIC CO LTD	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock	HARBIN ELECTRIC CO LTD-H HARBIN ELECTRIC CO LTD-H	HP6H GB	AOM4X8	B1HJDX0 DE	930709	CNE10000003C0 CNE10000003C0	011043780 011043780	
HARBIN ELECTRIC CO LTD HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GR	AOM4X8 AOM4X8	B1HJDX0 DE B1HJDX0 DE	930709 930709	CNE10000003C0 CNE10000003C0	011043780 011043780	
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock Common Stock	HARBIN ELECTRIC CO LTD-H HARBIN ELECTRIC CO LTD-H	HBPWF US HBPWF UV	AOM4X8 AOM4X8	B3BHKK0 US B3BHKK0 US	930709 930709	CNE10000003C0 CNE10000003C0		30683109 30683109
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IB	A0B968	6121563 IN		INE178A01016		
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IN	A0B968	6121563 IN		INE178A01016		
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD		A08968	6121563 IN		INE178A01016		
INDIAN OIL CORP LTD INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock	INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD	IOCL IB	AOB9FM AOB9FM	6253767 IN 6253767 IN		INE242A01010		
INDIAN OIL CORP LTD LANKA IOC PLC	INDIAN OIL CORP LTD aka IOCL	Nati India (XNSE) Colombo (XCOL)	Common Stock Common Stock	INDIAN OIL CORPORATION LTD LANKA IOC PLC	IOCL IS LIOC SL	AOB9FM AOD831	6253767 IN		INE242A01010 INE242A01010		
JIANGXI HONGDU AVIATION INDUSTRY CO	JIANGXI HONGOU AVIATION INDUSTRY CO LTD	MANAGEMENT AND	A CONTRACTOR OF THE CONTRACTOR	NUTRIC SHOWING AS AND WASHINGTON TO SHOW THE STATE OF THE	25742-952-5 T-01		80591G4 LK		LK0345ND0005		
	JIANGXI HONGDU AVIATION INDUSTRY CO	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CG	A0M4EK	6304375 CN		CNE0000015N3		
	JIANGXI HONGDU AVIATION INDUSTRY CO	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CH	A0M4EK	6304375 CN		CNE0000015N3		
LS INDUSTRIAL SYSTEMS CO. LTD	LS INDUSTRIAL SYSTEMS CO. LTD	Nth SSE-SEHK (XSSC) Korea (XKRX)	Common Stock Common Stock	JIANGXI HONGDU AVIATION-A LS INDUSTRIAL SYSTEMS	600316 C1 010120 KP	895497	BP3RBJ7 CN 6378217 KR	1	CNE0000015N3 KR7010120004		
LS INDUSTRIAL SYSTEMS CO. LTD MAN SE	LS INDUSTRIAL SYSTEMS CO. LTD MAN SE	Korea (XKRX) Equiduct (XEQT)	Common Stock Common Stock	LS INDUSTRIAL SYSTEMS MAN SE	010120 KS MAN BQ	895497 593700	6378217 KR 5563520 DE	944020	KR7010120004 DE0005937007	001117254	
MAN SE MAN SE	MAN SE MAN SE	BX Worldcaps (XBRN) BATS Europe (BATE)	Common Stock Common Stock	MAN SE MAN SE	MAN BW MAN EB	593700 593700	5563520 DE 5563520 DE	944020	DE0005937007	001117254	
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	MAN SE MAN SE	MAN GB MAN GD	593700	5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock	MAN SE	MAN GF	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE MAN SE	MAN SE	Xetra (XETR)	Common Stock Common Stock	MAN SE MAN SE	MAN GH MAN GI	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	MAN SE	MAN GM MAN GR	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	MAN SE	MAN GS MAN GY	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE MAN SE	MAN SE MAN SE	Quotrix Exch (XQTX) BX Worldcaps (XBRN)	Common Stock Common Stock	MAN SE MAN SE	MAN QT MAN SW	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007	001117254	
and the second	Walter 2016	and the second of the second o	100 (100 (100 (100 (100 (100 (100 (100		HIVE SAN	383700	SOUSSED DE	544UZU	DE0005937007	001117254	

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	The second	
MAN SE	MAN SE	Tradegate (XGAT)	Common Stock	MAN SE	MAN TH	593700	5563520 DE	CUSP	944020	DE0005937007	COMMON CINS Fondscode
MAN SE MAN SE	MAN SE MAN SE	Turquoise (TRQX) Chi-X Europe (CHIX)	Common Stock	MAN SE	MAN TQ	593700	5563520 DE		944020	DE0005937007	001117254
MAN SE	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	MAN SE MAN SE	MANG IX MAN SE	593700 593700	5563520 DE 5628883 CH		944020 944020	DE0005937007 DE0005937007	001117254 001117254
MAN SE MAN SE	MAN SE MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MAN EU	593700	B10LRX1 GB		544020	DE0005937007	001117254
MAN SE	MAN SE	Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	MAN SE MAN SE	MAN XA MAN XB	593700 593700	B10LRX1 GB		944020	DE0005937007	001117254
MAN SE MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XD	593700	B10LRX1 GB B10LRX1 GB			DE0005937007 DE0005937007	001117254 001117254
MAN SE	MAN SE MAN SE	Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	MAN SE MAN SE	MAN XE	593700	B10LRX1 GB			DE0005937007	001117254
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XO MAN XS	593700 593700	B10LRX1 GB B10LRX1 GB			DE0005937007 DE0005937007	001117254 001117254
MAN SE MAN SE	MAN SE MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XV	593700	B10LRX1 GB			DE0005937007	001117254
MAN SE	MAN SE	Euro TLX (ETLX)	Common Stock Common Stock	MAN SE MAN SE	MANUSD XB MAN TE	593700 593700	B10LRX1 GB B88FOL3 IT		0.44000	DE0005937007	001117254
MAN SE MAN SE	MAN SE MAN SE	Blockmatch (BLOX)	Common Stack	MAN SE	MAND B3	593700	Boor OLS II		944020	DE0005937007 DE0005937007	001117254 001117254
MAN SE	MAN SE	UBS MTF (XUBS) Xetra (XETR)	Common Stock Preference	MAN SE MAN SE-VORZUGSAKTIEN	MAND S2 MAN3 GB	593700			Transcription (DE0005937007	001117254
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GD	593703 593703	5563531 DE 5563531 DE		944021	DE0005937031 DE0005937031	001114816 001114816
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	MAN SE-VORZUGSAKTIEN	MAN3 GF	593703	5563531 DE		944021	DE0005937031	001114816
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GH MAN3 GI	593703 593703	5563531 DE 5563531 DE		944021	DE0005937031 DE0005937031	001114816
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GM	593703	5563531 DE		944021	DE0005937031	001114816 001114816
MAN SE	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GR MAN3 GS	593703 593703	5563531 DE 5563531 DE		944021	DE0005937031	001114816
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GY	593703	5563531 DE		944021 944021	DE0005937031 DE0005937031	001114816 001114816
MAN SE	MAN SE MAN SE	Quotrix Exch (XQTX) Turquoise (TRQX)	Preference Preference	MAN SE-VORZUGSAKTIEN	MAN3 QT	593703	5563531 DE		944021	DE0005937031	001114816
MAN SE	MAN SE	Chi-X Europe (CHIX)	Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 TQ MAN3D IX	593703 593703	5563531 DE 5563531 DE		944021 944021	DE0005937031 DE0005937031	001114816
MAN SE MAN SE	MAN SE MAN SE	Euro Comp (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 EU	593703	B28K2R6 GB		344021	DE0005937031	001114816 001114816
MAN SE	MAN SE	Euro OTC (XLON)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 XD MAN3 XL	593703 593703	B28K2R6 GB			DE0005937031	001114816
MANSE	MAN SE	Euro OTC (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 XS	593703	828K2R6 GB 828K2R6 GB			DE0005937031 DE0005937031	001114816 001114816
MAN SE MAN SE	MAN SE MAN SE	Tradegate (XGAT) OTC US (OOTC)	Preference ADR	MAN SE-VORZUGSAKTIEN MAN SE-UNSSPONSORED ADR	MAN3 TH	593703			944021	DE0005937031	001114816
MAN SE	MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY PQ MAGOY US	ADYF6N ADYF6N	B3DY656 US B3DY656 US	561641101 561641101		US5616411014 US5616411014	054361637 054361637
MAN SE MAN SE	MAN SE MAN SE	OTC US (OOTC) Frankfurt (XFRA)	ADR ADR	MAN SE-UNSSPONSORED ADR	MAGOY UV	ADYF6N	B3DY656 US	561641101		US5616411014	054361637 054361637
MAN SE	MAN SE	Frankfurt (XFRA)	ADR ADR	MAN SE-UNSSPONSORED ADR MAN SE-UNSSPONSORED ADR	MANC GF MANC GR	ADYF6N ADYF6N	85900P0 DE 85900P0 DE	561641101		US5616411014	054361637
MAN SE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GS	A0YF6N	85900P0 DE	561641101 561641101		US5616411014 US5616411014	054361637 054361637
RENK AG RENK AG	MAN SE MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock	RENK AG RENK AG	ZAR GB	785000	5555969 DE		916291	DE0007850000	001121936
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GF ZAR GM	785000 785000	5555969 DE 5555969 DE		916291 916291	DE0007850000 DE0007850000	001121936 001121936
RENK AG RENK AG	MAN SE MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GR	785000	5555969 DE		916291	DE0007850000	001121936
RENK AG	MAN SE	Frankfurt (XFRA) Euro Comp (XLON)	Common Stock Common Stock	RENK AG	ZAR GS ZAR EU	785000 785000	5555969 DE B28LK31 GB		916291	DE0007850000	001121936
RENK AG Volkswagen AG	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG	ZAR XV	785000	B28LK31 GB			DE0007850000 DE0007850000	001121936 001121936
Volkswagen AG	MAN SE MAN SE	LSE EuropeQS (XLON) LSE EuropeQS (XLON)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW LO	766400 766400	0308908 DE			DE0007664005	001115308
Volkswagen AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XA	766400	0308908 DE 0308908 GB			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XB	766400	0308908 GB			DE0007664005	001115308
Volkswagen AG	MAN SE	EURO OTC (XLON)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW XD	766400 766400	0308908 GB 0308908 GB			DE0007664005	001115308
Volkswagen AG	MAN SE	EURO OTC (XLON)	Common Stock	VOLKSWAGEN AG	VOW XL	766400	0308908 GB			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW XO VOW XS	766400 766400	0308908 GB			DE0007664005	001115308
Volkswagen AG	MAN SE	EURO OTC (XLON)	Common Stack	VOLKSWAGEN AG	VOW XV	766400	0308908 GB 0308908 GB			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EURO OTC (XLON) SIX Swiss Ex (XSWX)	Common Stock Common Stock	VOLKSWAGEN AG	VOWUSD XB	766400	0308908 GB			DE0007664005	001115308
Volkswagen AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW BW VOW SE	766400 766400	5496994 CH 5496994 CH			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	VOLKSWAGEN AG	vow sw	766400	5496994 CH			DE0007664005	001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EN Amsterdam (XAMS) Luxembourg (XLUX)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VWA NA VOW LX	766400 766400	5497016 NL 5497061 LU			DE0007664005	001115308
Volkswagen AG	MAN SE	Equiduct (XEQT)	Common Stock	VOLKSWAGEN AG	VOW BQ	766400	5497102 DE			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	BATS Europe (BATE) Xetra (XETR)	Common Stock Common Stock	VOLKSWAGEN AG	VOW EB	766400	5497102 DE			DE0007664005	001115308
Volkswagen AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW GB VOW GD	766400 766400	5497102 DE 5497102 DE			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GF	766400	5497102 DE			DE0007664005	001115308
Volkswagen AG Volkswagen AG	MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW GH VOW GI	766400 766400	5497102 DE 5497102 DE			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GM	766400	5497102 DE 5497102 DE			DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW GR VOW GS	766400 766400	5497102 DE 5497102 DE			DE0007664005	001115308
Volkswagen AG	MAN SE	Xetra (XETR)	Common Stock	VOLKSWAGEN AG	VOW GY	766400 766400	5497102 DE 5497102 DE			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Quotrix Exch (XQTX)	Common Stock	VOLKSWAGEN AG	VOW QT	766400	5497102 DE			DE0007664005	001115308
Volkswagen AG	MAN SE	Tradegate (XGAT) Turquoise (TRQX)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW TH VOW TQ	766400 766400	5497102 DE 5497102 DE			DE0007664005 DE0007664005	001115308
Volkswagen AG Volkswagen AG	MAN SE	Chi-X Europe (CHIX)	Common Stock	VOLKSWAGEN AG	VOWG IX	766400	5497102 DE			DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	OTC US (OOTC)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VLKAF PQ VLKAF US	766400 766400	B01DRL7 US			DE0007664005	001115308
Volkswagen AG	MAN SE	OTC US (OOTC)	Common Stock	VOLKSWAGEN AG	VLKAF UV	766400 766400	B01DRL7 US B01DRL7 US			DE0007664005 DE0007664005	001115308 001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EuroTLX (ETLX)	Common Stock	VOLKSWAGEN AG	VOW TE	766400	B7N7B69 IT			DE0007664005	001115308
Volkswagen AG	MAN SE MAN SE	Euro Comp (XLON) Euro Comp (XLON)	Common Stock Common Stock	VOLKSWAGEN AG VOLKSWAGEN AG	VOW EU VOWCHF EU	766400 766400				DE0007664005 DE0007664005	001115308
Volkswagen AG	MAN SE	Blockmatch (BLOX)	Common Stock	VOLKSWAGEN AG	VOWD B3	766400				DE0007664005 DE0007664005	001115308
Volkswagen AG Volkswagen AG	MAN SE MAN SE	UBS MTF (XUBS) LSE EuropeQS (XLON)	Common Stock Preference	VOLKSWAGEN AG-PREF	VOWD S2	766400	0000004			DE0007664005	19000000000
Volkswagen AG	MAN SE	LSE EuropeQS (XLON)	Preference	VOLKSWAGEN AG-PREF	50IT LI 50IT LO	766403 766403	0309291 GB 0309291 GB			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XA	766403	0309291 GB			DE0007664039	001117432
Volkswagen AG	MAN SE	EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 XB	766403 766403	0309291 GB 0309291 GB			DE0007664039	001117432
Volkswagen AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 XE	766403	0309291 GB			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE MAN SE	EURO OTC (XLON) EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 XI	766403 766403	0309291 GB			DE0007664039	001117432
Volkswagen AG	MAN SE	EURO OTC (XLON)	Preference	VOLKSWAGEN AG-PREF	AOM3 XD	766403 766403	0309291 GB 0309291 GB			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE	EURO OTC (XLON)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3 XS	766403	0309291 GB			DE0007664039	001117432
Volkswagen AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VOW3 XV	766403 766403	0309291 GB 5497146 CH			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG	MAN SE	SIX Swiss Ex (XSWX)	Preference	VOLKSWAGEN AG-PREF	VW/V SE	766403	5497146 CH			DE0007664039	001117432

Company	Primary Company (Affiliate/Parent)										
Volkswagen AG	MAN SE	SIX Swiss Ex (XSWX)	Security Type Preference	Security Name VOLKSWAGEN AG-PREF	VWV SW	WPK Number	SEDOL	CUSIP	Sicovam	The second secon	COMMON CINS Fondscode
Volkswagen AG	MAN SE	Equiduct (XEQT)	Preference	VOLKSWAGEN AG-PREF	VOW3 BQ	766403 766403	5497146 CH 5497168 DE			DE0007664039 DE0007664039	001117432
Volkswagen AG	MAN SE	BATS Europe (BATE)	Preference	VOLKSWAGEN AG-PREF	VOW3 EB	766403	5497168 DE			DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GB	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 GD	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GF VOW3 GH	766403 766403	5497168 DE 5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GI	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GM	766403	5497168 DE			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE MAN SF	Xetra (XETR)	Preference	VOLKSWAGEN AG-PREF	VOW3 GR	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3 GS	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Chi-X Europe (CHIX)	Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3 GY VOW3 IX	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Quotrix Exch (XQTX)	Preference	VOLKSWAGEN AG-PREF	VOW3 QT	766403 766403	5497168 DE 5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Aquis Exchg (AQXE)	Preference	VOLKSWAGEN AG-PREF	VOW3 QX	766403	5497168 DE			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG Volkswagen AG	MAN SE	Tradegate (XGAT)	Preference	VOLKSWAGEN AG-PREF	VOW3 TH	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	Turquoise (TRQX) Luxembourg (XLUX)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3 TQ	766403	5497168 DE			DE0007664039	001117432
Volkswagen AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOWP LX VLKPF PQ	766403 766403	5497221 LU			DE0007664039	001117432
Volkswagen AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF US	766403	B1GXSC7 US B1GXSC7 US			DE0007664039	001117432
Volkswagen AG	MAN SE	OTC US (OOTC)	Preference	VOLKSWAGEN AG-PREF	VLKPF UV	766403	B1GXSC7 US			DE0007664039 DE0007664039	001117432 001117432
Volkswagen AG	MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3 EU	766403	DI DINGGI GO			DE0007664039	001117432
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Euro Comp (XLON)	Preference	VOLKSWAGEN AG-PREF	VOW3CHF EU	766403				DE0007664039	001117432
Volkswagen AG	MAN SE	Blockmatch (BLOX) Liquidnet (LIQU)	Preference Preference	VOLKSWAGEN AG-PREF	VOW3D B3	766403				DE0007664039	
Volkswagen AG	MAN SE	UBS MTF (XUBS)	Preference Preference	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-PREF	VOW3D L3 VOW3D S2	766403				DE0007664039	
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-PREF VOLKSWAGEN AG-SPONS ADR	VLKAY PQ	766403 879511	2930484 US	02000000		DE0007664039	
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY US	879511	2930484 US	928662303 928662303		US9286623031 US9286623031	011526233
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY UV	879511	2930484 US	928662303		US9286623031	011526233 011526233
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GF	879511	B62V8T7 DE	928662303		US9286623031	011526233
Volkswagen AG	MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	ADR ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GR	879511	B62V8T7 DE	928662303		US9286623031	011526233
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR VOLKSWAGEN AG-SPONS ADR PI	VOW4 GY	879511	B62V8T7 DE	928662303		US9286623031	011526233
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PI		A0DPR2 A0DPR2	2265960 US 2265960 US	928662402 928662402		US9286624021	042872202
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PI	FEVLKPY UV	AODPR2	2265960 US	928662402		US9286624021 US9286624021	042872202 042872202
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PI	FEVOW5 GB	AODPR2	B603118 DE	928662402		US9286624021	042872202
Volkswagen AG Volkswagen AG	MAN SE MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	ADR ADR	VOLKSWAGEN AG-SPONS ADR PI		AODPR2	B603118 DE	928662402		US9286624021	042872202
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PI VOLKSWAGEN AG-SPONS ADR PI	FEVOWS GR	A0DPR2	8603118 DE	928662402		US9286624021	042872202
MANAGEM	MANAGEM	Casablanca (XCAS)	Common Stock	MANAGEM	MNG MC	A0DPR2 165414	8603118 DE 6287454 MA	928662402		US9286624021 MA0000011058	042872202
SOCIETE METALLURGIQUE D'IMITER	MANAGEM	Casablanca (XCAS)	Common Stock	SOCIETE METALLURGI D'IMITER	SMI MC	255207					
MANGALORE REFINERY &				MANGALORE REFINERY &	SMITWO	256307	6007759 MA			MA0000010068	
PETROCHEMICALS LIMITED MANGALORE REFINERY &	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED MANGALORE REFINERY &	MRPL IB	AONANW	6121530 IN			INE103A01014	
PETROCHEMICALS LIMITED MANGALORE REFINERY &	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED MANGALORE REFINERY &	MRPL IN	AONANW	6121530 IN			INE103A01014	
PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED	MRPL IS	AONANW	6121530 IN			INE103A01014	
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IN	A1H6P4	6139362 IN			INE213A01029	
OIL & NATURAL GAS CORP LTD OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE) Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IB	A1H6P4	6139362 IS			INE213A01029	
	CIE & NA) DRAE GAS CORP	Natindia (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IS	A1H6P4	6139362 IS			INE213A01029	
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Nati India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONGC/S IN					N.A.	
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONGC/S IS					***	
OIL INDIA LTD	OIL INDIA LTD	Nati India (XNSE)	Common Stock	OIL INDIA LTD	OINL IB	A0X9PF	B409HQ9 IN			N.A. INE274J01014	
OIL INDIA LTD OIL INDIA LTD	OIL INDIA LTD	Nati India (XNSE)	Common Stock	OIL INDIA LTD	OINL IN	A0X9PF	B409HQ9 IN			INE274J01014	
ORCA GOLD INC	OIL INDIA LTD ORCA GOLD INC	Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IS	A0X9PF	B409HQ9 IN			INE274J01014	
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX) Venture (XTSX)	Common Stock Common Stock	ORCA GOLD INC ORCA GOLD INC	ORG CN	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CV ORG DS	A1T8LS A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DV	ATTRLS	B84J7Q3 CA B84J7Q3 CA	68558N102 68558N102		CA68558N1024 CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TJ	ATTBLS	B84J7Q3 CA	68558N102		CA68558N1024	091768224 091768224
ORCA GOLD INC ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TN	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC ORCA GOLD INC	OTC US (OOTC) OTC US (OOTC)	Common Stock Common Stock	ORCA GOLD INC	CANWF PQ	A1T8LS	BBJYMF7 US	68558N104		CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC ORCA GOLD INC	CANWF US CANWF UV	A1TBLS	BBJYMF7 US	68558N103		CA68558N1024	091768225
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GB	A1T8LS A1T8LS	B8JYMF7 US B9L55S9 DE	68558N102 68558N102		CA68558N1024 CA68558N1024	091768224
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJBA GF	ATTBLS	B9L55S9 DE	68558N102		CA68558N1024	091768224 091768224
ORCA GOLD INC ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GR	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GS	A1T8LS	B9L55S9 DE	68558N102		CA68558N1024	091768224
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC PANORAMA PETROLEUM INC	PPA CN PPA CV	A116E2	BNC0729 CA	69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	PPA DV	A116E2 A116E2	BNC0729 CA BNC0729 CA	69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	PPA TN	A116E2	BNC0729 CA	69862U105		CA69862U1057 CA69862U1057	035608958 035608958
PANORAMA PETROLEUM INC PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	AZUEF PQ	A116E2	BNC0752 US	69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	AZUEF US	A116E2	BNC0752 US	69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC) Euro Comp (XLON)	Common Stock Common Stock	PANORAMA PETROLEUM INC PANORAMA PETROLEUM INC	AZUEF UV TMP1 GF	A116E2 A116E2	BNC0752 US	69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	TMP1 GR	A116E2 A116E2	BNC9CF4 DE BNC9CF4 DE	69862U105 69862U105		CA69862U1057	035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC.	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	TMP1 GS	A116E2	BNC9CF4 DE	69862U105		CA69862U1057	035608958 035608958
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	PPAEUR EU	A116E2		69862U105	1	CA69862U1057	035608958
ENGEN	PETROLIAM NASIONAL BERHAD aka PETRONAS	Gaborone (XBOT)	Common Stock	ENGEN	ENGN BG	546632	B063G04			BW0000000058	
KLCC PROPERTY HOLDINGS BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD		A1T91X	B92NSW7 MY			MYL5235SS008	
MALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	MISC BHD	MISC MK	880504	6557997 MY		905279	MYL3816O0005	003527883
MALAYSIA MARINE AND HEAVY ENGINEERING HOLDINGS BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malays (XKLS)	Common Stock	MALAYSIA MARINE AND HEAVY EN		A107U6	B3W5NN7		300213	MYL518600001	055049394
PETRONAS CHEMICALS GROUP BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS CHEMICALS GROUP BHD	PCHEM MK	A1C891	B5KQGT3 MY			MYL518600001	055049394
PETRONAS DAGANGAN BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS DAGANGAN BHD	PETD MK	895131	6695938 MY			MYL568100001	
PETRONAS GAS BHD	PETROLIAM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS GAS BHD	PTG MK	896633	6703972 MY				005378044
SCHLUMBERGER LTD SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XA	853390	0779203 GB	806857108	-	MYL6033OO004 AN8068571086	010104491
SUNLOWIDERGER LID	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XB	853390	0779203 GB	806857108		AN8068571086	010104491

CONTROL TO THE WAY AND THE WAY												
Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	Fondscode
SCHLUMBERGER LTD SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XF	853390	0779203 GB	806857108		AN8068571086	010104491	- The state of the
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XL	853390	0779203 GB	806857108		AN8068571086	010104491	
	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XO	853390	0779203 GB	806857108		AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XS	853390	0779203 GB	806857108		AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XV	853390	0779203 GB	806857108		AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro Comp (XLON)	Common Stock	SCHLUMBERGER LTD	SLBEUR EU	853390	0779203 GB	806857108		AN8068571086	010104491	2.0
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLBEUR XD	853390	0779203 GB	806857108		AN8068571086	010104491	100
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLBEUR XV	853390	0779203 GB	806857108		AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UB	853390	2779201 US	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UD	853390	2779201 US	806857108	981783	AN8068571086	010104491	100
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UF	853390	2779201 US	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UM	853390	2779201 US	806857108	981783	AN8068571086	010104491	100
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UN	853390	2779201 US	806857108	981783	AN8068571086	010104491	- 19
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UP	853390	2779201 US	806857108	961783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB US	853390	2779201 US	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UT	853390	2779201 US	806857108	981783	AN8068571086	010104491	1.00
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB UX	853390	2779201 US	806857108	981783	AN8068571086	010104491	- 3
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB VJ	853390	2779201 US	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB VK	853390	2779201 US	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	New York (XNYS)	Common Stock	SCHLUMBERGER LTD	SLB VY	853390	2779201 US	806857108	961783	AN8068571086	010104491	- 3
SCHLUMBERGER LTD	SCHLUMBERGER LTD	SIX Swiss Ee (XSWX)	Common Stock	SCHLUMBERGER LTD	SLB BW	853390	4532651 CH	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	SIX Swiss Ee (XSWX)	Common Stock	SCHLUMBERGER LTD	SLB SE	853390	4532651 CH	806857108	981783	AN8068571086	010104491	7 7 7 7
SCHLUMBERGER LTD	SCHLUMBERGER LTD	SIX Swiss Ee (XSWX)	Common Stock	SCHLUMBERGER LTD	SLB SW	853390	4532651 CH	806857108	981783	AN8068571086	010104491	1000
SCHLUMBERGER LTD	SCHLUMBERGER LTD	EN Paris (XPAR)	Common Stock	SCHLUMBERGER LTD	SLB FP	853390	4779209 FR	806857108	012936	AN8068571086	010104491	1 3
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Chi-X Europe (CHIX)	Common Stock	SCHLUMBERGER LTD	SLB IX	853390	4779209 FR	806857108	012850	AN8068571086	010104491	1000
SCHLUMBERGER LTD	SCHLUMBERGER LTD	BATS Europe (BATE)	Common Stock	SCHLUMBERGER LTD	SLB1 EB	853390	4779209 FR	806857108		AN8068571086	010104491	100
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Turquoise (TRQX)	Common Stock	SCHLUMBERGER LTD	SLB1 TQ	853390	4779209 FR	806857108	012936	AN8068571086	010104491	-
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GB	853390	4779351 DE	806857108	981783	AN8068571086		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GD	853390	4779351 DE	806857108	981783	AN8068571086	010104491 010104491	1 1 1 1 1 1
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GF	853390	4779351 DE	806857108	981783	AN8068571086		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GH	853390	4779351 DE	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GM	853390	4779351 DE	806857108	981783	AN8068571086	010104491	19.55
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GR	853390	4779351 DE	806857108	981783		010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GS	853390	4779351 DE	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GY	853390	4779351 DE	806857108	981783	AN8068571086	010104491	100
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Quotrix Exch (XQTX)	Common Stock	SCHLUMBERGER LTD	SCL QT	853390	4779351 DE	806857108	981783	AN8068571086	010104491	/
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Tradegate (XGAT)	Common Stock	SCHLUMBERGER LTD	SCL TH	853390	4779351 DE	806857108	981783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Mexico (XMEX)	Common Stock	SCHLUMBERGER LTD	SLBN MM	853390	B043L56 MX	000007100	961783	AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro Comp (XLON)	Common Stock	SCHLUMBERGER LTD	SLBCHF EU	853390	DU43C30 NIX	000007400	201/03	AN8068571086	010104491	1 22
SCHLUMBERGER LTD	SCHLUMBERGER LTD	BM&FBOVESPA (BVMF)	BDR	SCHLUMBERGER - BDR	SLBG34 BS	600000	B3NVQK2	806857108		AN8068571086	010104491	
SCHLUMBERGER LTD	SCHLUMBERGER LTD	BM&FBOVESPA (BVMF)	BDR	SCHLUMBERGER - BDR	SLBG34 BZ		B3NVQK2			BRSLBGBDR003		
SCOMI ENERGY SERVICES BHD	SCOMI GROUP BERHAD	Bursa Malays (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	215406	6081593			BRSLBGBDR003		
SCOMI ENGINEERING BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENGINEERING BHD	SEB MK	903056	6098452 MY			MYL704500007		
SCOM GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI GROUP BHD	SGB MK	120745	BOOPKJ3 MY			MYL7366OO007		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	OTC US (OOTC)	Common Stock	STATESMAN RESOURCES LTD	SRRHF US	A1J2NC	B6SCJ24 US	057050000		MYL7158OO008	024633128	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	OTC US (OOTC)	Common Stock	STATESMAN RESOURCES LTD	SRRHF UV	A1J2NC	B6SCJ24 US	857652200		CA8576522004	025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CN	A1J2NC	B80L116 CA	857652200 857652200		CA8576522004	025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CV	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR DS	A1J2NC	B80L116 CA			CA8576522004	025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR DV	A1J2NC	B80L116 CA	857652200 857652200		CA8576522004	025302885	
			- Otoba	CHILDWET WEGGONGES FID	OINI DY	AIJZIVG	DOULT IS CA	05/652200		CA8576522004	025302885	Street, or other land

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

Company Name Alstom	Country of Origin
Alstom India Ltd	France India
Alstrom T&D India Ltd.	India
Andritz AG	Austria
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Caterpillar Inc.	US
China Gezhouba Group Company Ltd.	China
China Hydraulic and Hydroelectric Construction Group AKA Sinohydro	China
Power Construction Corporation of China Ltd.	China
Sichuan Power Development Co., Ltd.	China
Sinohydro Bureau 7 Co., Ltd.	China
Sinohydro Engineering Bureau 8 Co. Ltd	China
China Machinery Engineering Corporation	China
China National Petroleum Corporation AKA CNPC	China
CNPC General Capital Ltd.	British Virgin Islands
CNPC HK Overseas Capital Ltd.	Hong Kong
Daqing Huake Group Co., Ltd.	China
Jinan Diesel Co., Ltd.	China
Kunlun Energy Co., Ltd.	Hong Kong
PetroChina Co., Ltd.	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
AKM Industrial Co., Ltd.	China
NORINCO International Cooperation Ltd.	China
North Huajin Chemical Industries Co., Ltd.	China
North Navigation Control Technology Co., Ltd	China
Sichuan Nitrocell Co., Ltd	China
China Petrochemical Corporation AKA Sinopec Group	China
China Petroleum and Chemical Corporation AKA Sinopec Corp	China
Kingdream PLC Sinopec Capital 2013 Ltd.	China
Sinopec Capital 2013 Etd. Sinopec Engineering Group Co. Ltd.	British Virgin Islands China
Sinopec Group Overseas Development 2012 Ltd.	British Virgin Islands
Sinopec Group Overseas Development 2013 Ltd.	British Virgin Islands
Sinopec Kanton Holdings Ltd.	Hong Kong
Sinopec Shanghai Petrochemicals Ltd.	China
Sinopec Yizheng Chemical Fibre Co., Ltd.	China
China Poly Group Corporation	China
Poly Energies Holding Co. Ltd.	Hong Kong
Poly Property Group Co. Ltd.	China
Dongfeng Motor Group Co. Ltd.	China
Egypt Kuwait Holding Company	Egypt
Energy House Holding Company KSCC (previously known as AREF Energy Holding Company)	Kuwait
Etablissements Maurel et Prom	France
GAZ Group	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
Glencore PLC	Switzerland
Caracal Energy Inc.	Canada
Glencore Canada Corp.	Canada
Glencore Canada Financial Corp.	Canada
Glencore Finance Canada Ltd.	Canada
Glencore Finance Dubai Ltd.	Dubai
Glencore Finance Europe Glencore Funding LLC	Germany
Viterra Inc.	USA Canada
Harbin Electric Company Ltd.	China
ndian Oil Corporation Ltd. AKA IOCL	India
Chennai Petroleum Corporation Limited AKA CPCL	India
Lanka IOC Ltd	India
liangxi Hongdu Aviation Industry Co., Ltd	China
IX Holdings Inc.	Japan
Eneos Globe Company	Japan
Nippo Corporation	Japan
Toho Titanium Co.	Japan
	oupan

LS Industrial Systems South Korea MAN SE Germany Renk AG Germany Volkswagen AG Germany Managem Morocco ONA S.A. Morocco Societe Metallurgique D'imiter Morocco Oil and Natural Gas Corporation Limited, AKA ONGC India Mangalore Refinery and Petrochemicals Ltd. AKA MRPL India ONGC Videsh Limited AKA OVL India Oil India Ltd. India Orca Gold Inc. (previously known as Shark Minerals) Canada Panorama Petroleum Inc. Canada Pertamina Persero PT Indonesia Petroliam Nasional Berhad AKA Petronas Malaysia Engen Malyasia Gas District Cooling PutraJaya Sdn Bhd Malyasia KLCC Property Holdings Bhd Malaysia Malaysia International Shipping Company AKA MISC Bhd Malaysia Malaysia Marine and Heavy Engineering Holdings Bhd Malyasia Midciti Sukuk Bhd Malyasia Petronas Capital Ltd. Malyasia Petronas Chemicals Group Berhad Malaysia Petronas Dagangan Bhd Malaysia Petronas Gas Bhd Malaysia Putrajaya Holdings Sdn Bhd Malaysia Ranhill Berhad Malaysia Ranhill Power Sdn Bhd Malaysia Ranhill Powertron Sdn Malaysia Ranhill Powertron II Sdn Malaysia Reliance Industries Ltd. India Network 18 Media & Investments Ltd. India Reliance Holdings USA Inc India Reliance Jio Infocomm Ltd. India TV18 Broadcast Ltd. India Schlumberger Ltd. Curacao Scomi Group Berhad Malaysia KMCOB Capital Berhad Malaysia Scomi Energy Services Bhd Malyasia Scomi Engineering Berhad Malaysia Statesman Resources Limited Canada Trafigura Beheer Netherlands

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

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

Company Name:	Country of Origin
Atlas Copco	Sweden
Wartsila Oyj	Finland

EIRIS Conflict Risk Network (CRN) List of Companies in Sudan with "No Publicly Traded Equity" or "Not Relevant under the CRN Targeted Divestment Model" List Effective Through February 28, 2015

Company Name	Country of Origin
Abdel Hadi Abdullah Al-Qahtani & Sons Group of Companies	Saudi Arabia
Abdel Moniem International Petroleum Co., Ltd.	Sudan
ACES AKA Arab Center for Engineering Studies Khartoum	Jordan
Africa Energy Sa Nigeria Ltd.	Nigeria
Insan Wikfs Investments Ltd.	Yemen
APS Engineering Company Roma S.p.A.	Italy
Arcadia Petroleum Ltd.	UK
Blue Coat Systems	USA
China International Water & Electric Corp AKA CWE	China
Concorp Petroleum Limited	Sudan
Daedong Industrial Machinery Co., Ltd	South Korea
Pindir Petroleum International/Edgo Group	Jordan
mirates Telecommunication Corporation	UAE
uropean Marmot Co. Group	Switzerland
xpress Petroleum and Gas Company	Nigeria
MC Technologies Inc.	US
SIAD Motor Co., Ltd.	Sudan
lemia II AS	Norway
li-Tech Petroleum Group Co., Ltd.	Sudan
TC Yemen International Ltd.	Yemen
GS (International Geoscience Services) Ltd.	United Kingdom
amaz OJSC	Russia
a Mancha Resources	Canada
ahmeyer International	Germany
IAM Holding Group Co. Ltd.	Sudan
lott MacDonald	UK
ITN Group	South Africa
iel Petroleum S.A.	
etroneeds Service International Company	Luxembourg
etroTrans Company Ltd.	Sudan
uest Qualitas FZCO	Hong Kong
aras S.p.A.	United Arab Emirates
FTUE Belspetsvneshtechnika	Italy
handong Electric Power Construction Corporation	Belarus
hanghai Electric Fower Construction Corporation	China
[18] [18] [18] [18] [18] [18] [18] [18]	China
MEC Holdings Limited AKA Snowy Mountain Engineering Corporation	Australia
oma Group	Turkey
tar Petroleum S.A.	Spain
TR Projetos e Participacoes	Brazil
udanese Petroleum Pipeline Holding Co., Ltd.	Sudan
udan Petroleum Corporation AKA Sudapet	Sudan
udatel Telecom Group Limited	Sudan
oro Gold Ltd.	UK
AE for Gold Minerals and Investment Company Ltd.	United Arab Emirates
itol Group	Switzerland
ain Group	Kuwait

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

Letter to SBI International and Domestic Equity Managers

December 19, 2014

Regarding: Iran Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Iran Companies. These securities <u>may not be purchased</u> for the SBI portfolio that your organization manages. If you own securities of companies on the Restricted List <u>and</u> the companies are <u>not</u> on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the September 25, 2014 letter you received. This new list is effective December 31, 2014.

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

Lukoil Oil Co.

Russia

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

If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must <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
Tammy Brusehaver, Investment Officer, Public Markets
Inma Conde Goldman, Investment Officer, Public Markets
Stephanie Gleeson, Investment Officer, Public Markets
Robert Weiler, Investment Office, Public Markets

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

COMPANY NAME COUNTRY

Bharat Petroleum Corporation Ltd. India
China Petroleum & Chemical Corp China

Daelim Industrial South Korea

Gail (India) Ltd. India
Gubre Fabrikalari T.A.S. Turkey
Harbin Electric Company Ltd. China
Indian Oil Corporation Ltd. India

L G International South Korea

Marie Tecnimont S.p.A.

Mitsui & Co. Ltd

Japan
Nagarjuna Fertilizers & Chemicals Ltd.

Oil & Natural Gas Corporation Ltd.

PetroChina Co. Ltd.

China

Toyota Tsusho Corporation Japan

Effective Date: December 31, 2014

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

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

Effective Date: December 31, 2014

ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	COUNTRY
Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547		India
China Petroleum & Chemical Corp	2639189	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	B4QSP22	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	2654375	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	BORSW00	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	B01XKR4	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	7027756	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6291819	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6373728	CNE0000018G1	386	16941R108	China
China Petroleum & Chemical Corp	B1C5SX8	ARDEUT114071	386	16941R108	China
Daelim Industrial	6246604	KR7000211003	A000210	103 1111100	South Korea
Daelim Industrial	B1T52M8	KR7000211003	A000210		South Korea
Daelim Industrial	6249584	KR7000210005	A000210		South Korea
Gail (India) Ltd.	B1HJ0L7	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	3235520	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B2NTDN1	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B033102	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	2498517	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	3235490	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	6133405	INE129A01019	532155	36268T206	India
Gubre Fabrikalari T.A.S.	возмтс7	TRAGUBRF91E2	GUBRF		Turkey
Gubre Fabrikalari T.A.S.	B188YV1	TRAGUBRF91E2	GUBRF		Turkey
Harbin Electric Company Ltd.	2407665	US4114591005	1133		China
Harbin Electric Company Ltd.	взвнкко	CNE1000003C0	1133		China
Harbin Electric Company Ltd.	B1HJDX0	CNE1000003C0	1133		China
Harbin Electric Company Ltd.	6422761	CNE1000003C0	1133		China
Indian Oil Corporation Ltd.	6253767	INE242A01010	530965		India
L G International	B02PV43	KR7001120005	A001120		Korea South
L G International	6537115	KR7001120005	A001120		Korea South
Maire Tecnimont S.p.A.	B68TGK2	US56064T1016	MT	56064T101	Italy
Maire Tecnimont S.p.A.	B2N7CX8	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	BBHGQ65	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	B4XXV22	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	BBGTNT7	IT0004931058	MT	56064T101	Italy
Mitsui & Co. Ltd	4597058	XS0029348686	8031	606827202	Japan
Mitsui & Co. Ltd	2597061	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B1HHX89	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B0ZGPX0	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	B03KWZ5	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	5736463	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	4594071	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	6597302	JP3893600001	8031	606827202	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	6628644	INE580A01013	500075		India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01029	500312		India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01011	500312		India
PetroChina Co. Ltd.	B569834	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	B3KTK63	US71646E1001	857	71646E100	China

ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

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

Letter SBI Fixed Income Managers

December 19, 2014

Regarding: Iran Companies

Dear Manager:

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

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

Attachment 1 is the List of Restricted Iran Companies. These securities <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 September 25, 2014 letter you received. This new list is effective December 31, 2014.

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

Lukoil Oil Co.

Russia

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

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

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

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

Effective Date: December 31, 2014

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

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

Effective Date: December 31, 2014

TAB C

DATE: February 10, 2015

TO: Members, Investment Advisory Council

FROM: SBI Staff

Staff has reviewed the following information and action agenda items:

• Review of current strategy.

Consideration of new commitments.

1)	Real Estate	Blackstone	(existing manager)
2)	Resource	EnCap Investments, L.P.	(existing manager)
3)	Private Equity	Oaktree Capital Management	(existing manager)
4)	Yield Oriented	Kohlberg Kravis Roberts	(existing manager)
5)	Private Equity	Avenue Capital Group	(new manager)
6)	Private Equity	MHR Fund Management	(new manager)

IAC action is required on the second item.

INFORMATION ITEM:

1) Review of Current Strategy.

To increase overall portfolio diversification, 20% of the Combined Funds is allocated to alternative investments. Alternative investments include real estate, private equity, resource, and yield-oriented investments in which the 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, Blackstone, in Blackstone Real Estate Partners VIII, L.P. (BREP VIII).

Blackstone is seeking investors for a new \$15 billion real estate fund, Blackstone Real Estate Partners VIII. This fund is a successor to seven real estate funds managed by Blackstone Real Estate Partners. The SBI invested in the three most recent funds. BREP VIII will focus on investments in distressed and/or undermanaged properties at below market prices.

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

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

RECOMMENDATION:

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

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

EnCap is seeking investors for a new \$5 billion resource fund, EnCap X. This fund is a successor to nine resource funds managed by EnCap. The SBI invested in the last three of the prior funds. Like the prior funds, EnCap X will focus on providing growth capital through the development of low-risk oil and gas drilling opportunities.

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

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

RECOMMENDATION:

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

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

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

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

More information on Opportunities Fund X and Opportunities Fund Xb is included as **Attachment E**.

RECOMMENDATION:

Staff is requesting that the Investment Advisory Council concur with Staff's recommendation to commit up to \$50 million, or 20% of Opportunities Fund X, whichever is less, and commit up to \$75 million, or 20% of Opportunities Fund Xb. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Oaktree upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Oaktree or reduction or termination of the commitment.

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

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

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

More information on KKRLP II is included as Attachment F.

RECOMMENDATION:

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

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

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

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

More information on the Avenue Energy Opportunities Fund is included as **Attachment G**.

RECOMMENDATION:

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

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

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

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

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

RECOMMENDATION:

Staff is requesting that the Investment Advisory Council concur with Staff's recommendation to commit up to \$75 million, or 20% of MHR Fund IV, whichever is less. Approval 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.

Minnesota State Board of Investment

Pooled Alternative Investments Combined Funds December 31, 2014

Combined Funds Market Value

\$59,965,876,550

Amount Available for Investment

\$4,456,466,952

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

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

Cash Flows December 31, 2014

Year	Capital Calls	Distributions	Net Invested
2014	\$1,378,984,263	(\$2,133,698,037)	(\$754,713,774)
2013	\$1,257,559,066	(\$2,522,817,494)	(\$1,265,258,428)
2012	\$882,478,614	(\$1,458,621,458)	(\$576,142,844)
3 year Total	\$3,519,021,943	(\$6,115,136,989)	(\$2,596,115,046)

ATTACHMENT B

Minnesota State Board of Investment

-Alternative Investments -As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
I. REAL ESTATE			ř					
Blackstone								
Blackstone Real Estate Partners V	100,000,000	97,030,342	86,761,564	95,172,526	4,174,052	10.27	1.88	8.68
Blackstone Real Estate Partners VI	100,000,000	98,737,973	105,233,004	91,327,874	3,520,125	13.35	1.99	7.75
Blackstone Real Estate Partners VII	100,000,000	86,901,513	102,211,333	24,629,618	16,638,636	23.20	1.46	3.09
Blackstone Strategic Partners (CSFB)								
Strategic Partners III RE	25,000,000	25,752,810	9,365,147	4,886,226	9,006	-9.09	0.55	9.50
Strategic Partners IV RE	50,000,000	49,485,825	23,943,520	22,442,342	1,102,388	-1.56	0.94	6.54
Colony Capital								
Colony Investors II	80,000,000	78,482,328	2,600	90,022,404	1,517,672	4.68	1.15	19.75
Colony Investors III	100,000,000	100,000,000	4,559,800	171,942,105	0	14.57	1.77	17.00
Silverpeak Real Estate Partners								
Silverpeak Legacy Pension Partners II	75,000,000	70,753,841	33,025,048	44,736,036	9,857,501	1.83	1.10	9.50
Silverpeak Legacy Pension Partners III	150,000,000	66,143,137	23,540,849	2,698,581	83,274,488	-14.13	0.40	6.61
T.A. Associates Realty								
Realty Associates Fund VII	75,000,000	75,000,000	38,831,360	37,922,599	0	0.35	1.02	10.12
Realty Associates Fund VIII	100,000,000	100,000,000	63,375,108	18,965,283	0	-2.89	0.82	8.50
Realty Associates Fund IX	100,000,000	100,000,000	86,199,548	55,491,204	0	10.42	1.42	6.35
Realty Associates Fund X	100,000,000	85,000,000	89,078,555	6,424,523	15,000,000	10.88	1.12	2.83
		\$5 (\$5.0)		, , ,				=052.0
Real Estate Total II. RESOURCE	1,155,000,000	1,033,287,769	666,127,436	666,661,321	135,093,868		1.29	
Apache Corp.								
1986 Net Profits Interest	30,000,000	30,000,000	2,756,040	57,718,059	0	12.17	2.02	28.00
EIG Global Energy Partners				:=====================================				
EIG Energy Fund XIV	100,000,000	107,481,599	53,689,521	82,556,532	8,292,604	7.95	1.27	7.70
EIG Energy Fund XV	150,000,000	111,957,172	107,966,243	40,791,181	38,042,828	12.93	1.33	4.57
EIG Energy Fund XVI	200,000,000	31,500,000	23,011,223	0	168,500,000		0.73	1.30
EnCap Energy								
EnCap Energy Capital Fund VII	100,000,000	93,493,872	25,033,319	126,297,613	7,058,871	19.51	1.62	7.50
EnCap Energy Capital Fund VIII	100,000,000	72,436,884	79,106,374	18,184,757	27,563,116		1.34	4.25
Encap Energy Fund IX	100,000,000	32,078,309	36,646,260	0	67,921,691		1.14	2.06
Energy & Minerals Group	100,000,000	52,070,307	50,010,200	9	07,721,071	17.10	****	2.00
NGP Midstream & Resources	100,000,000	98,687,797	143,729,296	105,834,420	1,623,226	25.00	2.53	7.75
The Energy & Minerals Group Fund II	100,000,000	76,474,723	134,960,832	190,941	23,535,884		1.77	3.27
The Energy & Minerals Group Fund III	200,000,000	105,090,175	102,389,463	170,915	94,919,663		0.98	0.82
Energy Capital Partners	200,000,000	103,070,173	102,507,405	170,713	74,717,005	-5.15	0.70	0.02
Energy Capital Partners II-A	100,000,000	77,710,914	113,765,952	28,412,880	26,229,619	23.76	1.83	4.45
Energy Capital Partners III	200,000,000	31,165,469	28,836,411	0	168,834,531		0.93	1.03
First Reserve	200,000,000	31,103,407	20,030,411	· ·	100,054,551	-1-1.70	0.75	1.03
First Reserve Fund X	100,000,000	100,000,000	2,219,305	182,429,002	0	31.20	1.85	10.16
First Reserve Fund XI	150,000,000	150,000,000	80,885,852	82,340,975	0	1.86	1.09	8.02
First Reserve Fund XII	150,000,000	144,172,721	121,720,616	46,583,478	5,827,279	4.37	1.17	6.17
First Reserve Fund XIII	200,000,000	10,638,564	7,572,010	40,685	189,361,436		0.72	1.16
NGP	200,000,000	10,000,001	1,572,010	10,000	102,501,150	31.31		1.10
Natural Gas Partners IX	150,000,000	137,292,360	102,111,996	165,101,957	10,047,449	18.86	1.95	7.19
NGP Natural Resources X	150,000,000	101,038,450	120,368,832	7,513,593	48,961,550	16.33	1.27	3.23
Natural Gas Capital Resources XI	150,000,000	0	0	0	150,000,000	0.00	0.00	0.06
Sheridan	150,000,000		0.	0	150,000,000	0.00	0.00	0.00
Sheridan Production Partners I	100,000,000	100,000,000	89,946,004	82,750,000	0	13.65	1.73	7.75
Sheridan Production Partners II	100,000,000	95,750,000	69,764,970	7,000,000	4,250,000		0.80	4.25
	100,000,000			7,000,000	7		1.00	
Sheridan Production Partners III-B	100,000,000	628,005	628,005	.0	99,371,995	0.00	1.00	0.06
Resource Total	2,830,000,000	1,707,597,013	1,447,108,523	1,033,916,989	1,140,341,743		1.45	
III. YIELD-ORIENTED								
Audax Group Audax Mezzanine Fund III	100,000,000	60,368,445	50,216,461	20,078,847	39,631,555	8.05	1.16	4.74
Citicorp Mezzanine								
CM Liquidating Partnership	100,000,000	88,029,296	5,217,087	132,324,719	0	15.96	1.56	15.16
Crescent Capital Group	75.000.00-	60 0 cc 0 cc		10000000	20 801 250	24.00	2 22	
TCW/Crescent Mezzanine Partners III	75,000,000	68,868,042	5,823,578	156,868,939	29,701,079	36.00	2.36	13.75
Gold Hill Venture Lending	AN WWW WW	40 000 000	0.100.000	10 000 000	(/ 240 =	10.50		100
	40,000,000	201 0000 0000	2,135,526	62,355,021	0	10.59	1.61	10.26
Gold Hill Venture Lending Gold Hill 2008	25,852,584	40,000,000 25,852,584	22,705,471	16,020,728		13.12	1.50	6.50

Minnesota State Board of Investment -Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
GS Mezzanine Partners			_	1.31(1.07)				
GS Mezzanine Partners GS Mezzanine Partners 2006 Institutional	100,000,000	74,999,888	16,628,181	112 722 055	25,000,112	4.20	1 55	0.50
GS Mezzanine Partners 2000 Institutional GS Mezzanine Partners V	150,000,000	112,057,963	32,410,059	112,722,855 126,369,514	52,327,832	4.39	1.72	8.73
Merit Capital Partners	130,000,000	112,037,903	32,410,039	120,309,314	32,327,832	9.84	1.42	7.19
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	503,596	112,755,951	2,756,759	15.51	1.98	15.0
Merit Mezzanine Fund IV	75,000,000	70,178,571	28,015,429	73,220,957	4,821,429	8.16		10.0
Merit Mezzanine Fund V	75,000,000	53,632,653	48,849,061	13,289,711	21,367,347	6.48	1.16	5.0
Merit Energy Partners	75,000,000	33,032,033	40,049,001	13,209,711	21,307,347	0.40	1.10	5.0
Merit Energy Partners B	24,000,000	24,000,000	25,847,795	177,126,751	0	24.60	8.46	18.5
Merit Energy Partners C	50,000,000	50,000,000	57,675,330	483,461,062	0	62.56	10.82	16.1
Merit Energy Partners D	88,000,000	70,938,303	85,694,578	295,643,618	0	49.45	5.38	13.6
Merit Energy Partners E	100,000,000	39,983,197	54,846,361	65,313,722	0	33.09	3.01	10.2
Merit Energy Partners F	100,000,000	57,841,607	46,812,524	25,570,667	42,158,394	4.59	1.25	8.7
Merit Energy Partners H	100,000,000	81,860,748	80,936,708	3,339,129	18,139,252	2.02	1.03	3.9
Merit Energy Partners I	200,000,000	4,100,000	4,100,000	0,557,127	195,900,000	0.00	1.00	0.2
Portfolio Advisors	200,000,000	1,100,000	1,100,000		173,700,000	0.00	1.00	0.2
DLJ Investment Partners II	27,375,168	23,164,217	720,880	34,829,566	4,955,172	10.58	1.53	15.0
DLJ Investment Partners III	100,000,000	57,419,984	15,098,102	59,411,216	44,579,305	6.51	1.30	8.5
Prudential Capital Partners		-,,112,207	12,070,102	55,411,210	11,317,303	0.51	1.50	0.5
Prudential Capital Partners I	100,000,000	97,768,017	19	153,982,506	6,975,419	11.06	1.57	13.7
Prudential Capital Partners II	100,000,000	94,945,892	21,976,113	114,654,364	5,456,076	8.71	1.44	9.5
Prudential Capital Partners III	100,000,000	93,721,919	74,220,900	64,419,854	9,184,548	13.23	1.44	5.7
Prudential Capital Partners IV	100,000,000	44,588,357	45,068,397	2,490,228	55,411,643	8.53	1.07	2.9
Summit Partners	,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15,000,571	2,190,220	22,111,013	0.55	1.07	2.7
Summit Subordinated Debt Fund II	45,000,000	40,500,000	159,568	93,649,473	4,500,000	56.28	2.32	17.4
Summit Subordinated Debt Fund III	45,000,000	42,690,965	7,007,897	53,666,733	2,850,000	8.65	1.42	10.8
Summit Subordinated Debt Fund IV	50,000,000	41,855,902	21,771,987	31,377,162	11,644,098	8.97	1.27	6.7
Windjammer Capital Investors		27127-1932-		,- : -,	11,011,000	0.77		0.7
Windjammer Mezzanine & Equity Fund II	66,708,861	52,095,147	1,545,849	79,742,572	14,360,347	8.87	1.56	14.7
Windjammer Senior Equity Fund III	75,000,000	64,451,545	59,124,430	77,372,146	13,139,865	19.15	2.12	8.9
Windjammer Senior Equity Fund IV	100,000,000	40,181,635	37,901,444	3,798,730	60,853,542	3.74	1.04	2.8
Yield-Oriented Total	2,371,936,613	1,673,338,121	853,013,332	2,645,856,741	665,713,771		2.09	
V. PRIVATE EQUITY								
Adams Street Partners		8 2 224 224	Balliotteration or extra					
Adams Street Global Secondary Fund 5	100,000,000	36,620,000	31,223,608	7,384,676	63,380,000	6.87	1.05	2.5
Advent International	Water care as weareness							
Advent International GPE VI-A	50,000,000	47,725,005	55,362,976	32,587,980	2,274,995	18.24	1.84	6.7
Advent International GPE VII	90,000,000	55,080,000	64,452,367	4,140,083	34,920,000	21.18	1.25	2.2
Affinity Ventures								
Affinity Ventures IV	4,000,000	4,000,000	2,360,484	1,541,970	0	-0.55	0.98	10.5
Affinity Ventures V	5,000,000	4,500,000	3,154,717	1,218,342	500,000	-0.83	0.97	6.4
APAX Partners								
Apax VIII - USD	200,000,000	62,899,370	65,519,129	0	137,100,630	4.08	1.04	1.8
aPriori	School Substitution of the							
DLJ Merchant Banking Partners III	125,000,000	121,917,361	7,953,003	279,830,846	3,082,639	19.43	2.36	14.2:
Banc Fund								
Banc Fund VII	45,000,000	45,000,000	39,440,700	812,725	0	-1.42	0.89	9.75
Banc Fund VIII	98,250,000	98,250,000	122,044,775	12,377,973		11.43	1.37	6.68
Banc Fund IX	77,625,000	6,986,250	6,955,238	0	70,638,750	-1.09	1.00	0.56
Blackstone								
Blackstone Capital Partners IV	70,000,000	72,181,020	26,262,181	169,394,001	2,090,288	37.46	2.71	12.4
Blackstone Capital Partners V	140,000,000	130,735,397	98,629,568	112,563,240	11,187,308	7.58	1.62	8.9
Blackstone Capital Partners VI	100,000,000	55,621,487	68,375,395	6,093,079	44,394,934	15.84	1.34	6.4
Blackstone Strategic Partners (CSFB/ DLJ)								
DLJ Strategic Partners	100,000,000	95,073,049	3,412,475	169,849,489	3,376,951	22.41	1.82	13.9
Strategic Partners II-B	100,000,000	83,864,542	4,435,882	155,993,542	10,335,458	35.15	1.91	11.4
Strategic Partners III VC	25,000,000	24,375,164	9,633,023	23,282,199	624,836	6.61	1.35	9.5
Strategic Partners III-B	100,000,000	76,591,271	44,230,901	72,555,861	16,566,633	7.23	1.52	9.5
Strategic Partners IV VC	40,500,000	39,173,621	24,989,617	31,255,886	1,161,485	9.82	1.44	6.54
Strategic Partners IV-B	100,000,000	89,999,212	35,197,252	109,809,232	10,000,788	13.92	1.61	6.7
Strategic Partners V	100,000,000	70,380,016	77,183,634	38,614,856	29,619,984	33.47	1.65	3.37
Strategic Partners VI	150,000,000	27,920,848	31,010,234	0	122,079,152			

Minnesota State Board of Investment

-Alternative Investments -As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
BLUM Capital Partners								
Blum Strategic Partners II	50,000,000	40,185,889	74,998	89,708,870	2,127,584	22.42	2.23	13.45
Blum Strategic Partners III	75,000,000	74,806,485	10,045,888	65,431,373	193,515	-0.43	1.01	9.58
Blum Strategic Partners IV	150,000,000	147,168,674	75,143,019	67,180,550	15,258,645	-0.86	0.97	7.12
Carval Investors			variant and a service and a	S.				
CVI Global Value Fund	200,000,000	190,000,000	71,543,096	243,844,218	10,000,000		1.66	
CVI Credit Value Fund I	100,000,000	95,000,000	138,612,537	46,917,065	5,000,000		1.95	
CVI Credit Value Fund A II	150,000,000	142,500,000	171,083,408	428,690	7,500,000	14.37	1.20	2.17
Chicago Growth Partners (William Blair)	50,000,000	40 150 000	1.5(1.075	(4.402.8((1 650 000	7.05		12.00
William Blair Capital Partners VII	50,000,000	48,150,000	1,561,275	64,492,866	1,650,000		1.37	13.82
Chicago Growth Partners I Chicago Growth Partners II	50,000,000 60,000,000	52,441,998 56,858,323	19,118,403 54,090,709	40,242,061 36,195,525	300,000		1.13	9.43
Court Square Capital Partners	00,000,000	30,636,323	34,090,709	30,193,323	2,889,677	16.90	1.59	6.81
Court Square Capital Partners	100,000,000	80,294,872	754,416	180,410,942	10,505,273	28.93	2.26	13.05
Court Square Capital Partners II	175,000,000	158,869,943	103,471,647	136,583,798	17,770,263		1.51	8.32
Court Square Capital Partners III	175,000,000	53,956,825	50,852,604	7,281,629	121,043,175	6.40	1.08	2.58
Crescendo	175,000,000	33,730,623	30,632,004	7,261,029	121,043,173	0.40	1.00	2.36
Crescendo IV	101,500,000	101,500,000	14,816,024	34,972,153	0	-7.00	0.49	14.81
CVC Capital Partners	101,500,000	101,500,000	14,610,024	34,272,133	U	-7.00	0.47	14.01
CVC European Equity Partners V	133,098,667	121,559,609	93,691,052	72,314,697	11,539,058	10.77	1.37	6.77
CVC Capital Partners VI	274,667,786	22,459,586	17,260,838	545,893	252,715,810		0.79	1.48
Diamond Castle Partners	2,007,700	,,	17,200,000	5.15,055	232,713,010	32.00	0.72	1.70
Diamond Castle Partners IV	100,000,000	91,160,587	7,333,839	91,366,896	8,879,898	1.39	1.08	8.31
DSV Partners			.,,		-1-1-1-1	1.00	1100	0.51
DSV Partners IV	10,000,000	10,000,000	31,639	39,196,082	0	10.61	3.92	29.72
Elevation Partners	, , , , , , , , , , , , , , , , , , , ,		-	, , , , , , , , , , , , , , , , , , , ,				23.72
Elevation Partners	75,000,000	69,116,776	2,854,050	107,494,921	11,968,814	11.44	1.60	9.62
Fox Paine & Company		2000 * 1000 100 100 100 100 100 100 100 100 1	5.000,000,000,000,000,000,000	BOACK MACHINE BARGUERRO			1,5,7,7,051	
Fox Paine Capital Fund II	50,000,000	46,074,444	16,778,541	73,394,027	12,178,394	19.21	1.96	14.50
GHJM Marathon Fund	20 0739	75						
GHJM Marathon Fund V	50,000,000	50,030,209	10,411,672	86,476,813	46,502	12.43	1.94	10.25
TrailHead Fund	20,000,000	10,014,187	10,319,490	6,955	9,985,813	1.40	1.03	2.85
GS Capital Partners								
GS Capital Partners 2000	50,000,000	50,000,000	5,090,430	107,802,925	0	23.45	2.26	14.33
GS Capital Partners V	100,000,000	66,390,364	25,784,369	161,954,514	26,041,099	17.37	2.83	9.75
GS Capital Partners VI	100,000,000	68,659,033	30,738,839	67,331,955	23,507,961	5.01	1.43	7.91
GTCR Golder Rauner								
GTCR VI	90,000,000	90,000,000	2,254,442	77,813,800	0	-3.86	0.89	16.50
GTCR VII	131,250,000	129,390,615	434,481	306,551,141	1,859,375		2.37	14.90
GTCR IX	75,000,000	69,539,933	48,888,750	67,602,926	5,460,067	12.97	1.68	8.50
GTCR X	100,000,000	86,466,544	103,492,558	14,451,682	13,533,456	15.47	1.36	4.06
GTCR Fund XI	110,000,000	7,975,000	7,431,033	0	102,025,000	-6.88	0.93	1.13
Hellman & Friedman		117 117 000				Table 1800		Harvarria Nazi
Hellman & Friedman Capital Partners V	160,000,000	146,115,880	8,319,450	408,813,493	15,917,142		2.85	10.08
Hellman & Friedman Capital Partners VI	175,000,000	168,619,702	61,331,118	255,261,765	7,502,917		1.88	7.75
Hellman & Friedman Capital Partners VII	50,000,000	36,150,322	36,954,945	4,778,890	13,849,678	9.10	1.15	5.70
IK Investment Partners	107 000 007	02 655 200	90 210 900	7 270 701	04 222 027	11.00	0.03	1.20
IK Fund VII	187,889,027	93,655,200	80,219,899	7,279,701	94,233,827	-11.00	0.93	1.30
Kohlberg Kravis Roberts KKR Millennium Fund	200,000,000	200,000,000	67,506,094	343,728,867	0	16.52	2.06	12.06
KKR 2006 Fund	200,000,000	208,782,222	157,294,008	156,934,900	0 11,648,497	16.53 7.87	2.06 1.51	12.06
Leonard Green & Partners	200,000,000	200,702,222	137,294,008	130,934,900	11,040,497	7.07	1.51	8.26
Green Equity Investors VI	200,000,000	97,867,725	99,898,994	2,022,133	102,132,275	4.43	1.04	2.80
Lexington Capital Partners	200,000,000	71,001,125	77,676,777	2,022,133	102,132,273	7.73	1.04	2.00
Lexington Capital Partners VI-B	100,000,000	98,365,297	51,904,610	88,533,253	1,634,703	8.42	1.43	9.02
Lexington Capital Partners VII	200,000,000	151,089,836	126,177,127	93,926,241	48,910,164	18.77	1.46	5.55
Lexington Capital Partners VIII	150,000,000	0	0	0	150,000,000	0.00	0.00	0.82
Merced Capital	Commence of the Commence of th	15	-					0.02
Merced Partners II	75,000,000	63,768,881	23,140,321	104,406,983	0	24.42	2.00	7.75
Merced Partners III	100,000,000	100,000,000	98,429,318	29,997,107	0	8.40	1.28	4.65
Merced Partners IV	125,000,000	71,875,000	71,013,722	0	53,125,000	-1.79	0.99	1.47
Nordic Capital								
			CONTRACTOR OF CONTRACTOR	1,000,000,000,000,000				
Nordic Capital Fund VIII	186,171,277	68,291,555	61,206,518	49,418	117,879,722	-18.77	0.90	1.30
	186,171,277	68,291,555	61,206,518	49,418	117,879,722	-18.77	0.90	1.30

Minnesota State Board of Investment -Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Paine & Partners								
Paine & Partners Capital Fund IV	100,000,000	0	0	0	100,000,000	0.00	0.00	0.05
PERMIRA								
Permira V	187,924,529	64,771,667	56,242,523	174,697	123,152,862	-20.25	0.87	1.00
Public Pension Capital Management		02318000082520		the section	,,			
Public Pension Capital	92,000,000	838,921	838,921	0	91,161,079	-27 59	1.00	0.63
RWI Ventures					,,,,,,,,,	21.02	1.00	0.0.
RWI Ventures I	7,603,265	7,603,265	493,449	6,094,262	0	-4.57	0.87	8.50
Sightline Healthcare	7,003,203	7,005,205	123,112	0,071,202	1.9	1.57	0.07	0.0
Sightline Healthcare Fund III	20,000,000	20,000,000	668,519	6,268,468	0	-11.61	0.35	15.9
Sightline Healthcare Fund IV	7,700,000	7,753,673	2,718,773	4,621,834	0			
Silver Lake Partners	7,700,000	1,155,015	2,710,775	7,021,037	· ·	-1.51	0.73	11.2
Silver Lake Partners II	100,000,000	89,878,650	50,905,073	106 175 490	11 117 210	10.20	1.75	10.5
Silver Lake Partners II	100,000,000	85,480,811	77,066,108	106,175,489 73,323,072	11,117,218	10.38 17.89		
Silver Lake Partners IV	100,000,000		THE RESERVE OF THE PROPERTY OF THE PERSON OF	111111111111111111111111111111111111111	15,397,854			
	100,000,000	22,765,767	29,351,516	92,857	77,327,090	48.97	1.29	2.2
Split Rock Partners	50,000,000	15 272 727	20.277.552	2.061.520	4 (27 272	2 (7	0.00	0.6
Split Rock Partners	50,000,000	45,372,727	32,276,552	3,961,529	4,627,273	-3.67		
Split Rock Partners II	60,000,000	50,705,000	42,485,905	7,770,098	8,595,000	-0.39	0.99	6.6
Summit Partners						14 900		
Summit Ventures V	25,000,000	24,125,000	98,429	33,274,796	875,000	8.11		
Summit Partners Growth Equity Fund VIII	100,000,000	58,500,000	54,967,614	10,098,648	41,500,000	10.53		3.6
T. Rowe Price	98,424,155	98,424,155	46,156,673	60,211,993	0	8.55	1.08	6.8
Thoma Cressey								
Thoma Cressey Fund VI	35,000,000	33,915,000	699,866	34,128,882	1,085,000	0.31		16.3
Thoma Cressey Fund VII	50,000,000	50,000,000	7,890,634	98,172,406	0	23.67	- and - die	
Thoma Cressey Fund VIII	70,000,000	68,932,574	73,713,021	106,102,406	770,000	16.15	2.61	8.6
Thomas, McNerney & Partners								
Thomas, McNerney & Partners I	30,000,000	29,400,000	11,578,934	10,504,694	600,000	-5.53	0.75	12.1
Thomas, McNerney & Partners II	50,000,000	46,125,000	51,109,551	13,574,160	3,875,000	7.90	1.40	8.5
Varde Fund								
Varde Fund IX	100,000,000	100,000,000	42,868,402	158,166,635	0	14.90	2.01	6.52
Varde Fund X	150,000,000	150,000,000	226,620,600	0	0	11.94	1.51	4.70
Varde Fund XI	200,000,000	180,000,000	196,717,680	0	20,000,000	7.83	1.09	1.4
Vestar Capital Partners								
Vestar Capital Partners IV	55,000,000	52,761,494	2,290,807	95,631,368	746,945	13.58	1.86	15.04
Vestar Capital Partners V	75,000,000	74,939,471	62,811,655	23,187,761	385,758	2.55	1.15	9.0
Vestar Capital Partners VI	100,000,000	33,844,565	33,785,153	4,464,332	66,155,435	12.34	1.13	3.2
Warburg Pincus								
Warburg Pincus Equity Partners	100,000,000	100,000,000	4,696,289	158,591,853	0	10.03	1.63	16.5
Warburg Pincus Private Equity VIII	100,000,000	100,000,000	46,958,892	193,549,119	0	15.73	2.41	12.7
Warburg Pincus Private Equity IX	100,000,000	100,000,000	35,408,409	143,080,606	0	10.55	1.78	9.4
Warburg Pincus Private Equity X	150,000,000	150,000,000	121,342,506	92,202,492	0	8.67	1.42	7.19
Warburg Pincus Private Equity XI	200,000,000	114,083,377	127,725,344	5,605,000	85,916,623		1.17	2.03
Wayzata	200,000,000	1.1,005,577	, 2, , , 20, 5, 7	5,005,000	05,710,025	15.70	1.17	2.0.
Wayzata Opportunities Fund	100,000,000	93,180,000	31,441,271	142,295,234	6,820,000	9.97	1.86	9.03
Wayzata Opportunities Fund II	150,000,000	57,450,000	60,359,472	144,214,350	92,550,000	17.19	3.56	7.19
Wayzata Opportunities Fund III	150,000,000	33,165,000	30,968,880	136,917	116,835,000	-8.50	0.94	2.54
The state of the s	150,000,000	33,103,000	30,700,000	130,917	110,033,000	-6.50	0.94	2.34
Welsh, Carson, Anderson & Stowe Welsh, Carson, Anderson & Stowe VIII	100,000,000	100,000,000	123,147	120 660 552	0	2 12	1.20	16.44
	125,000,000	(5)		128,668,552	1 250 000	3.12	1.29	16.4
Welsh, Carson, Anderson & Stowe IX		123,750,000	19,452,881	185,122,647	1,250,000	11.19	1.65	14.51
Welsh, Carson, Anderson & Stowe X	100,000,000	98,578,466	53,914,206	92,517,894	2,000,000	6.73	1.49	9.04
Welsh, Carson, Anderson & Stowe XI	100,000,000	90,931,929	74,524,087	55,095,051	9,068,071	13.50	1.43	6.44
Welsh, Carson, Anderson & Stowe XII	150,000,000	0	0	0	150,000,000	0.00	0.00	0.00
Private Equity Total	10,523,603,706	7,541,321,640	4,570,459,066	7,210,113,799	2,985,959,344		1.56	
Alternatives Total	16,880,540,319	11,955,544,543	7,536,708,358	11,556,548,850	4,927,108,727		1.60	
otes								

Notes

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

^{*} MOIC: Multiple of Invested Capital

ATTACHMENT C

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

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

III. Investment Strategy

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

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

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

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

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

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

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

IV. Investment Performance

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

Inception Fund Date		Total Invested Capital	SBI Investment	Net IRR from Inception*	Net MOIC from Inception*	
BREP Fund I	1994	\$467 million	\$0	40%	2.4	
BREP Fund II	1996	\$1,219 million	\$0	19%	1.8	
BREP Fund III	1999	\$1,415 million	\$0	21%	2.0	
BREP Fund IV	2003	\$2,737 million	\$0	14%	1.5	
BREP Fund V	2006	\$5,771 million	\$100 million	11%	1.7	
BREP Fund VI	2007	\$10,894 million	\$100 million	14%	1.9	
BREP Fund VII	2011	\$12,229 million	\$100 million	27%	1.4	

^{*} Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) were provided by BREP.

V. General Partner's Investment

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

VI. Takedown Schedule

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

VII. Management Fee

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

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

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

VIII. Distributions

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

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

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

IX. Investment Period and Term

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

^{*} This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM. Nothing contained herein should be construed as an offer to sell or the solicitation of an offer to buy an interest in any Blackstone Real Estate fund or any current or future Blackstone fund.

ATTACHMENT D

RESOURCE MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

III. Investment Strategy

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

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

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

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

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

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

IV. Investment Performance

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

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

^{*} Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) were provided by EnCap.

V. General Partner's Investment

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

VI. Takedown Schedule

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

VII. Management Fee

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

VIII. Distributions

Distributions will be made in the following order and priority:

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

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

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

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

IX. Investment Period and Term

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

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

X. Key-Person Termination

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

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

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

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

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

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

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

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

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

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

III. Investment Strategy

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

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

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

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

IV. Investment Performance

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

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

^{*} Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) are provided by Oaktree.

V. General Partner's Investment

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

VI. Takedown Schedule

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

VII. Fees

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

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

VIII. Distributions

Distributions will be made in the following order and priority:

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

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

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

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

IX. Key-Person Termination

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

X. Investment Period and Term

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

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

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

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

ATTACHMENT F

YIELD-ORIENTED MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

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

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

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

III. Investment Strategy

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

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

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

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

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

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

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

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

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

IV. Investment Performance

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

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

^{*} Previous Fund investments may be relatively immature and therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) are provided by KKR.

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

V. General Partner's Investment

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

VI. Takedown Schedule

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

VII. Fees

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

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

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

VII. Distributions

Distributions will be made in the following order and priority:

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

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

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

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

IX. Key-Person Termination

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

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

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

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

X. Investment Period and Term

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

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

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

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

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

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

III. Investment Strategy

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

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

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

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

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

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

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

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

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

IV. Investment Performance

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



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

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

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

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

V. General Partner's Investment

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

VI. Takedown Schedule

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

VII. Fees

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

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

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

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

VIII. Distributions

Distributions will be made in the following order and priority:

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

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

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

IX. Key-Person Termination

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

X. Investment Period and Term

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

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

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

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

II. Organization and Staff

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

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

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

III. Investment Strategy

MHR pursues a control focused, private equity strategy to invest in distressed middle market companies. MHR seeks to achieve control of an investment at lower valuations than traditional private equity strategies by acquiring debt, structuring loans or purchasing equity of a distressed company. MHR does not utilize leverage to generate returns, and MHR investments generally have a lower Debt/EBITA ratio than other LBOs. MHR uses

its industry and portfolio company relationships to source deals and seeks to capitalize on inefficiencies found in various industries.

When entering an investment, MHR focuses on companies with hard assets, long-term contracts, free cash flow generation, contracted backlog and/or a strong balance sheet. These factors, together with strong covenants, collateral protections and equity participation, when applicable, provide downside protection and upside potential. A key element of MHR's strategy is the idea that it can effectuate control and create value in its investments without majority ownership or paying a control premium. As such, the Firm may attempt to gain board seats and influence or change management while owning less than a majority stake. Often times other large investors in a portfolio company welcome MHR's role in leading a turnaround or growth process.

Once in a position of control, MHR believes it has the experience necessary to execute complicated turnaround and restructuring processes. Further, once the company is restructured, MHR seeks to create long-term value by improving operations, growing the company, and making a successful exit. MHR uses its industry relationships to implement strategies that may include replacing the management team, participating on the board of directors, improving profitability, pursuing strategic M&A opportunities, and/or expanding product lines.

MHR's target investment size is \$100 million to \$300 million, and over 90% of prior funds exposure was North America. The primary focus of Fund IV will be North America, but MHR will evaluate investments in other regions including the current focus of sourcing U.S. corporate credit exposure from distressed European banks. MHR does not typically seek to invest in very large bankruptcies or trading oriented strategies that larger private equity funds pursue. Rather, the Firm focuses on smaller deals that are more difficult to source and analyze, where its industry connections and smaller size give what MHR perceives to be a competitive advantage.

IV. Investment Performance

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

Fund	Inception Date	Total Invested	Net IRR from Inception *	Net MOIC from Inception*	Fund Status
Fund I	1998	\$256 million	17%	2.3	Liquidating
Fund II	2003	\$782 million	16%	1.9	Active
Fund III	2007	\$3.1 billion	11%	1.5	Active

^{*} Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) were provided by MHR.

V. General Partner's Investment

The General Partner and its affiliates will commit to invest 2% of targeted capital commitments.

VI. Takedown Schedule

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

VII. Fees

The Partnership will pay a management fee to the Manager quarterly in advance, starting on the date of the initial investment, at the following rate:

- (i) during the commitment period of up to 7.5 years (commencing on the initial investment date and ending 6 years after the final closing date), 1.75% per annum of capital commitments;
- (ii) after the commitment period, 1.75% per annum of the cost basis of unrealized portfolio investments as calculated on January 1 and July 1 of each year.

If the General Partner of any of its affiliates receive any transaction, break-up, director or advisor fees in connection with a portfolio investment or potential portfolio investment, generally 100% of the amount of such fees will be applied ratably to offset expenses relating to the portfolio investment and thereafter to reduce the management fees payable to the partnership.

VIII. Distributions

Distributions will be made in the following order and priority:

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

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

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

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

IX. Key-Person Termination

In the event of the death or permanent disability of Mr. Rachesky, or in the event that he ceases to devote the requisite working time to the Partnership and in the event the General Partners is subject to a disabling event, the Partnership will be dissolved unless limited partners whose commitments represent at least 75% of all commitments vote to continue the Partnership.

X. Investment Period and Term

The commitment period ends six years after the final closing date. The Partnership's term will be ten years from the final closing date, subject to extension by the General Partner for up to three additional consecutive one-year periods.

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

TAB D

DATE:

February 10, 2015

TO:

Members, Investment Advisory Council

FROM:

SBI Staff

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

As noted in prior meetings, Staff is in the process of revising the quarterly reports to the State Board of Investment and the Investment Advisory Council. We anticipate that these changes will take place over the course of the next several quarters.

The current section has been restructured and streamlined from prior reports. The focus of this section will be to present a brief overview of economic and capital market performance as it pertains to the SBI portfolio. Also, included in this section is a summary of investment manager activity and performance summaries of the equity and fixed income managers in the SBI portfolio.

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

Hopefully, you will find our revisions helpful. However, please note that this remains a work-in progress and we anticipate additional revisions over the next year.

The report includes the following sections:

•	Public Markets Economic and Market Overview	Page 3
•	Public Markets Manager Activity	5
•	PIMCO Update	7
•	Non-Retirement Manager Update	9
•	Deferred Compensation Manager Update	11
•	Manager Performance Summaries	A-1

Public Markets Economic and Market Overview Fourth Quarter 2014

Overview

The U.S. economy continued to improve in the fourth quarter, albeit at a slower rate. One indication of its improvement was the Federal Open Market Committee's expected decision to conclude its asset purchase program in October. The Committee stated an improvement in the labor market and "sufficient underlying strength in the broader economy" as some of the points supporting their decision. Not to disappoint, the initial fourth quarter GDP estimate came in at 2.6% and the unemployment rate ticked down to 5.6% to close the year. The 12-months ended seasonally adjusted CPI increased 0.8%, but was impacted by the sixth straight month of declines in the gasoline and fuel oil indices.

The price of oil, and the Energy sector overall, was a running headline in the fourth quarter. The price of a light, sweet crude oil futures contract declined from \$91.16/barrel on September 30th to \$53.27/barrel on December 31st. The wallets of U.S. consumers are benefitting from the price decline as the average price of a gallon of gas closed the year at \$2.61, down (24%) from the beginning of the quarter.

Within the *Russell 3000 Index*, while the Energy sector was the largest detractor, declining (13.3%), the Index overall gained 5.2%. The Consumer Discretionary sector was the top performer, advancing 8.7%. Small Cap stocks bounced back in the fourth quarter as the *Russell 2000 Index* charged ahead by 9.7%. The market was not as kind to International and Emerging Market equities. The *MSCI ACWI Free ex USA (net) Index* declined (3.9%) and the *MSCI Emerging Markets Free (net) Index* dropped (4.5%).

In Fixed Income markets, the *Barclays Aggregate Index* gained 1.8% for the quarter. Within the U.S. Treasuries market, 30-year yields fell from 3.2% to 2.8% and 10-year yields slid from 2.5% to 2.2%. Yield changes within Fixed Income sectors ranged from Floating Rate bonds which increased from 1.0% to 1.6% to Mortgage-Backed Securities (MBS) which decreased from 2.9% to 2.6%.

SBI Portfolio

Quarterly performance for the SBI's portfolio had a similar story as the overall markets. For the equity allocation, domestic equities returned 5.2%, which was in line with the *Russell 3000 Index*, and international and emerging market stocks declined by (3.0%), which was 70 basis points (bps) better than its aggregate benchmark. The fixed income allocation added 1.7%, which slightly trailed the *Barclays Aggregate Index* by 10 bps.

Domestic Equity

Domestically, large cap growth managers trailed the *Russell 1000 Growth Index* slightly as poor stock selection, particularly in the Consumer Discretionary sector, was a drag on performance. Large cap value managers also slightly trailed its benchmark, the *Russell 1000 Value Index*, for the quarter. A combination of poor stock selection and an underweight in the strong-performing Utilities and Financial Services sectors had the biggest impact. Within small cap equity, active small cap growth managers collectively trailed the *Russell 2000 Growth Index*, mainly due to

McKinley's relative underperformance of 476 basis points. Specific to McKinley, subpar stock selection in the Materials & Processing sector impaired returns. Moreover, an overweight to the out-of-favor Energy sector, along with an underweight in the favorable Health Care sector, further derailed performance. It was a similar story for active small cap value managers as the overall portfolio trailed the *Russell 2000 Value Index* for the quarter. Poor stock selection in the Materials and Processing sector was the largest drag on relative performance. Also, with the bullish rally, cash was a contributor to underperformance.

International Equity

Internationally, active managers outperformed the MSCI ACWI Free ex USA (net) Index for the quarter, as stock selection and sector allocation added alpha. On a sector level, consumer discretionary was the biggest contributor and on a country level, the United Kingdom, Germany, and Canada were the biggest contributors. Semi-passive international managers outperformed due to astute stock selection in the energy, telecommunications, and industrials sectors.

Emerging Markets Equity

Within Emerging Markets, performance was in-line with the MSCI Emerging Markets Free (net) Index. During the quarter, active managers benefitted from an overweight position and smart stock selection in India, and also underweight positions in Russia and Brazil. However, these positive relative contributions were offset by negative stock selection in Mexico and Malaysia. The passive Emerging Markets portfolio produced positive tracking error primarily due to avoiding restricted stocks (Iran and Sudan) in the benchmark, coupled with the subsequent overweight positions in non-restricted names.

Fixed Income

For the SBI's Fixed Income allocation, active managers slightly underperformed the *Barclays Aggregate Index* by 10 bps while the semi-passive managers performed in line with the Index. The portfolio's underweight in duration detracted from performance as oil prices and general weakness in the Euro zone led to a rally in Treasury prices. The overweight in corporate bonds also diminished performance as credit spreads widened during the quarter. Positive performance was generated through the portfolio's overweight in Commercial MBS, which outperformed by 23 bps.

Public Markets Manager Activity Fourth Quarter 2014

Manager Summary

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

Pyramis (International Developed Markets Equity)

On October 15, Pyramis announced the appointment of a new CEO/President, Jeff Lagarce. A few days earlier, Abigail Johnson was appointed CEO of Fidelity, Pyramis' parent company. Staff had a call with Pyramis to discuss the change in management and has no concerns. Staff does not expect any material impact to their investment process at this time, but will continue to monitor for any organizational impact.

AQR (International Developed Markets Equity)

Ten years ago, AQR sold a minority interest of the firm to an outside investor, Affiliated Managers Group, Inc. (AMG). In December 2014, AQR announced that they had restructured that agreement to modestly increase AMG's ownership percentage, which will remain below 30%. AQR intends to invest the proceeds of the transaction into the investment strategies run by the company. The Founding Principals (3) and Principals (18) will enter into multi-year agreements to commit themselves to AQR. Staff has no concerns with the change, but will continue to monitor.

PIMCO (Fixed Income)

Saumil Parikh, the primary portfolio manager on the SBI strategy since Bill Gross' September 2014 departure, left the firm effective mid-January. PIMCO has requested to transition the SBI portfolio to Marc Seidner. Marc is CIO of Non-traditional strategies and head of portfolio management in the New York office, in addition to being a generalist portfolio manager and a member of the Investment Committee. Mr. Seidner had previously been with PIMCO for five years before leaving in January 2014 and rejoining the firm in November of 2014. Members of the SBI met with key PIMCO personnel in January, including Mr. Seidner, in our ongoing evaluation and monitoring of the organization. Staff is confident in Mr. Seidner's ability to manage the SBI portfolio, but will continue to monitor the situation. Please refer to the "PIMCO Update" on page 7.

Neuberger Berman (Fixed Income)

Neuberger Berman is now 100% employee-owned after purchasing the remaining common equity shares held by non-employees. Neuberger announced its intentions of purchasing the 48% of common equity held by non-employees in 2011 and has been acquiring the non-employee equity since the announcement. The remaining shares were purchased in December 2014. Staff has no concern with the ownership change.

McKinley (Domestic Small Cap Growth and International Developed Markets)

The firm has experienced asset losses and staff turnover in past few years. In 2014, through the end of October, assets under management have decreased by approximately \$650 million, over 9% of the firm assets. Regarding personnel turnover, five employees departed in 2013. Staff will continue to monitor. Despite these challenges, performance has improved the past several years as momentum has regained favor in each portfolio.

Manager Meetings

During the due diligence trip to meet with PIMCO, Staff also met with two current fixed income managers (Western Asset and Dodge & Cox) and two prospective fixed income managers (Doubleline Capital and Trust Company of the West).

Staff reviewed and affirmed that Western Asset (Pasadena, California) and Dodge & Cox (San Francisco, California) continue to adhere to their investment philosophy and process. Western has restructured and realigned their securitized desk and mortgage teams which will enable them to branch out and have improved focus on areas such as Collateralized Mortgage Back Securities (CMBS). The organization has continued to improve its risk management function and its integration into its day-to-day operation. Staff also discussed Dodge & Cox's strategy to navigate the current low interest rate environment to better understand why Dodge & Cox maintain the shortest duration positioning with the SBI's fixed income portfolio.

Staff met with members of the fixed income groups at Doubleline Capital Management and Trust Company of the West (both of Los Angeles, California). Each of these organizations have established strong fixed income franchises. These organizations will remain on staff's radar for continued monitoring in the event there is a determination that either firm has viable strategies for the SBI in the future.

Staff has commenced a more formalized and systematic "Annual Review" process for the Public Markets managers. During the first quarter of 2015, the following SBI Stock and Bond managers are scheduled for Annual Reviews at the SBI office:

In	vestment Manager	Asset Class
•	Acadian Asset Management LLC	International Equity
•	State Street Global Advisors (SSgA)	International Equity
•	Goldman Sachs Asset Management	Fixed Income
•	Aberdeen Asset Management Inc.	Fixed Income
•	Jacobs Levy Equity Management, Inc.	Domestic Equity
•	INTECH Investment Management LLC	Domestic Equity
•	McKinley Capital Management, LLC	Domestic Equity International Equity
•	Marathon Asset Management LLP	International Equity

PIMCO Update January 2015 Meeting

At the November 2014 IAC meeting, staff reported that they would be meeting with PIMCO at their Newport Beach office to further monitor and evaluate the organization. Staff (Cassie Boll, Aaron Griga and Ryan Hill) met with PIMCO in January 2015. Prior to the trip, PIMCO announced the departure of Saumil Parikh, the portfolio manager assigned to the SBI portfolio in September of 2014. Marc Seidner, CIO of Non-Traditional Strategies, was assigned to the SBI portfolio upon departure of Mr. Parikh. The due diligence trip allowed staff to evaluate PIMCO in light of recent organizational changes, and to meet with and evaluate Mr. Seidner.

Investment Process

SBI staff discussed PIMCO's investment process with several key people at the organization. Discussions, which centered on PIMCO's investment process and risk management, included the following:

David Fisher, the Total Return product manager,
Matthew Putnicki, a senior member of PIMCO's portfolio risk team,
Marc Seidner, CIO Non-traditional strategies,
Mohit Mittal, manager of investment grade credit,
Daniel Hyman, co-head of the agency mortgage team, and
Craig Dawson, head of strategic business.

PIMCO stressed that their investment process has not changed with the departure of Bill Gross. The process still begins with the Investment Committee. The Investment Committee members define a set of market views which are translated into portfolio targets. The portfolio managers then use these targets and market themes when implementing portfolio strategies. Although the investment process has not changed, ideas and the exchange of information are now more readily accepted throughout the firm. The six CIO's were put in place to provide stability and to move away from having only one key person.

Overall Organization and Retention Program

PIMCO, who is a majority owned subsidiary of Allianz, continues to operate autonomously as their relationship with Allianz remains strong. PIMCO has been allowed to increase expenses to roll out a new employee retention program. The program applies to all employees that are not participating in the PIMCO profit pool including senior portfolio managers below the level of managing director. The program consists of a bonus that is awarded in the 4th quarter and is paid out over the next 12 to 30 months. PIMCO plans on growing other areas of their business such as equities and alternative investments but is planning on slower, organic growth rather than pursuing acquisitions.

Outflows

PIMCO continues to see outflows with \$9.5 billion having left in November and \$19.4 in December. This left assets in the Total Return mutual fund at \$143.4 billion at the end of December, down from \$222 billion prior to Gross' departure. PIMCO continues to state that they

have sufficient liquidity to meet redemptions and that outflows have not impacted their investment strategy.

Performance as of Dec 31, 2014

	Last Quarter	1 year	Last 3 Years	Last 5 Years	Since Inception	Inception Date
PIMCO	2.09	5.55	4.42	5.93	7.22	10/01/2008
Barclays Aggregate Index	1.79	5.97	2.66	4.45	5.25	10/01/2008

Marc Seidner

As mentioned above, PIMCO recently announced the departure of SBI's portfolio manager, Saumil Parikh. Marc Seidner will be replacing Mr. Parikh as the portfolio manager for the SBI's separately held portfolio. Mr. Seidner had previously been with PIMCO for five years before leaving in January 2014. He returned to the firm in November 2014 and is now CIO of Non-Traditional Strategies. In addition to his CIO duties he is managing director and head of portfolio management in the New York office. He is also a generalist portfolio manager and a member of the Investment Committee. Mr. Seidner has 27 years of investment experience including experience managing core and core plus portfolios.

Staff Assessment and Approach

PIMCO continues to have strong investment capabilities and a deep bench of talent. Although the departure of SBI's portfolio manager is concerning, staff understands there will be shifting within PIMCO's organization. Our concerns would increase if there were a large number of departures or material changes in PIMCO's executive team. PIMCO is in the process of recruiting top talent and has put a retention policy in place to help prevent departures. Staff believes Mr. Seidner is a very capable replacement for Mr. Parikh as its portfolio manager. In addition to Mr. Seidner's experience as a portfolio manager, his participation on the Investment Committee provides him with a broader perspective in the overall management of the SBI portfolio. Staff will continue to monitor the developments at PIMCO. However, we anticipate that the transitioning of the organization that began with Mr. Gross' departure will subside over the next couple of quarters. PIMCO remains a leading asset management company with significant strengths and expertise in managing fixed income portfolios of type and scale similar to SBI's.

Non-Retirement Manager Update Fourth Quarter 2014

Domestic Equities

GE Asset Management

The performance in the domestic equity portfolio lagged the benchmark for the quarter and for the year. Stock selection in energy, financials, and utilities contributed to the underperformance for the quarter. For the year, stock selection in energy, financials, and industrials detracted from relative performance.

Internal Stock Pool

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

Fixed Income

RBC Global Asset Management

The fixed income portfolio tracked the benchmark for the quarter and for the year. For the quarter, the portfolio benefited from out-of-benchmark allocation but the slightly short duration detracted from performance. For the year, excess yield and spread tightening in municipals and agency CMBS benefited performance.

Internal Bond Pool

The portfolio slightly underperformed the benchmark for the quarter and outperformed for the year. For the quarter, the portfolio's underweight to duration and overweight in the corporate sector detracted from returns.

Management of the internal bond pool transitioned to Aaron Griga and Cassie Boll, both Investment Officers, from Mike Menssen beginning of 3Q2014. Mike Menssen will continue to have oversight of the portfolio as part of his responsibilities as Director of Public Markets.

Deferred Compensation Managers Fourth Quarter 2014

Domestic Equities

Janus Twenty

The domestic equity portfolio outperformed its benchmark for the quarter and underperformed for the year. Stock selection will have the most impact to the portfolio's performance due to its concentrated investment strategy. The portfolio currently has 32 holdings. For the quarter, relative performance benefited from stock selection in energy, industrials, and information technology. The one year relative underperformance resulted from holdings with global earnings exposure in the consumer discretionary and consumer staples sectors.

Vanguard Institutional Index Plus

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

Vanguard Mid-Cap Index

The mid-cap equity portfolio tracked the benchmark for the quarter and the year.

T. Rowe Price

The small cap equity portfolio underperformed the benchmark for the quarter and outperformed for the year. For the quarter, stock selection in financials and materials detracted from relative performance. For the year, stock selection in health care, industrials and consumer discretionary benefited relative performance.

International Equities

Fidelity Diversified International

The portfolio outperformed the benchmark for the quarter and the year. The portfolio benefited from positive stock selection in the information technology, consumer discretionary and health care sectors, along with an underweight in energy.

Vanguard Total International Stock Index

The portfolio underperformed the benchmark for the quarter by 50 basis points and for the year by 100 basis points. Tracking error is due to fair value pricing. This price adjustment to the NAV should even out over a longer period of time.

Fixed Income

Dodge & Cox Income Fund

The portfolio underperformed the benchmark for the quarter and the year. The portfolio's defensive duration positioning and overweight to corporate bonds detracted from performance for both the quarter and the year.

Vanguard Total Bond Market Index

The portfolio underperformed the benchmark for the quarter and the year by 10 basis points.

Balanced and Conservative Options

Vanguard Balanced

The portfolio matched the benchmark return for the quarter and the year.

Galliard Capital Management (Stable Value)

The stable value portfolio outperformed the benchmark for the quarter and the year. For the quarter, holdings in structured securities, such as Agency MBS, CMBS, and ABS, benefited returns as they outperformed like-duration Treasuries. An overweight to non-Treasury sectors, particularly structured securities, and positions in intermediate corporate bonds benefited returns for the year.

During the quarter, American General Life replaced RBC as a wrap provider for the portfolio.



STATE BOARD OF INVESTMENT

Domestic Equity Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Domestic Equity

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COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

Periods Ended December 31, 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	3.7	9.6	21.6	16.4
Russell 1000 Growth Index	4.8	13.0	20.3	15.8
Russell 1000 Value Aggregate	4.7	13.1	21.7	15.2
Russell 1000 Value Index	5.0	13.5	20.9	15.4
Russell 2000 Growth Aggregate	7.6	-3.4	16.8	14.2
Russell 2000 Growth Index	10.1	5.6	20.1	16.8
Russell 2000 Value Aggregate	9.0	7.5	21.9	17.7
Russell 2000 Value Index	9.4	4.2	18.3	14.3
Active Manager Aggregate	5.2	9.3	20.9	15.5
Benchmark	6.0	11.0	20.3	15.6
Semi-Passive Aggregate	5.3	14.2	21.4	16.1
Benchmark	4.9	13.2	20.6	15.6
Passive Manager (BlackRock)	5.2	12.6	20.5	15.6
Russell 3000 Index	5.2	12.6	20.5	15.6
Total Aggregate	5.2	12.3	21.0	15.8
Russell 3000 Index	5.2	12.6	20.5	15.6

Calendar Years

	2014	2013	2012	2011	2010
Russell 1000 Growth Aggregate	9.6	42.0	15.5	-0.4	19.3
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 December 2014

Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Russell 1000 Growth Index	4.8	13.0	20.3	15.8	
INTECH	7.4	12.8	21.2	16.3	7.7
Benchmark	4.8	13.0	20.3	15.8	8.5
Jacobs Levy	5.3	12.9	20.5	17.4	7.4
Benchmark	4.8	13.0	20.3	15.8	8.5
Sands Capital	3.8	9.1	24.5	20.2	10.7
Benchmark	4.8	13.0	20.3	15.8	8.5
Winslow-Large Cap	5.6	11.0	20.2	15.2	9.7
Benchmark	4.8	13.0	20.3	15.8	8.5
Zevenbergen Capital	-2.1	3.4	21.5	14.7	10.3
Benchmark	4.8	13.0	20.3	15.8	9.1
Aggregate	3.7	9.6	21.6	16.4	
Russell 1000 Value Index	5.0	13.5	20.9	15.4	**
Barrow, Hanley	4.1	13.0	20.9	14.7	8.4
Benchmark	5.0	13.5	20.9	15.4	8.0
Earnest Partners	6.5	14.0	18.6	13.5	6.5
Benchmark	5.0	13.5	20.9	15.4	7.2
LSV Asset Mgmt.	4.9	14.0	24.7	17.0	9.4
Benchmark	5.0	13.5	20.9	15.4	8.0
Systematic Financial Mgmt.	3.8	11.6	21.2	14.3	7.8
Benchmark	5.0	13.5	20.9	15.4	8.0
Aggregate	4.7	13.1	21.7	15.2	

Note: All aggregates include the performance of terminated managers

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

COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

Periods Ended December 2014

Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Small Cap					
Russell 2000 Growth Index	10.1	5.6	20.1	16.8	
McKinley Capital	5.2	2.0	24.0	17.6	7.2
Benchmark	10.1	5.6	20.1	16.8	9.1
Next Century Growth	10.2	-6.5	12.7	12.1	2.8
Benchmark	10.1	5.6	20.1	16.8	4.4
Aggregate	7.6	-3.4	16.8	14.2	
Russell 2000 Value Index	9.4	4.2	18.3	14.3	_
Goldman Sachs	8.1	7.4	20.4	17.5	10.3
Benchmark	9.4	4.2	18.3	14.3	8.2
Hotchkis & Wiley	9.9	13.0	27.0	21.2	9.8
Benchmark	9.4	4.2	18.3	14.3	8.2
Martingale Asset Mgmt.	10.2	7.3	22.6	17.4	8.0
Benchmark	9.4	4.2	18.3	14.3	8.2
Peregrine Capital	8.4	4.1	19.3	15.7	11.0
Benchmark	9.4	4.2	18.3	14.3	10.2
Aggregate	9.0	7.5	21.9	17.7	
Active Mgr. Aggregate (2)	5.2	9.3	20.9	15.5	

Note: All aggregates include the performance of terminated managers

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

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

COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS

Periods Ended December 2014 Versus Manager Benchmarks

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Semi-Passive Managers (2)					,
BlackRock Institutional	5.3	14.2	21.9	16.0	9.8
Benchmark	4.9	13.2	20.6	15.6	9.4
INTECH	4.6	11.6	20.0	==	15.1
Benchmark	4.9	13.2	20.6	####	15.2
JP Morgan	5.6	15.0	21.8	16.4	9.8
Benchmark	4.9	13.2	20.6	15.6	9.4
Mellon Capital	5.5	15.9	21.7	16.4	9.1
Benchmark	4.9	13.2	20.6	15.6	9.4
Semi-Passive Aggregate (R1000)	5.3	14.2	21.4	16.1	
Passive Manager (R3000)					
BlackRock Institutional	5.2	12.6	20.5	15.6	9.1
Benchmark	5.2	12.6	20.5	15.6	9.0
Total Aggregate (3)	5.2	12.3	21.0	15.8	10.5
Benchmark	5.2	12.6	20.5	15.6	10.7
Russell 3000 Index	5.2	12.6	20.5	15.6	11.0
Russell 1000 Index	4.9	13.2	20.6	15.6	11.2
Russell 2000 Index	9.7	4.9	19.2	15.5	9.7

Note: All aggregates include the performance of terminated managers.

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

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

⁽³⁾ The Total Aggregate benchmark is the Russell 3000 effective 10/1/03. From 7/1/99 to 9/30/03, it was the Wilshire 5000 Investable Index. From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/93, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS

	December 31, 2014 September 30, 201		September 30, 2014	14	
	Market Value	Percent	Market Value	Percent	
Russell 1000 Growth Aggregate	\$2,880,098,945	9.7%	\$2,776,610,648	9.9%	
INTECH	\$587,683,894	2.0%	\$547,161,826	1.9%	
Jacobs Levy	\$682,462,223	2.3%	\$648,083,346	2.3%	
Sands Capital	\$695,508,374	2.4%	\$670,172,818	2.4%	
Winslow-Large Cap	\$307,025,537	1.0%	\$290,840,152	1.0%	
Zevenbergen Capital	\$607,418,917	2.1%	\$620,352,506	2.2%	
Russell 1000 Value Aggregate	\$3,014,224,554	10.2%	\$2,878,941,972	10.3%	
Barrow Hanley	\$835,071,337	2.8%	\$802,213,235	2.9%	
Earnest Partners	\$565,730,766	1.9%	\$531,135,240	1.9%	
LSV Asset Mgmt.	\$842,112,563	2.8%	\$802,480,751	2.9%	
Systematic Financial Mgmt.	\$771,309,888	2.6%	\$743,112,745	2.6%	
Russell 2000 Growth Aggregate	\$754,327,910	2.6%	\$701,302,488	2.5%	
McKinley Capital	\$386,855,528	1.3%	\$367,893,968	1.3%	
Next Century Growth	\$367,472,382	1.2%	\$333,408,521	1.2%	
Russell 2000 Value Aggregate	\$1,107,007,845	3.7%	\$1,015,178,546	3.6%	
Goldman Sachs	\$274,081,551	0.9%	\$253,559,559	0.9%	
Hotchkis & Wiley	\$260,975,024	0.9%	\$237,500,521	0.8%	
Martingale Asset Mgmt.	\$218,423,911	0.7%	\$198,122,100	0.7%	
Peregrine Capital	\$353,527,360	1.2%	\$325,996,366	1.2%	
Semi-Passive Manager Aggregate	\$11,371,158,446	38.5%	\$10,800,905,323	38.5%	
BlackRock Institutional	\$2,492,259,601	8.4%	\$2,366,069,380	8.4%	
NTECH	\$2,718,869,730	9.2%	\$2,599,124,405	9.3%	
JP Morgan	\$3,244,616,246	11.0%	\$3,071,944,546	10.9%	
Mellon Capital	\$2,915,412,870	9.9%	\$2,763,766,992	9.8%	
Passive Manager	\$10,431,160,851	35.3%	\$9,910,936,695	35.3%	
BlackRock Institutional	\$10,431,160,851	35.3%	\$9,910,936,695	35.3%	
Total Portfolio	\$29,557,978,551	100.0%	\$28,083,875,672	100.0%	

COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS

Calendar Year Returns Russell Style Manager Benchmarks

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

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.

⁽¹⁾ 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				u	
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 Equity Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

International Managers

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COMBINED RETIREMENT FUNDS INTERNATIONAL MANAGERS Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Developed Markets (2)					
Acadian	-2.3	-1.7	13.4	7.7	5.2
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Columbia	-1.2	-5.6	11.7	7.1	1.9
Benchmark	-3.7	-4.3	10.5	5.2	3.0
J.P. Morgan	-4.1	-5.1	10.3	5.3	5.0
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Marathon Asset Management	-2.6	-4.0	13.3	8.6	8.4
Benchmark	-3.7	-4.3	10.5	5.2	5.1
McKinley	0.0	-2.7	13.3	6.6	4.8
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Pyramis (Fidelity)	-2.4	-5.6	12.9	7.2	6.7
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Aggregate	-2.2	-4.1	12.4	7.0	
Benchmark	-3.7	-4.3	10.5	5.2	
Active Emerging Markets (3)					
Capital International	-3.9	-5.9	2.5	-0.7	9.7
Benchmark	-4.5	-2.2	4.0	1.8	10.4
Morgan Stanley	-5.1	-2.4	5.9	2.9	11.1
Benchmark	-4.5	-2.2	4.0	1.8	10.4
Aggregate	-4.5	-4.1	4.2	1.0	
Benchmark	-4.5	-2.2	4.0	1.8	
Semi-Passive Developed Markets (2)					
AQR	-2.5	-4.4	12.7	6.6	5.6
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Pyramis (Fidelity)	-2.7	-4.0	12.2	6.6	6.0
Benchmark	-3.7	-4.3	10.5	5.2	5.0
State Street	-4.1	-5.1	11.7	5.0	4.5
Benchmark	-3.7	-4.3	10.5	5.2	5.0
Aggregate	-3.0	-4.4	12.2	6.1	
Benchmark	-3.7	-4.3	10.5	5.2	

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

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

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

COMBINED RETIREMENT FUNDS INTERNATIONAL MANAGERS Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Passive Developed Markets (2)					
State Street	-3.6	-3.9	10.8	5.7	6.4
Benchmark	-3.7	-4.3	10.5	5.2	6.1
Passive Emerging Markets (3)					
State Street	-4.1	-2.1	4.2		4.2
Benchmark	-4.5	-2.2	4.0	55)	4.0
Equity Only (4) (6)	-3.3	-4.0	9.9	5.1	6.7
Benchmark	-3.9	-3.9	9.0	4.4	6.3
Total Program (5) (6)	-3.3	-4.0	9.9	5.1	6.9
Benchmark	-3.9	-3.9	9.0	4.4	6.3
SBI Int'l Equity Target (6)	-3.9	-3.9	9.0	4.4	6.3
MSCI ACWI Free ex USA (7)	-3.9	-3.9	9.0	4.4	6.5
MSCI World ex USA (net)	-3.7	-4.3	10.5	5.2	6.2
MSCI EAFE Free (net)	-3.6	-4.9	11.1	5.3	6.0
MSCI Emerging Markets Free (8)	-4.5	-2.2	4.0	1.8	7.8

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

COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Periods Ended December 2014

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Active Developed Markets	\$2,354,028,295	27.0%	\$2,406,608,092	26.7%
Acadian	\$362,126,886	4.2%	\$370,769,012	4.1%
Columbia	\$337,832,839	3.9%	\$341,847,134	3.8%
J.P. Morgan	\$290,645,723	3.3%	\$303,141,906	3.4%
Marathon	\$723,097,215	8.3%	\$742,132,204	8.2%
McKinley	\$297,369,509	3.4%	\$297,310,324	3.3%
Pyramis (Fidelity)	\$342,956,124	3.9%	\$351,407,511	3.9%
Active Emerging Markets	\$1,483,506,291	17.0%	\$1,553,746,567	17.3%
Capital International	\$703,454,876	8.1%	\$731,985,312	8.1%
Morgan Stanley	\$780,051,415	9.0%	\$821,761,256	9.1%
Semi-Passive Developed Markets	\$1,137,362,640	13.1%	\$1,172,439,818	13.0%
AQR	\$334,360,307	3.8%	\$342,774,849	3.8%
Pyramis (Fidelity)	\$501,140,966	5.8%	\$515,022,271	5.7%
State Street	\$301,861,368	3.5%	\$314,642,699	3.5%
Passive Developed Markets	\$3,437,102,775	39.5%	\$3,567,002,044	39.6%
State Street	\$3,437,102,775	39.5%	\$3,567,002,044	39.6%
Passive Emerging Markets	\$293,452,816	3.4%	\$306,155,752	3.4%
State Street	\$293,452,816	3.4%	\$306,155,752	3.4%
Total Portfolio	\$8,705,452,818	100.0%	\$9,005,952,273	100.0%

COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Calendar Year Returns

	2014	2013	2012	2011	2010
Active Developed Markets (1)					
Acadian	-1.7	26.1	17.6	-12.9	13.9
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
Pyramis (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
Semi-Passive Developed Markets (1)					
AQR	-4.4	24.1	20.8	-13.9	11.4
Benchmark	-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
enchmark	-4.3	21.0	16.4	-12.2	8.9

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

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

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

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

COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS

Calendar Year Returns

	2014	2013	2012	2011	2010
Passive Developed Markets (1)					
State Street	-3.9	21.4	16.7	-11.9	9.9
Benchmark	-4.3	21.0	16.4	-12.2	8.9
Passive Emerging Markets (2)					
State Street	-2.1	-2.5	18.5		
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

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

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

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

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



STATE BOARD OF INVESTMENT

Bond Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Bond Managers

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COMBINED RETIREMENT FUNDS **BOND MANAGERS**

Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Managers					
Barclays Aggregate Index	1.8	6.0	2.7	4.4	
Aberdeen	1.9	6.7	4.2	6.2	5.8
Benchmark	1.8	6.0	2.7	4.4	5.8
Columbia (RiverSource)	1.5	5.8	3.8	5.5	5.8
Benchmark	1.8	6.0	2.7	4.4	5.8
Dodge & Cox	1.2	6.0	5.1	5.6	6.8
Benchmark	1.8	6.0	2.7	4.4	5.8
PIMCO	2.1	5.5	4.4	5.9	7.2
Benchmark	1.8	6.0	2.7	4.4	5.3
Western	1.7	7.0	4.4	6.2	9.0
Benchmark	1.8	6.0	2.7	4.4	7.9
Active Mgr. Aggregate	1.7	6.2	4.4	5.9	
Semi-Passive Managers					
BlackRock	1.7	6.0	3.0	4.7	5.8
Benchmark	1.8	6.0	2.7	4.4	5.8
Goldman	1.7	6.1	3.2	5.2	6.1
Benchmark	1.8	6.0	2.7	4.4	5.7
Neuberger	1.9	6.1	3.1	5.2	7.0
Benchmark	1.8	6.0	2.7	4.4	6.8
Semi-Passive Mgr. Aggregate	1.8	6.1	3.1	5.0	
Benchmark	1.8	6.0	2.7	4.4	
Historical Aggregate (2)	1.7	6.1	3.8	5.5	8.1
Benchmark	1.8	6.0	2.7	4.4	7.9
Barclays Aggregate Index (3)	1.8	6.0	2.7	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 December 2014

	December 31, 2014		September 30, 2014		
	Market Value	Percent	Market Value	Percent	
Semi-Passive	\$7,244,056,550	50.3%	\$7,117,742,793	50.3%	
BlackRock	\$1,947,308,427	13.5%	\$1,914,836,273	13.5%	
Goldman	\$2,718,585,651	18.9%	\$2,672,784,876	18.9%	
Neuberger	\$2,578,162,472	17.9%	\$2,530,121,644	17.9%	
Active Managers	\$7,154,968,713	49.7%	\$7,037,425,656	49.7%	
Aberdeen	\$1,113,715,771	7.7%	\$1,093,088,826	7.7%	
Columbia (RiverSource)	\$1,212,656,160	8.4%	\$1,194,411,417	8.4%	
Dodge & Cox	\$1,527,752,600	10.6%	\$1,509,978,014	10.7%	
PIMCO	\$1,618,556,451	11.2%	\$1,585,386,507	11.2%	
Western	\$1,682,287,731	11.7%	\$1,654,560,892	11.7%	
Total Portfolio	\$14,399,025,263	100.0%	\$14,155,168,448	100.0%	

COMBINED RETIREMENT FUNDS BOND MANAGERS Calendar Year Returns

(*)	2014	2013	2012	2011	2010
Active Managers					
Aberdeen	6.7	-1.5	7.7	8.0	10.7
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
Dodge & Cox	6.0	0.9	8.5	5.0	7.8
Benchmark	6.0	-2.0	4.2	7.8	6.5
PIMCO	5.5	-1.3	9.3	4.5	12.1
Benchmark	6.0	-2.0	4.2	7.8	6.5
Western	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
Semi-Passive Managers					
BlackRock	6.0	-1.8	5.0	8.0	6.5
Benchmark	6.0	-2.0	4.2	7.8	6.5
Goldman	6.1	-1.7	5.4	8.3	8.0
Benchmark	6.0	-2.0	4.2	7.8	6.5
Neuberger	6.1	-2.0	5.4	7.6	9.1
Benchmark	6.0	-2.0	4.2	7.8	6.5
emi-Passive Mgr. Aggregate	6.1	-1.8	5.3	8.0	7.9
Benchmark	6.0	-2.0	4.2	7.8	6.5
listorical Aggregate	6.1	-1.3	6.7	7.2	9.0
Benchmark	6.0	-2.0	4.2	7.8	6.5
Sarclays Aggregate Index	6.0	-2.0	4.2	7.8	6.5

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



STATE BOARD OF INVESTMENT

Non-Retirement Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Non-Retirement Managers

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NON-RETIREMENT MANAGERS Periods Ended December 2014

V I 	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	4.0	13.2	21.2	14.0	10.3
S&P 500 Index	4.9	13.7	20.4	15.5	9.9
RBC Global Asset Management (2)	0.9	2.5	1.0	3.6	5.4
Barclays Intermediate Government	0.9	2.5	1.0	2.8	5.6
Internal Stock Pool	4.9	13.7	20.4	15.5	9.5
S&P 500 Index	4.9	13.7	20.4	15.5	9.4
Internal Bond Pool - Trust	1.7	6.0	3.9	4.7	6.6
Barclays Aggregate	1.8	6.0	2.7	4.4	6.1

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

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

NON-RETIREMENT MANAGERS Periods Ended December 2014

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
GE Asset Management	\$62,501,700	2.1%	\$57,419,510	2.0%
RBC Global Asset Management	\$233,126,786	7.9%	\$228,461,010	8.0%
Internal Stock Pool	\$1,735,303,024	58.5%	\$1,659,646,129	58.2%
Internal Bond Pool - Trust	\$933,621,102	31.5%	\$905,582,488	31.8%
Total Portfolio	\$2,964,552,613	100.0%	\$2,851,109,138	100.0%

NON-RETIREMENT MANAGERS Calendar Year Returns

	2014	2013	2012	2011	2010
GE Asset Management	13.2	34.5	16.8	-2.2	10.7
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

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



STATE BOARD OF INVESTMENT

Deferred Compensation Plan Minnesota College Savings Plan Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Deferred Compensation Plan and Minnesota College Savings Plan

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MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS (1)

Periods Ended December 2014

457 Mutual Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (2)
Large Cap Equity					
Janus Twenty	5.9	8.9	21.1	11.7	4.3
S&P 500	4.9	13.7	20.4	15.5	4.6
Vanguard Institutional Index Plus	4.9	13.7	20.4	15.4	4.6
S&P 500	4.9	13.7	20.4	15.5	4.6
Mid Cap Equity					
Vanguard Mid-Cap Index	6.6	13.8	21.3	17.1	10.5
CRSP US Mid Cap (3)	6.6	13.8	21.4	17.1	10.5
Small Cap Equity					
T. Rowe Price Small-Cap Stock	9.2	6.9	20.2	18.1	10.5
Russell 2000	9.7	4.9	19.2	15.5	7.9
Balanced					
Vanguard Balanced Index Inst. Fund	3.9	10.0	13.2	11.4	7.5
60% CRSP US Tot Mkt, 40% Barclays Agg (4)	3.9	10.0	13.2	11.4	7.5
Bond					
Dodge & Cox Income Fund	0.9	5.5	4.6	5.2	6.1
Barclays Aggregate	1.8	6.0	2.7	4.4	5.5
Vanguard Total Bond Market Index Inst.	1.7	5.9	2.6	4.4	4.7
Barclays Aggregate	1.8	6.0	2.7	4.4	4.7
Fixed Interest					
Galliard Capital Management	0.5	1.8	2.3	2.9	4.9
3-Year Constant Maturity Treasury +45bp	0.4	1.3	1.1	1.2	3.8
International					
Fidelity Diversified International	-1.1	-3.2	13.1	6.5	6.8
MSCI EAFE Free	-3.6	-4.9	11.1	5.3	3.8
Vanguard Total International Stock Index	-4.2	-4.1	9.3		2.1
FTSE Global All Cap ex US (5)	-3.7	-3.1	9.5	(44)	2.4

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS

Periods Ended December 2014

MN Target Retirement Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
SSgA					
Income Fund	0.5	3.6	6.1		5.3
Income Fund Benchmark	0.6	3.8	6.3	100	5.5
2015 Fund	0.5	4.0	6.8		6.5
2015 Fund Benchmark	0.6	4.2	7.0		6.7
2020 Fund	0.8	5.3	8.8		8.3
2020 Fund Benchmark	0.9	5.5	9.0		8.4
2025 Fund	1.2	5.9	10.9		9.6
2025 Fund Benchmark	1.4	6.2	11.0		9.7
2030 Fund	1.5	6.3	12.1		10.2
2030 Fund Benchmark	1.7	6.6	12.3		10.4
2035 Fund	1.7	6.4	13.0		10.6
2035 Fund Benchmark	1.8	6.7	13.2		10.7
2040 Fund	1.7	6.4	13.7		10.5
2040 Fund Benchmark	1.9	6.6	13.9	-	10.6
2045 Fund	1.7	6.2	14.3	-	10.5
2045 Fund Benchmark	1.9	6.5	14.5		10.6
2050 Fund	1.7	6.2	14.3		10.5
2050 Fund Benchmark	1.9	6.5	14.5		10.7
2055 Fund	1.7	6.2	14.3		10.5
2055 Fund Benchmark	1.9	6.5	14.5		10.7
2060 Fund	1.7	6.2	14.3	-	10.5
2060 Fund Benchmark	1.9	6.5	14.5		10.7

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS

Periods Ended December 2014

SSgA Index Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
S&P 500 Index Fund	4.9	13.7	20.4	**	16.0
S&P 500	4.9	13.7	20.4		16.0
DJ-UBS Roll Select Commodity Index Fund	-11.2	-15.3	- 120AU		-8.6
DJ-UBS Roll Select Commodity Index	-11.2	-15.2		77	-8.4
Russell Small/Mid Cap Index Fund	6.4	7.5			21.2
Russell Small Cap Completeness Index	6.4	7.4			21.2
Global All-Cap Equity ex-US Index Fund	-4.3	-4.2	9.3		2.3
MSCI ACWI ex USA IMI	-3.9	-3.9	9.2		2.2
Global Real Estate Securities Index Fund	7.6	15.5	15.2	.=-	9.3
FTSE EPRA/NAREIT Dev Liquid	7.7	15.0	14.6	Carrier	8.6
Long Government Bond Index Fund	8.4	24.6	4.2	i man	10.7
Barclays Long Government	8.4	24.7	4.2		10.7
Bond Index Fund	1.8	6.0	2.7		3.7
Barclays Aggregate	1.8	6.0	2.7		3.7
Inflation Protected Bond Index Fund	0.0	3.6	0.4		2.4
Barclays U.S. TIPS	0.0	3.6	0.4	(me	2.4
High Yield Bond Index Fund	-1.2	2.1	7.7	**	6.9
Barclays U.S. High Yield Very Liquid	-1.2	2.1	7.9	(WE)	7.1
U.S. Short-Term Gov/Credit Index Fund	0.2	0.7	1.7		1.6
Barclays 1-3 Yr Govt/Credit	0.2	0.8	0.9		0.9

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

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

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS (1)

Calendar Year Returns

457 Mutual Funds	2014	2013	2012	2011	2010
Large Cap Equity					
Janus Twenty	8.9	33.1	22.3	-8.2	7.0
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
Bond					
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
Fixed Interest					
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.

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

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS Calendar Year Returns

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

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

Numbers in blue include returns prior to retentional by SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS Calendar Year Returns

SSgA Index Funds	2014	2013	2012	2011	2010
S&P 500 Index Fund	13.7	32.4	16.0	2.1	15.1
S&P 500	13.7	32.4	16.0	2.1	15.1
DJ-UBS Roll Select Commodity Index Fund	-15.3	-9.3		-	-
DJ-UBS Roll Select Commodity Index	-15.2	-9.1	-		
Russell Small/Mid Cap Index Fund	7.5	38.4			
Russell Small Cap Completeness Index	7.4	38.5			
Global All-Cap Equity ex-US Index Fund	-4.2	15.4	18.2		
ASCI ACWI ex USA IMI	-3.9	15.8	17.0		-
Global Real Estate Securities Index Fund	15.5	2.7	28.9	-5.4	19.1
TSE 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
ond 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
ligh 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

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Large Cap Equity	\$1,524,049,341	26.2%	\$1,453,782,968	25.7%
Janus Twenty	\$540,394,987	9.3%	\$518,973,155	9.2%
Vanguard Institutional Index Plus	\$983,654,354	16.9%	\$934,809,813	16.5%
Mid Cap Equity	\$416,082,332	7.1%	\$388,767,466	6.9%
Vanguard Mid-Cap Index	\$416,082,332	7.1%	\$388,767,466	6.9%
Small Cap Equity	\$598,147,784	10.3%	\$566,069,115	10.0%
T. Rowe Price Small-Cap Stock	\$598,147,784	10.3%	\$566,069,115	10.0%
Balanced	\$675,243,700	11.6%	\$647,940,694	11.5%
Vanguard Balanced Index Inst. Fund	\$675,243,700	11.6%	\$647,940,694	11.5%
Bond	\$390,067,754	6.7%	\$376,678,978	6.7%
Dodge & Cox Income Fund	\$206,412,954	3.5%	\$200,588,201	3.6%
Vanguard Total Bond Market Index Inst.	\$183,654,799	3.2%	\$176,090,777	3.1%
Stable Value	\$1,528,554,816	26.3%	\$1,534,440,964	27.2%
Galliard Stable Value Composite - Since Retention	\$1,528,554,816	26.3%	\$1,534,440,964	27.2%
International	\$419,226,751	7.2%	\$433,438,125	7.7%
Fidelity Diversified International	\$269,050,778	4.6%	\$277,542,341	4.9%
Vanguard Total International Stock Index	\$150,175,973	2.6%	\$155,895,784	2.8%
Target Retirement Funds	\$268,405,190	4.6%	\$249,036,380	4.4%
Income Fund	\$35,278,724	0.6%	\$33,978,284	0.6%
2015 Fund	\$33,995,510	0.6%	\$33,979,697	0.6%
2020 Fund	\$61,837,438	1.1%	\$58,690,166	1.0%
2025 Fund	\$48,514,935	0.8%	\$44,289,102	0.8%
2030 Fund	\$29,852,538	0.5%	\$25,821,066	0.5%
2035 Fund	\$22,987,776	0.4%	\$19,950,786	0.4%
2040 Fund	\$13,284,576	0.2%	\$12,254,521	0.2%
2045 Fund	\$9,156,925	0.2%	\$8,142,790	0.1%
2050 Fund	\$6,782,522	0.1%	\$5,871,566	0.1%
2055 Fund	\$2,993,718	0.1%	\$2,537,049	0.0%
2060 Fund	\$3,720,526	0.1%	\$3,521,353	0.1%

MINNESOTA COLLEGE SAVINGS PLAN STATIC OPTIONS (1) Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Equity					
MNCSP US Intl Equity Allocation	3.3	8.1	16.6	12.6	6.6
MNCSP US Intl Equity Allocation Benchmark	3.2	8.6	17.0	12.9	7.7
MNCSP Equity Interest Allocation	2.7	**			2.5
MNCSP Equity Interest Benchmark	2.6				2.4
MNCSP Intl Eq Index Allocation Benchmark	-3.7	-4.2			
MNCSP Intl Eq Index Allocation	-4.3	-5.3		-	3.4
MNCSP US LC Equity Allocation	4.8				7.2
MNCSP US LC Equity Allocation Benchmark	4.9				7.3
Fixed Income					
MNCSP Fixed Income Allocation	1.1	4.8	1.5	3.7	4.2
MNCSP Fixed Income Allocation Benchmark	1.2	5.3	2.1	4.4	5.1
MNCSP Principal Interest Allocation	0.3	1.3	1.4	1.9	2.8
MNCSP Principal Interest Allocation Benchmark	0.0	0.0	0.1	0.1	1.5
Cash					
MNCSP Money Market Allocation	0.0	0.0	0.0	-0.1	0.4
MNCSP Money Market Allocation Benchmark	0.0	0.0	0.0	0.0	0.4

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

MINNESOTA COLLEGE SAVINGS PLAN ALLOCATION OPTIONS

Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Allocation Options					
MNCSP Aggressive Allocation	2.8				2.5
MNCSP Aggressive Allocation Benchmark	2.8		••		2.6
MNCSP Moderate Allocation	2.4	6.8	10.5	9.1	4.9
MNCSP Moderate Allocation Benchmark	2.4	7.4	10.9	9.7	5.7
MNCSP Conservative Allocation	1.5				0.5
MNCSP Conservative Allocation Benchmark	1.5			,:	0.5
Managed Allocation Options					
MNCSP Managed 0-4 Yrs	2.8	-			2.6
*MNCSP Managed 0-4 Yrs - Bench	2.8		(1 12 1		2.6
MNCSP Managed 5-8 Yrs	2.7		:==		2.4
*MNCSP Managed 5-8 Yrs - Bench	2.6				2.4
MNCSP Managed 9-10 Yrs	2.4				2.1
*MNCSP Managed 9-10 Yrs - Bench	2.4			X	2.1
MNCSP Managed 11-12 Yrs	2.1				1.8
*MNCSP Managed 11-12 Yrs - Bench	2.2		-	**	1.9
MNCSP Managed 13-14 Yrs	1.9			1	1.6
*MNCSP Managed 13-14 Yrs - Bench	1.9				1.6
MNCSP Managed 15 Yrs	1.6		-		1.3
*MNCSP Managed 15 Yrs - Bench	1.5	(7.75.)	-	: :	1.2
MNCSP Managed 16 Yrs	1.3		-	<u> </u>	1.1
*MNCSP Managed 16 Yrs - Bench	1.3		-		1.0
MNCSP Managed 17 Yrs	1.2			98	1.0
*MNCSP Managed 17 Yrs - Bench	1.1	777 5		-	0.9
MNCSP Managed 18+ Yrs	0.9		##S		0.8
MNCSP Managed 18+ Yrs - Bench	0.9				0.7

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

MINNESOTA COLLEGE SAVINGS PLAN ALLOCATION OPTIONS UNDERLYING FUNDS Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	_ (1)
TIAA-CREF:Bond Indx;Inst	1.7	5.9	2.5	4.3		
Barclays Agg (SBI Toolbox Returns)	1.8	6.0	2.7	4.4	4.7	
TIAA-CREF:EM Eq Idx;Inst	-4.7	-3.2	3.6		**	
MSCI:Emer Markets	-4.4	-1.8	4.4	2.1	8.8	
TIAA-CREF:Eq Idx;Inst	5.2	12.5	20.4	15.6	7.9	
Russell 3000 Index	5.2	12.6	20.5	15.6	7.9	
ΓΙΑΑ-CREF:Hi-Yld;Inst	-0.7	2.5	7.6	8.6		
BofAML:1-3 BB US HY CP	0.7	1.9	6.5	7.1	6.8	
ΓΙΑΑ-CREF:Infl Bond;Inst	-0.1	3.4	0.2	3.9	4.1	
Barclays U.S. TIPS Index	0.0	3.6	0.4	4.1	4.4	
ΓΙΑΑ-CREF:Itl Eq Ix;Inst	-4.1	-5.5	11.1	5.4	4.5	
MSCI EAFE USD Index	-3.6	-4.9	11.1	5.3	4.4	
ΓΙΑΑ-CREF:Money Mkt;Inst	0.0	0.0	0.0	0.0	1.7	
MFR Avg All-Taxble	0.0	0.1	0.1	0.1	1.4	
ΓΙΑΑ-CREF:Real Est;Inst	14.2	28.1	15.9	16.9	7.1	
NAREIT All Equity Index	12.9	28.0	16.4	16.9	8.3	
ΓΙΑΑ-CREF:S&P500 Idx;Ins	4.9	13.6	20.3	15.3	7.6	
S&P 500 Index	4.9	13.7	20.4	15.5	7.7	