AGENDA INVESTMENT ADVISORY COUNCIL MEETING Tuesday, August 19, 2014 12:00 Noon State Board of Investment Board Room – First Floor 60 Empire Drive, St. Paul, MN

1.	Approval of Minutes of May 20, 2014	ТАВ
2.	Report from the Executive Director (M. Perry)	A
	 A. Quarterly Investment Review (April 1, 2014 – June 30, 2014) B. Administrative Report Reports on Budget and Travel Update on Sudan Update on Iran Update on 529 Plan Litigation Update 	В
3.	Review of manager performance for the period ending June 30, 2014 (M. Perry)	С
4.	Alternative Investment Report (M. Perry)	D
	Review of current strategy	
5.	Transition Management Discussion (T. Brusehaver, M. Menssen, L. Stagg)	Ε
	Presentation	
6.	Review and Discussion of SBI Alternative Investment Program (R. Hill, A. Krech)	F
	Presentation	

7. Other items

INVESTMENT ADVISORY COUNCIL

MINUTES

August 19, 2014

STATE BOARD OF INVESTMENT

Minutes Investment Advisory Council May 20, 2014

The Investment Advisory Council (IAC) met at 12:00 P.M. Tuesday May 20, 2014 in the Board Room – First Floor, 60 Empire Drive, St. Paul, Minnesota.

MEMBERS PRESENT:	Denise Anderson, Jeff Bailey, Dave Bergstrom, Kerry Brick, Doug Gorence, Dennis Duerst, Kim Faust, Laurie Hacking, Kristin Hanson (for Jim Schowalter), Jay Kiedrowski, Gary Martin, Malcolm McDonald, and Elaine Voss.
MEMBERS ABSENT:	John Bohan and Mary Vanek.
SBI STAFF:	Mansco Perry, Jim Heidelberg, LeaAnn Stagg, Patricia Ammann, Tammy Brusehaver, Stephanie Gleeson, Aaron Griga, Ryan Hill, J.J. Kirby, Steve Kuettel, Mike Menssen, Charlene Olson and Melissa Mader.
OTHERS ATTENDING:	Ann Posey, Callan Associates Inc.; Bert Black, Celeste Grant, Christie Eller, Cumah Blake and Joe Sathe, Office of the Governor; Edgar Hernandez, SEIU; Charles Hellie and John Fisher, REAM; Linda Littrell, Retiree; Emily Moore, Retiree; Mary Palmer, State Retiree; and Gordon Voss.

The minutes of the February 18, 2014 meeting were approved.

Executive Director's Report

Mr. Perry, Executive Director, 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 March 31, 2014 (Combined Funds 8.0% vs. Composite 7.7%) and had provided a real rate of return over the latest 20-year period (Combined Funds 8.8% vs. CPI 2.4%).

Mr. Perry said that the Combined Funds' assets increased 1.1% for the quarter ending March 31, 2014 due to positive market performance. He said the asset mix was on target, and he stated that the Combined Funds matched its Composite Index for the quarter (Combined Funds 2.1% vs. Composite 2.1%), and outperformed for the year (Combined Funds 15.6% vs. 14.3%) and over longer periods.

Mr. Perry reported that the domestic stock manager group outperformed its target for the quarter (Domestic Stocks 2.1% vs. Target 2.0%), for the year (Domestic Stocks 24.1% vs. Target 22.6%) and most remaining time periods. He said the international stock manager group underperformed its target for the quarter (International Stocks 0.2% vs. Target 0.5%) but outperformed for the year (International Stocks 13.4% vs. Target 12.3%) and all remaining time periods. Mr. Perry stated the bond segment outperformed its target for the quarter (Bonds 2.0%)

1

vs. Target 1.8%), for the year (Bonds 0.5% vs. Target -0.1%) and all remaining periods. He concluded his report with the comment that, as of March 31, 2014, the SBI was responsible for close to \$75 billion in assets under management.

Mr. Perry referred members to Tab B of the meeting materials for a legislative update. Mr. Perry began with the Omnibus Pension Bill, which he noted was awaiting the Governor's signature. Mr. Perry stated that the first item of interest in the Omnibus Pension bill would give greater investment option flexibility within the various state defined contribution plans as well as the SBI's Supplemental Investment Fund.

The second item in the Omnibus Pension Bill that Mr. Perry noted was the merger of Duluth Teachers Retirement Fund Association into the Teachers Retirement Association. He stated that if the merger takes place, the assets from Duluth would be transferred to the SBI by calendar year end. Mr. Brick requested clarification on the quantity of assets being transferred, and Mr. Perry replied that it was roughly \$200M. Mr. Bailey asked if there were any concerns regarding the quality of assets being transferred? Mr. Perry replied that most of the assets in the Duluth plan were in commingled funds and would be converted to cash before transfer. He additionally noted that counsel would review the private equity funds prior to transfer.

Next, Mr. Perry discussed the Women's Economic Security Act, (WESA) which he noted had been signed by the governor. He stated that the SBI sought and received an exemption from the pay equity certificate requirement of WESA for its Deferred Compensation Plan investment manager contracts. He noted that all other SBI contracts would need to comply with this requirement going forward. Mr. Perry stated that WESA also required that a study on the potential development of a state administered retirement savings plan be completed by Minnesota Management and Budget (MMB). The goal of such a savings plan would be to provide a retirement savings whicle for employees in the state of Minnesota who had limited access to traditional savings methods. He noted that the SBI would work with MMB on the investment component of this study.

Lastly, Mr. Perry shared that the SBI worked with the State Auditor's Office on a bill to enhance statewide OPEB reporting to the State Auditor's Office. He concluded Tab B by referring members to the budget and other items including the Iran and Sudan updates.

Mr. Perry referred members to Tab C of the meeting materials for an overview of the SBI Administrative Committee report to the Board of the SBI's annual Management and Budget Plan for fiscal year 2015. First, Mr. Perry noted that the majority of the work plan items in Sections B through E were of a recurring nature and he would not review them at this time. Mr. Perry reviewed the new work plan items under Section A, Development of Investment Policies. He first discussed the review of transition managers, which he anticipated would be completed by the end of the first quarter. He then introduced the more comprehensive reviews of both the fixed income and public equity investment structures and noted that they would begin mid-year but likely spill over into the following year. He noted that staff would complete a review of liquid alternative investment strategies such as master limited partnerships, public REITS and commodities, some of which could fit in the defined contribution plans as well as the combined funds. Mr. Perry stated that the SBI staff would research various risk management approaches

used by different organizations and determine which might be most appropriate for the SBI. He then commented that the swaps discussion was a holdover from the last work plan and that until regulators finished their work, no further action regarding their use could be taken by the SBI. Lastly, Mr. Perry shared that the SBI would be working with MSRS to review the investment structures of various defined contribution plans that the MSRS administers with the goal of providing recommendations for investment changes. A discussion followed regarding the IAC's guidance on SBI's investment policies and the best format for the IAC to provide the most constructive feedback. The conclusion was that, for now, members would be contacted individually for their ideas.

Ms. Hacking and Mr. Perry then reviewed the fiscal year 2015 administrative budget request that would be going to the Board for approval. Ms. Hacking stated that the budget proposal included funding for five additional SBI staff and she noted that a previous independent review had concluded that the SBI was relatively understaffed. Mr. Perry stated that two of the new staff would be assigned to alternatives, one to public markets, and two to accounting. After a brief discussion, Mr. Bergstrom moved the passage of the workplan and budget proposals, and Mr. McDonald seconded the motion. The motion passed. Mr. Perry stated that the Fiduciary Education Plan and the SBI Executive Director's Performance Evaluation Process would additionally be taken to the Board.

Mr. Perry then referred members to Tab E containing the recommendation to terminate Turner Investments LP. He reviewed the rationale for termination, which included significant under performance and high portfolio manager and analyst turnover. He stated that although the assets had already been withdrawn, the SBI needed a motion to approve the termination of Turner. Mr. Duerst moved approval of the motion, and Ms. Faust seconded. The motion passed. Mr. Bailey then asked about the replacement process for the terminated investment manager. Mr. Perry commented that although staff may search for a replacement in the future, the Turner assets were converted to cash and used for needed plan withdrawals.

Referring members to Tab F, Mr. Kirby and Mr. Hill reviewed the SBI's alternative investment portfolio. They focused the presentation on the relative sizes of the four sub-categories of alternatives - Private Equity, Real Estate, Resource and Yield-Oriented - and the \$4.4 billion of market value difference between current and target level for alternative investments, otherwise called "dry powder." Mr. Kirby explained the historical reasons for the "dry powder." Mr. Kirby and Mr. Hill then summarized the two new investment commitments. In lieu of guest presentations from private equity managers, Mr. Kirby and Mr. Hill discussed staffs' due diligence process and responded to IAC questions. The first recommendation was a \$125 million commitment to Banc Fund IX, L.P., an existing manager in the financial services buyout space. The second was a \$200 million commitment to Merit Energy Partners I, L.P., an existing manager in the oil and gas buyout space. The discussion of staff's due diligence process was well received by the IAC members. Ms. Voss moved approval of the two new commitments and Mr. McDonald seconded. The motion passed.

Mr. Perry referred members to Tab G for a follow-up discussion of the unallocated portion of alternative investments. He reviewed how the SBI had directed the unused funds to either stocks or bonds historically, and noted that when the Basics and the Post Fund were combined the

policy, in the context of a strategic asset allocation, had been made to put it all in bonds. A lengthy discussion followed. Mr. Perry noted and Mr. Bailey concurred that any change in how the unallocated portion of the alternative investments was directed would most appropriately be dealt with in the context of a strategic asset allocation review.

Mr. Perry briefly discussed that formatting and delivery enhancements to the IAC books would be made in the future.

The meeting adjourned at 2:06 P.M.

Respectfully submitted,

Manaco Perry III

Mansco Perry III Executive Director

TAB



LONG TERM OBJECTIVES Period Ending 6/30/2014

COMBINED FUNDS: \$59.5 Billion	Result	Compared to Objective
Match or Exceed Composite Index (10 Yr.)	8.4% (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%	6.6 percentage points above CPI
Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.		

(1) Performance is calculated net of fees.

SUMMARY OF ACTUARIAL VALUATIONS

Nine Plans of MSRS, PERA and TRA July 1, 2013

Liabilities Actuarial Accrued Liabilities	\$65.1 billion
Assets Current Actuarial Value	\$48.8 billion
Funding Ratio Current Actuarial Value divided by Accrued Liabilities	74.9%

Actuarial Assumptions:

- 1. Liabilities calculated using entry age normal cost method.
- 2. Difference between actual returns and actuarially expected returns spread over five years.
- 3. Interest/Discount Rate 5-Year Select and Ultimate Rates:

July 1, 2012 – June 30, 2017 8% July 1, 2017 – and later 8.5%

4. Full Funding Target Date:

2040 – MSRS General 2031 – PERA General 2037 – TRA

EXECUTIVE SUMMARY

Combined Funds (Net of Fees)

Asset Growth

The market value of the Combined Funds increased 2.9% during the second quarter of 2014. Positive investment returns caused the increase in market value.

	Asset Growth During Second Quarter 2014 (Millions)
Beginning Value	\$ 57,756
Net Contributions	-534
Investment Return	2,228
Ending Value	\$ 59,450

Asset Mix

The allocation to domestic and international equities slightly increased due to positive returns.

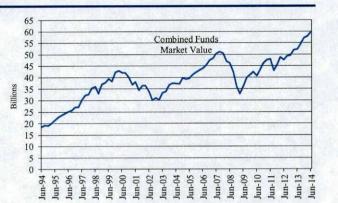
	Policy Targets	Actual Mix 6/30/2014	Actual Market Value (Millions)
Domestic Stocks	45.0%	45.8%	\$27,201
Int'l. Stocks	15.0	15.7	9,303
Bonds	18.0	23.4	13,889
Alternative Assets*	20.0	12.6	7,508
Cash	2.0 100.0%	2.6 100.0%	1,549 \$59,450

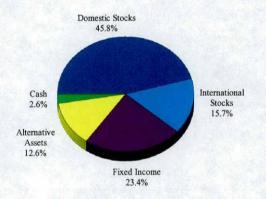
* Any uninvested allocation is held in bonds.

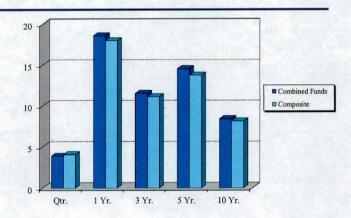
Fund Performance (Net of Fees)

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

	Period Ending 6/30/2014					
		Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Combined Funds	3.9%	18.6%	11.5%	14.5%	8.4%	
Composite	4.1	18.0	11.1	13.7	8.1	







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

EXECUTIVE SUMMARY Stock and Bond Manager Performance

(Net of Fees)

	D	0	m	es	ti	c	S	toc	ks
--	---	---	---	----	----	---	---	-----	----

The domestic stock manager group (active,		Pe	riod Endin	ng 6/30/2	014
semi-passive and passive combined)				A	nnua
underperformed its target for the quarter and		Qtr.	1 Yr.	3 Yr.	5 1
outperformed for the year.	Dom. Stocks	4.5%	25.9%	16.5%	19.5
	Asset Class Target*	4.9	25.2	16.5	19.3

Russell 3000: The Russell 3000 measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

			A	nnualize	ed
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Dom. Stocks	4.5%	25.9%	16.5%	19.5%	8.2%
Asset Class Target*	4.9	25.2	16.5	19.3	8.2

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

International Stocks

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

MSCI ACWI Free ex U.S. (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.

	Period Ending 6/30/2014						
	Annualized						
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Int'l. Stocks	4.7%	21.4%	6.3%	11.7%	8.0%		
Asset Class Target*	5.0	21.7	5.7	11.1	7.8		

* 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 U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net).

Bonds

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

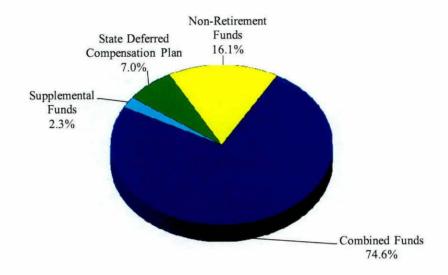
Barclays Capital Aggregate: The Barclays Capital Aggregate Bond Index reflects the performance of the broad bond market for investment grade (Baa or higher) bonds, U.S. treasury and agency securities, and mortgage obligations with maturities greater than one year.

	Per	10d Endir	$\log 6/30/20$)14		
	Annualized					
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Bonds	2.1%	5.0%	4.5%	6.6%	5.3%	
Asset Class Target	2.0	4.4	3.7	4.9	4.9	

Alternative	Investments
-------------	-------------

	Period Ending 6/30/2014				
	Annualized				ed
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Alternatives	4.8%	18.9%	13.2%	14.7%	15.5%

EXECUTIVE SUMMARY Funds Under Management



6/30/2014 Market Value (Billions)

Retirement Funds	
Combined Funds	\$59.5
Supplemental Investment Fund	1.8
- Excluding Deferred Compensation Plan Assets	
State Deferred Compensation Plan	5.6
Non-Retirement Funds	
Assigned Risk Plan	0.3
Permanent School Fund	1.1
Environmental Trust Fund	0.8
Miscellaneous Trust Accounts	0.1
Other Post Employment Benefits Accounts	0.4
State Cash Accounts	9.0
Minnesota College Savings Plan	1.2
Total	\$79.8

SECOND QUARTER

INVESTMENT REPORT

This page intentionally left blank.

Dago

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Second Quarter 2014 (April 1, 2014 - June 30, 2014)

Table of Contents

Capital Market Indices
Financial Markets Review
Combined Funds
Stock and Bond Manager Pools9
Alternative Investments10
Supplemental Investment Fund
Deferred Compensation Plan14
Assigned Risk Plan 17
Permanent School Fund
Environmental Trust Fund19
State Cash Accounts
Composition of State Investment Portfolios

SECOND QUARTER

VARIOUS CAPITAL MARKET INDICES

	Period Ending 6/30/2014				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity					
Russell 3000 (broad market) Russell 1000 (large cap) Russell 2000 (small cap)	4.9% 5.1 2.0	25.2% 25.4 23.6	16.5% 16.6 14.6	19.3% 19.3 20.2	8.2% 8.2 8.7
Dow Jones Wilshire Composite Dow Jones Industrials S&P 500	4.8 2.8 5.2	25.0 15.6 24.6	16.4 13.6 16.6	19.4 17.8 18.8	8.4 7.6 7.8
Domestic Fixed Income					
Barclays Capital Aggregate (1)	2.0	4.4	3.7	4.9	4.9
Barclays Capital Gov't./Corp. 3 month U.S. Treasury Bills	1.9 0.0	4.3 0.1	4.1 0.1	5.1 0.1	4.9 1.6
International					
Emerging Markets Free (2) ACWI Free ex-U.S. (3)	6.6 5.0	14.3 21.7	-0.4 5.7	9.2 11.1	11.9 7.8
EAFE (4) World ex-U.S. (5)	4.1 4.6	23.6 23.8	8.1 7.6	11.8 11.7	6.9 7.2
Salomon Non U.S. Gov't. Bond	2.6	8.9	1.0	3.6	4.9
Inflation Measure					
Consumer Price Index CPI-U (6) Consumer Price Index CPI-W (7)	0.9 0.9	2.1 2.0	1.8 1.8	2.0 2.2	2.2 2.4

(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-U.S. (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-U.S. 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.

2

FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a 4.9% return for the second quarter of 2014. The second quarter was marked by extremely low equity market volatility despite uneven economic performance, geopolitical tensions, and the ongoing reduction in asset purchases by the Fed. Within the Russell 3000, Energy was the best performing sector with a 12.2% return while Financial Services was the weakest with a 2.3% return for the quarter. Large capitalization stocks outperformed small cap during the quarter.

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

Large Growth	Russell 1000 Growth	5.1%
Large Value	Russell 1000 Value	5.1%
Small Growth	Russell 2000 Growth	1.7%
Small Value	Russell 2000 Value	2.4%

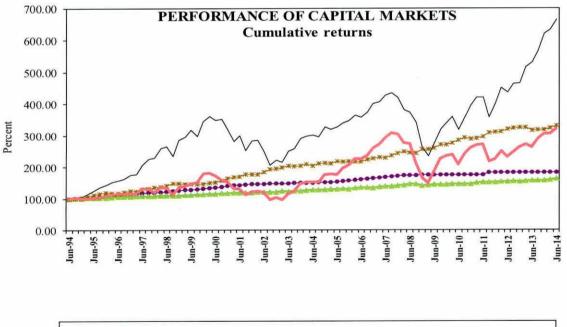
The Russell 3000 index returned 25.2% for the year ending June 30, 2014.

DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 2.0% for the quarter. Yields on shorter U.S. Treasuries declined during the quarter, while the long end increased. The 2-year U.S. Treasury ended the first quarter higher by 4 basis points at 0.5%, the 5-year decreased by 9 basis points to 1.6%, the 10-year decreased by 19 basis points to 2.5%, and the 30-year decreased by 20 basis points to 3.4%. Investment grade corporate bonds and agency MBS outperformed the benchmark during the quarter, while all other sectors underperformed the broader benchmark.

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

U.S. Treasury	1.4%
Agency	1.5
Corporates	2.7
Agency MBS	2.4
Commercial Mortgages	1.3
Asset-backed	0.8



FINANCIAL MARKETS REVIEW

INTERNATIONAL STOCKS

In aggregate, developed international stock markets (as measured by the MSCI World ex U.S. index net) provided a return of 4.6% for the quarter. The quarterly performance of the six largest stock markets is shown below:

United Kingdom	6.1%
Japan	6.7
Canada	9.9
France	1.7
Germany	1.7
Switzerland	2.1

The World ex U.S. index returned 23.8% during the last year.

The World ex U.S. index is compiled by Morgan Stanley Capital International (MSCI) and is a measure of 22 markets located in Europe, Australasia, Far East, and Canada. The major markets listed above comprise about 73% of the value of the developed international markets in the index.

EMERGING MARKETS

Emerging markets (as measured by MSCI Emerging Markets Free index net) provided a return of 6.6% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	5.5%
Korea	6.4
Taiwan	10.3
Brazil	7.5
South Africa	4.5
India	12.7

The Emerging Markets Free index returned 14.3% 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 71% of the value of the emerging international markets in the index.

REAL ESTATE

During the second quarter of 2014, real estate posted its 18th consecutive quarter of positive returns with the NCREIF Property Index posting a return of 2.9%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. Fundraising for private real estate funds remained strong in 2Q 2014, with total commitments of \$43 billion (Source: Preqin).

PRIVATE EQUITY

The ongoing moderate economic recovery, combined with a low interest rate environment and a record level of dry powder at \$1.1 trillion, continue to fuel investor demand for increasing private equity allocations. General Partners distributed capital back to Limited Partners at record levels in 2013, and so LPs are faced with finding appropriate ways to reinvest capital. This has driven an increase in private equity fundraising, reaching \$132 billion across a variety of strategies in 2Q 2014, up from \$104 billion in 1Q 2014 (Source: Preqin). Although the aggregate amount of capital has increased, the number of funds closed during the quarter remained low. Buyout activity in 2Q 14 increased over 1Q 2014; however the aggregate value of the deals was lower (\$80 billion vs. \$82 billion).

RESOURCE FUNDS

During the second quarter of 2014, crude oil traded between a range of \$99/bbl and \$107/bbl. The average price for the first quarter of 2014 was \$103/bbl, which is \$5 above the average price from the first quarter of 2014. Strong global energy demand and unrest in the Middle East continued to provide strength to oil prices.

COMBINED FUNDS

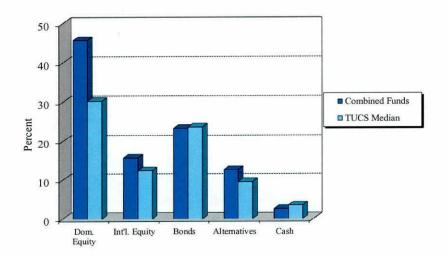
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

On 6/30/2014, the asset mix of the Combined Funds was:

	\$ Millions	%
Domestic Stocks	\$27,201	45.8%
International Stocks	9,303	15.7
Bonds	13,889	23.4
Alternative Assets	7,508	12.6
Unallocated Cash	1,549	2.6
Total	\$59,450	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:



	Dom. Equity	Int'l Equity	Bonds	Alternatives	Cash
Combined Funds	45.8%	15.7%	23.4%	12.6%	2.6%
Median Allocation in TUCS*	30.3	12.4	23.7	9.5**	3.5

* Public and corporate plans over \$1 billion.

** May include assets other than alternatives.

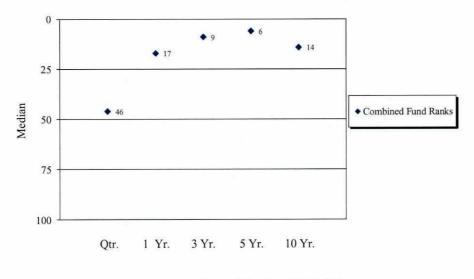
COMBINED FUNDS Performance Compared to Other Pension Funds

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.



	Period Ending 6/30/2014				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds					
Percentile Rank in TUCS*	46th	17th	9th	6th	14th

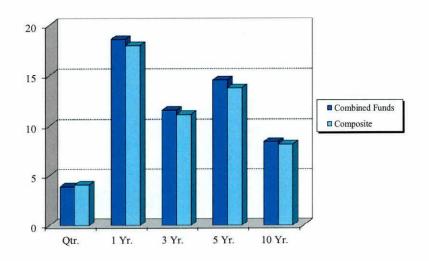
* Compared to public and corporate plans greater than \$1 billion, gross of fees.

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:

	Market Index	Combined Funds Composite* 2Q14
Domestic Stocks Int'l. Stocks	Russell 3000 MSCI ACWI Free ex-U.S.	45.0% 15.0
Bonds	Barclays Capital Aggregate	
Alternative Investments	Alternative Investments	12.6*
Unallocated Cash	3 Month T-Bills	2.0
		100.0%

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



		2014	14		
				Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds**	3.9%	18.6%	11.5%	14.5%	8.4%
Composite Index	4.1	18.0	11.1	13.7	8.1

** Actual returns are reported net of fees.

This page intentionally left blank.

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.

	Period Ending 6/30/2014						
			A	nnualized			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Domestic Stocks	4.5%	25.9%	16.5%	19.5%	8.2%		
Asset Class Target*	4.9	25.2	16.5	19.3	8.2		

* 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

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.

	Period Ending 6/30/2014						
			Ā	nnualized			
	Qtr.	1 Yr.		5 Yr.	10 Yr.		
Int'l. Stocks	4.7%	21.4%	6.3%	11.7%	8.0%		
Asset Class Target*	5.0	21.7	5.7	11.1	7.8		

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

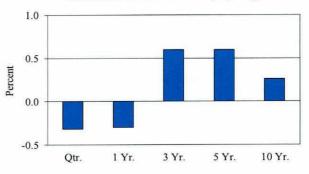
Bonds

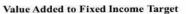
Target: Barclays Capital Aggregate Bond Index Expectation: If half of the pool is actively managed and half is managed semi-passively, the entire pool is expected to exceed the target by .20% - .35% annualized, over time.

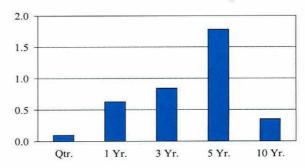
	Period Ending 6/30/2014						
			nualized	alized			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Bonds	2.1%	5.0%	4.5%	6.6%	5.3%		
Asset Class Target	2.0	4.4	3.7	4.9	4.9		

Value Added to Domestic Equity Target 1.0 0.5 0.0 -0.5 5 Yr. 10 Yr. Qtr. 1 Yr. 3 Yr.

Value Added to International Equity Target







ALTERNATIVE INVESTMENTS Performance of Asset Categories (Net of Fees)

Expectation: The alternative investments are			Period Er	ding 6/3()/2014	
measured against themselves using actual portfolio			I CHOU EI		inualized	
returns.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Alternatives	4.8%	18.9%	13.2%	14.7%	15.5%
	Inflation	0.9%	2.1%	1.8%	2.0%	2.2%
Real Estate Investments (Equity emphasis)						
Expectation: Real estate investments are expected to		1	Period En			
exceed the rate of inflation by 5% annualized, over the		0	N		nualized	10 V.
life of the investment.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
The SBI began its real estate program in the mid-1980's	Real Estate	7.2%	18.0%	12.0%	5.9%	7.4%
and periodically makes new investments. Some of the						
existing investments are relatively immature and returns						
may not be indicative of future results.						
Private Equity Investments (Equity emphasis)						
Expectation: Private equity investments are expected			Period Er			
to exceed the rate of inflation by 10% annualized, over the life of the investment.		Qtr.	Yr.	A1 3 Yr.	nualized 5 Yr.	10 Yı
the fife of the investment.		100				
The SBI began its private equity program in the mid-	Private Equity	4.8%	20.3%	13.6%	17.6%	16.2%
1980's and periodically makes new investments. Some						
of the existing investments are relatively immature and						
returns may not be indicative of future results.						
Resource Investments (Equity emphasis)						
Expectation: Resource investments are expected to]	Period En			
exceed the rate of inflation by 5% annualized, over the		Qtr.	Yr.	An 3 Yr.	nualized 5 Yr.	10 Yr.
life of the investment.						
The SBI began its resource program in the mid-1980's	Resource	4.4%	11.7%	10.7%	14.5%	27.4%
and periodically makes new investments. Some of the						
existing investments are relatively immature and returns						
may not be indicative of future results.						
Yield Oriented Investments (Debt emphasis)						
Expectation: Yield oriented investments are expected to]	Period En			
exceed the rate of inflation by 5.5% annualized, over the		Qtr.	Yr.	An 3 Yr.	nualized 5 Yr.	10 Yr.
life of the investment.						
The SBI began its yield oriented program in 1994. Some	Yield Oriented	3.7%	22.1%	16.5%	14.2%	17.5%
of the existing investments are relatively immature and						
returns may not be indicative of future returns.						

SUPPLEMENTAL INVESTMENT FUND

The Minnesota Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to state and local public employees. The different participating groups use the Fund for a variety of purposes:

- 1. It functions as the investment manager for all assets of the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan, Hennepin County Supplemental Retirement Plan, and Health Care Savings Plan.
- 2. It is one investment vehicle offered to employees as part of Minnesota State Colleges and University's Individual Retirement Account Plan and College Supplemental Retirement Plan.
- 3. It serves as an external money manager for a portion of some local police and firefighter retirement plans.
- 4. It serves as the investment vehicle for 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 6/30/2014 the market value of the entire Fund was \$1.8 billion.

Investment Options	
	6/30/2014 Market Value (In Millions)
Income Share Account – a balanced portfolio utilizing both common stocks and bonds.	\$350
Growth Share Account – an actively managed, all common stock portfolio.	\$203
Common Stock Index Account – a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	\$445
International Share Account – a portfolio of non U.S. stocks that incorporates both active and passive management.	\$210
Bond Market Account - an actively managed, all bond portfolio.	\$110
Money Market Account – a portfolio utilizing short-term, liquid debt securities.	\$249
Fixed Interest Account – a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	\$196
Volunteer Firefighter Account – a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$26

Investment Options

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

INCOME SHARE ACCOUNT

Investment Objective

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

Asset Mix

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

	Target	Actual
Stocks	60.0%	60.9%
Bonds	35.0	34.2
Cash	5.0	4.9
	100.0%	100.0%

GROWTH SHARE ACCOUNT

Investment Objective

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

Asset Mix

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

COMMON STOCK INDEX ACCOUNT

Investment Objective and Asset Mix

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

The Account is invested 100% in common stock.

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 twentyfive percent 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 Morgan Stanley Capital International World ex U.S. 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.

	Period Ending 6/30/2014							
		nnualiz	ed					
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.			
Total Account	3.6%	16.7%	11.7%	13.9%	7.5%			
Benchmark*	3.6	16.3	11.2	13.4	6.9			

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

	Period Ending 6/30/2014						
			A	nnualiz	ed		
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Total Account	4.3%	26.1%	16.5%	19.6%	8.0%		
Benchmark*	4.9	25.2	16.5	19.3	8.2		

* Russell 3000

	Period Ending 6/30/2014						
	Annualized				ed		
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Total Account	4.9%	25.2%	16.4%	19.4%	8.3%		
Benchmark*	4.9	25.2	16.5	19.3	8.2		

* Russell 3000

	Period Ending 6/30/2014						
			A	nnualiz	ed		
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Total Account	4.7%	21.4%	6.3%	11.7%	8.1%		
Benchmark*	5.0	21.7	5.7	11.1	7.8		

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

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

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.

Asset Mix

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

	I	Period En	nding 6/3	0/2014	
	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	2.1%	5.0%	4.5%	6.6%	5.3%
Barclays Capital Aggregate	2.0	4.4	3.7	4.9	4.9

Otr.

0.0

0.0%

Total Account

3 month T-Bills

Period Ending 6/30/2014

3 Yr.

0.1

0.2%

Annualized

0.1

5 Yr. 10 Yr.

0.2% 1.8%

1.5

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.

Asset Mix

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

FIXED INTEREST ACCOUNT

Investment Objectives

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

Asset Mix

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

VOLUNTEER FIREFIGHTER ACCOUNT

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

The Account is invested in a balanced portfolio:

	Target	Actual
Domestic Stocks	35.0	35.2%
International Stocks	15.0	15.0
Bonds	45.0	45.1
Cash	5.0	4.7
	100.0%	100.0%

	1	Period Er	ding 6/3	0/2014	
	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	0.4%	1.9%	2.5%	3.1%	3.8%
Benchmark*	0.3	1.2	1.0	1.2	2.6

1 Yr.

0.1

0.1%

* The Fixed Interest Benchmark is the 3 year Constant Maturity Treasury Bill +45 basis points.

	I	Period En	ding 6/3	0/2014	
	Annualized				ed
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	3.4%	13.9%	8.9%	N/A	N/A
Benchmark*	3.4	13.8	8.4	N/A	N/A

* The benchmark for this account is 35% Russell 3000, 15% MSCI ACWI Free ex U.S. (net), 45% Barclays Capital 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 a supplement to their primary retirement plan. (In most cases, the primary plan is a defined benefit plan administered by TRA, PERA, or MSRS.) 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.

Participants choose from 4 actively managed mutual funds 5 passively managed mutual funds and 11 target retirement

	6/30/2014 Market Value (in Millions)
Vanguard Index Institutional Plus Shares (passive)	\$926
Janus Twenty (active)	\$526
Vanguard Mid Cap Index Institutional Shares (passive)	\$390
T. Rowe Price Small-Cap Stock (active)	\$619
Fidelity Diversified International (active)	\$297
Vanguard Total International Stock Index Institutional Plus (passive)	\$159
Vanguard Balanced Index Institutional Shares (passive)	\$648
Dodge & Cox Income Fund (active)	\$199
Vanguard Total Bond Market Index Institutional Shares (passive)	\$172
SIF Money Market Account	\$66
SIF Fixed Interest Account (stable value)	\$1,353
State Street Global Advisors MN Target Retirement Funds	\$228
Income Fund	\$30
2015 Fund	\$33
2020 Fund	\$54
2025 Fund	\$41
2030 Fund	\$23
2035 Fund	\$18
2040 Fund	\$11
2045 Fund	\$7
2050 Fund	\$5
2055 Fund	\$2
2060 Fund	\$3

Investment Options

DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE CAP EQUITY

Vanguard Index Institutional Plus (passive)		ł	Period End		
• A passive domestic stock portfolio that tracks the				Annua	
S&P 500.		Qtr.	1 Yr.	3 Yr.	5 Yr.
	Fund	5.2%	24.6%	16.6%	
	S&P 500	5.2	24.6	16.6	18.8
Janus Twenty (active)		ł	Period End	ling 6/30	/2014
• A concentrated fund of large cap stocks which is				Annua	
expected to outperform the S&P 500, over time.		Qtr.	1 Yr.	3 Yr.	5 Yr.
• •	Fund	3.7%	26.3%	14.8%	14.3%
	S&P 500	5.2	24.6	16.6	18.8
MID CAP EQUITY					
Vanguard Mid Cap Index (passive)		I	Period End	ling 6/30	/2014
• A fund that passively invests in companies with				Annua	lized
medium market capitalizations that tracks the CRSP		Qtr.	1 Yr.	3 Yr.	5 Yr.
US Mid-Cap Index.	Fund	4.5%	26.3%	15.4%	22.0%
	CRSP US	4.5	26.3	15.5	22.1
	Mid-Cap				
 T. Rowe Price Small Cap (active) A fund that invests primarily in companies with small market capitalizations and is expected to outperform 		I Qtr.	Period End 1 Yr.	ling 6/30 Annua 3 Yr.	
the Russell 2000.	Fund	2.1%	24.0%	15.9%	23.2%
	Russell 2000	2.0	23.6	14.6	20.2
INTERNATIONAL EQUITY					12014
 Fidelity Diversified International (active) A fund that invests primarily in stocks of companies 		1	Period End	Annua	
located outside the United States and is expected to		Qtr.	1 Yr.	3 Yr.	5 Yr.
outperform the MSCI index of Europe, Australasia and				0 =0/	12.1%
OUIDENOTHI THE WISCI HIGES OF LUTODE. AUSTRIASIA and	Fund	3.9%	23.0%	8.1%	14.1/0
the Far East (EAFE), over time.	Fund MSCI EAFE	3.9% 4.1	23.0% 23.6	8.7% 8.1	11.8
the Far East (EAFE), over time.		4.1		8.1 ling 6/30	11.8 0/ 2014
the Far East (EAFE), over time. Vanguard Total International Stock Index (passive)		4.1 I	23.6 Period End	8.1 ling 6/30 Annu	11.8 / 2014 alized
 the Far East (EAFE), over time. Vanguard Total International Stock Index (passive) A fund that seeks to track the investment performance 	MSCI EAFE	4.1 I Qtr.	23.6 Period End 1 Yr.	8.1 ling 6/3(Annu 3 Yr.	11.8 //2014 alized 5 Yr.
the Far East (EAFE), over time. Vanguard Total International Stock Index (passive)		4.1 Qtr. 5.0%	23.6 Period End 1 Yr.	8.1 ling 6/3(Annu 3 Yr.	11.8 / 2014 alized

SECOND QUARTER

DEFERRED COMPENSATION PLAN ACCOUNTS

BALANCED

 Vanguard Balanced Index (passive) A fund that passively invests in a mix of domestic stocks and bonds. The fund is expected to track a 		1	Period Er	nding 6/3 Annua	
weighted benchmark of 60% CRSP US Total Market Index/40% Barclays Capital Aggregate.	Fund Benchmark	Qtr. 3.7% 3.7	1 Yr. 16.4% 16.6	3 Yr.	5 Yr. 13.7% 13.7
FIXED INCOME					
Dodge & Cox Income Fund (active)A fund that invests primarily in investment grade		Pe	riod Endi	ing 6/30/ Annua	
securities in the U.S. bond market which is expected to outperform the Barclays Capital Aggregate, over time.	Fund Barclays Capital Agg.	Qtr. 2.2% 2.0	1 Yr. 6.6% 4.4	3 Yr. 4.9% 3.7	
Vanguard Total Bond Market Index (passive)		Period Ending 6/30/2014 Annualized			
• A fund that passively invests in a broad, market- weighted bond index that is expected to track the Barclays Capital Aggregate.	Fund Barclays Capital Agg.	Qtr. 2.0% 2.0	1 Yr. 4.3% 4.4	Annua 3 Yr. 3.6% 3.7	
Money Market Account			Period Er	nding 6/3 Annua	
• 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.	Qtr. 0.0% 0.0	1 Yr. 0.1% 0.1	Annua 3 Yr. 0.2% 0.1	
FIXED INTEREST ACCOUNT	P				
• A portfolio composed of stable value instruments which are primarily investment contracts and security]	Period Er	nding 6/3 Annua	
backed contracts. The account is expected to outperform the return of the 3 year Constant Maturity Treasury + 45 basis points, over time.	Fund Benchmark	Qtr. 0.4% 0.3	1 Yr. 1.9% 1.2	3 Yr. 2.5% 1.0	

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 Page A-107 for returns.

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 on-going 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.

	6/30/2014	6/30/2014
	Target	Actual
Stocks	20.0%	19.5%
Bonds	80.0	80.5
Total	100.0%	100.0%

Investment Management

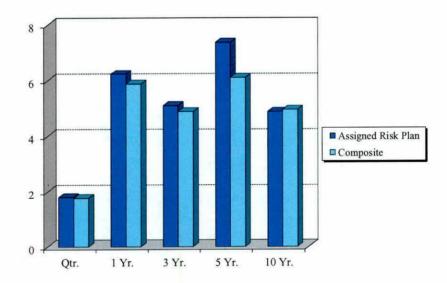
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

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 June 30, 2014 the market value of the Assigned Risk Plan was \$302 million.



Period Ending 6/30/2014

		A	nnualiz	ed
Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
1.8%	6.2%	5.1%	7.4%	4.9%
1.8	5.9	4.9	6.1	5.0
5.1	25.3	16.5	16.9	7.9
5.2	24.6	16.6	18.8	7.8
0.9	1.5	1.9	4.8	3.9
0.9	1.5	2.0	2.9	4.0
	 1.8% 1.8 5.1 5.2 0.9 	1.8% 6.2% 1.8 5.9 5.1 25.3 5.2 24.6 0.9 1.5	Qtr. 1 Yr. 3 Yr. 1.8% 6.2% 5.1% 1.8 5.9 4.9 5.1 25.3 16.5 5.2 24.6 16.6 0.9 1.5 1.9	1.8% 6.2% 5.1% 7.4% 1.8 5.9 4.9 6.1 5.1 25.3 16.5 16.9 5.2 24.6 16.6 18.8 0.9 1.5 1.9 4.8

* 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 used to offset expenditures on school aid payments to local school districts.

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.

	6/30/2014	6/30/2014
	Target	Actual
Stocks	50.0%	51.2%
Bond	48.0	46.9
Cash	2.0	1.9
Total	100.0%	100.0%

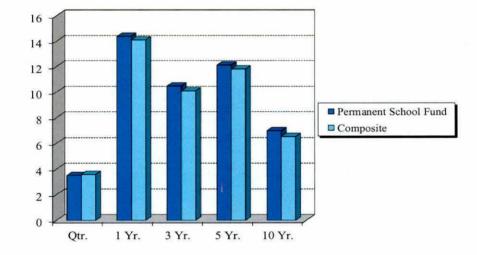
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

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 June 30, 2014 the market value of the Permanent School Fund was \$ 1,102 million.



	Period Ending 6/30/2014						
			A	d			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Total Fund*	3.5%	14.4%	10.5%	12.1%	7.0%		
Composite	3.6	14.1	10.1	11.8	6.5		
Equity Segment*	5.2	24.5	16.5	18.8	7.8		
S&P 500	5.2	24.6	16.6	18.8	7.8		
Bond Segment*	1.9	5.0	4.3	5.3	5.6		
Barclays Capital Agg.	2.0	4.4	3.7	4.9	4.9		

* Actual returns are calculated net of fees.

ENVIRONMENTAL TRUST FUND

Investment Objective

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

	6/30/2014	6/30/2014
	Target	Actual
Stocks	70.0%	70.6%
Bonds	28.0	27.5
Cash	2.0	1.9
Total	100.0%	100.0%

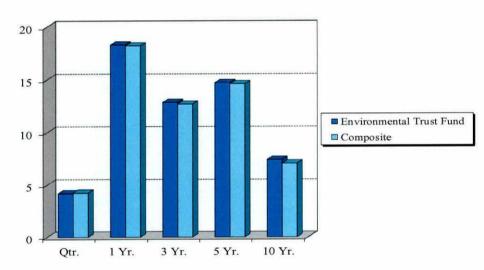
allocation changed from 50% stocks/50% fixed income to 70% stocks /30% fixed income.

Investment Management

SBI staff manage 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 June 30, 2014 the market value of the Environmental Trust Fund was \$842 million.



	Perio	od Ending	g 6/30/20 Annual			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Total Fund*	4.2%	18.3%	12.8%	14.7%	7.4%	* Actual returns are calculated net of fees.
Composite	4.2	18.2	12.7	14.6	7.1	
Equity Segment*	5.2	24.5	16.5	18.8	7.8	
S&P 500	5.2	24.6	16.6	18.8	7.8	
Bond Segment*	1.9	5.0	4.3	5.3	5.6	
Barclays Capital Agg.	2.0	4.4	3.7	4.9	4.9	

STATE CASH ACCOUNTS

Description

State Cash Accounts represent the cash 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 shortterm 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 End	ding 6/30/201	4				
	Market Value		Annualized					
	(Millions)	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Treasurer's Cash Pool* Custom Benchmark**	\$8,972	0.2% 0.0	0.6% 0.0	0.5% 0.0	0.7% 0.0	2.3% 1.5		
3 month T-Bills		0.0	0.1	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 June 30, 2014 (in Thousands)

Cash & ST **Bonds Int Bonds Ext** Stock Int Stock Ext Ext Intl Alternative Total **COMBINED RETIREMENT FUNDS** Teachers Retirement Fund 536,124 4,732,984 0 9.269.159 0 3,170,211 2,558,422 20,266,900 2.65% 23.35% 15.64% 45.74% 12.62% 100% Public Employees Retirement Fund 456.975 0 4,061,777 0 7.954.655 2,720,628 2,195,600 17.389.635 2.63% 23.36% 45.74% 15.65% 12.63% 100% State Employees Retirement Fund 290,336 0 2,683,530 0 5.255.473 1,797,462 1,450,587 11,477,388 2.53% 23.38% 45.79% 15.66% 12.64% 100% Public Employees Police & Fire 185,874 0 1,696,489 0 3,322,434 1,136,329 917,040 7.258.166 2.57% 23.37% 45.78% 15.66% 12.63% 100% Highway Patrol Retirement Fund 17,395 0 155.810 0 305,141 84,224 104.364 666,934 2.61% 23.36% 45.75% 15.65% 12.63% 100% Judges Retirement Fund 5.164 0 40,879 0 27,382 80,058 22,097 175,580 2.94% 23.28% 45.60% 15.60% 12.59% 100% Correctional Employees Retirement 24,279 0 204,488 0 400,473 136,968 110.536 876,744 2.77% 23.32% 45.68% 15.62% 12.61% 100% Public Employees Correctional 12,429 0 105.666 0 206,938 70,776 57,118 452,927 2.74% 23.33% 45.69% 15.63% 12.61% 100% Legislative Retirement Fund 109 0 1,962 0 3,843 1,061 1,314 8,289 1.31% 23.67% 46.36% 15.85% 12.80% 100% PERA Minneapolis Retirement 21,081 0 205,527 0 402,511 137,666 111.099 877,884 2.40% 23.41% 45.85% 15.68% 12.66% 100% **TOTAL COMBINED FUNDS** 1,549,766 0 27,200,685 13,889,112 0 9,303,100 7,507,784 59,450,447 2.61% 23.36% 45.75% 15.64% 12.63% 100%

		Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
	MINNESOTA SUPPLEMENTAL FUNDS								
	Income Share Account	17,358 4.96%	119,456 34.17%	0	0	212,835 60.87%	0	0	349,649 100%
200	Growth Share Account	0	0	0	0	202,631 100.00%	0	0	202,631 100%
	Money Market Account	249,152 100.00%	0	0	0	0	0	0	249,152 100%
	Common Stock Index	0	0	0	0	444,917 100.00%	0	0	444,917 100%
	Bond Market Account	0	0	110,487 100.00%	0	0	0	0	110,487 100%
	International Share Account	0	0	0	0	0	209,815 100.00%	0	209,815 100%
	Fixed Interest Account	0	0	196,316 100.00%	0	0	0	0	196,316 100%
	Volunteer Firefighters Account	1,243 4.75%	0	11,812 45.07%	0	9,219 35.18%	3,934 15.01%	0	26,208 100%
	TOTAL SUPPLEMENTAL FUNDS	267,753 14.97%	119,456 6.68%	318,615 17.81%	0	869,602 48.61%	213,749 11.95%	0	1,789,175 100%
	MN DEFERRED COMP PLAN	72,851 1.30%	0	2,073,990 37.15%	0	2,934,839 52.57%	501,084 8.98%	0	5,582,764 100%
	TOTAL RETIREMENT FUNDS	1,890,370 2.83%	119,456 0.18%	16,281,717 24.37%	0	31,005,126 46.40%	10,017,933 14.99%	7,507,784 11.24%	66,822,386 100%

		Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
	ASSIGNED RISK PLAN	6,601 2.19%	0	236,423 78.31%	0	58,875 19.50%	0	0	301,899 100%
22	ENVIRONMENTAL FUND	16,201 1.92%	231,586 27.49%	0	594,712 70.59%	0	0	0	842,499 100%
	PERMANENT SCHOOL FUND	21,049 1.92%	517,032 46.93%	0	563,537 51.16%	0	0	0	1,101,618 100%
	Miscellanous Trust Funds	368 0.26%	60,097 41.94%	0	82,812 57.80%	0	0	0	143,277 100%
	Other Post Employment Funds (OPEB's)	18,214 4.05%	65,005 14.46%	0	366,274 81.49%	0	0	0	449,493 100%
	TREASURERS CASH	8,706,543 100.00%	0	0	0	0	0	0	8,706,543 100%
	MISCELLANEOUS STATE ACCOUNTS	0	265,276 100.00%	0	*	0	0	0	265,276 100%
	TOTAL CASH AND NON-RETIREMENT	8,768,976 74.25%	1,138,996 9.64%	236,423 2.00%	1,607,335 13.61%	58,875 0.50%	0	0	11,810,605 100%
	GRAND TOTAL	10,659,346 13.56%	1,258,452 1.60%	16,518,140 21.01%	1,607,335 2.04%	31,064,001 39.51%	10,017,933 12.74%	7,507,784 9.55%	78,632,991 100%

TAB B

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: August 12, 2014

TO: Members, State Board of Investment

FROM: Mansco Perry III

1. Reports on Budget and Travel

A report on the SBI's administrative budget for the Fiscal Year 2014 is included as **Attachment A**.

A report on travel for the period from May 4, 2014 – June 30, 2014 is included as **Attachment B**.

2. Update on Sudan

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

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

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

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

In the second quarter, SBI managers divested 7,625 shares in companies on the divestment list.

Attachment C is a copy of the June 25, 2014 letter sent to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested.

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

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

Attachment E is a copy of the June 25, 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.

4. Update on 529 Plan

The SBI and the Minnesota Office of Higher Education (OHE) have completed a new five year contract with TIAA-CREF to provide administrative, marketing and investment services for the state's 529 College Savings Plan. The new investment structure increases the number of investment options from 12 to 18 and increases the age bands in the Managed Allocation Option from six to nine in an effort to give investors a more controlled, smoother reduction to their investment option's equity allocation. The new investment structure helps to significantly lower the overall plan fees and makes it more competitive in the national 529 plan market.

The roll-out of the new investment options and the reduced administrative fees began in August 2014. The Minnesota 529 plan is currently just over \$1 billion in assets.

5. Litigation Update

SBI legal counsel will give the Board a verbal update on status of litigation at the Board meeting on September 9, 2014.

ATTACHMENT A

STATE BOARD OF INVESTMENT FISCAL YEAR 2014 ADMINISTRATIVE BUDGET REPORT FISCAL YEAR 2014 FINAL

	FISC	AL YEAR	FIS	FISCAL YEAR		
		2014		2014		
ITEM	BU	JDGET	ACTUAL			
PERSONAL SERVICES						
FULL TIME EMPLOYEES	\$	3,286,000	\$	3,131,300		
PART TIME EMPLOYEES		\$ 72,000		\$ 49,631		
MISCELLANEOUS PAYROLL		235,000		225,360		
SUBTOTAL	\$	3,593,000	\$	3,406,291		
STATE OPERATIONS						
RENTS & LEASES		200,000		200,419		
REPAIRS/ALTERATIONS/MAINTENANCE		10,000		21,797		
PRINTING & BINDING		5,000		3,603		
PROFESSIONAL/TECHNICAL SERVICES		250,000		89,300		
COMPUTER SYSTEMS SERVICES		23,000		17,739		
COMMUNICATIONS		26,000		21,140		
TRAVEL, IN-STATE		1,000		633		
TRAVEL, OUT-STATE		42,000		41,136		
SUPPLIES		20,000		26,795		
EQUIPMENT		20,000		75,292		
EMPLOYEE DEVELOPMENT		10,000		15,635		
OTHER OPERATING COSTS		140,000		11,222		
SUBTOTAL	\$	747,000	\$	524,712		
TOTAL ADMINISTRATIVE BUDGET	\$	4,340,000	5	5 3,931,003		

ATTACHMENT B

STATE BOARD OF INVESTMENT

Travel Summary by Date SBI Travel May 4, 2014 – June 30, 2014

Purpose	Name(s)	Destination and Date	Total Cost
Conference: Institutional Investor Services (IIS) Client Advisory Council Meeting sponsored by State Street Bank	M. Perry	Boston, MA 5/5-5/6	\$1,557.35
Conference: National Association of State Investment Professionals (NASIP)	M. Menssen T. Brusehaver	Salt Lake City, UT 5/6-5/9	\$3,671.50
Conference & Education: GFOA's 108 th Annual Conference	P. AndersonW. MurphyS. BaribeauB. NicolK. Leisz	Minneapolis, MN 5/19-5/21	\$2,120.00
Manager Monitoring Alternative Investment Managers: Hellman & Friedman Annual Meeting; Silver Lake Partners; Elevation Partners Manager Monitoring Consultant: Callan Associates	J. Kirby	San Francisco, CA 5/20-5/23	\$2,743.27
Conference: Institutional Limited Partners Association (ILPA) Conference Manager Monitoring Master Custodian: State Street Bank	L. Stagg	Boston, MA 6/2-6/6	\$1,551.73

STATE BOARD OF INVESTMENT

Travel Summary by Date SBI Travel May 4, 2014 – June 30, 2014

Purpose	Name(s)	Destination and Date	Total Cost
Manager Monitoring Alternative Investment Manager: KKR's 2014 Americas Investors' Meeting; Leonard Green & Partners Manager Search Alternative Investment Managers: Oaktree Capital	R. Hill	Los Angeles, CA 6/23-6/26	\$1,844.41
Conference: RFK Compass Hyannis Port Conference	M. Perry	Chatham, MA 6/23-6/25	\$1,014.29
Conference: National Association of Public Pension Attorneys	J. Mule	Nashville, TN 6/24-6/27	\$1,147.67

-8-

Letter to SBI International Equity and Domestic Equity Managers

June 25, 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 March 17, 2014 letter you received. This new list is effective June 27, 2014.

• The following companies have been <u>added</u> to the Restricted List:

•	China Poly Group	China
٠	Poly Property Group	China

• The following companies have been <u>removed</u> from the Restricted List:

٠	Avtodizel OAO	Russia
٠	Tverskoy Excavator OJSC	Russia
•	Yaroclavsky Diesel Equipment Plan OAO	Russia

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

MAN SE

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 Tammy Brusehaver or Aaron Griga, Domestic Equities; Stephanie Gleeson, International Equities or me.

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Public Markets Tammy Brusehaver, Domestic Equities Aaron Griga, Domestic Equities Stephanie Gleeson, International Equities Patricia Ammann, Public Programs

ATTACHMENT 1

Restricted Sudan Stocks

Company Name	Country of Origin
Andritz AG	Austria
Orca Gold Inc.	Canada
Statesman Resources Limited	Canada
China Poly Group Corporation	China
Poly Property Group Co. Ltd.	China
China Gezhouba Group Company Limited	China
China Hydraulic and Hydroelectric Construction Group AKA Sinohydro Group	China
Daqing Huake Group Company Limited	China
Jinan Diesel Company Limited	China
PetroChina AKA China National Petroleum Corporation (CNPC)	China
China North Industries Group Corporation AKA CNGC/Norinco	China
Norinco International Cooperation Ltd	China
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 Machinery Engineering Corporation	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
Egypt Kuwait Holding Company	Egypt
Alstom	France
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
Dil India Limited	India
Energy House Holding Co KSCC, The (formerly AREF Energy Holding Company)	Kuwait
MAN SE	Germany
Renk AG	Germany
Managem	Morocco

ATTA	CHI	ILIN	1 1

Restricted Sudan Stocks

Company Name	Country of Origin
Societe Metallurgique D'imiter	Morocco
Petroliam Nasional Berhad AKA Petronas	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Engen	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Scomi Group Berhad	Malaysia
Scomi Engineering Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
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: June 27, 2014

ATTACHMENT 2

	Sudan	Stocks	Requiring	g 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

Note: AKA means "Also Known As"

Source: Conflict Risk Network

SBI Effective Date: June 27, 2014

EIRS CONFLICT RISK NETWORK

Security Identifiers for "Scrutinized" Stocks

ATTACHMENT 3

The following security identifiers correlate with the Second Quarter 2014 Sudan Company Report and are current as of May 16, 2014

ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

Gompany	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP Sicovam	(CIN	COMMON	
ALSTOM INDIA LTD	ALSTOM	Nati India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IB	ADEAYM	6230834 IN	COSIF SICOVAIN	INE878A01011	COMMON	CINS Fondscode
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IN	AGEAYM	6230834 IN		INE878A01011		
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IS	ADEAYM	6230834 IN		INE878A01011		
ALSTOM SA ALSTOM SA	ALSTOM	Equiduct (XEQT)	Common Stock	ALSTOM	ALO BQ	AOF7BK	BODJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	BATS Europe (BATE)	Common Stock	ALSTOM	ALO EB	A0F7BK	BODJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	EN Paris (XPAR) TOM MTF (TMX)	Common Stock	ALSTOM	ALO FP	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM		Common Stock	ALSTOM	ALO MT	A0F7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Aquis Exchg (AQXE) Turquoise (TRQX)	Common Stock Common Stock	ALSTOM	ALO QX	AOF7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Chi-X Alt TS (CHIX)	Common Stock	ALSTOM	ALO TO ALSP IX	AOF7BK	BODJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GB	AOF7BK AOF7BK	B0DJ8Q5 FR		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GD	AOF7BK	B0G0412 DE B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GE	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GF	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GH	AOF7BK	B0G0412 DE		FR0010220475 FR0010220475	022581074 022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GI	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GM	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GR	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GS	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GY	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM	Tradegate (XGAT)	Common Stock	ALSTOM	AOMD TH	AOF7BK	B0G0412 DE		FR0010220475	022581074	
ALSTOM SA	ALSTOM ALSTOM	OTC US (OOTC)	Common Stock	ALSTOM	AOMFF PQ	AOF7BK	BOGLY93 US		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	OTC US (OOTC) OTC US (OOTC)	Common Stock Common Stock	ALSTOM	AOMFF US	A0F7BK	BOGLY93 US		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	AOMFF UV	AOF7BK	BOGLY93 US		FR0010220475	022581074	F0259M475
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO EU	AOF7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO LI ALO LO	A0F7BK A0F7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO LO ALO XA	AOF 7BK	BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTG (XLON)	Common Stock	ALSTOM	ALO XB	AOF78K	BOYLTQ7 GB BOYLTQ7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XD	AOF78K	BOYLTQ7 GB		FR0010220475 FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XE	AOF7BK	BOYLTQ7 GB		FR0010220475	022581074 022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XO	A0F7BK	BOYLTO7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XS	AOF7BK	BOYLTO7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XV	A0F7BK	BOYLTO7 GB		FR0010220475	022581074	
ALSTOM SA	ALSTOM	Euro TLX (ETLX)	Common Stock	ALSTOM	ALO TE	A0F7BK	B3NVFN8 IT		FR0010220475	022581074	
ALSTOM SA ALSTOM SA	ALSTOM	EN Paris (XPAR)	Common Stock	ALSTOM - NEW	ALONVEP	A112HM	BL95HS9 FR		FR0011669829	105416865	
ALSTOM SA	ALSTOM ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM - NEW	ALONVEUR EU	A112HM			FR0011669829	105416865	
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR GDR	ALSTOM	ALSMY PQ	A1CS4B	B3DY4Z2 US	021244207	US0212442075	081982660	
ALSTOM SA	ALSTOM	OTC US (OOTC) OTC US (OOTC)	GDR GDR	ALSTOM	ALSMY US	A1CS4B	B3DY4Z2 US	021244207	US0212442075	081982660	
ALSTOM SA ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	GDR Common Stock	ALSTOM AREVA T&D INDIA LTD	ALSMY UV ATD IB	A1CS4B	B3DY4Z2 US	021244207	US0212442075	081982660	
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IN	AORB87	6139890 IN		INE200A01026		
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD		AORB87	6139890 IN		INE200A01026		
ANDRITZ AG	ANDRITZ GROUP	Vienna (WBAH)	Common Stock	ANDRITZ AG	ATD IS ANDR AV	A0RB87 632305	6139890 IN		INE200A01026		
ANDRITZ AG	ANDRITZ GROUP	BATS Europe (BATE)	Common Stock	ANDRITZ AG	ANDR EB	632305	B1WVF68 AT B1WVF68 AT		AT0000730007 AT0000730007	013042748	
ANDRITZ AG	ANDRITZ GROUP	Chi-X Europe (CHIX)	Common Stock	ANDRITZ AG	ANDR IX						
ANDRITZ AG	ANDRITZ GROUP					632305	B1WVE68 AT			013042748	
ANDRITZ AG		Turquoise (TRQX)	Common Stock	ANDRITZ AG	ANDR TQ	632305 632305	B1WVF68 AT B1WVF68 AT		AT0000730007	013042748	
	ANDRITZ GROUP	Xetra (XETR)		ANDRITZ AG			B1WVF68 AT		AT0000730007 AT0000730007	013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR) Xetra (XETR)	Common Stock		ANDR TQ	632305	B1WVF68 AT B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748	
ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF	632305 632305 632305 632305	B1WVF68 AT		AT0000730007 AT0000730007	013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GH	632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GH AZ2 GM	632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GH AZ2 GM AZ2 GR	632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GH AZ2 GM AZ2 GR AZ2 GS	632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR)	Common Stack Common Stack Common Stack Common Stack Common Stack Common Stack Common Stack Common Stack	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GH AZ2 GR AZ2 GR AZ2 GS AZ2 GS	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GM AZ2 GM AZ2 GR AZ2 GS AZ2 GY AZ2 TH	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (COTC)	Common Stack Common Stack	ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GH AZ2 GH AZ2 GH AZ2 GR AZ2 GS AZ2 GS AZ2 TH ADRZF US	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE		AT0000730007 AT000730007 AT000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	A11123105
ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GD AZ2 GF AZ2 GH AZ2 GH AZ2 GM AZ2 GS AZ2 GS AZ2 GY AZ2 TH ADRZF US ADRZF UV	832305 632305 632305 632305 632305 632305 632305 632305 632305 632305 832305 832305 832305 832305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X8FH2 US B1XBL38 US		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	A11123105 A11123105
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC)	Common Stack Common Stack	ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GD AZ2 GH AZ2 GH AZ2 GH AZ2 GR AZ2 GR AZ2 GR AZ2 GY AZ2 GY ADRZF US ADRZF US ADRZF US	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X8L38 US B28F3F6 GB		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradepale (XGAT) OTC UIS (OOTC) OTC UIS (OOTC) Euro Comp (XCM)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GH AZ2 GH AZ2 GR AZ2 GR AZ2 GS AZ2 GY AZ2 TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZF US	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X8FH2 GB B1XBL36 US B1XBL36 US B28F3F6 GB		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTG US (OOTC) OTG US (OOTC) OTG US (OOTC) Euro Comp (XLON) LSE EuropedS (XLON) LSE EuropedS (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GD AZ2 GH AZ2 GH AZ2 GH AZ2 GR AZ2 GR AZ2 GR AZ2 GY AZ2 GY ADRZF US ADRZF US ADRZF US	832305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 832305 832305 832305	B1WVF68 AT B1X9FH2 DE B1X9FH2 GB B28F3F6 GB B28F3F6 GB		ΑΤ0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe2S (XLON) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZZ GB AZZ GB AZZ GF AZZ GF AZZ GF AZZ GM AZZ GM AZZ GY AZZ TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZF US ADRR LI ANDR LI ANDR LI ANDR XA	632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305 632305	B1WVF68 AT B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X9FH2 DE B1X8FH2 GB B1XBL36 US B1XBL36 US B28F3F6 GB		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTG US (OOTC) OTG US (OOTC) Euro Comp (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GS AZ2 GS AZ2 GY AZZ TH ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB	832205 632305 6325 63555 63555 63555 63555 63555 63555 63555 635555 635555	B1WVF66 AT B1X9FH2 DE B1X9FH2 B28FF6 GB B28F3F6 GB B28F3F6 GB		ΑΤ0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XCAN) LSE Europe3S (XLON) Euro OTC (XCAN) Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZZ GB AZZ GB AZZ GF AZZ GF AZZ GF AZZ GM AZZ GM AZZ GS AZZ GY AZZ TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZ LU ANDR LI ANDR LI ANDR ZB ANDR XB ANDR XB	632205 632205	BINVF66 AT BIX9FH2 DE BIX9FH2 DE		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTG US (OOTC) OTG US (OOTC) OTG US (OOTC) Euro Comp (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTG (XLON) Euro OTG (XLON) Euro OTG (XLON) Euro OTG (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GS AZ2 GY AZ2 TH ANDR LU ANDR LU ANDR LU ANDR LO ANDR XB ANDR XB ANDR XL	632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205	BIXVPF6 AT BIXOFH2 DE BIXOFH2 DE BIXELS US BIXELS US BI		AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUS (OOTC) Euro Comp (XLON) LSE EuropedS (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GY AZ2 TH ADRZF UV ANDR EU ANDR LI ANDR LI ANDR LA ANDR XB ANDR XB ANDR XB ANDR XC	632205 632205	BIX0FH2 DE BIX0FH2 DE		AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TQ AZ2 GB AZ2 GD AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GY AZ2 TH ADRZF US ADRZF US ADRZF US ANDR LI ANDR LI ANDR XB ANDR XB ANDR XB ANDR XB ANDR XL ANDR XL ANDR XL	632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205	BINVF66 AT BIX9FH2 DE BIX9FH2 GB B28F3FF GB	034522102	AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) USE EuropeoS (XLON) LSE EuropeoS (XLON) Euro OTC (XLON)	Common Stock Common Stock ADR	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GY AZ2 TH ADRZF US ADRZF US ADRZF US ANDR LI ANDR LI ANDR LI ANDR XB ANDR XA ANDR XB ANDR XB ANDR XC ANDR	632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205	BINVFR6 AT BINOFH2 DE BINOFH2 DE	034522102	AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe2S (XLON) LSE Europe2S (XLON) Euro OTC (XLON) OTC US (OOTC) OTC US (OOTC)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR	ANDR TQ AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GS AZ2 GS AZ2 GY AZ2 TH ADRZF US ADRZF US ADRZF US ADRZF US ANDR LI ANDR LI ANDR XB ANDR XB ANDR XB ANDR XB ANDR XC ANDR X	632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205 632205	BINVFF6 AT BIX9FH2 DE BIX9FH2 DE		AT0000730007 AT0000730007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE EuropeoS (XLON) LSE EuropeoS (XLON) Euro OTC (XLON) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY AZ2 TH ANDR EU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LA ANDR XB ANDR XB ANDR XB ANDR XB ANDR XC ANDR XC BADRZY US ADRZY US ADRZY US ADRZY US ADRZY US ADRZY US ADRZY US	632205 632205	BINVFR6 AT BIX0FH2 DE BIX0FH2 DE	034522102	AT0000730007 AT000073007 AT00073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT0007 AT00073007 AT00073007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007 AT0007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC (XLON) EURO EURO EURO EURO EURO EURO EURO EURO	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	ANDR TCQ AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZ LUS ANDR LI ANDR LI ANDR XB ANDR XB ANDR XB ANDR XC ANDR CC ANDR CC ANDC ANDC ANDC ANDC ANDC ANDC ANDC AN	632205 63200 63200	BINVF66 AT BIX9FH2 DE BIX9FH2 DE	034522102	AT0000730007 AT000073007 AT0000730007 AT000070007 AT000070007 AT000070007 AT0000700007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED	ANDRITZ GROUP ANDRITZ GROUP BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE EuropeoS (XLON) LSE EuropeoS (XLON) Euro OTC (XLON) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY ADR2F US ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB ANDR XA ANDR XA ANDR XD ANDR XD ANDR XD BNE US BHE IB BHE IN BHE IS	632205 632205	BINVF46 AT BIX0FH2 DE BIX0FH2 DE	034522102	AT0000730007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT000073007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000730007 AT0000700007 AT0000700007	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG ANDRITAG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG AN	ANDRITZ GROUP ANDRITZ GROUP	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe2S (XLON) Euro OTC (XLON) EURO EURO EURO EURO EURO EURO EURO EURO	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TCQ AZ2 GB AZ2 GC AZ2 GC AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 GR AZ2 TH ADRZF US ADRZF US ADRZF US ADRZF US ADRZF US ADRC LI ANDR LI ANDR XL ANDR XL BHEL IB BHEL IB	632205 63205 63	B INVFR6 AT BIXOFH2 DE BIXOFH2 DE	034522102	AT0000730007 AT000073007 AT000070007 AT00007000	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED BHARAT FLECTRONICS LIMITED	ANDRITZ GROUP ANDRITZ GROUP BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) OTC US (OOTC) Euro Comp (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC (XLON) E	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG-UNSPON ADR ANDRITZ AG-UNSPON ADR BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY ADR2F US ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB ANDR XA ANDR XA ANDR XD ANDR XD ANDR XD BNE US BHE IB BHE IN BHE IS	632205 632305 63	B 11/W/F66 AT B1X0/FH2 DE B1X0/FH2 DE B2/873/FG GB B2/873/FG	034522102	AT0000730007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT00000000	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS	ANDRITZ GROUP ANDRITZ GROUP BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS LIMITED BHARAT HEAVY ELECTRICALS LIMITED	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUS (OOTC) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY ADR2F US ADR2F UV ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB ANDR XA ANDR XA ANDR XA ANDR XD ANDR XU ADR2Y US ADR2Y ADR2Y	632205 63205 63	B INVFR6 AT BIXOFH2 DE BIXOFH2 DE	034522102	AT0000730007 AT000073007 AT000070007 AT00007000	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG	ANDRITZ GROUP ANDRITZ GROUP BHARAT ELECTRONCS LIMITED BHARAT HEAVY ELECTRICALS LIMITED	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUS (OOTC) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GB AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY ADR2F UV ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA BANG XA ANDR XA	632205 632305 63	B 11/W/F66 AT B1X0/FH2 DE B1X0/FH2 DE B2/873/FG GB B2/873/FG	034522102	AT0000730007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT0000070007 AT0000070	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	
ANDRITZ AG ANDRITZ AG BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS	ANDRITZ GROUP ANDRITZ GROUP BHARAT ELECTRONICS LIMITED BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS LIMITED BHARAT HEAVY ELECTRICALS LIMITED	Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Xetra (XETR) Tradegate (XGAT) OTC US (OOTC) OTC US (OOTC) CUS (OOTC) LSE Europe3S (XLON) LSE Europe3S (XLON) Euro OTC	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG ANDRITA AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG ANDRITZ AG	ANDR TC AZ2 GB AZ2 GB AZ2 GC AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GF AZ2 GY AZ2 GY AZ2 GY ADR2F UV ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR LU ANDR XB ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA ANDR XA BE ANDR XA ANDR XA ANDR XA BE ANDR XA ANDR XA AND	632205 632305 63	B 11/W/F66 AT B1X0/FH2 DE B1X0/FH2 DE B2/873/FG GB B2/873/FG	034522102	AT0000730007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT000070007 AT0000070007 AT0000070	013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748 013042748	

Company	Primary Company (Affiliate/Parent)	Exchange Exchange	Security Type	Security Name	Ticker	WPK Number	CORAL	CHIMID	Pla		1
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC	Buenos Floor (XBUE)	Receipt	CATERPILLAR INC-CEDEAR	CAT AF	AT A RUNDER	2378277 AR	CUSIP	Sicovam	ARDEUT110079	COMMON CINS Fondscode
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Buenos Floor (XBUE) Soma (BVMF)	Receipt BDR	CATERPILLAR INC-CEDEAR	CATAR		2378277 AR			ARDEUT110079	033876874 033876874
CATERPILLAR INC	CATERPILLAR INC	Soma (BVMF)	BDR	CATERPILLAR-BDR CATERPILLAR-BDR	CATP34 BS CATP34 BZ		B463G79 B463G79			BRCATPBDR003	
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CAT XB	850598	0180162 GB	149123101		BRCATPBDR003 US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Euro OTC (XLON) Euro Comp (XLON)	Common Stock	CATERPILLAR INC	CAT XV	850598	0180162 GB	149123101		US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CATEUR EU	850598	0180182 GB	149123101		US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATEUR XL CATEUR XS	850598 850598	0180162 GB 0180162 GB	149123101 149123101		US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT UB	850598	2180201 US	149123101	005976	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS) New York (XNYS)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CATUC	850598	2180201 US	149123101	005978	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT UD CAT UF	850598 850598	2180201 US 2180201 US	149123101	005976	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT UM	850598	2180201 US	149123101 149123101	005976	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS) New York (XNYS)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT UN	850598	2180201 US	149123101	005976	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT UP CAT US	850598 850598	2180201 US	149123101	005976	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CATUT	850598	2180201 US 2180201 US	149123101	005976	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	New York (XNYS) New York (XNYS)	Common Stock	CATERPILLAR INC	CATUX	850598	2180201 US	149123101	005976	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT VJ CAT VK	850598	2180201 US	149123101	005976	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT VY	850598 850598	2180201 US 2180201 US	149123101 149123101	005976	US1491231015 US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Mexico (XMEX)	Common Stock	CATERPILLAR INC	CAT* MM	850598	2665979 MX	149123101	005976	US1491231015	009988537 009986537
CATERPILLAR INC	CATERPILLAR INC	Lima (XLIM) EN Paris (XPAR)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT PE CATR FP	850598	2743778 PE		919161	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	SIX Swiss Ex (XSWX)	Common Stock	CATERPILLAR INC	CATR FP CAT SE	850598 850598	4180254 FR 4516310 CH	149123101 149123101	005976 919161	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	SIX Swiss Ex (XSWX)	Common Stock	CATERPILLAR INC	CAT SW	850598	4516310 CH	149123101	919161 919161	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT1 GB	850598	5626520 DE	149123101	919161	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GD CAT1 GF	850598 850598	5626520 DE	149123101	919161	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GH	850598	5626520 DE 5626520 DE	149123101 149123101	919161 919161	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GI	850598	5626520 DE	149123101	919161	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA) Dusseldorf (XDUS)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT1 GM CAT1 GQ	850598	5626520 DE	149123101	919161	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GR	850598 850598	5626520 DE 5626520 DE	149123101	919161 919161	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GS	850598	5626520 DE	149123101	919161	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA) Tradegate (XGAT)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT1 GY	850598	5626520 DE	149123101	919161	US1491231015	009986537
CATERPILLAR INC	CATERPILLAR INC	EuroTLX (ETLX)	Common Stock	CATERPILLAR INC	CAT1 TH CAT TE	850598 850598	5626520 DE B83WZ14 IT	149123101 149123101	919161 005976	US1491231015	009986537
CATERPILLAR INC CATERPILLAR INC	CATERPILLAR INC CATERPILLAR INC	Santiago Comercio (XSGO)	Common Stock	CATERPILLAR INC	CAT CC	850598	B8BLXY2 CL	149123101	005976	US1491231015 US1491231015	009986537 009986537
CATERPILLAR INC	CATERPILLAR INC	Santiago Comercio (XSGO) Euro Comp (XLON)	Common Stock Common Stock	CATERPILLAR INC CATERPILLAR INC	CAT CI	850598	B8BLXY2 CL	149123101	005976	US1491231015	009986537
				CHINA GEZHOUBA GROUP CO LT-	CATCHF EU	850598		149123101		US1491231015	009986537
	CHINA GEZHOUBA GROUP COMPANY LTD		Common Stock	A CHINA GEZHOUBA GROUP CO LT-	600068 CG	A0M31Z	6377214 CN			CNE0000000F1	
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	A	600068 CH	A0M31Z	6377214 CN			CNE0000000F1	
SINOHYDRO GROUP	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO) CHINA HYDRAULIC AND HYDROELECTRIC	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CG	A1JNL6	84TH890 CN			CNE1000017G1	
SINOHYDRO GROUP CHINA MACHINERY ENGINEERING	CONSTRUCTION GROUP (SINOHYDRO) CHINA MACHINERY ENGINEERING	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CH	A1JNL6	B4TH690 CN			CNE1000017G1	
CORPORATION CHINA MACHINERY ENGINEERING	CORPORATION CHINA MACHINERY ENGINEERING	Hong Kong (XHKG)	Common Stock	CHINA MACHINERY ENGINEERIN-	H 1829 HK	A1KAFT	B94VG58 HK			CNE100001NP4	086987414
CORPORATION CHINA MACHINERY ENGINEERING	CORPORATION CHINA MACHINERY ENGINEERING	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERIN-H	H C3M GF	A1KAFT				CNE100001NP4	086987414
CORPORATION	CORPORATION CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERIN-	C3M GR	A1KAFT				CNE100001NP4	086987414
DAQING HUAKE GROUP CO LTD	CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000985 CH	A0M4C2	6277949 CN			CNE000001402	
DAQING HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC 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	CHINA NATIONAL PETROLEUM CORP aka 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	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CS	AOM3ZT	6486109 CN			CNE00000MS3	
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GB	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GF	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GM	A1CV3E	5387753 DE		952131	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR		F007750 DF		952131	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD						A1CV3E	5387753 DE				
	CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E A1CV3E	5387753 DE				
KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA) Tradegate (XGAT)	Common Stock Common Stock						952131 952131	BMG5320C1082	050092003
	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Contraction of the second second second		KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E	5387753 DE		952131		
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS CTJ1 TH	A1CV3E A1CV3E	5387753 DE 5387753 DE		952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082	050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG)	Common Stock Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	СТЈ1 GS СТЈ1 ТН 135 НК	A1CV3E A1CV3E A1CV3E	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US		952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082	050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US		952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082	050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US B01DDZ3 US	50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082	050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock Common Stock Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR CNPC HONG KONG LTD-UNSP ADR	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1J7V7	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US B01DDZ3 US B3L2812 US	50126A101 50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50126A1016	050092003 050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock Common Stock Common Stock ADR	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR CNPC HONG KONG LTD-UNSP	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV KLYCY PQ	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US B01DDZ3 US	50126A101 50126A101 50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50126A1016 US50126A1016	050092003 050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock Common Stock Common Stock ADR ADR	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR CONPC HONG KONG LTD-UNSP ADR CONPC HONG KONG LTD-UNSP	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV KLYCY PQ KLYCY US	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1J7V7 A1J7V7	5367753 DE 5367753 DE 6340078 HK B01DD23 US B01DD23 US B3L2812 US B3L2812 US	50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50128A1016 US50128A1016	050092003 050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC)	Common Stock Common Stock Common Stock Common Stock ADR ADR ADR	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR CONPC HONG KONG LTD-UNSP ADR	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV KLYCY PQ KLYCY US KLYCY UV	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1J7V7 A1J7V7 A1J7V7	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US B01DDZ3 US B3L2812 US B3L2812 US B3L2812 US	50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50126A1016 US50126A1016	050092003 050092003 050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD PETROCHINA CO LTD PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) GTC Exchange (OOTC) Frankfurt (XFRA)	Common Stock Common Stock Common Stock Common Stock ADR ADR ADR Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTO-UNSP ADR CNPC HONG KONG LTD-UNSP ADR PETROCHINA CO LTD	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV KLYCY PQ KLYCY US KLYCY UV PC6 GB	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1J7V7 A1J7V7 A1J7V7 A0M4YQ	5387753 DE 5387753 DE 6340078 HK B01DDZ3 US B01DDZ3 US B01DDZ3 US B3L2812 US B3L2812 US B3L2812 US S939507 DE	50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50128A1016 US50128A1016 US50128A1016 US50128A1018 CNE1000003W8	050092003 050092003 050092003 050092003 050092003 050092003
KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT) Hong Kong (XHKG) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) OTC Exchange (OOTC) Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock Common Stock Common Stock ADR ADR ADR Common Stock Common Stock	KUNLUN ENERGY CO LTD KUNLUN ENERGY CO LTD CNPC HONG KONG LTD-UNSP ADR CNPC HONG KONG LTD-UNSP ADR PETROCHINA CO LTD PETROCHINA CO LTD	CTJ1 GS CTJ1 TH 135 HK KUNUF PQ KUNUF US KUNUF UV KLYCY PQ KLYCY US KLYCY UV PC6 GB PC6 GD	A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1CV3E A1J7V7 A1J7V7 A1J7V7 A0M4YQ A0M4YQ	5387753 DE 5387753 DE 6340078 HK B01DD23 US B01DD23 US B01DD23 US B3L2812 US B3L2812 US B3L2812 US 5939507 DE 5939507 DE	50126A101	952131 952131 952131 952131 952131	BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 BMG5320C1082 US50128A1016 US50128A1016 US50128A1016 CNE1000003W8	050092003 050092003 050092003 050092003 050092003 050092003

-15-

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP Sicovam	ISIN	COMMON	CINS Fondscode
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD	PC8 GM	A0M4YQ	5939507 DE				
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD	PC8 GR	A0M4YQ	5939507 DE		CNE1000003W8		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD	PC6 GS	A0M4YQ	5939507 DE		CNE1000003W8		
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD	PC8 GY	AOM4YQ	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	PCCYF US	A0M4YQ	B01DNL9 US		CNE1000003W8	011014674	Y6883Q104
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD	PCCYF UV	A0M4YQ	B01DNL9 US		CNE1000003W8	011014674	Y6883Q104
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD	601857 CG	AONANC	B28SLD9 CN		CNE1000007Q1	033421664	104 m
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD	601857 CH	AONANC	B28SLD9 CN		CNE1000007Q1	033421664	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UB	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UC	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UD	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UF	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UM	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UN	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTRUP	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UT	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UX	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VJ	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VK	936983	2568841 US	74646E100	US71846E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VY	936983	2568841 US	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GB	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC8A GF	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PCBA GM	936983	4633327 DE	71646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC8A GR	936983	4633327 DE	71846E100	US71646E1001	011511449	
PETROCHINA CO LTD	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	B3KTK83 SG		US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NATIONAL PETROLEUM CORP aka	Mexico (XMEX)	ADR	PETROCHINA CO LTD -ADR	PTRN MM	936983	8569834 MX	74646E100	US71646E1001	011511449	
PETROCHINA CO LTD	CNPC CHINA NORTH INDUSTRIES GROUP	Tradegate (XGAT)	ADR	PETROCHINA CO LTD -ADR	PC6A TH	936983		74646E100	US71846E1001	011511449	
AKM INDUSTRIAL CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	8298 HK	AOD86T	B02J0J3 HK		HK8298013897	021553654	
AKM INDUSTRIAL CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GB	A0D86T	B06L0H3 DE		HK8298013897	021553654	
	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD LIAONING HUAJIN TONGDA CHE -	AIQ GR	AOD88T	BOOLOH3 DE		HK8298013897	021553654	
	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	A LIAONING HUAJIN TONGDA CHE -	000059 CH	A0M30T	6796143 CN		CNE00000NY9		
CO. LTD NORINCO INTERNATIONAL COOPERATION	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	A	000059 C.S	AOM3OT	6796143 CN		CNE00000NY9		
LTD. NORINCO INTERNATIONAL COOPERATION		Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE00000VZ9		
LTD. NORTH NAVIGATION CONTROL	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A		A0M35W	6112125 CN		CNE00000VZ9		
TECHNOLOGY CO. LTD. NORTH NAVIGATION CONTROL	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A	147. TA TA BARANTAN	A0M4L5	6649946 CN		CNE000001F88		
TECHNOLOGY CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A		AOM4L5	6649946 CN		CNE000001F88		
SICHUAN NITROCELL CO. LTD.	CORPORATION (CNGC/NORINCO) CHINA NORTH INDUSTRIES GROUP	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	AORPGJ	B39G5K4 CN		CNE100000BW7		
CHINA PETROLEUM & CHEMICAL CORP	CORPORATION (CNGC/NORINCO) CHINA PETROCHEMICAL CORP aka	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CS	AORPGJ	839G5K4 CN		CNE100000BW7		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A		A0M4G4	6373728 CN		CNE0000018G1		
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-H CHINA PETROLEUM & CHEMICAL -		A0M4XN	6291819 HK			012150504	
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GB	A0M4XN	7027756 DE			012150504	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GD	A0M4XN	7027756 DE			012150504	
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GF	A0M4XN	7027756 DE		CNE1000002Q2		
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	H CHINA PETROLEUM & CHEMICAL -	CHU GH	A0M4XN	7027756 DE			012150504	
	UNICI 20 GROUP	Frankfurt (XFRA)	Common Stock	н	CHU GM	A0M4XN	7027758 DE		CNE100002Q2	012150504	

Company CHINA PETROLEUM & CHEMICAL CORP	Primary Company (Affiliate/Parent)	Exchange	Security Type		Titcker	WPK Number	SEDOL	GUSIP Sice	Valm	COMMON	GINS Fondscode
aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock		U GR	A0M4XN	7027756 DE		10000 C	012150504	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -	UGS	A0M4XN	7027756 DE				
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -	U GY					012150504	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (DOTC)	Common Stock			A0M4XN	7027756 DE		CNE1000002Q2	012150504	
CHINA PETROLEUM & CHEMICAL CORP	CHINA PETROCHEMICAL CORP aka			CHINA PETROLEUM & CHEMICAL-H SNP		A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H SNF	PMF US	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H SNP	PMF UV	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A 6000	028 CG	A0M4G4	6373728 CN		CNE1000018G1		
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR		PUB	578971	2639189 US	16941R108	US16941R1086	011899374	
aka SINOPEC CORP	SINOPEC GROUP	New York (XNYS)	ADR	GHINA PETROLEUM & CHEMICAL- ADR SNP	PUC	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-	PUD	578971	2639189 US	16941R108			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	PUF				US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			CHINA PETROLEUM & CHEMICAL-		578971	2639189 US	16941R108	US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	PUM	578971	2639189 US	16941R108	US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR SNF CHINA PETROLEUM & CHEMICAL-	PUN	578971	2639189 US	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR		PUP	578971	2639189 US	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR		PUS	578971	2639189 US		US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	New York (XNYS)	ADR	ADR SNF	PUT	578971	2639189 US	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR SNF	PUX	578971	2639189 US	16941R108	US16941R1086	011899374	
aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL- ADR SNF	PVJ	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-	PVK	578971	2639189 US	16941R108			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-					US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka			CHINA PETROLEUM & CHEMICAL-	PVY	578971	2639189 US	16941R108	US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR CHL CHINA PETROLEUM & CHEMICAL-	UA GB	578971	BORSW00 DE	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR CHU CHINA PETROLEUM & CHEMICAL-	UA GF	578971	BORSW00 DE	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR		UA GM	578971	BORSW00 DE	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	ADR	ADR CHU	UA GR	578971	BORSW00 DE	16941R108	US16941R1086	011899374	
aka SINOPEC CORP CHINA PETROLEUM & CHEMICAL CORP	SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR CHU	UAGS	578971	BORSWOO DE	16941R108	US16941R1086	011899374	
aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL- ADR CHU	UA GY	578971	BORSWOO DE	16941R108	US16941R1086	011899374	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Mexico (XMEX)	ADR	CHINA PETROLEUM & CHEM - ADR SNF	PN MM	578971	B4QSP22 MX	16941R108	US16941R1086		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEM-ADR CHU		578971	DIGGINZZIWA			011899374	
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A 000			100000000000000	16941R108		011899374	
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka	7/ 7				A0M37A	6136385 CN		CNE000000XK7		
	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A 0000	852 CS	A0M37A	6138385 CN		CNE000000XK7		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka	Hong Kong (XHKG)	Common Stock	SINOPEC ENGINEERING GROUP-H 238	16 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	S GD	A1T97T	B96WKB3		GNE100001NV2		
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H 1NS	S GF	A1797T	B96WKB3		CNE100001NV2		
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP CHINA PETROCHEMICAL CORP aka	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H 1NS	S GM	A1T97T	B96WKB3		CNE100001NV2		
SINOPEC ENGINEERING GROUP CO LTD	SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H 1NS	S GR	A1T97T	B96WKB3		CNE100001NV2		
SINOPEC ENGINEERING GROUP CO LTD		Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H 1NS	5 GS	A1T97T	B96WKB3		CNE100001NV2		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS SAK	K GB	923923	4601197 DE			011563384	
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock		K GF	923923	4601197 DE				
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock							011563384	
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP					923923	4601197 DE			011563384	
	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS SAK	< GS	923923	4601197 DE		BMG8165U1009	011563384	
SINOPEC KANTON HOLDINGS LTD SINOPEC SHANGHAI PETROCHEMICALS		Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS 934	нк	923923	6162692 HK		BMG8165U1009	011563384	
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A 600	688 CG	AOM3RA	6802794		CNE000000BB2		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A 600	688 CH	AOM3RA	6802794		CNE000000BB2		
LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock		JH GB	A0M4Y5	5888632 DE	908	303 CNE1000004CB	005096162	
LTD	SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM- H SGJ	JH GD	A0M4Y5	5888632 DE	908		005096162	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-	JH GF	A0M4Y5	5888632 DE	908		005096162	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-	Л GH					00000000000000 00000	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-		A0M4Y5	5888632 DE	908		005096162	
SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP			SINOPEC SHANGHAI PETROCHEM-	JH GM	A0M4Y5	5888632 DE	908		005096162	
1-1-1-1 1-1-1-1	SINOPEC BROUP	Frankfurt (XFRA)	Common Stock	H SGJ	JH GR	A0M4Y5	5888632 DE	908	303 CNE1000004C8	005096162	

Processe	Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	WPK Number	SEDOL	CUSIP	Sicovam		COMMON	CINS Fondscode
Mathemat Math <math< th=""> Math<math< th=""> Math <t< td=""><td>SINOPEC SHANGHAI PETROCHEMICALS</td><td>CHINA PETROCHEMICAL CORP aka SINOPEC GROUP</td><td>Frankfurt (XFRA)</td><td>Common Stock</td><td>SINOPEC SHANGHAI PETROCHEM-</td><td>ADMAYS</td><td>5888832 DE</td><td></td><td>0.0000000</td><td></td><td></td><td></td></t<></math<></math<>	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-	ADMAYS	5888832 DE		0.0000000			
Marting	LTD		Frankfurt (XFRA)	Common Stock								
	SINOPEC SHANGHAI PETROCHEMICALS		All and the second second		SINOPEC SHANGHAI PETROCHEM-							
Mort is Advanced and it is a matrix advanced adva	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka							908303	CNE1000004C8	005096162	
	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka					2800059 US		908289	US82935M1099	012248750	
	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka			SINOPEC SHANGHAI-SPONS ADR SHI UC	887169	2800059 US		908289	US82935M1099	012248750	
	SINOPEC SHANGHAI PETROCHEMICALS		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UD	887169	2800059 US		908289	US82935M1099	012248750	
	LTD SINOPEC SHANGHAI PETROCHEMICALS		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UF	887169	2800059 US		908289	US82935M1099	012248750	
	LTD SINOPEC SHANGHAI PETROCHEMICALS		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UN	887169	2800059 US		908289	US82935M1099	012248750	
Bin Bin Bin Bin Bin Bin Bin Bin Bin Bin 	LTD SINOPEC SHANGHAI PETROCHEMICALS		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UP	887169	2800059 US		908289	US82935M1099	012248750	
The matrix of	LTD	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UT	887169	2800059 US		908289	US82935M1099	012248750	
The second se	LTD	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI UX	887169	2800059 US		908289	US82935M1099		
Physical Control Physical Contro Physical Contro	LTD	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI VJ	887169	2800059 US		908289	US82035M1000		
	LTD		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI VK							
	SINOPEC SHANGHAI PETROCHEMICALS		New York (XNYS)									
Marcel Manual PERCENDENK Disk PERCENDENK D	SINOPEC SHANGHAI PETROCHEMICALS						Microphysics (1994)	000071				
Marcy Marcy Marcy Mark Mar	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka				100100000					012248750	
minore subscience PREACEMENTS instruction Preact (WA Bind (WA	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka						82935M109	908289	US82935M1099	012248750	
Marcel SMARCEL Marcel SMARCEL Marcel SMARCEL Marcel SM	SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	STREAM STOCK CONSISTENCE			887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
Marce 2 Marce 1	LTD SINOPEC SHANGHAI PETROCHEMICALS	CHINA PETROCHEMICAL CORP aka	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI GR	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
Dim Biologe Biologe And Biologe Biolog	LTD SINOPEC SHANGHAI PETROCHEMICALS		Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI GS	887169	5734638 DE	82935M109	908289	US82935M1099	012248750	
Dimensional management of the second of t	LTD SINOPEC SHANGHAI PETROCHEMICALS	SINOPEC GROUP	Singapore (XSES)	ADR	SINOPEC SHANGHAI -SPONS ADR SHI SP	887169	B3MNGN2	82935M109	908289	US82935M1099	012248750	
D Bundle Circling	LTD	SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR SHI US	887169	2800059 US		908289	US82935M1099	012248750	
The	LTD	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A 600871 CG	A0M3V6	6986740			CNE000000HS3		
TD BADDAYC GRUP Hamp Kang (DKG) Common Black PACK (X X X X X X X X X X X X X X X X X X X	LTD	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A 600871 CH	A0M3V6	6986740			CNE000000HS3		
Out Properties Galax Pour Version Heads Road Version Heads Road Version Description Description Heads Road Version Description	LTD		Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H 1033 HK	AOM4Y6	6984669 HK		917709	CNE1000004D8	008069662	
Child Proprietry GROUP COLTD Child PCQ / GROUP COLTD Child PCQ	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Hong Kong (XHKG)	Common Stock	POLY PROPERTY GROUP CO LTD 119 HK	885546	6220987 HK					et all
CUM PROPERTY GROUP COLTD GHAAR PQLY GROUP COLT	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD CMU GB	885548	B1HJJS7 DE			HK0119000674	004580702	
Characterization Conversion C	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD CMJ GF	885546	B1HJJS7 DE			HK0119000674	004580702	
CUP ROPERTY GROUP COLTD CHINA POLY GROUP CORPORATION OTCU IS (COTC) Common Stock POLY PROPERTY GROUP COLTD BARKAD IS BROW INCOME DOUBSE/DESCRIPTION COLLINA POLY GROUP CORPORATION OTCU IS (COTC) Common Stock POLY PROPERTY GROUP COLTD BROW IS COLLINA POLY GROUP CORPORATION OTCU IS (COTC) Common Stock POLY PROPERTY GROUP COLTD BRAY IS CARE IS CONCED CARE IS CONCED COLUNA IS CON	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD CMJ GR	885546	B1HJJS7 DE			HK0119000674	004580702	
OW PROPERTY GROUP COLTD CHAR PGC, Y GROUP COLTD CHAR PGC, Y GRO	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP COLTD CMJ GS	885540	B1HJJS7 DE			HK0119000674	004580702	
ONMERED MOTOR GROUP COMPANY MITED DONGERIA MOTOR GROUP COMPANY MITED DONGERIA MOTOR GROUP COMPANY DONGERIA MOTOR GROUP COMPANY MITED DONGERIA MOTOR GROUP COMPANY MITED	POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP COLTD PHKIF US	885546	B23CST1 US			HK0119000674	004580702	Y7064G105
MITED ORFERON MOTOR GROUP COMPANY IMPED ONORFENO MOTOR GROUP CO	POLY PROPERTY GROUP CO LTD DONGEENG MOTOR GROUP COMPANY		OTC US (OOTC)	Common Stock		885546	B23CST1 US			HK0119000674	004580702	Y7064G105
MITED UNITED OTC US (00TC) Cemmon Stock H OFFENA MOTOR GROUP COMPANY INTED ChRE 100000312 023857469 Y21042109 MITED DONGERION MOTOR GROUP COMPANY INTED Prinklart (DFRA) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED Reg Krag (DRKG) Common Stock H OFFENA MOTOR GROUP COMPANY INTED DONGEREN MOTOR GROUP COMPANY INTED </td <td>LIMITED</td> <td>LIMITED</td> <td>OTC US (OOTC)</td> <td>Common Stock</td> <td>H DNFGF PQ</td> <td>A0M4XY</td> <td>B0XZY65 US</td> <td></td> <td></td> <td>CNE 100000312</td> <td>023857456</td> <td>Y21042109</td>	LIMITED	LIMITED	OTC US (OOTC)	Common Stock	H DNFGF PQ	A0M4XY	B0XZY65 US			CNE 100000312	023857456	Y21042109
NIMIED NUMED ODMOSE NUCCOR GROUP COMPANY IMPED Mong Kang (D94KG) Common Stack DOMOSE NUCCOR GROUP COMPANY IMPED Add HK Add HK Add HK Add HK CNE 100000312 223857489 OMOSE NUCCOR GROUP COMPANY IMPED OMOSE NUCCOR GROUP COMPANY IMPED OMOSE NUCCOR GROUP COMPANY IMPED Common Stack H DONCE FENG MOTOR GROUP COMPANY IMPED Ref HK Add HK BOTBBER DE CNE 100000312 223857489 OMOSE NUCCOR GROUP COMPANY IMPED DONGE FENG MOTOR GROUP COMPANY IMPED Franklart (XFRA) Common Stack H DONGE FENG MOTOR GROUP COMPANY IMPED Ref HK AddMXY BOTBBER DE CNE 100000312 223857489 - ONGE FENG MOTOR GROUP COMPANY IMPED Franklart (XFRA) Common Stack H DONGE FENG MOTOR GROUP COMPANY IMPED Ref HK AddMXY BOTBBER DE CNE 100000312 223857489 - <td< td=""><td>LIMITED</td><td>LIMITED</td><td>OTC US (OOTC)</td><td>Common Stock</td><td>H DNFGF UV</td><td>A0M4XY</td><td>B0XZY65 US</td><td></td><td></td><td>CNE 100000312</td><td>023857456</td><td>Y21042109</td></td<>	LIMITED	LIMITED	OTC US (OOTC)	Common Stock	H DNFGF UV	A0M4XY	B0XZY65 US			CNE 100000312	023857456	Y21042109
UNRYEND ON GROUP COMPANY INTED Pranklart (XFRA) Common Stack DOVGETENG MOTOR GROUP COMPANY INTED Pranklart (XFRA) Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED Pranklart (XFRA) Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED Pranklart (XFRA) Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED Pranklart (XFRA) Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED DOVGETENG MOTOR GROUP COMPANY INTED Pranklart (XFRA) Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED BOTTOR GROUP COMPANY INTED DOVGETENG MOTOR GROUP COMPANY INTED Common Stack H DOVGETENG MOTOR GROUP COMPANY INTED DOVGETENG MOTOR GROUP COMPANY INTED CONGETENG MOTOR GROUP COMPANY INTED CONGETENG MOTOR GROUP COMPANY INTED CONGETENG MOTOR GROUP COMPANY INTED CONGETENG MOTOR GROUP COMP	LIMITED	LIMITED	Hong Kong (XHKG)	Common Stock	H 489 HK	A0M4XY	BOPH5N3 HK					
Order End WOTD & GROUP COMPANY IMITED DONGRE MAD TO & GROUP COMPANY DONGRE MAD TO & GROUP COMPANY DONGRE MAD TO & GROUP COMPANY DONGRE MAD TO & GROUP COMPANY IMITED Franklut (XFRA) Common Slock DONGRE MAD TO & GROUP COLD DAD GF Add MXXY BOTBB86 DE CNE 100000312 0238746 MITED IMITED DONGRE MAD TO R GROUP COMPANY DONGRE MAD TO R GROUP COMPANY IMITED Common Slock H DONGRE MAD TO R GROUP COMPANY HIMTED COME TO MANY BOTB B66 DE CNE 100000312 02387464 CNE 100000312 02387464 MITED COMGRE MAD TO R GROUP COMPANY HIMTED Common Slock H DONGRE MAD TO R GROUP COMPANY HIMTED COME TO MANY BOTB B66 DE CNE 100000312 02387454 CNE 100000312 02387464 CNE	LIMITED	LIMITED	Frankfurt (XFRA)	Common Stock	H D4D GB	A0M4XY						
ONGFENG MOTOR GROUP COMPANY IMITED DONOFENG MOTOR GROUP COMPANY IMITED Franklut (XFRA) Common Stock IMITED DONOFENG MOTOR GROUP COMPANY IMITED BOTOR GROUP COMPANY IMITED Chill 100000312 02387468 Chill 100000312 02387469 ONGFENG MOTOR GROUP COMPANY IMITED Franklut (XFRA) Common Stock IMITED H DONOFENG MOTOR GROUP COMPANY IMITED Chill 100000312 023857468 Chill 100000312 023857469 ONGFENG MOTOR GROUP COMPANY IMITED Franklut (XFRA) Common Stock IMITED DONOFENG MOTOR GROUP COMPANY IMITED Franklut (XFRA) Common Stock IMITED DONOFENG MOTOR GROUP COMPANY IMITED Roll 0000012 023857469 Chill 100000312 023857469 OMGEENG MOTOR GROUP COMPANY IMITED Common Stock IMITED Common Stock I DONOFENG MOTOR GROUP COMPANY IMITED Common Stock I DONOFENG MOTOR GROUP COMPANY DONOFENG MOTOR GROUP COMPANY IMITED Common Stock I DONOFENG MOTOR GROUP COMPANY DONOFENG MOTOR GROUP COMPAN	LIMITED	LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD- H D4D GF							
ONGFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED Franklut (XFRA) Common Slock H DONSFENS MOTOR GROUP COMPANY LIMTED BOTB860 DE CNE 100000312 023857456 ONGFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED Common Slock H DONSFENS MOTOR GROUP COMPANY LIMTED Common Slock H DONSFENS MOTOR GROUP COMPANY DONSFENS MOTOR GROUP COMPANY LIMTED Common Slock H DONSFENS MOTOR GROUP COMPANY LIMTED Common Slock H DONSFENS MOTOR GROUP COMPANY DONSFENS MOTOR GROUP COMPANY LIMTED Common Slock H DONSFENS MOTOR GROUP COMPANY DONSFENS MOTOR GROUP COMPANY LIMTED COLL US (00TC) Common Slock H DONSFENS MOTOR GROUP COMPANY DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED DOS Common Slock H DONSFENS MOTOR GROUP COMPANY LIMTED DONSFENS MOTOR GROUP COMPANY LIMTED<	LIMITED	LIMITED		Common Stock	DONGFENG MOTOR GRP CO LTD-							
OMGFENG MOTOR GROUP COMPANY INTED DONGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY UNTED Frankfurt (XFRA) Common Stock: DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP COMPANY UNTED DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY UNGFENG MOTOR GROUP	DONGFENG MOTOR GROUP COMPANY LIMITED		10 constant and a second s		DONGFENG MOTOR GRP CO LTD-							
ONGEEND MOTOR GROUP COMPANY IMITED DONGEEND MOTOR GROUP COMPANY LIMITED DONGEEND MOTOR GROUP COMPANY LIMITED DONGEEND MOTOR GROUP COMPANY LIMITED DONGEEND MOTOR GROUP COMPANY LIMITED CONTINUING COMPANY LIMITED CONTINUING COMPANY LIMITED DONGEEND MOTOR GROUP COMPANY LIMITED CONTINUING COMPANY LIMITE	DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY	MANAGER AND AN		DONGFENG MOTOR GRP CO LTD-							
ONGFENG MOTOR GROUP COMPANY IMITED DONGFENG MOTOR GROUP COMPANY LIMITED DONGFENG MOTOR GROUP COMPANY LIMITED OTC US (OOTC) Common Stock DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY IMITED DONGFENG MOTOR GROUP COMPANY LIMITED OTC US (OOTC) Common Stock DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY IMITED DONGFENG MOTOR GROUP COMPANY LIMITED DONGFENG MOTOR GROUP COMPAN	DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY			DONGFENG MOTOR GRP CO LTD-							
ONGFENG MOTOR GROUP COMPANY IMITED DONGFENG MOTOR GROUP COMPANY LIMITED DONGFENG MOTOR GROUP COMPANY DONGFENG MOTOR GROUP COMPANY LIMITED DONGFENG MOT	DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY			DONGFENG MOTOR GRP CO LTD-						(25532)5(5-0) (155(5) 	
ONGFEND MOTOR GROUP COMPANY INITED DONGFEND MOTOR GROUP COMPANY DONGFEND MOTOR GROUP COMPANY DONGFEND MOTOR GROUP COMPANY INITED DONGFEND MOTOR GROUP COMPANY DONGFEND MOTOR GROUP COMPANY DONGFEND MOTOR GROUP COMPANY INITED DT US (DOTC) ADR DDNG ADR DDNG ADR <	DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY			DONGFENG MOTOR GRP CO LTD-	A0M4XY				CNE100000312	023857456	Y21042109
IMITED LIMITED Constrained Constrained ADR ADR DAR	LIMITED DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY			H DNFGY PQ DONGFENG MOTOR GRP-H-UNS		B3SQPT4 US	257738203		U\$2577382037		
MINTED LIMITED OTC US (ODTC) Common Stock H DNFGY UV B3SQPT4 US 257738203 US2577382037 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Kuwait (XKUW) Common Stock EGYPT KUWAIT HOLDING CO SAE EKHOLDIN KK A0H1G7 B038UP14 US 257738203 US2577382037 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Carino Stock EGYPT KUWAIT HOLDING CO SAE EKHO EC A0H1G7 B03MD00 EG EGS90082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Carino (XCAI) Common Stock EGYPT KUWAIT HOLDING CO SAE EKHO EY A0H1G7 B0QMD00 EG EGS90082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Carino (XCAI) Common Stock EGYPT KUWAIT HOLDING CO SAE EKHO EY A0H1G7 B0QMD00 EG EGS90082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGS90082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGS90082C019	LIMITED DONGFENG MOTOR GROUP COMPANY	DONGFENG MOTOR GROUP COMPANY			ADR DNEGY US		B3SQPT4 US	257738203		US2577382037		
GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Cairo (XCAI) Common Stock EGYPT KUWAIT HOLDING CO SAE EKHO EC A0H1G7 B0QMD00 EG EGS80082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Cairo (XCAI) Common Stock EGYPT KUWAIT HOLDING CO SAE EKHO EC A0H1G7 B0QMD00 EG EGS80082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO SAE EKHO EY A0H1G7 B0QMD00 EG EGS90082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO-RTS EKHOR EC A111ER BLDSSV8 EG EGS2032C019	LIMITED		OTC US (OOTC)	Common Stock	H DNFGY UV		B3SQPT4 US	257738203	۲	US2577382037		
GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO Common Stock EGYPT KUWAIT HOLDING CO SAE EKHO EY A0H1G7 BOQMD00 EG EGS00082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO-RTS EKHO EY A0H1G7 BOQMD00 EG EGS00082C013 GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO-RTS EKHOR EC A111ER BLD35V8 EG EGS02032C019	EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Kuwait (XKUW)	Common Stock	EGYPT KUWAIT HOLDING CO SAE EKHOLDIN KK	A0H1G7	B0S8H15 KW			EG69082C013		
GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO RE CHIO CHI ANNO BOLING CO RE C	EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE EKHO EC	A0H1G7	BOQMD00 EG			EGS69082C013		
	EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE EKHO EY	A0H1G7	BOQMD00 EG			EGS69082C013		
GYPT KUWAIT HOLDING CO EGYPT KUWAIT HOLDING CO EGX (XCAI) Right EGYPT KUWAIT HOLDING CO-RTS EKHOR EY A111ER BLD35V8 EG EGS92032C019	EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	EGX (XCAI)	Right	EGYPT KUWAIT HOLDING CO-RTS EKHOR EC	A111ER	BLD35V8 EG			EGS92032C019		the state of the s
	EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	EGX (XCAI)	Right	EGYPT KUWAIT HOLDING CO-RTS EKHOR EY	A111ER	BLD35V8 EG			EGS92032C019		

-18-

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Tickerst	VPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS Fondscode
ENERGY HOUSE HOLDING CO KSCC/THE	ENERGY HOLDING CO KSCC/THE	Kuwait (XKUW)	Common Stock	ENERGY HOLDING CO KSCC/THE	ENERGYHKK	A0KD4C	B138W99 KW					
GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ-CLS	GAZA RM	903426	B5BKBJ9 RU		950579	KW0EQ0601801 RU0009034268	034991693	
	GAZ GROUP GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ-CLS	GAZA RX	903428	B5BKBJ9 RU		950579	RU0009034268	034991693	
	GAZ GROUP	MICEX Main (MISX) MICEX Main (MISX)	Preference	GAZ-CLS-PFD	GAZAP RM	910283	B5BKC29 RU			RU0009102834		
	GAZ GROUP	MICEX Main (MISX)	Preference Common Stock	GAZ-CLS-PFD PAVLOVSKY BUS-CLS	GAZAP RX PAZA RM	910283 908324	B5BKC29 RU			RU0009102834		
	GAZ GROUP	MICEX Main (MISX)	Common Stock	PAVLOVSKY BUS-CLS	PAZA RX	908324	B57MPG4 RU B57MPG4 RU			RU0009083240 RU0009083240		
	GLENCORE PLC	Berlin (XBER)	Common Stock	CHEMOIL ENERGY LTD	LHT GB	AOLBTC	B1L6R79 DE			HK0000035813	027111866	
	GLENCORE PLC	Berlin (XBER)	Common Stock	CHEMOIL ENERGY LTD	LHT GF	AOLBTC	B1L6R79 DE			HK0000035813	027111868	
	GLENCORE PLC GLENCORE PLC	Berlin (XBER) Berlin (XBER)	Common Stock Common Stock	CHEMOIL ENERGY LTD	LHT GM	AOLBTC	B1L6R79 DE			HK0000035813	027111866	
	GLENCORE PLC	Hong Kong (XHKG)	Common Stock	CHEMOIL ENERGY LTD GLENCORE PLC	LHT GR 805 HK	AOLBTC	B1L6R79 DE			HK0000035813	027111866	
GLENCORE PLC	GLENCORE PLC	OTC US (OOTC)	Common Stock	GLENCORE PLC	GLCNF PQ	A1JAGV A1JAGV	B3NFYS8 HK B4MSCG9 US			JE00B4T3BW64	063082236	
	GLENCORE PLC	OTC US (OOTC)	Common Stock	GLENCORE PLC	GLONF US	AIJAGV	B4MSCG9 US			JE00B4T3BW64 JE00B4T3BW64	063082236 063082236	
	GLENCORE PLC	OTC US (OOTC)	Common Stock	GLENCORE PLC	GLCNF UV	AIJAGV	B4MSCG9 US			JE00B4T3BW64	063082236	
	GLENCORE PLC GLENCORE PLC	BATS Europe (BATE)	Common Stock	GLENCORE PLC	GLEN EB	A1JAGV	B4T38W6 GB			JE00B4T3BW64	063082236	
	GLENCORE PLC	Chi-X Europe (CHIX) London Intl (XLON)	Common Stock Common Stock	GLENCORE PLC GLENCORE PLC	GLEN IX	A1JAGV	B4T3BW6 GB			JE00B4T3BW64	063082236	
GLENCORE PLC	GLENCORE PLC	Aquis Exchg (AQXE)	Common Stock	GLENCORE PLC	GLEN LN GLEN QX	A1JAGV A1JAGV	84T3BW6 GB 84T3BW6 GB			JE00B4T3BW64	063082236	
	GLENCORE PLC	Turquoise (TRQX)	Common Stock	GLENCORE PLC	GLEN TO	AIJAGV	B4T3BW6 GB			JE00B4T3BW64 JE00B4T3BW64	063082236 063082236	
	GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC	8GC GB	A1JAGV	B55NST3 DE			JE00B4T3BW64	083082236	
	GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC	8GC GD	AIJAGV	B55NST3 DE			JE00B4T3BW64	063082236	
	GLENCORE PLC GLENCORE PLC	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock	GLENCORE PLC	8GC GF	A1JAGV	B55NST3 DE			JE00B4T3BW64	083082236	
	GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC GLENCORE PLC	8GC GH 8GC GM	AIJAGV	B55NST3 DE			JE00B4T3BW64	063082236	
GLENCORE PLC	GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC	8GC GR	A1JAGV A1JAGV	B55NST3 DE B55NST3 DE			JE00B4T3BW64 JE00B4T3BW64	083082236	
	GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC	8GC GS	AIJAGV	B55NST3 DE			JE00B4T3BW64	063082236 063082236	
	GLENCORE PLC GLENCORE PLC	Frankfurt (XFRA)	Common Stock	GLENCORE PLC	8GC GY	A1JAGV	B55NST3 DE			JE00B4T3BW64	063082236	
	GLENCORE PLC	Mexico (XMEX) Johannesburg (XJSE)	Common Stock	GLENCORE PLC	GLENN MM	A1JAGV	B77NQY6 MX			JE00B4T3BW64	083082236	
	GLENCORE PLC	Tradegate (XGAT)	Common Stock Common Stock	GLENCORE PLC GLENCORE PLC	GLN SJ 8GC TH	AIJAGV	BG6MV64 ZA			JE00B4T3BW64	083082236	
GLENCORE PLC	GLENCORE PLC	Equiduct (XEQT)	Common Stock	GLENCORE PLC	GLEN BQ	A1JAGV A1JAGV				JE00B4T3BW64	063082236	
GLENCORE PLC	GLENCORE PLC	Euro Comp (XLON)	Common Stock	GLENCORE PLC	GLEN EU	AIJAGV				JE00B4T3BW64 JE00B4T3BW64	063082236 063082236	
	GLENCORE PLC	Euro OTC (XLON)	Common Stock	GLENCORE PLC	GLEN XB	A1JAGV				JE0084138W64	063082236	
	GLENCORE PLC	Euro OTC (XLON)	Common Stock	GLENCORE PLC GLENCORE PLC	GLEN XV	A1JAGV				JE00B4T3BW64	063082236	
	GLENCORE PLC	Euro Comp (XLON) OTC US (OOTC)	Common Stock ADR	GLENCORE PLC GLENCORE PLC -UNSP ADR	GLENEUR EU GLNCY PQ	AIJAGV	DODI ME UD			JE00B4T3BW64	063082236	
GLENCORE PLC	GLENCORE PLC	OTC US (OOTC)	ADR	GLENCORE PLC -UNSP ADR	GLNCY PQ GLNCY US	A1WY82 A1WY82	899L415 US 899L415 US	37827X100 37827X100		US37827X1000		
GLENCORE PLC	GLENCORE PLC	OTC US (OOTC)	ADR	GLENCORE PLC -UNSP ADR	GLNCY UV	A1WY82	899L415 US	37827X100 37827X100		US37827X1000 US37827X1000		
	GLENCORE PLC	Frankfurt (XFRA)	ADR	GLENCORE PLC -UNSP ADR	8GCA GF	A1WY82	BCZW866 DE	37827X100		US37827X1000		
	GLENCORE PLC GLENCORE PLC	Frankfurt (XFRA)	ADR	GLENCORE PLC -UNSP ADR	8GCA GR	A1WY82	BCZW866 DE	37827X100		US37827X1000		
	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA) Hong Kong (XHKG)	ADR Common Stock	GLENCORE PLC -UNSP ADR HARBIN ELECTRIC CO LTD-H	8GCA GS	A1WY82	BCZW866 DE	37827X100		US37827X1000		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC COLTD-H	1133 HK HP6H GB	AOM4X8 AOM4X8	6422761 HK B1HJDX0 DF		930709	CNE1000003C0		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GF	AOM4X8	B1HJDX0 DE		930709 930709	CNE1000003C0 CNE1000003C0	011043780 011043780	
	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GR	A0M4X8	B1HJDX0 DE		930709	CNE10000003C0	011043780	
	HARBIN ELECTRIC CO LTD HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF US	AOM4X8	B3BHKKO US		930709	CNE1000003C0	011043780	Y30683109
CHENNAI PETROLEUM CORPORATION	HARBIN ELECTRIC COLTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HBPWF UV	A0M4X8	B3BHKK0 US		930709	CNE1000003C0	011043780	Y30683109
LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRLIB	A08968	6121563 IN			INE178A01016		
CHENNAI PETROLEUM CORPORATION												
										INC 176401010		
	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD		A0B968	6121563 IN					
CHENNAI PETROLEUM CORPORATION		St. II.		CHENNAI PETROLEUM CORP LTD	MRL IN	A08968	6121563 IN			INE178A01018		
CHENNAI PETROLEUM CORPORATION	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD	MRL IN MRL IS	A08968 A08968	6121563 IN 6121563 IN			INE178A01016		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSE)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD	MRL IN MRL IS IOCL IB	A0B968 A0B968 A0B9FM	6121563 IN 6121563 IN 6253767 IN			INE178A01016 INE178A01016 INE242A01010		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD	MRL IN MRL IS IOCL IB IOCL IN	A0B968 A0B968 A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN			INE178A01018 INE178A01018 INE242A01010 INE242A01010		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD	MRL IN MRL IS IOCL IB	A0B968 A0B968 A0B9FM	6121563 IN 6121563 IN 6253767 IN			INE178A01016 INE178A01016 INE242A01010		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB	MRL IN MRL IS IOCL IB IOCL IN	A0B968 A0B968 A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN			INE178A01018 INE178A01018 INE242A01010 INE242A01010		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD-	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN	A0B968 A0B968 A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN			INE178A01016 INE178A01016 INE242A01010 INE242A01010 INE242A01010 INE242A01010		
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS	A0B968 A0B968 A0B9FM A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN			INE 178A01018 INE 178A01018 INE 242A01010 INE 242A01010 INE 242A01010 N.A. N.A.		
CHENNAI PETROLEUM CORPORATION LIMTED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC JANGXI HONGDU AVIATION INDUSTRY CO	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGXH HONGDU AVXIATION INDUSTRY CO	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL)	Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD-	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN	A0B968 A0B968 A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN			INE178A01016 INE178A01016 INE242A01010 INE242A01010 INE242A01010 INE242A01010		×
CHENNA PETROLEUM CORPORATION LIMITED INDIAN OLL CORP LTD INDIAN OLL CORP LTD INDIAN OLL CORP LTD INDIAN OLL CORP LTD INDIAN OLL CORP LTD LANKA IOC PLC JIANGXI HONGDU AVIATION INDUSTRY CO LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS	A0B968 A0B968 A0B9FM A0B9FM A0B9FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN			INE 178A01018 INE 178A01018 INE 242A01010 INE 242A01010 INE 242A01010 N.A. N.A.		2
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANGH ONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL) Shanghai (XSHG)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD SLB INDIAN OIL CORPORATION LTD- SLB LANKA IOG PLC JIANGXI HONGDU AVIATION-A	MRL IN MRL IS IOCL IB IOCL IS IOCL IS IOCL/S IN IOCL/S IS LIOC SL 600316 CG	A08968 A08968 A089FM A089FM A089FM A089FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 80591G4 LK 6304375 CN			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 N.A. N.A. LK0345N00005 CNE0000015N3		2
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC JANGXI HONGDU AVIATION INDUSTRY CO LTD	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JIANGXI HONGDU AVIATION INDUSTRY CO LTD JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SL 600316 CG 600316 CH	A08968 A089FM A089FM A089FM A089FM A089FM A089FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 8253767 IN 80591G4 LK 6304375 CN 8304375 CN			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 N.A. N.A. LK0345N00005 CNE0000015N3 CNE0000015N3		¥
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANGH ONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL) Shanghai (XSHG)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD SLB LANKA IOC CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGSI HONGDU AVIATION-A	MRL IN MRL IS IOCL IB IOCL IS IOCL/S IN IOCL/S IS LIOC SL 600316 CG 600316 CH JHJ GF	A08968 A089FM A089FM A089FM A089FM A089FM A089FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6259164 LK 6304375 CN 6304375 CN 6355WTCO DE			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 N.A. N.A. N.A. CNE0000015N3 CNE000015N3 CNE000015N3	049328777	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGOU AVIATION INDUSTRY CO LTD JANGXI HONGOU AVIATION INDUSTRY CO LTD JANGXI HONGOU AVIATION INDUSTRY CO LTD JANGXI HONGOU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANGLI CORP LTD aka IOCL INDIANGLI CORP LTD aka IOCL INDIANGLI ONOEDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Sharghai (XSHG) Sharghai (XSHG) Frankfur(XFRA)	Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600316 CG 600316 CH JHJ GF JHJ GF	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A0048K A0048K A1C59H A1C59H	0121503 IN 0225767 IN 0253767 IN 0253767 IN 0253767 IN 02591G4 LK 0304375 CN 0304375 CN 0304375 CN 0304375 CD			INE178A01016 INE178A01016 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 INE2400005 CNE0000015N3 JP3384450005	049326777	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD IAKA IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB LANKA IOG PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IS IOCL/S IN IOCL/S IS LIOC SL 600316 CG 600316 CH JHJ GF	A08968 A089FM A089FM A089FM A089FM A089FM A089FM	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6259164 LK 6304375 CN 6304375 CN 6355WTCO DE			INE178A01016 INE178A01016 INE242A01010 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE242A01000 INE342A00000000 INE342A0000000 INE34000000000000000000000000000000000000	049326777 049326777	÷
CHEINAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC JANCXI HONGDU AVIATION INDUSTRY CO LTD JANCXI HONGDU AVIATION INDUSTRY CO LTD JANCXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Sharphai (XSHG) Shanphai (XSHG) Shanphai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD SLB INDIAN OL CORPORATION LTD- SLB LANKAI DC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCU/S IS LIOC SI 600316 CG 600316 CH JHJ GF JHJ GF JHJ GS S020 JE	A08968 A0896M A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1C59H A1C59H A1C59H A1C59H	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 030475 CN			INE178A01016 INE178A01016 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 INE2400005 CNE0000015N3 JP3384450005	049326777	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD IAKA IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfurt (XFRA) Frankfurt (XFRA) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IS IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600316 CG 600316 CH JHJ GF JHJ GF JHJ GR JHJ GS 5020 JE 5020 JE	A08968 A0896M A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1C59H A1C59H A1C59H A1C59H A1C59H	0121563 IN 0121563 IN 0253767 IN 0254767 IN 025476			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777	¥
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI OIL CORP LTD LANKAI OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JA HOLDINGS INC JA HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL) Shanghai (XSHG) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIA HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCU/S IS LIOC S IS LIOC S IS E00316 CG E00316 CH JHJ GF JHJ GF JHJ GS S020 JI S020 JI S020 JI	AOB968 AOB968 AOB9FM AOB9FM AOD95 AOB9FM AOM4EK AOM4EK AIC59H AIC59H AIC59H AIC59H	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0455WTCO DE 055WTCO DE 055WT			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP338450005 JP338450005 JP338450005	049326777 049326777 049326777 049326777 049326777 049326777	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC LANKA IOC PLC LANKA IOC PLC JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD IAKA IOCL	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGSI INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IS IOCL	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1C59H A1C59H A1C59H A1C59H A1C59H A1C59H A1C59H A1C59H	0121563 IN 0253767 IN 0254767 IN 025476			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI OIL CORP LTD LANKAI OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANGX INNOCI AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC IJX HOLDINGS INC IJX HOLDINGS INC IJX HOLDINGS INC IJX HOLDINGS INC IJX HOLDINGS INC IJX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL) Shanghai (XSHG) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Frankfurt (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIA HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCU/S IS LIOC S IS LIOC S IS E00316 CG E00316 CH JHJ GF JHJ GF JHJ GS S020 JI S020 JI S020 JI	AOB968 AOB968 AOB9FM AOB9FM AOD95 AOB9FM AOM4EK AOM4EK AIC59H AIC59H AIC59H AIC59H	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0455WTCO DE 055WTCO DE 055WT			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	×
CHEINAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA IOC PLC JANCXI HONGDU AVIATION INDUSTRY CO LTD JANCXI HONGDU AVIATION INDUSTRY CO LTD JANCXI HONGDU AVIATION INDUSTRY CO LTD JANCXI HONGDU AVIATION INDUSTRY CO LTD JX HOL DINGS INC JX HOL DINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JAHOLDINGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Sharghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600316 CG 600316 CH JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JJ 5020 JP 5020 JT	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 635375 CN 6304375 CN 856WTCO DE 856WTCO DE 857WTCO			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGDINGS INC JIX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600316 CG 600316 CH JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JJ 5020 JP 5020 JT	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC59H AIC59H AIC59H AIC59H AIC59H AIC59H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6359154 LK 6304375 CN 8358VTCO DE 8558VTCO DE 8578VTCO DE 8578VTCO DE 8578VTCO DE 8578VTCO DE 8578VTCO DE 8578VTCO DE 85778VTCO DE 8578VTCO DE 857878VTCO D	466295102		INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HOREDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONESU AVIATION INDUSTRY JANGLINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGSKI JX HOLDINGSKIC JX HOLDINGSKIC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600318 CG 600318 CH JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JI 5020 JJ 5020 JJ 5020 JT JXHLY PQ	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC50H AIC50H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6353767 IN 6304375 CN 6304375 CN 630475 CN 630475 CN 630475 CN 630475 CN 630475 CN 64070 PC 64070 P			INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A0100 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	¥
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGSU AVIATION INDUSTRY JANGLINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JAHOLDINGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Sharghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600318 CG 600318 CH JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JI 5020 JJ 5020 JJ 5020 JT JXHLY PQ	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H AIC50H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 635375 CN 6304375 CN 856WTCO DE 856WTCO DE 857WTCO	466295102 466295102	908503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A0100 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP338450005 JP338450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI CORP LTD LANCAI MONEDU AVIATION INDUSTRY CO LANCAI MONEDU AVIATION INDUSTRY CO LTD JANCAI MONEDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANG INFORMUNAL INNUSTRY CO LTD INAGXI HONGDU AVVIATION INDUSTRY CO LTD INAGXI HONGDU AVVIATION INDUSTRY CO LTD IX HOLDINGS INC IX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfut (XFRA) Frankfut (XFRA) Frankfut (XFRA) Frankfut (XFRA) Frankfut (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD- SLB INDIAN OIL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SI. 600318 CG 600318 CH JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JJ 5020 JJ 5020 JJ 5020 JT JXHLY PQ	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC50H AIC50H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6359154 LK 6304375 CN 6304375 CN 630475 CN 6	466295102	968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE34000015N3 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGDU AVIATION INDUSTRY CO LTD JANGSKI HONGSKI INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR JX HOLDINGS INC - UNSPON ADR	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IN IOCL/S IS LIOC SIL E00316 CG E00316 CH JHJ GF JHJ GF JHJ GF JHJ GF JHJ GS JHJ GS JH GS JH J GS JH J GS	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AIC50H AIC50H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6353767 IN 6304375 CN 6304375 CN 630475 CN 630475 CN 630475 CN 630475 CN 630475 CN 64070 PC 64070 P		968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A0100 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005	049328777 049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	×
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI HONGDU AVIATION INDUSTRY CO LANCAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDI AVIATION INDUSTRY CO LTD JANGXI HONGDI AVIATION INDUSTRY CO LTD JANGXI HONGDI AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANG I HONGUD AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKAI OC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR INFPO CORP	MRL IN MRL IS IOCL IB IOCL IS IOCL	AOB968 AOB968 AOB9FM AOD83L AOM4EK ATCS9H ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 030427 CN 040708 JP 0404708 JP 0404708 JP 0404708 JP	466295102	968503 968503	INE178A01010 INE178A01010 INE242A01010 IP3384450005 IP338445005 IP33845005 IP38462051023 IP3846205002 IP384620002 IP38462000 IP38462000 IP38462000 IP3846200 IP3846200 IP3846200 IP3846200 IP3846200 IP3846200 IP3846200 IP3845 IP38	049326777 049326777 049326777 049326777 049326777 049326777 049326777 049326777	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JANGXI HONEDU AVIATION INDUSTRY CO LTD JX HOLDINGS INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANO INC INDIANO INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR JX HOLDINGS INC - UNSPON ADR INFPO CORP	MRL IN MRL IS IOCL IB IOCL IS IOCL IS IOCU	A08968 A08968 A08969 A0896M A08969 A0896M A08970 A0896M A0898 A0896M A0898 A0896M A0896 A0896M A08970 A0896M A0998 A0896M A0998 A0896M A0998 A0996M A0044EK A10598H A10598H A10598H	6121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6353767 IN 6304375 CN 6304375 CN 640780 JP 6640780 JP 6640780 JP	466295102	968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3384500005 JP3386200002 JP3750200002	049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777	×
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI HONGDU AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANO IL CORP LTD AKA IOCL INDIANO INCI INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKAI OC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX	MRL IN MRL IS IOCL IB IOCL IS IOCL	AOB968 AOB968 AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOD83L AOB9FM AOD84 AOB9FM AOM4EK AOM4EK ATCS9H ATCS9H ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304070 JP 0304375 CN 0304070 JP 0304070 JP 030407	466295102	968503 968503 968503 968503	INE178A01016 INE178A01016 INE242A01010 INE242A01010 INE242A01010 INE242A01010 IN.A IN.A IN.A CNE0000015N3 CNE0000015N3 CNE0000015N3 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 US4662951023 US4662951023 US4662951023 US4662951023 JP3750200002 JP3750200002 JP3750200002	04328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328777 049328775 001227858	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI HONGDU AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI AVIATION INDUSTRY CO LTD JANCAI HONGDI INC JX HOLDINGS INC	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANO INC INDIANO INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR JX HOLDINGS INC - UNSPON ADR INFPO CORP INFPO CORP	MRL IN MRL IS IOCL IB IOCL IB IOCL IS IOCL IS IOCL/S IS LIOC SL E00318 CG E00318 CH JHJ GR JHJ GR JHJ GM JHJ GS 5020 JL 5020 JL 502	AOB968 AOB968 AOB9FM AOB9FM AOM4EK AOM4EK AOC59H A1C59H A1C59H A1C59H A1CVU3 857846 857846 857846 857846 857846	8121563 IN 6121563 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6253767 IN 6304375 CN 6304375 CN 6304375 CN 6304375 CN 635WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 8627LW9 JP 8627LW9 JP 85581728 US 85881728 US 85881728 US 85881728 US	466295102	968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP375020002 JP375020002	04328777 04527758 001227858 001227858 001227858	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA HOREDU AVIATION INDUSTRY CO LTD JANGKI HONEDU AVIATION INDUSTRY CO LTD JANGKI HONEDU AVIATION INDUSTRY CO LTD JANGKI HONEDU AVIATION INDUSTRY CO LTD JANGKI HONEDU AVIATION INDUSTRY CO LTD JANGKI HONESINC JX HOLDINGS INC JX HOLDINGS INC NFPO CORP NIPPO CORP	INDIAN OIL CORP LTD aka IOCL INDIAN OIL INGS INC INT OILDIAGS INC IX HOLDIAGS INC IX HOLDIANS INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR JX HOLDINGS INC - UNSPON ADR INIPPO CORP INIPPO CORP INIPPO CORP INIPPO CORP TOHO TITANIUM CO LTD	MRL IN MRL IS IOCL IB IOCL IS IOCL	AOB968 AOB968 AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOB9FM AOD83L AOB9FM AOD84 AOB9FM AOM4EK AOM4EK ATCS9H ATCS9H ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3 ATCVU3	0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 030475 CN 030475 CN 030475 CN 030475 CN 030475 CN 030475 CN	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 INE242A01000 INE242A01000 IP338450005 IP388450005 IP38845005 IP3	04328777 043328777 043328777 043328777 043328777 043328777 043328777 043328777 04328777 0777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04777 0477858 001227858	У
CHEINAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LAINCAI HONGDU AVIATION INDUSTRY CO LAINCAI HONGDU AVIATION INDUSTRY CO LTD JAINCAI HONGDI AVIATION INDUSTRY CO JX HOLDINGS INC JX HOLDING H	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANO IL CORP LTD AKA IOCL INDIANO INC	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS I	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IS I	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1C59H	0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304427	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP338450005 JP375020002 JP375020002	04328777 04527758 001227858 001227858 001227858	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKA HOROBU AVIATION INDUSTRY CO LTD JANGKI HONGDU AVIATION INDUSTRY CO LTD JANGKI HONGDU AVIATION INDUSTRY CO LTD JANGKI HONGDU AVIATION INDUSTRY CO LTD JANGKI HONGDU AVIATION INDUSTRY CO LTD JANGKI HONGSU AVIATION INDUSTRY CO LTD JANGKI HONGSUNC JX HOLDINGS INC JX HOLDINGS INC JT HOLDI	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB JANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR INFPO CORP NIPPO CORP NIPPO CORP NIPPO CORP TOHO TTTANIUM CO LTD TOHO TTTANIUM CO LTD TOHO TTTANIUM CO LTD	MRL IN MRL IS IOCL IB IOCL IB IOCL IS IOCL IS IOCL/S IS LIOC SL E00318 CG E00318 CH JHJ CF JHJ CF JHJ CA JHJ CS 5020 JL 5020 JL 502	A08968 A0896M A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1059H A1	8121563 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8304375 CN 8304375 CN 8304375 CN 835WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 855WTCO DE 8657LW9 JP 8627LW9 JP 8627LW9 JP 8627LW9 JP 85581728 US 85581728 US 85581728 US 85581728 US 85581728 US 85681728 US 856	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01001 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP33845005 JP38485005 JP3848500500 JP3848500500 JP38485005000 JP38485005000 JP384850050000 JP384850050000 JP384850050000 JP384850050000 JP38485005000000 JP38488500500000000 JP3848500500000000000000000000000000000000	04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 0432827758 001227858 001227858 001227858 001227858 001227858 001227858 001227858	×
CHEINAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI HONGDU AVIATION INDUSTRY CO LANCAI HONGDU AVIATION INDUSTRY CO LTD JANCAI HONGS INC JX HOLDINGS INC JTHOL TIMAIUM CO TOHO TITANIUM CO	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL INDIANO IL CORP LTD AKA IOCL INDIANO INC INC INDIANO INC INC INTOLINO INC INC INTOLINO INC INC INTOLINO	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanphai (XSHG) Shanphai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKAI OC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC JX HOLDINGS INC - JX HOLDINGS INC JX HOLDINGS INC - JX HOLDINGS IN	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IS I	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1CS9H	0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304427 030	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01010 INE242A01000 IJP338450005 JP3384450005 JP338450005	04328777 043328777 043328777 043328777 043328777 043328777 043328777 043328777 043228777 043228777 043228777 043228777 0432287758 001227858 001227858 001227858 001227858 001227858	
CHENRAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONODU AVIATION INDUSTRY CO LANKAI HONODU AVIATION INDUSTRY CO LTD JANGXI HONODI AVIATION INDUSTRY CO LTD JANGXI HONODI AVIATION INDUSTRY CO LTD JA HOLDINGS INC JX HOLDINGS INC TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Colombo (XCOL) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD SLB INDIAN OL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIA HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC - JIX HOLDINGS INC -	MRL IN MRL IS IOCL IB IOCL IS IOCL	A08968 A0896M A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1059H	0121563 IN 0253767 IN 0304375 CN 0304375 CN 04070 JP 040708 JP	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01001 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP33845005 JP33845005 INE242245023 INE24225022 JP35520002 JP355200	04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 0432827758 001227858 001227858 001227858 001227858 001227858 001227858 001227858	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANKAI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGS INC JX HOLDINGS INC JX HOLDING CO TOHO TITANUM CO TOHO TITA	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD Aka IOCL INDIANOS INC INDIAN OIL CORP LTD Aka IOCL INDIAN OIL CORP LTD AKA IOCL INTO LTD AKA IOCL INC INCLUMENTIAL SYSTEMS CO. LTD	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIA HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC - JIX HOLDINGS INC - JI	MRL IN MRL IS IOCL IB IOCL IS IOCL	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1CS9H	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0304375 CN 0450476 DE 055WTCO DE 055WTC	466295102	968503 968503 968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01005 IP338450005 IP33845005 IP33845005 IP33845005 IP33845005 IP38450050 IP38450050 IP38450005 IP38450005 IP38450005 IP3845005 IP38450005 IP3845005 IP3845005 IP3845005 IP3845005 IP3845005 IP3	04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 0432827788 001227858 00127858 000278 00039204	
CHENNAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LAWKA IGC PLC JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JANGXI HONGDU AVIATION INDUSTRY CO LTD JAHOLDINGS INC JX HOLDINGS INC JX HOLDING INC JX HOLDINGS INC JX HOLDING IN	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP INTO INDUSTRY CO LTD INA OLDINGS INC IX HOLDINGS INC IS INDUSTRIAL SYSTEMS CO. LTD LEINDUSTRIAL SYSTEMS CO. LTD MAN SE	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanphai (XSHG) Shanphai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB INDIAN OL CORPORATION LTD- SLB LANKAI OC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JX HOLDINGS INC JX HOLDINGS INC - UNSPON ADR NIPPO CORP NIPPO CORP NIPO CORP NIPPO CORP NIPO CORP NIPO CORP NIPO CORP NIPO CORP NIPO CORP NIPO COR	MRL IN MRL IS IOCL IB IOCL IN IOCL IS IOCL/S IS LIOC SI. 600316 CG 600316 CH JHJ GF JHJ GF JHJ GF JHJ GS 5020 JI 5020 JI 5020 JJ 5020 JJ 50	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1C59H	0121563 IN 0121563 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0253767 IN 0304375 CN 0304375 CN 03043775 CN 03042775 CN 030427775 CN 03042775 CN 03042775 CN 03042775 CN 03	466295102	968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01001 JP338450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP33845005 JP33845005 INE242245023 INE24225022 JP35520002 JP355200	04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 04328777 0432827758 001227858 001227858 001227858 001227858 001227858 001227858 001227858	
CHEINAI PETROLEUM CORPORATION LIMITED INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD INDIAN OIL CORP LTD LANCAI HONGDU AVIATION INDUSTRY CO LANCAI HONGDU AVIATION INDUSTRY CO LTD JANCAI HONGDI CO JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC JA HOLDINGS INC NIPPO CORP NIPPO CORP NIPPO CORP NIPPO CORP NIPPO CORP NIPPO CORP NIPPO CORP NIPPO CORP THANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM CO TOHO TITANIUM SCO LS INDUSTRIAL SYSTEMS CO. LTD MAN SE	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD Aka IOCL INDIANOS INC INDIAN OIL CORP LTD Aka IOCL INDIAN OIL CORP LTD AKA IOCL INTO LTD AKA IOCL INC INCLUMENTIAL SYSTEMS CO. LTD	Mumbai (XBOM) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Nati India (XNSE) Shanghai (XSHG) Shanghai (XSHG) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Frankfur (XFRA) Tokyo (XTKS) Tokyo (XTKS)	Common Stack Common Stack	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD INDIAN OL CORPORATION LTD- SLB LANKA IOC PLC JIANGXI HONGDU AVIATION-A JIANGXI HONGDU AVIATION-A JIA HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC JIX HOLDINGS INC - JIX HOLDINGS INC - JI	MRL IN MRL IS IOCL IB IOCL IS IOCL	A08968 A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A089FM A1029H A1	8121563 IN 8121563 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8253767 IN 8304375 CN 8304375 CN 8304375 CN 835WTCO DE 855WTCO DE 855WTCO 855WTC	466295102	968503 968503 968503 968503 968503 968503	INE178A01018 INE178A01018 INE242A01010 INE242A01001 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP3384450005 JP338450005 JP33845005 JP3845005 JP33845005 JP3845005 JP384540505 JP3845005 JP384545005 JP384545005 JP384545005 JP384545005 JP38454505 JP38454505 JP38455	04328777 043777 04777 047777 047777 047777 047777 047777 0477777 047777777 0477777777	

-19-

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WDK Number	SEDOL	CUSID 1			The second s	
MANSE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GD	593700	5563520 DE	GUSIP	Sicovam 944020	DE0005937007	COMMON CINS Font 001117254	dscode
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GF	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GH	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Xetra (XETR) Xetra (XETR)	Common Stock Common Stock	MAN SE MAN SE	MAN GI MAN GM	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GR	593700 593700	5563520 DE 5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GS	593700	5563520 DE		944020 944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GY	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE MAN SE	MAN SE MAN SE	Tradegate (XGAT)	Common Stock	MAN SE	MAN TH	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Turquoise (TRQX) Chi-X Europe (CHIX)	Common Stock Common Stock	MAN SE	MAN TQ	593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Euro Comp (XLON)	Common Stock	MAN SE MAN SE	MANG IX MAN EU	593700 593700	5563520 DE		944020	DE0005937007	001117254	
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XA	593700	B10LRX1 GB B10LRX1 GB			DE0005937007 DE0005937007	001117254	
MANSE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XB	593700	B10LRX1 GB			DE0005937007	001117254 001117254	
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XD	593700	B10LRX1 GB			DE0005937007	001117254	
MAN SE MAN SE	MAN SE MAN SE	Euro OTC (XLON) Euro OTC (XLON)	Common Stock	MAN SE	MAN XE	593700	B10LRX1 GB			DE0005937007	001117254	
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE MAN SE	MAN XL MAN XO	593700	B10LRX1 GB			DE0005937007	001117254	
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XS	593700 593700	B10LRX1 GB B10LRX1 GB			DE0005937007	001117254	
MANSE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XV	593700	BIOLRXI GB			DE0005937007	001117254	
MANSE	MAN SE	Euro TLX (ETLX)	Common Stock	MAN SE	MAN TE	593700	B88FOL3 IT		944020	DE0005937007 DE0005937007	001117254 001117254	
MAN SE MAN SE	MAN SE MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GB	593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE MAN SE	Xetra (XETR) Xetra (XETR)	Preference Preference	MAN SE-VORZUGSAKTIEN	MAN3 GD	593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GF MAN3 GH	593703 593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GI	593703	5563531 DE 5563531 DE		944021	DE0005937031	001114816	
MANSE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GM	593703	5563531 DE		944021 944021	DE0005937031 DE0005937031	001114816 001114818	
MAN SE	MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GR	593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE MAN SE	Xetra (XETR)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 GS	593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE	Xetra (XETR) Turquoise (TRQX)	Preference Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 GY MAN3 TO	593703	5563531 DE		944021	DE0005937031	001114816	
MAN SE	MAN SE	Euro Comp (XLON)	Preference	MAN SE-VORZUGSAKTIEN MAN SE-VORZUGSAKTIEN	MAN3 TQ MAN3 EU	593703 593703	5563531 DE 828K2R6 GB		944021	DE0005937031	001114816	
MAN SE	MAN SE	Euro OTC (XLON)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 XD	593703	B28K2R8 GB			DE0005937031	001114816	
MAN SE	MAN SE	Tradegate (XGAT)	Preference	MAN SE-VORZUGSAKTIEN	MAN3 TH	593703			944021	DE0005937031 DE0005937031	001114816	
MAN SE MAN SE	MAN SE MAN SE	OTC US (OOTC)	ADR	MAN SE-UNSSPONSORED ADR	MAGOY PQ	AOYFON	B3DY656 US	561641101	100, 100 C	US5616411014	054361637	
MAN SE	MAN SE MAN SE	OTC US (OOTC) OTC US (OOTC)	ADR ADR	MAN SE-UNSSPONSORED ADR	MAGOY US	AOYFEN	B3DY656 US	561641101		US5616411014	054361637	
MAN SE	MAN SE MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR MAN SE-UNSSPONSORED ADR	MAGOY UV MANC GF	AOYFEN	B3DY656 US	561641101		US5616411014	054361637	
MANSE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GF	A0YF6N A0YF6N	85900P0 DE 85900P0 DE	561641101 561641101		US5616411014 US5616411014	054361637	
MANSE	MAN SE	Frankfurt (XFRA)	ADR	MAN SE-UNSSPONSORED ADR	MANC GS	AOYFEN	85900P0 DE	561641101		US5616411014 US5616411014	054361637 054361637	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GB	785000	5555969 DE		916291	DE0007850000	001121936	
RENK AG RENK AG	MAN SE MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GF	785000	5555969 DE		918291	DE0007850000	001121936	
RENKAG	MAN SE	Frankfurt (XFRA) Frankfurt (XFRA)	Common Stock Common Stock	RENK AG RENK AG	ZAR GM ZAR GR	785000	5555989 DE		916291	DE0007850000	001121938	
RENK AG	MAN SE	Frankfurt (XFRA)	Common Stock	RENK AG	ZAR GR	785000	5555969 DE 5555969 DE		916291	DE0007850000	001121936	
RENK AG	MAN SE	Euro Comp (XLON)	Common Stock	RENK AG	ZAREU	785000	B28LK31 GB		916291	DE0007850000 DE0007850000	001121936	
RENK AG	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG	ZAR XD	785000	B28LK31 GB			DE0007850000	001121936	
RENK AG MANAGEM	MAN SE MANAGEM	Euro OTC (XLON)	Common Stock	RENK AG	ZAR XS	785000	B28LK31 GB	1		DE0007850000	001121936	
In the second seco	MANANGEN .	Casablanca (XCAS)	Common Stock	MANAGEM	MNG MC	165414	6287454 MA			MA0000011058		_
SOCIETE METALLURGIQUE D'IMITER	MANAGEM	Casablanca (XCAS)	Common Stock	SOCIETE METALLURGI D'IMITER	SMIMC	256307	6007759 MA			140000040000		
MANGALORE REFINERY &				MANGALORE REFINERY &			0001100104			MA0000010068		
PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	PETROCHEMICALS LIMITED	MRPL IB	AONANW	6121530 IN			INE103A01014		
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai /VRCM	Common Charle	MANGALORE REFINERY &		and a section of						
MANGALORE REFINERY &	OL & 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			INETODECTO		
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IN	A1H6P4	6139362 IN			INE103A01014 INE213A01029		
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IB	A1H6P4	6139362 IS			INE213A01029		
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Nati India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IG	A1H6P4	6139362 IS			INE213A01029		
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGC IS	A1H6P4	6139362 IS			INE213A01029		
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Natl India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONGC/S IN							1
			- second containly	Sin a fail of the GAS CORF - SLB	5.100/0 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					N.A.		
	OIL INDIA LTD	Nati India (XNSE)	Common Stock	OIL INDIA LTD	OINL IB	A0X9PF	B409HQ9 IN			INE274J01014		
OIL INDIA LTD OIL INDIA LTD	OIL INDIA LTD OIL INDIA LTD	Natl India (XNSE) Natl India (XNSE)	Common Stock	OIL INDIA LTD	OINL IN	AOX9PF	B409HQ9 IN			INE274J01014		
OIL INDIA LTD	OIL INDIA LTD	Nati India (XNSE)	Second Lending	OIL INDIA LTD OIL INDIA LTD - SLB	OINL IS OINL/S IN	A0X9PF	B409HQ9 IN			INE274J01014		
OIL INDIA LTD	OIL INDIA LTD	Natl India (XNSE)	Second Lending	OIL INDIA LTD - SLB	OINL/S IS					N.A.		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CN	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224	
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CV	A1T8LS	B84J7Q3 CA	68558N102		CA68558N1024	091768224	
ORCA GOLD INC ORCA GOLD INC	ORCA GOLD INC ORCA GOLD INC	Venture (XTSX) Venture (XTSX)	Common Stock Common Stock	ORCA GOLD INC ORCA GOLD INC	ORG DS	AITBLS	B84J7Q3 CA	68558N102		CA68558N1024	091768224	
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC ORCA GOLD INC	ORG DV ORG TJ	A1T8LS A1T8LS	B84J7Q3 CA B84J7Q3 CA	68558N102 68558N102		CA68558N1024	091768224	
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TN	A1T8LS	B84J7Q3 CA B84J7Q3 CA	68558N102 68558N102		CA68558N1024 CA68558N1024	091768224 091768224	,
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF PQ	AITELS	B8JYMF7 US	68558N102		CA68558N1024 CA68558N1024	091768224	
ORCA GOLD INC ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF US	A1T8LS	B8JYMF7 US	68558N103		CA68558N1024	091768225	
ORCA GOLD INC	ORCA GOLD INC ORCA GOLD INC	OTC US (OOTC) Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	CANWF UV	A1T8LS	B8JYMF7 US	68558N102		CA68558N1024	091768224	1
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock Common Stock	ORCA GOLD INC ORCA GOLD INC	HJ6A GB	A1TBLS	B9L55S9 DE	68558N102		CA68558N1024	091768224	
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GR	A1TBLS A1TBLS	B9L55S9 DE B9L55S9 DE	68558N102 68558N102		CA68558N1024	001768224	/
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GS	ATTALS	B9L55S9 DE	68558N102		CA68558N1024 CA68558N1024	091768224 091768224	
ENGEN	PETROLIAM NASIONAL BERHAD aka PETRONAS	Gaborone (XBOT)	Common Stock	ENGEN	ENGN BG	546632	B063G04			BW0000000058	2211 49667	
KLCC PROPERTY HOLDINGS BHD MALAYSIA INTERNATIONAL SHIPPING	PETROLIAM NASIONAL BERHAD aka PETRONAS PETROLIAM NASIONAL BERHAD aka	Bursa Malaysia (XKLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD		A1T91X	B92NSW7 MY			MYL5235SS008		
MALAYSIA IN FERNATIONAL SHIPPING COMPANY aka MISC BHD MALAYSIA MARINE AND HEAVY	PETROLIAM NASIONAL BERHAD aka PETRONAS PETROLIAM NASIONAL BERHAD aka	Bursa Malaysia (XKLS)	Common Stock	MISC BHD	MISC MK	880504	6557997 MY		905279	MYL381600005	003527883	
ENGINEERING HOLDINGS BHD	PETROLIAM NASIONAL BERHAD aka PETROLIAM NASIONAL BERHAD aka	Bursa Malays (XKLS)	Common Stock	MALAYSIA MARINE AND HEAVY EN PETRONAS CHEMICALS GROUP	MMHE MK	A1C7U8	B3W5NN7			MYL5186OO001	055049394	
PETRONAS CHEMICALS GROUP BHD	PETRONAS PETROLIAM NASIONAL BERHAD aka	Bursa Malaysia (XKLS)	Common Stock	BHD	PCHEM MK	A1C891	B5KQGT3 MY			MYL5183OO008	055800235	
PETRONAS DAGANGAN BHD PETRONAS GAS BHD	PETRONAS PETROLIAM NASIONAL BERHAD aka	Bursa Malaysia (XKLS)	Common Slock	PETRONAS DAGANGAN BHD	PETD MK	895131	6695938 MY			MYL568100001	005378044	
	PETRONAS	Bursa Malaysia (XKLS)	Common Stock	PETRONAS GAS BHD	PTG MK	896633	6703972 MY			MYL603300004	007076050	

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN SIN	COMMON	CINS Fondscode
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	RELIANCE INDUSTRIES LTD	RIL IG	946078	6099626 IN		964067	INE002A01018	veninen	City3 Fondscod
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	RELIANCE INDUSTRIES LTD	RIL IN	946078	6099626 IN		964067	INE002A01018		
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	RELIANCE INDUSTRIES LTD	RIL IS	946078	6099626 IN		964067	INE002A01018		
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Luxembourg (XLUX)	GDR	RELIANCE INDUSTRIES LTD	RIGDS LX	884241	4731146 LU	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLI GB	884241	5732568 DE	759470107	984066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLI GD	884241	5732568 DE	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLIGE	884241	5732568 DE	759470107	964066	US7594701077		
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLIGR	884241	5732568 DE	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLIGS	884241	5732568 DE	759470107	964066		010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Frankfurt (XFRA)	GDR	RELIANCE INDUSTRIES LTD	RLIGY	884241	5732568 DE	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	BATS Europe (BATE)	GDR	RELIANCE INDUSTRIES LTD	RIGD EB	884241	B16CYP9 GB	759470107		US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Chi-X Europe (CHIX)	GDR	RELIANCE INDUSTRIES LTD	RIGD IX	884241	B16CYP9 GB	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	London Intl (XLON)	GDR	RELIANCE INDUSTRIES LTD	RIGD LI	884241	B16CYP9 GB		964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Turquoise (TRQX)	GDR	RELIANCE INDUSTRIES LTD	RIGD TQ			759470107	964066	US7594701077	010146160	
and a second second second second second second second		i al quotos (i rearly	ODIT	RECARCE INDUSTRIES LTD	RIGUIQ	884241	B16CYP9 GB	759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Euro Comp (XLON)	Receipt	RELIANCE INDS-SPONS GDR 144A	RIGD EU	884241		759470107	964066	US7594701077	010146160	
RELIANCE INDUSTRIES LTD	RELIANCE INDUSTRIES LTD	Euro OTC (XLON)	GDR	RELIANCE INDS-SPONS GDR 144A	RIGDUSD XV	884241		759470107	984068	US7594701077	010148180	
SCOMI ENERGY SERVICES BHD	SCOMI GROUP BERHAD	Bursa Malays (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	215408	6081593	758470107	904000	MYL704500007	010146160	
SCOMI ENGINEERING BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENGINEERING BHD	SEB MK	903056	6098452 MY			MYL7366OO007		
SCOMI GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI GROUP BHD	SGB MK	120745	BOOPKJ3 MY			MYL715800008		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR DS	A1J2NC	B80L116	857652200		CA8576522004	024633128 025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CN	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CV	A1J2NC	B80L118 CA	857652200		CA8576522004 CA8576522004		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR TG	A1J2NC	B80L116 CA	857652200			025302885	
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR TN	A1J2NC	B80L118 CA	857652200		CA8576522004 CA8576522004	025302885	
					Shirt Hi	Allazino	DOULTIO CA	637032200		CA8576522004	025302885	

9

ATTACHMENT D

EIRIS Conflict Risk Network (CRN) List of "Scrutinized" Companies in Sudan List Effective Through August 31, 2014

Company Name Alstom	Country of Orig France
Alstom India Ltd	India
Areva 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
Sichuan Power Development Co., Ltd.	China
Sinohydro Engineering Bureau 8 Co. Ltd	China
Sinohydro Bureau 7 Co., Ltd.	China
Sinohydro Group Ltd.	China
China Machinery Engineering Corporation	China
China National Petroleum Corporation AKA CNPC	China
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. Liaoning Huajin Tongda Chemicals	Hong Kong China
NORINCO International Cooperation Ltd.	China
North Navigation Control Technology Co., Ltd	China
Sichuan Nitrocell Co., Ltd	China
China Petrochemical Corporation AKA Sinopec Group	China
China Petroleum and Chemical Corporation AKA Sinopec Corp	China
Kingdream PLC	China
Sinopec Engineering Group Co. Ltd.	China
Sinopec Kanton Holdings Ltd.	Hong Kong
Sinopec Shanghai Petrochemicals Ltd.	China
Sinopec Yizheng Chemical Fibre Co., Ltd.	China
China Poly Group Corporation	China
Poly Property Group Co. Ltd.	China
ongfeng Motor Group Co. Ltd.	China
gypt Kuwait Holding Company	Egypt
nergy House Holding Company KSCC (previously known as AREF Energy Holding Company)	Kuwait
GAZ Group	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
ilencore PLC	Switzerland
Chemoil Energy Ltd	Singapore
Viterra Inc.	Canada
larbin Electric Company Ltd.	China
Indian Oil Corporation Ltd. AKA IOCL	India
Chennai Petroleum Corporation Limited AKA CPCL Lanka IOC Ltd	India India
iangxi Hongdu Aviation AKA Hongdu Aviation	China
X Holdings	Japan
Nippo Corporation	Japan
Eneos Globe Company	Japan
Toho Titanium Co.	Japan
S Industrial Systems	South Korea
IAN SE	Germany
Renk AG	Germany
lanagem	Morocco
ONA S.A.	Morocco
Societe Metallurgique D'imiter	Morocco
il and Natural Gas Corporation Limited, AKA ONGC	India
ONGC Videsh Limited AKA OVL	India
Mangalore Refinery and Petrochemicals Ltd. AKA MRPL	India
il India Ltd.	India
rca Gold Inc. (previously known as Shark Minerals)	Canada
etroliam Nasional Berhad AKA Petronas	Malaysia
Engen	Malyasia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malyasia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Bhd	Malaysia
Petronas Gas Bhd	Malaysia
T Pertamina Persero	Indonesia
anhill Berhad	Malaysia
eliance Industries Ltd.	India
comi Group Berhad	Malaysia
Scomi Energy Services Bhd	Malyasia
Scomi Engineering Berhad tatesman Resources Limited	Malaysia Canada
atoman resources Linneu	
rafigura 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" List Effective Through August 31, 2014

<u>Company Name</u> Atlas Copco Schlumberger LTD Wartsila OYJ

Country of Origin Sweden Netherlands 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 August 31, 2014

Company Name	Country of Origin
Abdel Hadi Abdullah Al-Qahtani & Sons Group of Companies	Saudi Arabia
Africa Energy	Nigeria
Ansan Wikfs Investments Ltd.	Yemen
APS Engineering Company S.p.A.	Italy
Arcadia Petroleum	UK
Ascom Group SA	Moldova
China International Water & Electric Corp AKA CWE	China
Citadel Capital	Egypt
Daedong Industrial Machinery Co., Ltd	South Korea
Dindir Petroleum International/Edgo Group	Jordan
Emirates Telecommunication Corporation	UAE
European Marmot Co. Group	Switzerland
Express Petroleum and Gas Company	Nigeria
MC Technologies Inc.	US
GIAD Automotive Industry Co.	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
Suwait Foreign Petroleum Exploration Company AKA KUFPEC	Kuwait
a Mancha Resources	Canada
ahmeyer International	Germany
lott MacDonald	UK
ITN Group	South Africa
etrolin Group	Gabon
etroneeds Service International Company	Sudan
etroTrans Company Ltd.	Hong Kong
Quest Qualitas FZCO	United Arab Emirates
aras S.p.A.	Italy
handong Electric Power Construction Corporation	China
hanghai Electric Group Co. Ltd	China
MEC Holdings Limited AKA Snowy Mountain Engineering Corporation	Australia
oma Group	Turkey
tar Petroleum S.A.	Spain
TR Projetos e Participacoes	Brazil
udan Petroleum Corporation AKA Sudapet	Sudan
udatel Telecom Group Limited	Sudan
amoil	Libya
oro Gold Ltd.	UK
AE for Gold Minerals and Investment Company Ltd.	United Arab Emirates
	Switzerland
itol Group	
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 Equity and Domestic Equity Managers

June 25, 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</u> <u>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 March 17, 2014 letter you received. This new list is effective June 27, 2014.

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

Harbin Electric Company Ltd.
 China

The following companies have been **removed** from the restricted list:

Gazprom OAO	Russia
GS Engineering & Construction Corp	South Korea
GS Holdings	South Korea
 Ina-Industrija Nafte DD 	Croatia
Punj Lloyd Ltd.	India

Attachment 2 is the List of Iran Companies Requiring Divestment. The following company has been <u>removed</u> from the divestment list:

Gazprom OAO Russia

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 Aaron Griga or Tammy Brusehaver, Domestic Equity; Stephanie Gleeson, International Equity or me.

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Public Markets Tammy Brusehaver, Domestic Equity Aaron Griga, Domestic Equity Stephanie Gleeson, International Equity Patricia Ammann, Public Programs

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

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

COUNTRY India China South Korea India Turkey China India South Korea Australia Italy Japan India India China Japan

Effective Date: June 27, 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: June 27, 2014

ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	CUSIP_2	COUNTRY
Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547		-	India
China Petroleum & Chemical Corp	2639189	US16941R1086	386	16941R108		China
China Petroleum & Chemical Corp	B4QSP22	US16941R1086	386	16941R108		China
China Petroleum & Chemical Corp	2654375	US16941R1086	386	16941R108		China
China Petroleum & Chemical Corp	BORSW00	US16941R1086	386	16941R108		China
China Petroleum & Chemical Corp	B01XKR4	CNE1000002Q2	386	16941R108		China
China Petroleum & Chemical Corp	7027756	CNE1000002Q2	386	16941R108		China
China Petroleum & Chemical Corp	6291819	CNE1000002Q2	386	16941R108		China
China Petroleum & Chemical Corp	6373728	CNE0000018G1	386	16941R108		China
China Petroleum & Chemical Corp	B1C5SX8	ARDEUT114071	386	16941R108		China
Daelim Industrial	6246604	KR7000211003	A000210			South Korea
Daelim Industrial	B1T52M8	KR7000211003	A000210			South Korea
Daelim Industrial	6249584	KR7000210005	A000210			South Korea
Gail (India) Ltd.	B1HJ0L7	US36268T2069	532155	36268T206	36268T107	India
Gail (India) Ltd.	3235520	US36268T2069	532155	36268T206	36268T107	India
Gail (India) Ltd.	B2NTDN1	US36268T2069	532155	36268T206	36268T107	India
Gail (India) Ltd.	B033102	US36268T2069	532155	36268T206	36268T107	India
Gail (India) Ltd.	2498517	US36268T1079	532155	36268T206	36268T107	India
Gail (India) Ltd.	3235490	US36268T1079	532155	36268T206	36268T107	India
Gail (India) Ltd.	6133405	INE129A01019	532155	36268T206	36268T107	India
Gubre Fabrikalari T.A.S.	B03MTC7	TRAGUBRF91E2	GUBRF			Turkey
Gubre Fabrikalari T.A.S.	B188YV1	TRAGUBRF91E2	GUBRF			Turkey
Harbin Electric Company Ltd.	2407665	US4114591005	1133			China
Harbin Electric Company Ltd.	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
Liquefied Natural Gas Ltd	B05KKL5	AU000000LNG0	LNG			Australia
Liquefied Natural Gas Ltd	B2RHN19	AU000000LNG0	LNG			Australia
Liquefied Natural Gas Ltd	B02L5H2	AU000000LNG0	LNG			Australia

ATTACHMENT 3 IRAN RESTRICTED COMPANIES Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	CUSIP_2	COUNTRY
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	BOZGPX0	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	INE213A01011	500312			India
PetroChina Co. Ltd.	B569834	US71646E1001	857	71646E100		China
PetroChina Co. Ltd.	B3KTK63	US71646E1001	857	71646E100		China
PetroChina Co. Ltd.	2568841	US71646E1001	857	71646E100		China
PetroChina Co. Ltd.	4633327	US71646E1001	857	71646E100		China
PetroChina Co. Ltd.	B28SLD9	CNE1000007Q1	857	71646E100		China
PetroChina Co. Ltd.	B17H0R7	CNE100003W8	857	71646E100		China
PetroChina Co. Ltd.	5939507	CNE100003W8	857	71646E100		China
PetroChina Co. Ltd.	B01DNL9	CNE100003W8	857	71646E100		China
PetroChina Co. Ltd.	6226576	CNE100003W8	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

Effective Date: June 27, 2014

Letter to SBI Fixed Income Managers

June 25, 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</u> <u>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 March 17, 2014 letter you received. This new list is effective June 27, 2014.

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

Harbin Electric Company Ltd.
 China

The following companies have been **removed** from the restricted list:

•	Gazprom OAO	Russia
•	GS Engineering & Construction Corp	South Korea
•	GS Holdings	South Korea
•	Ina-Industrija Nafte DD	Croatia
•	Punj Lloyd Ltd.	India

Attachment 2 is the List of Iran Companies Requiring Divestment. The following company has been <u>removed</u> from the divestment list:

Gazprom OAO Russia

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 Tammy Brusehaver, Manager, Long-Term Debt or me.

Sincerely,

LeaAnn M. Stagg Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Public Markets Tammy Brusehaver, Long-Term Debt Steve Kuettel, Manager, Short-Term Debt Patricia Ammann, Public Programs

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

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

COUNTRY India China South Korea India Turkey China India South Korea Australia Italy Japan India India China Japan

Effective Date: June 27, 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: June 27, 2014

TAB

C



STATE BOARD OF INVESTMENT

Domestic Equity Manager Evaluation Reports

Second Quarter, 2014

(Blank) A-2

Domestic Equity

Table of Contents

	Page
Domestic Equity Performance Summary	A-5
Active Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-6
Semi-Passive and Passive Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-7
Active Manager Performance Summary (by calendar year)	A-8
Semi-Passive and Passive Manager Performance Summary (by calendar years)	A-9
Large Cap Growth (R1000 Growth)	A-11
Large Cap Value (R1000 Value)	A-19
Small Cap Growth (R2000 Growth)	A-27
Small Cap Value (R2000 Value)	A-33
Semi-Passive and Passive	A-41

(Blank) A–4

COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS Periods Ending June, 2014

	Quarter		1 Y	ear	3 Ye	ars 5 Years		ars	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	
	/0	70	70	/0	70	/0	70	70	
Russell 1000 Growth Aggregate	3.8	5.1	31.0	26.9	16.2	16.3	20.8	19.2	
Russell 1000 Value Aggregate	4.4	5.1	25.5	23.8	16.3	16.9	19.0	19.2	
Russell 2000 Growth Aggregate	-2.7	1.7	19.7	24.7	10.9	14.5	18.9	20.5	
Russell 2000 Value Aggregate	4.0	2.4	27.1	22.5	17.2	14.6	23.6	19.9	
Active Manager Aggregate	3.4	4.3	27.4	25.0	15.4	16.0	19.7	19.4	
Semi-Passive Aggregate	5.0	5.1	25.4	25.4	17.3	16.6	19.6	19.3	
Passive Manager (BlackRock)	4.9	4.9	25.2	25.2	16.5	16.5	19.3	19.3	
Total Aggregate	4.5	4.9	25.9	25.2	16.5	16.5	19.5	19.3	
Russell 3000 Index		4.9		25.2		16.5		19.3	

	20	13	20	12	201	1	201	0	200)9
	Actual	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
	%	70	70	70	70	70	70	70	70	70
Russell 1000 Growth Aggregate	42.0	33.5	15.5	15.3	-0.4	2.6	19.3	16.7	44.5	37.2
Russell 1000 Value Aggregate	36.5	32.5	16.9	17.5	-2.1	0.4	15.0	15.5	23.8	19.7
Russell 2000 Growth Aggregate	47.2	43.3	12.0	14.6	-5.6	-2.9	29.1	29.1	33.6	34.5
Russell 2000 Value Aggregate	40.8	34.5	19.6	18.1	-4.5	-5.5	30.5	24.5	36.3	20.6
Active Manager Aggregate	40.2	34.7	15.4	16.3	-2.7	0.0	19.7	18.7	32.3	27.9
Semi-Passive Aggregate	33.2	33.1	17.7	16.4	2.2	1.5	15.2	16.1	28.5	28.4
Passive Manager (BlackRock)	33.5	33.6	16.4	16.4	0.8	1.0	17.2	16.9	28.2	28.3
Total Aggregate	35.1	33.6	16.6	16.4	0.4	1.0	17.1	16.9	29.6	28.3
Russell 3000 Index		33.6		16.4		1.0		16.9		28.3

COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS Periods Ending June, 2014 Performance versus Russell Style Benchmarks for All Periods

									Si	nce		
	Qua	arter	1 3	ear	3 Y	ears	5 Y	ears	Incep	tion (1)	Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value	Pool
	%	%	%	%	%	%	%	%	%	%	(in millions)	%
Russell 1000 Growth												
INTECH	3.6	5.1	26.3	26.9	15.1	16.3	19.4	19.2	7.4	8.3	\$547.1	1.9%
Jacobs Levy	4.9	5.1	29.1	26.9	16.1	16.3	20.7	19.2	7.1	8.3	\$641.2	2.3%
Sands Capital	1.3	5.1	33.2	26.9	19.6	16.3	25.8	19.2	10.5	8.3	\$649.4	2.3%
Winslow-Large Cap	4.6	5.1	27.5	26.9	14.4	16.3	18.6	19.2	9.4	8.3	\$285.7	1.0%
Zevenbergen Capital	5.4	5.1	37.6	26.9	15.6	16.3	21.4	19.2	10.6	9.0	\$620.1	2.2%
Aggregate	3.8	5.1	31.0	26.9	16.2	16.3	20.8	19.2			\$2,743.5	9.8%
Russell 1000 Value												
Barrow, Hanley	3.6	5.1	24.1	23.8	16.1	16.9	18.6	19.2	8.3	7.9	\$793.4	2.8%
Earnest Partners	4.1	5.1	22.3	23.8	12.9	16.9	16.4	19.2	6.2	7.1	\$526.2	1.9%
LSV Asset Mgmt.	4.6	5.1	27.9	23.8	19.4	16.9	21.0	19.2	9.3	7.9	\$800.0	2.8%
Systematic Financial Mgmt.	5.2	5.1	26.6	23.8	14.6	16.9	18.9	19.2	7.9	7.9	\$750.3	2.7%
Aggregate	4.4	5.1	25.5	23.8	16.3	16.9	19.0	19.2			\$2,869.9	10.2%
SMALL CAP												
Russell 2000 Growth												
McKinley Capital	1.5	1.7	32.3	24.7	18.3	14.5	23.1	20.5	7.7	9.2	\$389.2	1.4%
Next Century Growth	-6.8	1.7	11.3	24.7	6.5	14.5	16.5	20.5	2.8	4.3	\$363.5	1.3%
Aggregate	-2.7	1.7	19.7	24.7	10.9	14.5	18.9	20.5			\$752.7	2.7%
Russell 2000 Value												
Goldman Sachs	3.9	2.4	27.1	22.5	17.7	14.6	22.9	19.9	10.6	8.6	\$270.6	1.0%
Hotchkis & Wiley	6.3	2.4	33.0	22.5	18.9	14.6	28.5	19.9	9.9	8.6	\$251.9	0.9%
Martingale Asset Mgmt.	2.8	2.4	28.0	22.5	17.9	14.6	21.8	19.9	8.2	8.6	\$214.1	0.8%
Peregrine Capital	3.3	2.4	22.6	22.5	15.4	14.6	22.5	19.9	11.4	10.5	\$355.3	1.3%
Aggregate	4.0	2.4	27.1	22.5	17.2	14.6	23.6	19.9			\$1,091.9	3.9%
Active Mgr. Aggregate (2)	3.4	4.3	27.4	25.0	15.4	16.0	19.7	19.4			\$7,458.0	26.6%

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

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

Note: All aggregates include the performance of terminated managers.

COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS Periods Ending June, 2014 Versus Manager Benchmarks

Since

								51	nce		
Qua	irter	1 Y	ear	3 Y	ears	5 Y	ears	Incept	tion (1)	Market	
Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value	Pool
%	%	%	%	%	%	%	%	%	%	(in millions)	%
ERS (2)											
5.3	5.1	25.6	25.4	17.6	16.6	19.4	19.3	9.7	9.3	\$2,345.4	8.4%
4.4	5.1	24.8	25.4	16.4	16.6			15.6	15.6	\$2,589.9	9.2%
4.9	5.1	25.8	25.4	17.3	16.6	20.0	19.3	9.7	9.3	\$3,039.0	10.8%
5.4	5.1	25.4	25.4	17.7	16.6	19.7	19.3	9.0	9.3	\$2,728.5	9.7%
5.0	5.1	25.4	25.4	17.3	16.6	19.6	19.3			\$10,702.8	38.1%
000)											
4.9	4.9	25.2	25.2	16.5	16.5	19.3	19.3	9.1	9.0	\$9,909.5	35.3%
								Since	1/1/84		
4.5	4.9	25.9	25.2	16.5	16.5	19.5	19.3	10.5	10.7	\$28,070.3	100.0%
	4.9		25.2		16.5		19.3		11.0		
	5.1		25.4		16.6		19.3		11.2		
	2.0		23.6		14.6		20.2		9.8		
	Actual % ERS (2) 5.3 4.4 4.9 5.4 5.0 000) 4.9	ERS (2) 5.3 5.1 4.4 5.1 4.9 5.1 5.4 5.1 5.0 5.1 0000) 4.9 4.9 4.5 4.9 4.9 5.1	Actual Bmk % Actual % % % ERS (2) 5.3 5.1 25.6 4.4 5.1 24.8 4.9 5.1 25.8 5.4 5.1 25.4 5.0 5.1 25.4 000) 4.9 4.9 25.2 4.5 4.9 25.9 4.9 5.1 5.1 5.1 5.1 5.1	Actual Bmk % Actual Bmk % Mathematical Sector 5.3 5.1 25.6 25.4 4.4 5.1 24.8 25.4 4.9 5.1 25.8 25.4 5.0 5.1 25.4 25.4 5.0 5.1 25.4 25.4 5.0 5.1 25.4 25.4 000) 4.9 4.9 25.2 25.2 4.5 4.9 25.9 25.2 4.9 5.1 25.4 25.4	Actual Bmk % Actual Bmk % Actual Bmk % Actual Mmk % ERS (2) 5.3 5.1 25.6 25.4 17.6 4.4 5.1 24.8 25.4 16.4 4.9 5.1 25.8 25.4 17.3 5.4 5.1 25.4 25.4 17.3 000) 4.9 4.9 25.2 25.2 16.5 4.5 4.9 25.9 25.2 16.5 4.9 25.9 25.2 16.5 4.9 25.9 25.2 16.5 4.9 25.9 25.2 16.5 4.9 25.9 25.2 16.5	Actual Bmk % Actual % Bmk % Actual Bmk % Bmk % Marcual % 5.3 5.1 25.6 25.4 17.6 16.6 4.4 5.1 24.8 25.4 16.4 16.6 4.9 5.1 25.8 25.4 17.3 16.6 5.4 5.1 25.4 25.4 17.3 16.6 5.0 5.1 25.4 25.4 17.3 16.6 6.0000 4.9 4.9 25.2 16.5 16.5 4.9 4.9 25.9 25.2 16.5 16.5 4.9 25.9 25.2 16.5 16.5 4.9 25.2 16.5 16.5 16.5 5.1 25.4 16.5 16.5 16.5	Actual Bmk Actual Bmk Actual Bmk Actual % %	Actual Bmk Actual % % Actual % % Actual % % Actual % %	Quarter Actual Bmk % I Year Actual Bmk % 3 Years Actual Bmk % 5 Years Actual Bmk % Incept Actual Bmk % Incept Actual Bmk % Server Actual Bmk % 8mk % 9mk % 9mk %	Actual Bmk Main M Main M	Quarter Actual Bmk %I Year Actual Bmk %3 Years Actual Bmk %5 Years Actual Bmk %Inception (1) Actual Bmk %Market Value %%%%%%%%%%%%%%ERS (2)5.35.125.625.417.616.619.419.39.79.3\$2,345.44.45.124.825.416.416.615.615.6\$2,589.94.95.125.825.417.316.620.019.39.79.3\$3,039.05.45.125.425.417.316.619.619.39.09.3\$2,728.55.05.125.425.417.316.619.619.39.09.3\$2,728.5000)4.94.925.225.216.516.519.319.39.19.0\$9,909.54.94.925.225.216.516.519.310.510.7\$28,070.34.925.925.216.516.519.311.011.2

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

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

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

Note: All aggregates include the performance of terminated managers.

COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS Calendar Year Returns Versus Russell Style Benchmarks for All Periods

	20	13	2012		2011		2010		2009	
	Actual	Bmk								
	%	%	%	%	%	%	%	%	%	%
Russell 1000 Growth										
INTECH	34.1	33.5	17.8	15.3	0.1	2.6	19.5	16.7	34.0	37.2
Jacobs Levy	37.0	33.5	13.0	15.3	6.6	2.6	19.5	16.7	37.1	37.2
Sands Capital	42.4	33.5	24.2	15.3	2.7	2.6	26.8	16.7	71.6	37.2
Winslow-Large Cap	37.4	33.5	13.7	15.3	0.1	2.6	16.8	16.7	40.9	37.2
Zevenbergen Capital	60.6	33.5	8.0	15.3	-9.8	2.6	22.9	16.7	57.4	37.2
Aggregate	42.0	33.5	15.5	15.3	-0.4	2.6	19.3	16.7	44.5	37.2
Russell 1000 Value										
Barrow, Hanley	35.5	32.5	15.5	17.5	1.7	0.4	10.4	15.5	23.2	19.7
Earnest Partners	32.0	32.5	10.7	17.5	-4.7	0.4	18.5	15.5	31.6	19.7
LSV Asset Mgmt.	41.2	32.5	20.4	17.5	-0.8	0.4	14.0	15.5	24.0	19.7
Systematic Financial Mgmt.	35.0	32.5	18.2	17.5	-7.4	0.4	18.1	15.5	23.2	19.7
Aggregate	36.5	32.5	16.9	17.5	-2.1	0.4	15.0	15.5	23.8	19.7
SMALL CAP										
Russell 2000 Growth										
McKinley Capital	51.6	43.3	23.2	14.6	-7.9	-2.9	28.5	29.1	28.0	34.5
Next Century Growth	50.3	43.3	1.9	14.6	-4.5	-2.9	29.6	29.1	35.0	34.5
Aggregate	47.2	43.3	12.0	14.6	-5.6	-2.9	29.1	29.1	33.6	34.5
Russell 2000 Value										
Goldman Sachs	39.3	34.5	16.6	18.1	1.3	-5.5	27.0	24.5	27.8	20.6
Hotchkis & Wiley	46.0	34.5	24.1	18.1	-10.8	-5.5	43.4	24.5	62.5	20.6
Martingale Asset Mgmt.	43.1	34.5	20.1	18.1	-5.2	-5.5	27.4	24.5	19.4	20.6
Peregrine Capital	37.3	34.5	18.8	18.1	-4.1	-5.5	27.3	24.5	45.8	20.6
Aggregate	40.8	34.5	19.6	18.1	-4.5	-5.5	30.5	24.5	36.3	20.6
Active Mgr. Aggregate (1)	40.2	34.7	15.4	16.3	-2.7	0.0	19.7	18.7	32.3	27.9

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

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

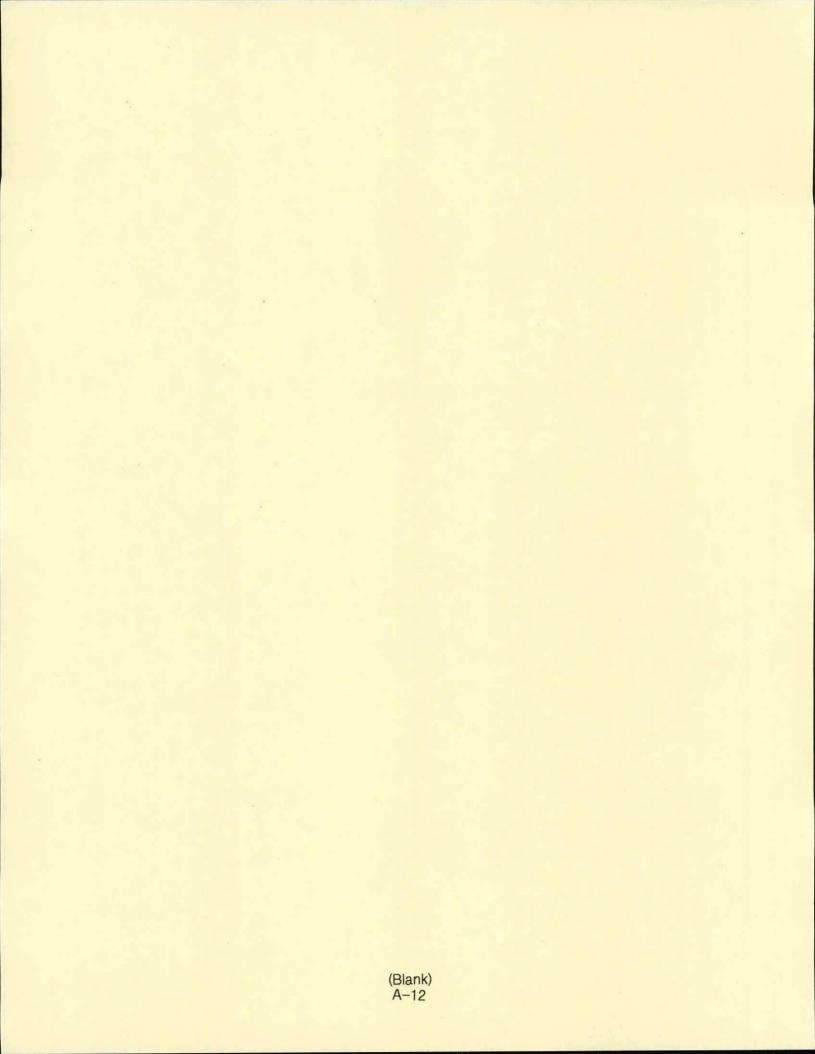
COMBINED RETIREMENT FUNDS DOMESTIC EQUITY MANAGERS Calendar Year Returns Versus Manager Benchmarks

	20	13	201	2	201	1	20	10	20	09
	Actual	Bmk								
	%	%	%	%	%	%	%	%	%	%
SEMI-PASSIVE MANAGERS										
BlackRock Institutional	33.3	33.1	19.0	16.4	1.6	1.5	14.0	16.1	27.6	28.4
INTECH	33.0	33.1	16.6	16.4	2.9	1.5				
JP Morgan	33.7	33.1	17.6	16.4	1.1	1.5	16.8	16.1	32.1	28.4
Mellon Capital	32.6	33.1	17.3	16.4	4.6	1.5	13.7	16.1	25.6	28.4
Semi-Passive Aggregate (R1000)	33.2	33.1	17.7	16.4	2.2	1.5	15.2	16.1	28.5	28.4
PASSIVE MANAGER (R3000)										
BlackRock Institutional	33.5	33.6	16.4	16.4	0.8	1.0	17.2	16.9	28.2	28.3
Total Aggregate	35.1	33.6	16.6	16.4	0.4	1.0	17.1	16.9	29.6	28.3
Russell 3000		33.6		16.4		1.0		16.9		28.3
Russell 1000		33.1		16.4		1.5		16.1		28.4
Russell 2000		38.8		16.3		-4.2		26.9		27.2

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

(Blank) A-10

Large Cap Growth (R1000 Growth)



Large Cap Growth (R1000 Growth)

Table of Contents

	Page
INTECH Investment Management LLC	A-14
Jacobs Levy Equity Management, Inc.	A-15
Sands Capital Management, LLC	A-16
Winslow Capital Management, LLC	A-17
Zevenbergen Capital Investments LLC	A-18

INTECH INVESTMENT MANAGEMENT LLC Periods Ending June, 2014

Portfolio Manager: Adrian Banner

Assets Under Management: \$547,113,140

Investment Philosophy

Through the application of a proprietary mathematical process, the investment strategy is designed to determine more efficient weightings of the securities within the Russell 1000 Growth benchmark. No specific sector or security selection decisions based on fundamentals are required. Risk parameters include: 1) minimize absolute standard deviation or maximize information ratio, 2) security positions limited to lesser of 2.5% or 10 times maximum index security weight, and 3) beta equal to or less than benchmark beta. Target security positions are established using an optimization routine designed to build a portfolio that will outperform a passive benchmark over the long term. Rebalancing to target proportions occurs every six (6) business days, and partial re-optimization occurs weekly.

Quantitative Evaluation

	Actual	R1000 Growth
Last Quarter	3.6%	5.1%
Last 1 year	26.3	26.9
Last 2 years	21.0	21.9
Last 3 years	15.1	16.3
Last 4 years	20.2	20.7
Last 5 years	19.4	19.2
Since Inception	7.4	8.3
(1/05)		

Staff Comments

Staff has no concerns at this time.

Recommendation

No action required.



INTECH INVESTMENT MANAGEMENT LLC

Five Year Period Ending Note: Area left of the vertical line includes performance prior to retention by the SBI.

Portfolio Manager: Bruce Jacobs and Ken Levy

Investment Philosophy

The strategy combines human insight and intuition, finance and behavioral theory, and state-of-the-art quantitative and statistical methods. Security expected returns generated from numerous models become inputs for the firm's proprietary portfolio optimizer. The optimizer is run daily with the objective of maximizing the information ratio, while ensuring proper diversification across market inefficiencies, securities, industries, and sectors. Extensive data scrubbing is conducted on a daily basis using both human and technology resources. Liquidity, trading costs, and investor guidelines are incorporated within the optimizing process.

Quantitative Evaluation

14.0 12.0

10.0

8.0

6.04.02.00.0

Annualized (%)

	Actual	R1000 Growth
Last Quarter	4.9%	5.1%
Last 1 year	29.1	26.9
Last 2 years	22.4	21.9
Last 3 years	16.1	16.3
Last 4 years	21.9	20.7
Last 5 years	20.7	19.2
Since Inception	7.1	8.3
(1/05)		

Recommendation

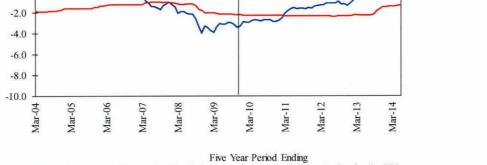
Confidence Level (10%)

Warning Level (10%) Benchmark

Portfolio RCB

No action required.

JACOBS LEVY EQUITY MANAGEMENT Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Assets Under Management: \$641,211,935

Staff Comments

Staff has no concerns at this time.

SANDS CAPITAL MANAGEMENT, LLC Periods Ending June, 2014

Portfolio Manager: Frank Sands, Jr.

Assets Under Management: \$649,408,430

Investment Philosophy

The manager invests in high-quality, seasoned and growing businesses. Bottom-up, company-focused, long-term oriented research is the cornerstone of the investment process. The strategy focuses on six (6) key investment criteria: 1) sustainable above average earnings growth; 2) leadership position in a promising business space; 3) significant competitive advantages or unique business franchise; 4) management with a clear mission and value added focus; 5) financial strength; and 6) rational valuation relative to the overall market and the company's business prospects.

Quantitative Evaluation

	Actual	R1000 Growth
Last Quarter	1.3%	5.1%
Last 1 year	33.2	26.9
Last 2 years	24.7	21.9
Last 3 years	19.6	16.3
Last 4 years	25.8	20.7
Last 5 years	25.8	19.2
Since Inception	10.5	8.3
(1/05)		

Staff Comments

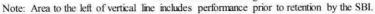
Sands has been consistent with their investment process, and the organization remains stable. The portfolio underperformed significantly during the quarter due to negative stock selection in Healthcare and Technology. The outperformance for the year is attributed to positive stock selection in Consumer Discretionary and Technology sectors.

Recommendation

No action required.

SANDS CAPITAL MANAGEMENT, LLC Rolling Five Year Returns Compared to Benchmark





Portfolio Manager: Justin Kelly and Patrick Burton

Investment Philosophy

The strategy identifies companies that can grow earnings above consensus expectations to build portfolios with forward weighted earnings growth in the range of 15-20% annually. A quantitative screen is employed for factors such as revenue and earnings growth, return on invested capital, earnings consistency, earnings revisions, low financial leverage and high free cash flow rates relative to net income. Resulting companies are subjected to a qualitative assessment within the context of industry sectors. Detailed examination of income statements, cash flow and balance sheet projections is conducted, along with a judgment on the quality of management. Attractively valued stocks are chosen based on P/E relative to the benchmark, sector peers, the company's sustainable future growth rate and return on invested capital. Final portfolio construction includes diversification by economic sectors, earnings growth rates, price/earnings ratios and market capitalizations.

Quantitative Evaluation

14.0

12.0 10.0

	Actual	R1000 Growth
Last Quarter	4.6%	5.1%
Last 1 year	27.5	26.9
Last 2 years	21.9	21.9
Last 3 years	14.4	16.3
Last 4 years	20.3	20.7
Last 5 years	18.6	19.2
Since Inception	9.4	8.3
(1/05)		

Staff Comments

On April 14th, Nuveen announced that TIAA-CREF had entered into an agreement to purchase Nuveen Investments, which is Winslow's parent company.

Staff has no concerns at this time.

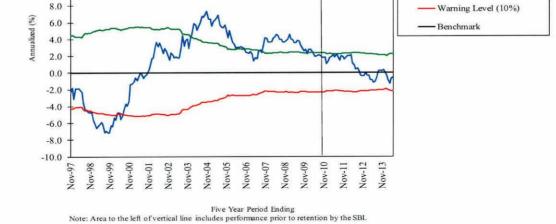
Recommendation

Confidence Level (10%)

Portfolio RCB

No action required.

WINSLOW CAPITAL MANAGEMENT, LLC Rolling Five Year Returns Compared to Benchmark





ZEVENBERGEN CAPITAL INVESTMENTS LLC Periods Ending June, 2014

Portfolio Manager: Nancy Zevenbergen

Investment Philosophy

Zevenbergen is an equity growth manager. The investment philosophy is based on the belief that earnings drive stock prices while quality provides capital protection. Hence, portfolios are constructed with companies showing above-average earnings growth prospects and strong financial characteristics. They consider diversification for company size, expected growth rates and industry weightings to be important risk control factors. Zevenbergen uses a bottom-up fundamental approach to security analysis. Research efforts focus on finding companies with superior products or services showing consistent profitability. Attractive buy candidates are reviewed for sufficient liquidity and potential diversification. The firm emphasizes that they are not market timers.

Quantitative Evaluation

	Actual	R1000 Growth
Last Quarter	5.4%	5.1%
Last 1 year	37.6	26.9
Last 2 years	32.2	21.9
Last 3 years	15.6	16.3
Last 4 years	21.7	20.7
Last 5 years	21.4	19.2
Since Inception	10.6	9.0
(4/94)		

Assets Under Management: \$620,149,722

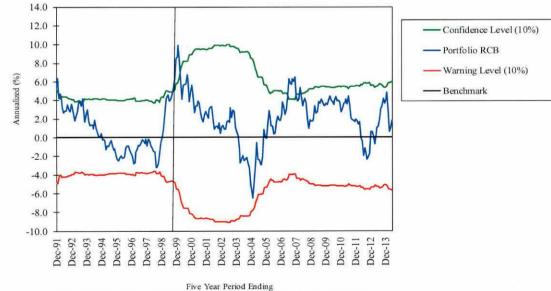
Staff Comments

Zevenbergen has been consistent with their investment process, and the organization remains stable. For the year, positions in Tesla Motors and Netflix attributed to the majority of outperformance. The significant outperformance for the year is not a concern due to the expected higher tracking error, or active risk, for this portfolio.

Recommendation

No action required.

ZEVENBERGEN CAPITAL INVESTMENTS LLC Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Large Cap Value (R1000 Value)



Large Cap Value (R1000 Value)

Table of Contents

		Page
Barrow, Hanley, Mewhinney & Strauss, Inc.		A-22
Earnest Partners, LLC		A-23
LSV Asset Management		A-24
Systematic Financial Management, L.P.		A-25

BARROW, HANLEY, MEWHINNEY & STRAUSS, INC. Periods Ending June, 2014

Portfolio Manager: Tim Culler

Assets Under Management: \$793,372,266

Staff Comments

Staff has no concerns at this time.

Investment Philosophy

The manager's approach is based on the underlying philosophy that markets are inefficient. Inefficiencies can best be exploited through adherence to a valueoriented investment process dedicated to the selection of securities on a bottom-up basis. The team does not attempt to time the market or rotate in and out of broad market sectors.

The manager remains fully invested with a defensive, conservative orientation based on the belief that superior returns can be achieved while taking below average risks. This strategy is implemented by constructing individual stocks portfolios of that exhibit price/earnings and price/book ratios significantly below the market and dividend yields significantly above the market. Risk control is achieved by limiting sector weights to 35% and industry weights to 15%. In periods of economic recovery and rising equity markets, profitability and earnings growth are rewarded by the expansion of price/earnings ratios and the generation of excess returns.

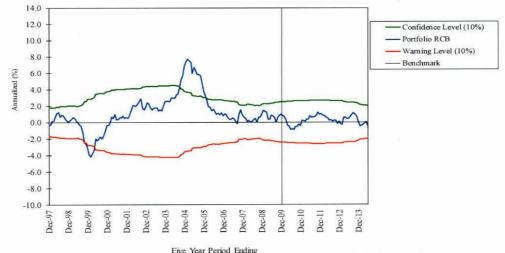
Quantitative Evaluation

	Actual	R1000 Value	
Last Quarter	3.6%	5.1%	
Last 1 year	24.1	23.8	
Last 2 years	24.8	24.6	
Last 3 years	16.1	16.9	
Last 4 years	20.3	19.8	
Last 5 years	18.6	19.2	
Since Inception	8.3	7.9	
(4/04)			

Recommendation

No action required.

BARROW, HANLEY, MEWHINNEY & STRAUSS, INC. Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

EARNEST PARTNERS, LLC Periods Ending June, 2014

Portfolio Manager: Paul Viera

Investment Philosophy

Earnest Partners utilizes its proprietary Return Pattern Recognition model and rigorous fundamental review to identify stocks with the most attractive relative returns. They have identified six performance drivers valuation measures, operating trends, market trends, growth measures. profitability measures and Extensive research is macroeconomic measures. conducted to determine which combination of performance drivers, or return patterns, precede outperformance for stocks in each sector. They select stocks whose return patterns suggest favorable performance and control risk using a statistical program designed to measure and control the prospects of substantially under-performing the benchmark. The portfolio is diversified across industry groups.

Quantitative Evaluation

	Actual	R1000 Value
Last Quarter	4.1%	5.1%
Last 1 year	22.3	23.8
Last 2 years	19.8	24.6
Last 3 years	12.9	16.9
Last 4 years	16.7	19.8
Last 5 years	16.4	19.2
Since Inception	6.2	7.1
(7/00)		

Staff Comments

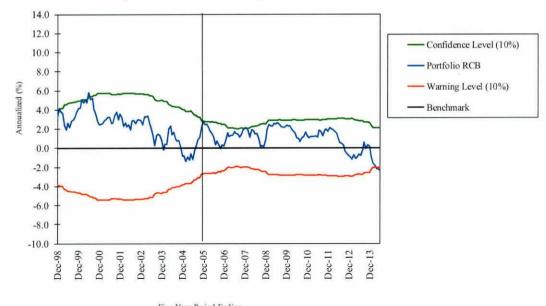
Earnest's investment philosophy remains constant and the organization remains stable.

Staff has no concerns at this time.

Recommendation

No action required.

EARNEST PARTNERS Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending Note: Area to left of vertical line includes performance prior to retention by the SBI.

Assets Under Management: \$526,167,737

LSV ASSET MANAGEMENT Periods Ending June, 2014

Portfolio Manager: Josef Lakonishok

Assets Under Management: \$799,993,720

Staff Comments

Staff has no concerns at this time.

Investment Philosophy

The fundamental premise on which LSV's investment philosophy is based is that superior long-term results can be achieved by systematically exploiting the judgmental biases and behavioral weaknesses that influence the decisions of many investors. These include: the tendency to extrapolate the past too far into the future, wrongly equating a good company with a good investment irrespective of price, ignoring statistical evidence and developing a "mindset" about a company.

The strategy's primary emphasis is the use of quantitative techniques to select individual securities in what would be considered a bottom-up approach. Value factors and security selection dominate sector/industry factors as explanatory variables of performance. The competitive strength of this strategy is that it avoids introducing to the process any judgmental biases and behavioral weaknesses that often influence investment decisions.

Quantitative Evaluation

14.0 12.0

10.0

8.0

(%) 6.0 (%) position 4.0 2.0 -2.0 -4.0 -6.0 -8.0

	Actual	R1000 Value
Last Quarter	4.6%	5.1%
Last 1 year	27.9	23.8
Last 2 years	30.9	24.6
Last 3 years	19.4	16.9
Last 4 years	21.8	19.8
Last 5 years	21.0	19.2
Since Inception	9.3	7.9
(4/04)		

Recommendation

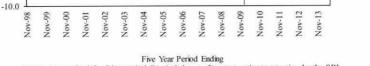
- Confidence Level (10%)

- Portfolio RCB - Warning Level (10%)

- Benchmark

No action required.

LSV ASSET MANAGEMENT Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

SYSTEMATIC FINANCIAL MANAGEMENT, L.P. Periods Ending June, 2014

Portfolio Manager: Kevin McCreesh

Assets Under Management: \$750,260,503

Investment Philosophy

Systematic's investment strategy favors companies with low forward P/E multiples and a positive earnings catalyst. Cash flow is analyzed to confirm earnings and to avoid companies that may have employed accounting gimmicks to report earnings in excess of Wall Street expectations. The investment strategy attempts to avoid stocks in the "value trap" by focusing only on companies with confirmed fundamental improvement as evidenced by a genuine positive earnings surprise.

The investment process begins with quantitative screening that ranks the universe based on: 1) low forward P/E, and 2) a positive earnings catalyst, which is determined by a proprietary 16-factor model that is designed to be predictive of future positive earnings surprises. The screening process generates a research focus list of 150 companies, sorted by sector, upon which rigorous fundamental analysis is conducted to confirm each stock's value and catalysts for appreciation.

Quantitative Evaluation

	Actual	R1000 Value
Last Quarter	5.2%	5.1%
Last 1 year	26.6	23.8
Last 2 years	26.0	24.6
Last 3 years	14.6	16.9
Last 4 years	19.4	19.8
Last 5 years	18.9	19.2
Since Inception	7.9	7.9
(4/04)		

No action required.



Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

Staff Comments

Staff met with Systematic during the quarter.

Staff has no concerns at this time.

Recommendation

This page left blank intentionally

Small Cap Growth (R2000 Growth)

(Blank) A-28

Small Cap Growth (R2000 Growth)

Table of Contents

A-31

	Page
McKinley Capital Management, LLC	A-30

Next Century Growth Investors, LLC

A-29

MCKINLEY CAPITAL MANAGEMENT, LLC. Periods Ending June, 2014

Portfolio Manager: Robert A. Gillam

Investment Philosophy

The team believes that excess market returns can be achieved through the construction and management of a diversified. fundamentally sound portfolio of inefficiently priced securities whose earnings growth rates are accelerating above market expectations. Using proprietary quantitative models, the team systematically searches for and identifies early signs of accelerating growth. The initial universe consists of growth and value stocks from all capitalization categories.

The primary model includes a linear regression model to identify common stocks that are inefficiently priced relative to the market while adjusting each security for standard deviation. The ratio of alpha to standard deviation is the primary screening value and is used to filter out all but the top 10% of stocks in its initial The remaining candidates are tested for universe. liquidity and strength of earnings. In the final portfolio construction process, qualitative aspects are examined, including economic factors, Wall Street research, and specific industry themes.

Quantitative Evaluation

	Actual	R2000 Growth
Last Quarter	1.5%	1.7%
Last 1 year	32.3	24.7
Last 2 years	31.9	24.2
Last 3 years	18.3	14.5
Last 4 years	23.9	21.1
Last 5 years	23.1	20.5
Since Inception	7.7	9.2
(1/04)		

Assets Under Management: \$389,153,774

Staff Comments

Staff met with McKinley during the quarter.

McKinley's one year return benefited from positive returns in non-benchmark names held in the portfolio and strong stock selection in Healthcare.

Staff has no concerns at this time.

Recommendation

No action required.

14.0 12.0 Confidence Level (10%) 10.0 Portfolio RCB Warning Level (10%) 8.0 - Benchmark Annualized (%) 6.0 4.0 2.0 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 Mar-13 Mar-14 Mar-03 Mar-04 Mar-06 Mar-07 Mar-08 Mar-09 Mar-12 Mar-05 10 Mar-11 Mar-Mar-

MCKINLEY CAPITAL MANAGEMENT Rolling Five Year Returns Compared to Benchmark

Five Year Period Ending Note: Area to left of vertical line includes performance prior to retention by the SBI.

Portfolio Manager: Thomas Press and Don Longlet

Investment Philosophy

Next Century Growth's (NCG) goal is to invest in the highest quality and fastest growing companies in America. They believe that growth opportunities exist regardless of the economic cycle. NCG uses fundamental analysis to identify companies that will surpass consensus earnings estimates, which they believe to be the number one predictor of future out-Their investment process focuses on performance. growth companies that have superior top line revenue growth (15% or greater), high profitability, and strong balance sheets, and are well poised to outperform the market. NCG believes in broad industry diversification; sector exposures are limited to twice the benchmark weighting and individual positions to five percent.

Quantitative Evaluation

	Actual	R2000 Growth
Last Quarter	-6.8%	1.7%
Last 1 year	11.3	24.7
Last 2 years	13.8	24.2
Last 3 years	6.5	14.5
Last 4 years	15.8	21.1
Last 5 years	16.5	20.5
Since Inception	2.8	4.3
(7/00)		

Staff Comments

Staff met with Next Century during the quarter.

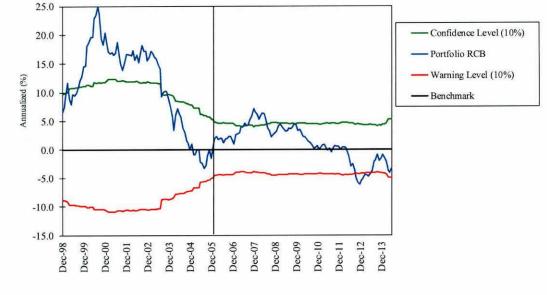
Next Century's quarter and one year performance was negatively affected by holdings in their portfolio with the highest growth characteristics, which underperformed the benchmark. Also, the portfolio had less exposure to companies that performed well during this time period vs. benchmark. Next Century is considering tightening their sector weightings relative to the index in an effort to reduce the volatility in their returns.

Staff is closely monitoring Next Century and any changes to the investment process.

Recommendation

No action required.

NEXT CENTURY GROWTH INVESTORS, LLC Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending Note: A rea to left of vertical line includes performance prior to the retention by the SBI.

Assets Under Management: \$363,527,740

This page left blank intentionally

Small Cap Value (R2000 Value)

(Blank) A-34

Small Cap Value (R2000 Value)

Table of Contents

	Page
Goldman Sachs Asset Management, L.P.	A-36
Hotchkis & Wiley Capital Management	A-37
Martingale Asset Management, L.P.	A-38
Peregrine Capital Management	A-39

A-35

GOLDMAN SACHS ASSET MANAGEMENT, L.P. Periods Ending June, 2014

Assets Under Management: \$270,598,667 Portfolio Manager: Sally Pope-Davis and Rob Crystal

Investment Philosophy

The firm's value equity philosophy is based on the belief that all successful investing begins with fundamental stock selection that should thoughtfully weigh a stock's price and prospects. A company's prospective ability to generate high cash flow returns on capital will strongly influence investment success. The team follows a strong valuation discipline to purchase well-positioned, cash generating businesses run by shareholder-oriented management teams.

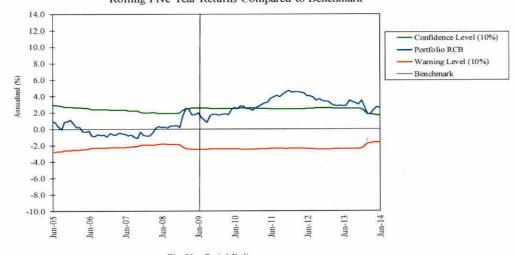
Through extensive proprietary research, the team confirms that a candidate company's long-term competitive advantage and earnings power are intact. The team seeks to purchase a stock at a price that encompasses a healthy margin of safety. The investment process involves three steps: 1) prioritizing research, 2) analyzing fundamentals, and 3) portfolio construction. The independent Risk and Performance Analytics Group (RPAG) monitors daily portfolio management risk, adherence to client guidelines and general portfolio strategy.

Quantitative Evaluation

	Actual	R2000 Value
Last Quarter	3.9%	2.4%
Last 1 year	27.1	22.5
Last 2 years	26.9	23.6
Last 3 years	17.7	14.6
Last 4 years	22.0	18.6
Last 5 years	22.9	19.9
Since Inception	10.6	8.6
(1/04)		

Recommendation

No action required.



GOLDMAN SACHS ASSET MANAGEMENT, L.P. Rolling Five Year Returns Compared to Benchmark

Five Year Period Ending Note: Area to left of vertical line includes performance prior to retention by the SBI.

A-36

Staff Comments

Staff met with Goldman Sachs during the quarter.

Staff has no concerns at this time.

HOTCHKIS & WILEY CAPITAL MANAGEMENT Periods Ending June, 2014

Portfolio Manager: Jim Miles and David Green

Investment Philosophy

The firm seeks to exploit mispriced securities in the small cap market by investing in "undiscovered" or "out of favor" companies. The team invests in stocks where the present value of the company's future cash flows exceeds the current market price. This approach exploits equity market inefficiencies created by irrational investor behavior and lack of Wall Street research coverage of smaller capitalization stocks. The team employs a disciplined, bottom-up investment process that emphasizes internally generated fundamental research.

The investment process begins with a quantitative screen based on market capitalization, trading liquidity and enterprise value/normalized EBIT, supplemented with ideas generated from the investment team. Internal research is then utilized to identify the most attractive valuation opportunities within this value universe. The primary focus of the research analyst is to determine a company's "normal" earnings power, which is the basis for security valuation.

Quantitative Evaluation

	Actual	R2000 Value
Last Quarter	6.3%	2.4%
Last 1 year	33.0	22.5
Last 2 years	32.5	23.6
Last 3 years	18.9	14.6
Last 4 years	24.2	18.6
Last 5 years	28.5	19.9
Since Inception	9.9	8.6
(1/04)		

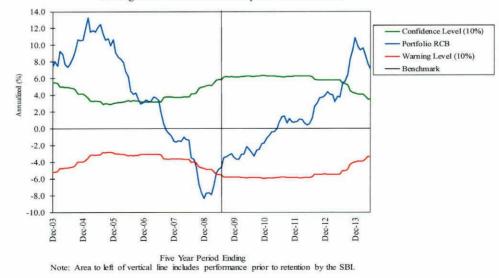
Assets Under Management: \$251,929,135

Staff Comments

Staff has no concerns at this time.

Recommendation

HOTCHKIS & WILEY CAPITAL MANAGEMENT Rolling Five Year Returns Compared to Benchmark



MARTINGALE ASSET MANAGEMENT, L.P. Periods Ending June, 2014

Portfolio Manager: William Jacques

Assets Under Management: \$214,120,797

Investment Philosophy

Martingale's investment process seeks to exploit the long-term link between undervalued company fundamentals and current market prices to achieve superior investment returns. Martingale has a long history of employing sound quantitative methods.

The valuation process is comprised of well-researched valuation indicators that have stood the test of time, with improvements made only after careful evaluation, testing and analysis. Multiple characteristics of quality, value and momentum are examined. The quality of company management is assessed by reviewing commitment to R&D, accounting practices with regard to earnings and cash flow from operations, and the ability to manage inventory.

The average holding period of a stock is typically one year. Every holding is approached as an investment in the business, with the intention of holding it until either objectives are reached, or it becomes apparent that there are better opportunities in other stocks.

Quantitative Evaluation

	Actual	R2000 Value
Last Quarter	2.8%	2.4%
Last 1 year	28.0	22.5
Last 2 years	29.5	23.6
Last 3 years	17.9	14.6
Last 4 years	22.1	18.6
Last 5 years	21.8	19.9
Since Inception	8.2	8.6
(1/04)		

Recommendation

No action required.

14.0 12.0 Confidence Level (10%) 10.0 Portfolio RCB Warning Level (10%) 8.0 Benchmark 6.0 Annualized (%) 4.0 2.0 0.0 -2.0 -4.0 -6.0 -8 0 -10.0 ~ Jun-02 Jun-03 Jun-04 Jun-06 Jun-07 -08 60 4 Jun-05 Jun--un -in ġ -in Jun ji j III Five Year Period Ending

MARTINGALE ASSET MANAGEMENT, L.P. Rolling Five Year Returns Compared to Benchmark

Note: Area to left of vertical line includes performance prior to retention by the SBI.

A-38

Staff Comments

Staff has no concerns at this time.

PEREGRINE CAPITAL MANAGEMENT, INC Periods Ending June, 2014

Portfolio Manager: Doug Pugh and Tasso Coin

Investment Philosophy

Peregrine's Small Cap Value investment process begins with the style's proprietary valuation analysis, which is designed to identify the small cap value stocks most likely to outperform. The valuation analysis identifies the most under-priced securities on a sector-by-sector Drawing on thirty years of data, the analysis basis. looks at different combinations of sixty fundamental factors most relevant in each independent sector to identify stocks that offer significant value relative to the companies' underlying fundamentals. The focus of the team's fundamental research is to determine if one or more of the style's "Value Buy Criteria" are present. These include short-term problems, unrecognized assets, take-over potential, and catalysts for change. The portfolio is diversified and sector weights are aligned closely with the benchmark. This allows stock selection to drive performance.

Quantitative Evaluation

	Actual	R2000 Value
Last Quarter	3.3%	2.4%
Last 1 year	22.6	22.5
Last 2 years	24.9	23.6
Last 3 years	15.4	14.6
Last 4 years	20.0	18.6
Last 5 years	22.5	19.9
Since Inception	11.4	10.5
(7/00)		

Assets Under Management: \$355,312,908

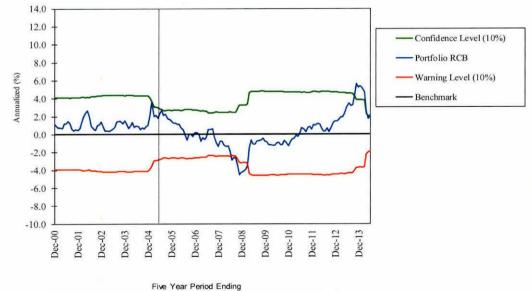
Staff Comments

Staff met with Peregrine during the quarter.

Staff has no concerns at this time.

Recommendation

PEREGRINE CAPITAL MANAGEMENT, INC. Rolling Five Year Returns Compared to Benchmark



Note: Area to left of vertical line includes performance prior to retention by SBI.

This page left blank intentionally.

Semi-Passive and Passive



Semi-Passive and Passive

Table of Contents

	Page
Semi-Passive	
BlackRock Institutional Trust Co., N.A. (Russell 1000)	A-44
INTECH Investment Management LLC (Russell 1000)	A-45
J.P. Morgan Investment Management, Inc. (Russell 1000)	A-46
Mellon Capital Management Corporation (Russell 1000)	A-47

Passive

BlackRock Institutional Trust Co., N.A. (Russell 3000) A	BlackRock Institutional	Trust Co., N.A	A. (Russell 3000)	A-48
--	-------------------------	----------------	-------------------	------

BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending June, 2014

Portfolio Manager: Raffaele Savi

Investment Philosophy – Semi-Passive Style

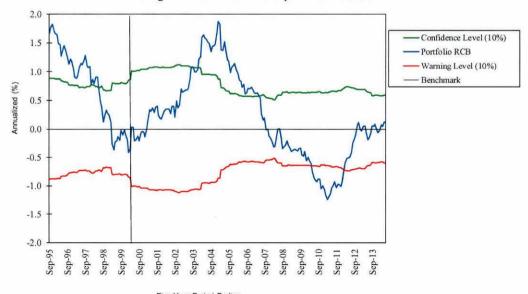
The Core Alpha Model disaggregates individual equity returns for each of the 3500 stocks in their universe into fundamental, expectational, and technical components. The fundamental factors look at measures of underlying company value including earnings, book value, cash flow, and sales. These factors help identify securities that trade at prices below their true economic value. The expectational factors incorporate future earnings and growth rate forecasts made by over 2500 security analysts. The technical factors provide a measure of recent changes in company fundamentals, consensus expectations, and performance. Estimated alphas are then calculated and are used in a portfolio optimization algorithm to identify the optimal portfolio.

Quantitative Evaluation

		Manager
	Actual	Benchmark*
Last Quarter	5.3%	5.1%
Last 1 year	25.6	25.4
Last 2 years	23.7	23.3
Last 3 years	17.6	16.6
Last 4 years	21.0	20.3
Last 5 years	19.4	19.3
Since Inception	9.7	9.3
(1/95)		

* Russell 1000 since 1/1/04. Completeness Fund through 12/31/03.





Five Year Period Ending Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Assets Under Management: \$2,345,405,566

Staff Comments

Staff met with BlackRock during the quarter.

Staff has no concerns at this time.

Recommendation

INTECH INVESTMENT MANAGEMENT LLC Periods Ending June, 2014

Portfolio Manager: Adrian Banner

Assets Under Management: \$2,589,907,963

Investment Philosophy - Semi-Passive Style

Through the application of a proprietary mathematical process, the investment strategy is designed to determine more efficient weightings of the securities within the Russell 1000 benchmark. No specific sector or security selection decisions based on fundamentals are required. Risk parameters include: 1) minimize absolute standard deviation or maximize information ratio, 2) security positions limited to lesser of 1.0% or 8 times maximum index security weight, 3) beta equal to or less than benchmark beta, and 4) constraining the weighted average capital distribution to be roughly equal to the capital distribution of the benchmark. Target security positions are established using a weekly optimization routine designed to build a portfolio that will outperform a passive benchmark over the long term. Rebalancing to target proportions occurs every six (6) business days.

Quantitative Evaluation

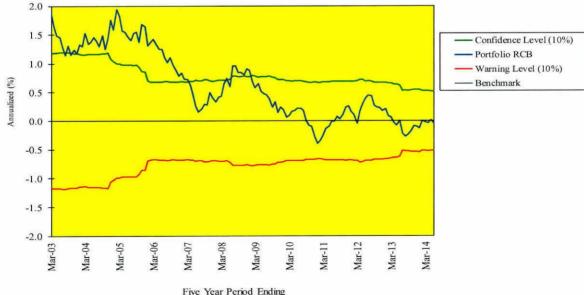
	Actual	Russell 1000
Last Quarter	4.4%	5.1%
Last 1 year	24.8	25.4
Last 2 years	22.9	23.3
Last 3 years	16.4	16.6
Last 4 years	20.2	20.3
Last 5 years	N/A	N/A
Since Inception	15.6	15.6
(4/10)		

Staff Comments

Staff has no concerns at this time.

Recommendation

INTECH Investment Management LLC - Semi-Passive Rolling Five Year Returns Compared to Benchmark



Note: Shaded area includes performance prior to retention by the SBI.

J.P. MORGAN INVESTMENT MANAGEMENT INC. Periods Ending June, 2014

Portfolio Manager: Ralph Zingone

Assets Under Management: \$3,038,957,789

Investment Philosophy - Semi-Passive Style

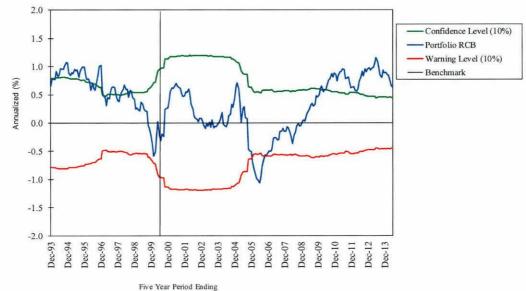
J.P. Morgan believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast the earnings and dividends for the 650 stock universe and enter them into a stock valuation model that calculates an expected return for each security. The stocks are ranked according to their expected return within their economic sectors. The most undervalued stocks are placed in the first quintile. The portfolio includes stocks from the first four quintiles, always favoring the highest ranked stocks whenever possible. Stocks in the fifth quintile are sold. In addition, the portfolio closely approximates the sector, style, and security weightings of the index chosen by the plan sponsor. The firm remains fully invested at all times.

Quantitative Evaluation

	~ ~	Manager
	Actual	Benchmark*
Last Quarter	4.9%	5.1%
Last 1 year	25.8	25.4
Last 2 years	24.1	23.3
Last 3 years	17.3	16.6
Last 4 years	20.9	20.3
Last 5 years	20.0	19.3
Since Inception	9.7	9.3
(1/95)		

* Russell 1000 since 1/1/04. Completeness Fund through 12/31/03.

JP MORGAN - SEMI-PASSIVE Rolling Five Year Returns Compared to Benchmark



Note: Area to left of vertical line includes performance prior to retention by SBL

Staff Comments

Staff has no concerns at this time.

Recommendation

MELLON CAPITAL MANAGEMENT CORPORATION Periods Ending June, 2014

Portfolio Manager: Warren Chiang

Assets Under Management: \$2,728,530,535

Investment Philosophy - Semi-Passive Style

Mellon believes that rigorous and consistent application of fundamentally based valuation criteria will produce value added investment returns. Mellon builds a portfolio by using a series of more than 30 integrated computer models that value a universe of 3500 stocks. Their models rank each security based on fundamental momentum, relative value, future cash flow, and supplementary models. A composite ranking then provides one ranked list of securities reflecting their relative attractiveness. Stocks that fall below the median ranking are sold, and proceeds are reinvested in stocks from the top deciles in the ranking system. They use the BARRA risk model to monitor the portfolio's systematic risk and industry weightings relative to the selected benchmark. For this semi-passive mandate, they seek to achieve a residual risk of 1.5% or less. The firm remains fully invested at all times.

Quantitative Evaluation

	Actual	Manager Benchmark*
Last Quarter	5.4%	5.1%
Last 1 year	25.4	25.4
Last 2 years	23.3	23.3
Last 3 years	17.7	16.6
Last 4 years	21.2	20.3
Last 5 years	19.7	19.3
Since Inception (1/95)	9.0	9.3

Staff Comments

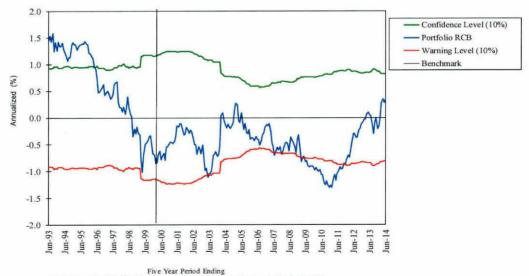
Staff has no concerns at this time.

Recommendation

No action required.

* Russell 1000 since 1/1/04. Completeness Fund through 12/31/03.





Note: A rea to the left of vertical line includes performance prior to retention by the SBI

BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending June, 2014

Portfolio Manager: Peter Sietsema

Investment Philosophy – Passive Style

Barclays Global Investors seeks to minimize 1) tracking error, 2) transaction costs, and 3) investment and operational risks. The portfolio is passively managed against the asset class target using a proprietary optimization process that integrates a transaction cost model. The resulting portfolio closely matches the characteristics of the benchmark with less exposure to illiquid stocks.

Quantitative Evaluation

	Actual	Manager Benchmark*
Last Quarter	4.9%	4.9%
Last 1 year	25.2	25.2
Last 2 years	23.3	23.3
Last 3 years	16.5	16.5
Last 4 years	20.2	20.2
Last 5 years	19.3	19.3
Since Inception	9.1	9.0
(7/95)		

* Russell 3000 since 10/1/03, Wilshire 5000 through 7/1/95.

0.8 Confidence Level (10%) 0.6 Portfolio RCB Warning Level (10%) 0.4 Benchmark Annualized (%) 0.2 0.0 -0.2 -0.4 -0.6 -0.8 Jun-00 Jun-04 Jun-05 Jun-06 Jun-09 Jun-10 Jun-12 Jun-13 Jun-14 Jun-02 Jun-07 Jun-08 Jun-01 Jun-03 Jun-11

BLACKROCK INSTITUTIONAL TRUST CO.- PASSIVE Rolling Five Year Returns Compared to Benchmark

Five Year Period Ending

Assets Under Management: \$9,909,496,800

Staff Comments

Staff met with BlackRock during the quarter.

Staff has no concerns at this time.

Recommendation



STATE BOARD OF INVESTMENT

Bond Manager Evaluation Reports

Second Quarter, 2014

(Blank) ´A-50

Bond Managers

Table of Contents

	Page
Bond Manager Performance Summary (quarter, 1, 3, 5, year periods)	A-52
Bond Manager Performance Summary (by calendar years)	A-53
Aberdeen Asset Management Inc.	A-54
Columbia Management Investment Advisers, LLC	A-55
Dodge & Cox	A-56
Pacific Investment Management Company LLC (PIMCO)	A-57
Western Asset Management Company	A-58
BlackRock Financial Management, Inc.	A-59
Goldman Sachs Asset Management	A-60
Neuberger Berman Fixed Income LLC	A-61

COMBINED RETIREMENT FUNDS BOND MANAGERS Periods Ending June, 2014

									Sin	ce (1)		
	Qua	arter	1 Ye	ear	3 Y	ears	5 Y	ears	Ince	ption	Market	
	Actual %	Bmk %	Value (in millions)	Pool %								
Active Managers												
Aberdeen	2.3	2.0	5.1	4.4	5.0	3.7	7.7	4.9	5.9	5.8	\$1,089.8	7.8%
Columbia (RiverSource)	2.1	2.0	5.2	4.4	4.9	3.7	6.5	4.9	5.8	5.8	\$1,193.4	8.5%
Dodge & Cox	2.2	2.0	6.7	4.4	5.2	3.7	7.0	4.9	6.9	5.8	\$1,508.3	10.8%
PIMCO	1.6	2.0	3.5	4.4	4.3	3.7	7.2	4.9	7.5	5.4	\$1,582.1	11.3%
Western	2.6	2.0	6.1	4.4	5.2	3.7	7.7	4.9	9.1	7.9	\$1,609.2	11.5%
Active Mgr. Aggregate	2.2	2.0	5.3	4.4	4.9	3.7	7.3	4.9			\$6,982.9	50.0%
Semi-Passive Managers												
BlackRock	2.1	2.0	4.6	4.4	4.0	3.7	5.5	4.9	5.9	5.8	\$1,911.0	13.7%
Goldman	2.2	2.0	4.8	4.4	4.3	3.7	6.0	4.9	6.1	5.8	\$2,549.6	18.3%
Neuberger	2.1	2.0	4.6	4.4	4.0	3.7	6.4	4.9	7.0	6.8	\$2,526.2	18.1%
Semi-Passive Mgr. Aggregate	2.1	2.0	4.7	4.4	4.1	3.7	6.0	4.9			\$6,986.8	50.0%
									Since	7/1/84		
Historical Aggregate (2)	2.1	2.0	5.0	4.4	4.5	3.7	6.6	4.9	8.1	8.0	\$13,969.7	100.0%
Barclays Capital Aggregate (3)	2.0		4.4		3.7		4.9		8.0		

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

(2) Includes performance of terminated managers.

(3) Prior to July 1994, this index reflects the Salomon BIG.

COMBINED RETIREMENT FUNDS BOND MANAGERS Calendar Year Returns

	201	13	201	2	201	1	201	.0	200)9
	Actual %	Bmk %								
Active Managers										
Aberdeen	-1.5	-2.0	7.7	4.2	8.0	7.8	10.7	6.5	18.4	5.9
Columbia (RiverSource)	-1.0	-2.0	6.9	4.2	8.1	7.8	8.1	6.5	14.0	5.9
Dodge & Cox	0.9	-2.0	8.5	4.2	5.0	7.8	7.8	6.5	16.5	5.9
PIMCO	-1.3	-2.0	9.3	4.2	4.5	7.8	12.1	6.5	15.5	5.9
Western	-1.4	-2.0	7.8	4.2	7.1	7.8	10.9	6.5	17.5	5.9
Active Mgr. Aggregate	-0.8	-2.0	8.1	4.2	6.4	7.8	10.0	6.5	16.5	5.9
Semi-Passive Managers										
BlackRock	-1.8	-2.0	5.0	4.2	8.0	7.8	6.5	6.5	9.6	5.9
Goldman	-1.7	-2.0	5.4	4.2	8.3	7.8	8.0	6.5	12.0	5.9
Neuberger	-2.0	-2.0	5.4	4.2	7.6	7.8	9.1	6.5	14.3	5.9
Semi-Passive Mgr. Aggregate	-1.8	-2.0	5.3	4.2	8.0	7.8	7.9	6.5	12.0	5.9
Historical Aggregate	-1.3	-2.0	6.7	4.2	7.2	7.8	9.0	6.5	14.3	5.9
Barclays Capital Aggregate		-2.0		4.2		7.8		6.5		5.9

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

ABERDEEN ASSET MANAGEMENT INC. Periods Ending June, 2014

Portfolio Manager: Neil Moriarty

Assets Under Management: \$1,089,812,825

Investment Philosophy

Aberdeen (formerly Deutsche) believes there are pricing inefficiencies inherent in bond markets and that diligent credit analysis, security structure evaluation, and relative value assessment can be used to exploit these inefficiencies. The firm avoids interest rate forecasting and sector rotation because they believe these strategies will not deliver consistent outperformance versus the benchmark over time. The firm's valued added is derived primarily from individual security selection. Portfolio managers and analysts research bonds within their sector of expertise and construct portfolios from the bottom-up, bond by bond. Sector weightings are a byproduct of the bottom-up security selection. Aberdeen was retained by the SBI in February 2000.

Quantitative Evaluation

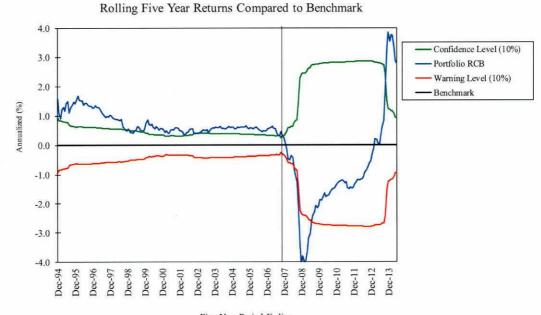
	Actual	Benchmark
Last Quarter	2.3%	2.0%
Last 1 year	5.1	4.4
Last 2 years	3.2	1.8
Last 3 years	5.0	3.7
Last 4 years	5.3	3.7
Last 5 years	7.7	4.9
Since Inception (2/00)	5.9	5.8

Staff Comments

Aberdeen announced that Chris Gagnier, Head of North American Fixed Income, will be retiring at the end of December 2014. Charles Tan is currently Deputy Head of North American Fixed Income and will succeed Chris upon his retirement. Staff anticipates a smooth transition. Aberdeen also appointed Co-heads to replace Gary Marshall, current Head of Americas, who is returning to the UK to serve as Chief Executive of Scottish Widows Investment Partnership (SWIP). Gary's roles of CFO and COO will be split. Bev Hendry, will be CFO and Co-head of Americas. Andrew Smith, who has been acting deputy to Gary, will be COO and Co-head of Americas. Aberdeen completed their acquisition of Scottish Widows Investment Partners (SWIP) on April 1, 2014.

Recommendations

No action required.



ABERDEEN ASSET MANAGEMENT

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC Periods Ending June, 2014

Portfolio Manager: Colin Lundgren

Assets Under Management: \$1,193,395,728

Staff Comments

Staff has no concerns at this time.

Investment Philosophy

Columbia (formerly American Express and RiverSource) manages portfolios using a top-down approach culminating with in-depth fundamental research and credit analysis. Five portfolio components are actively managed: duration, maturity structure, sector selection, industry emphasis, and security selection. Duration and maturity structure are determined by the firm's economic analysis and interest rate outlook. This analysis also identifies sectors and industries expected to produce the best risk-adjusted In-depth fundamental research and credit return. analysis combined with proprietary valuation disciplines is used to identify attractive individual securities. Columbia was retained by the SBI in July 1993.

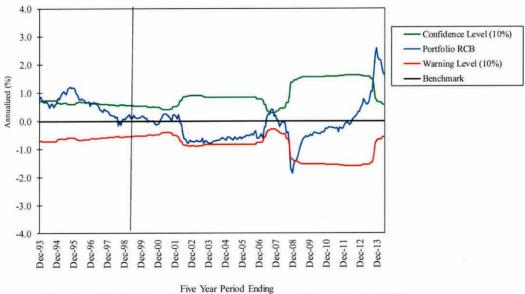
Quantitative Evaluation

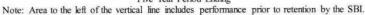
	Actual	Benchmark
Last Quarter	2.1%	2.0%
Last 1 year	5.2	4.4
Last 2 years	3.0	1.8
Last 3 years	4.9	3.7
Last 4 years	5.1	3.7
Last 5 years	6.5	4.9
Since Inception	5.8	5.8
(7/93)		

Recommendations

No action required.

COLUMBIA MANAGEMENT - FIXED INCOME Rolling Five Year Returns Compared to Benchmark





DODGE & COX, INC. Periods Ending June, 2014

Portfolio Manager: Dana Emery

Assets Under Management: \$1,508,303,076

Staff Comments

Investment Philosophy

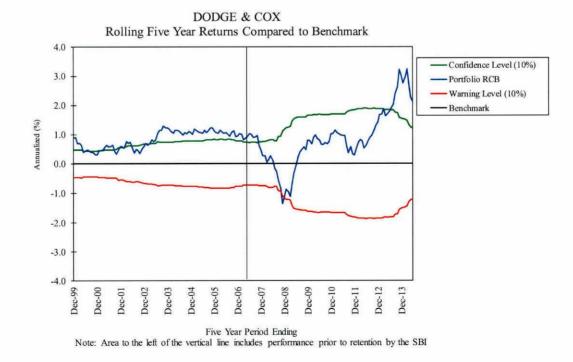
Dodge & Cox manages a high quality, diversified portfolio of securities that are selected through fundamental analysis. The firm believes that by combining fundamental research with a long-term investment horizon it is possible to uncover inefficiencies in market sectors and individual securities. The firm combines this fundamental research with a disciplined program of risk analysis. To seek superior returns over the long-term, Dodge & Cox emphasizes sector and security selection, strives to build portfolios that have a higher yield than the broad bond market, and analyzes portfolio and individual security risk. Dodge & Cox was retained by the SBI in February 2000.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.2%	2.0%
Last 1 year	6.7	4.4
Last 2 years	4.7	1.8
Last 3 years	5.2	3.7
Last 4 years	5.5	3.7
Last 5 years	7.0	4.9
Since Inception	6.9	5.8
(2/00)		

Recommendations

No action required.



ony

Staff has no concerns at this time.

Portfolio Manager: Bill Gross

Investment Philosophy

PIMCO's investment approach seeks to outperform a client's benchmark on a consistent basis, while maintaining overall risk similar to the index. PIMCO's approach to investing has three key principles: the utilization of multiple strategies, a long-term orientation and bond selection from a broad universe. PIMCO's investment process starts with an annual Secular Forum. The goal of this Forum is to look beyond the current business cycle and determine how secular forces will play out over the next 3 to 5 years. Quarterly, PIMCO holds Economic Forums to evaluate growth and inflation over the next 6 to 9 months. Following PIMCO's Secular and Economic Forums, the PIMCO Investment Committee (IC) develops key portfolio They consider both the "top-down" strategies. conclusions emanating from PIMCO's Forum, as well as the "bottom-up" market intelligence provided by PIMCO's teams of sector specialist portfolio managers. Through an interactive series of meetings, the IC defines a set of consistent strategies that are then implemented. PIMCO was retained by the SBI in September 2008.

Assets Under Management: \$1,582,146,222

Staff Comments

PIMCO has requested to transition the primary portfolio manager from Bill Gross to Saumil Parikh at the end of the third quarter. Saumil is a Managing Director, Generalist Portfolio Manager, and permanent member of PIMCO's Investment Committee. Staff has previously met with Saumil, has reviewed information from PIMCO, and is comfortable transitioning him to primary portfolio manager.

Mohammed El-Erian, Chief Executive Officer and Co-Chief Investment Officer, resigned from PIMCO in March 2014. Although Mr. El-Erian was not the Portfolio Manager for the SBI portfolio, he was a member of PIMCO's Investment Committee. A new CEO and six deputy CIOs were named following Mr. El-Erian's resignation. In addition, PIMCO created and filled the new position of President.

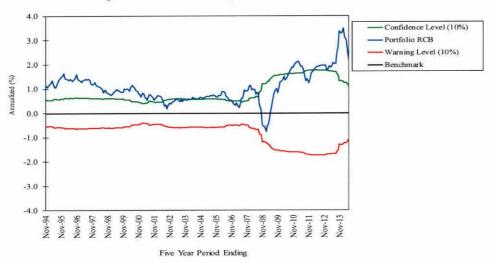
Recommendations

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.6%	2.0%
Last 1 year	3.5	4.4
Last 2 years	3.2	1.8
Last 3 years	4.3	3.7
Last 4 years	4.9	3.7
Last 5 years	7.2	4.9
Since Inception	7.5	5.4
(9/08)		

No action required.

PACIFIC INVESTMENT MANAGEMENT CO. Rolling Five Year Returns Compared to Benchmark



Note: Graph includes performance of the manager prior to retention by SBI.

WESTERN ASSET MANAGEMENT COMPANY Periods Ending June, 2014

Portfolio Manager: Ken Leech

Investment Philosophy

Western emphasizes the use of multiple strategies and active sector and issue selection, while constraining interest rate risk. Multiple strategies are proportioned so that results do not depend on one or two opportunities. This approach adds consistent value over time and can reduce volatility. Long-term value investing is Western's fundamental approach. In making their sector decision, the firm seeks out the greatest long-term value by analyzing all fixed income market sectors and their economic expectations. Individual issues are identified based on relative credit strength, liquidity, issue structure, event risk, and market valuation. Western believes that successful interest rate forecasting is extremely difficult and consequently keeps portfolio duration within a narrow band around the benchmark. Western was retained by the SBI in July 1984.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.6%	2.0%
Last 1 year	6.1	4.4
Last 2 years	3.7	1.8
Last 3 years	5.2	3.7
Last 4 years	5.5	3.7
Last 5 years	7.7	4.9
Since Inception	9.1	7.9
(7/84)		

Assets Under Management: \$1,609,245,310

Staff Comments

Steve Walsh, CIO, retired in March 2014. Ken Leech, who previously served as Western's co-CIO with Mr. Walsh from 1998 to 2008, was named CIO. Western reached settlements with the SEC and U.S. Department of Labor relating to two investigations into certain fixed income trades. In reaching the settlements, Western neither confirmed nor denied the allegations. The SBI portfolio was not affected by the trades or the settlement.

Recommendations

No action required.



Five Year Period Ending

WESTERN ASSET MANAGEMENT

BLACKROCK FINANCIAL MANAGEMENT Periods Ending June, 2014

Portfolio Manager: Akiva Dickstein

Assets Under Management: \$1,910,951,065

Investment Philosophy

BlackRock manages an enhanced index portfolio closely tracking the Barclays Capital U.S. Aggregate Bond Index. The firm's enhanced index strategy is a controlled-duration, sector rotation style, which can be described as active management with tighter duration, sector, and quality constraints. BlackRock seeks to add value through: (i) controlling portfolio duration within a narrow band relative to the benchmark, (ii) relative value sector/sub-sector rotation and security selection, (iii) rigorous quantitative analysis to the valuation of each security and of the portfolio as a whole, (iv) intense credit analysis and review, and (v) the judgment of experienced portfolio managers. Advanced risk analytics measure the potential impact of various sector and security strategies to ensure consistent value added and controlled volatility. BlackRock was retained by the SBI in April 1996.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.1%	2.0%
Last 1 year	4.6	4.4
Last 2 years	2.2	1.8
Last 3 years	4.0	3.7
Last 4 years	4.0	3.7
Last 5 years	5.5	4.9
Since Inception	5.9	5.8
(4/96)		

Staff Comments

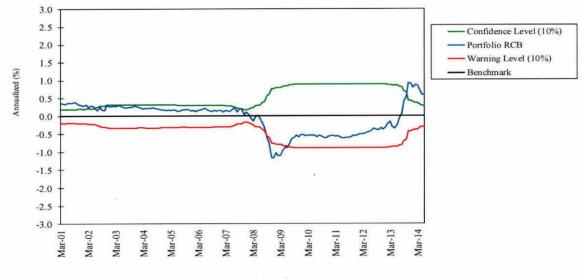
Staff met with BlackRock during the quarter to meet Akiva Dickstein, who is the current portfolio manager. Mr. Dickstein, Head of Mortgages, replaced Brian Weinstein, who resigned from BlackRock in June 2014. Staff is comfortable with this change.

BlackRock has also expanded its Executive Leadership team and hired Barry Knapp as Head of Thematic Strategies within the Americas Fixed Income group.

Recommendation

No action required.

BLACKROCK, INC. Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending

GOLDMAN SACHS ASSET MANAGEMENT Periods Ending June, 2014

Portfolio Manager: Mike Goosay

Assets Under Management: \$2,549,612,014

Investment Philosophy

Goldman manages an enhanced index portfolio closely tracking the Barclays Capital U.S. Aggregate Bond Index. Goldman's process can be viewed as active management within a very risk-controlled framework. The firm relies primarily on sector allocation and security selection strategies to generate incremental return. To a lesser degree, term structure strategies are also implemented. Goldman combines long-term strategic investment tilts with short-term tactical trading opportunities. Strategic tilts are based on fundamental and quantitative sector research and seek to optimize the long-term risk/return profile of portfolios. Tactical trades between sectors and securities within sectors are implemented to take advantage of short-term market anomalies. Goldman was retained by the SBI in July 1993.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.2%	2.0%
Last 1 year	4.8	4.4
Last 2 years	2.4	1.8
Last 3 years	4.3	3.7
Last 4 years	4.4	3.7
Last 5 years	6.0	4.9
Since Inception (7/93)	6.1	5.8
(1/93)		

Staff Comments

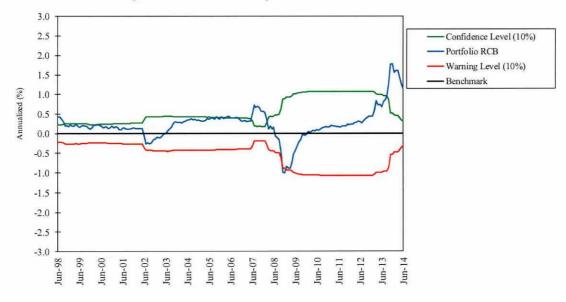
Staff met with Goldman during the quarter.

Staff has no concerns at this time.

Recommendations

No action required.

GOLDMAN SACHS ASSET MANAGEMENT Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending

NEUBERGER BERMAN FIXED INCOME LLC Periods Ending June, 2014

Portfolio Manager: Andrew Johnson

Assets Under Management: \$2,526,206,645

Staff Comments

Staff has no concerns at this time.

Investment Philosophy

Neuberger (formerly Lincoln) manages an enhanced index portfolio closely tracking the Barclays Capital U.S. Aggregate Bond Index. Neuberger's process relies on a combination of quantitative tools and active management judgment. Explicit quantification and control of risks are at the heart of their process. Neuberger uses proprietary risk exposure measures to analyze 24 interest rate factors, and over 30 spreadrelated factors. For each interest rate factor, the portfolio is very closely matched to the index to ensure that the portfolio earns the same return as the index for any change in interest rates. For each spread factor, the portfolio can deviate slightly from the index as a means of seeking value-added. Setting target active risk exposures that must fall within pre-established To control credit risk, maximums controls risk. corporate holdings are diversified across a large number of issues. Neuberger was retained by the SBI in July 1988.

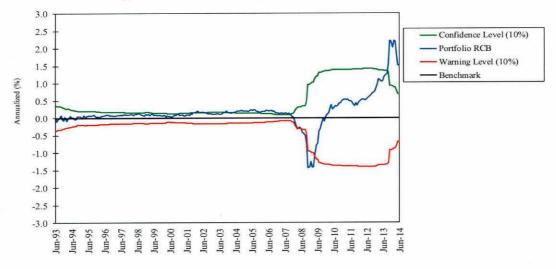
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.1%	2.0%
Last 1 year	4.6	4.4
Last 2 years	2.2	1.8
Last 3 years	4.0	3.7
Last 4 years	4.3	3.7
Last 5 years	6.4	4.9
Since Inception (7/88)	7.0	6.8

Recommendations

No action required.

NEUBERGER BERMAN Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending

This page left blank intentionally.



STATE BOARD OF INVESTMENT

International Manager Evaluation Reports

Second Quarter, 2014

(Blank) A–64

International Managers

Table of Contents

	Page
International Manager Performance Summary (quarter, 1, 3, 5, year periods)	A-66
International Manager Performance Summary (by calendar years)	A-67
Acadian Asset Management, LLC	A-68
Columbia Management Investment Advisers, LLC	A-69
J.P. Morgan Investment Management Inc.	A-70
Marathon Asset Management LLP	A-71
McKinley Capital Management LLC	A-72
Pyramis Global Advisors Trust Company – Active	A-73
Capital International, Inc.	A-74
Morgan Stanley Investment Management Inc.	A-75
AQR Capital Management, LLC	A-76
Pyramis Global Advisors Trust Company – Semi-Passive	A-77
State Street Global Advisors – Semi-Passive	A-78
State Street Global Advisers – Passive Emerging Markets	A-79
State Street Global Advisors – Passive Developed Markets	A-80

COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Periods Ending June, 2014

	_								Since			
		arter	1 Y		3 Ye			ears	Incep		Market	n 1
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (in millions)	Pool %
Active Developed Markets (2)	70	70	78	70	70	70	70	70	70	70	(in minous)	70
Acadian	5.2	4.6	28.7	23.8	9.8	7.6	14.1	11.7	6.7	6.4	\$400.7	4.2%
Columbia	4.0	4.6	17.5		7.3	7.6	12.5	11.7	2.4	3.8	\$359.4	3.8%
J.P. Morgan	4.6	4.6	21.0	23.8	7.4	7.6	12.1	11.7	6.3	6.4	\$317.0	3.3%
Marathon	3.9	4.6	24.2	23.8	10.9	7.6	14.4	11.7	9.1	5.7	\$791.7	8.3%
McKinley	2.9	4.6	22.3	23.8	8.5	7.6	12.6	11.7	5.8	6.4	\$317.2	3.3%
Pyramis (Fidelity)	3.4	4.6	20.8	23.8	9.3	7.6	13.5	11.7	8.0	6.4	\$370.6	3.9%
Aggregate	4.0	4.6	22.7	23.8	9.0	7.6	13.0	11.7			\$2,556.6	26.9%
Active Emerging Markets (3)												
Capital International	5.3	6.6	13.3	14.3	-2.9	-0.4	6.8	9.2	10.8	11.5	\$769.1	8.1%
Morgan Stanley	6.6	6.6	12.0	14.3	2.3	-0.4	10.3	9.2	12.2	11.5	\$847.0	8.9%
Aggregate	6.0	6.6	12.6	14.3	-0.4	-0.4	8.5	9.2			\$1,616.2	17.0%
Semi-Passive Developed Market	ts (2)											
AQR	3.3	4.6	23.4	23.8	8.5	7.6	13.3	11.7	7.0	6.4	\$366.2	3.8%
Pyramis (Fidelity)	4.5	4.6	24.1	23.8	8.5	7.6	12.6	11.7	7.4	6.4	\$545.6	5.7%
State Street	3.2	4.6	25.9	23.8	7.3	7.6	11.5	11.7	5.9	6.4	\$334.2	3.5%
Aggregate	3.8	4.6	24.4	23.8	8.2	7.6	12.5	11.7			\$1,246.0	13.1%
Passive Developed Markets (2)												
State Street	4.8	4.6	24.3	23.8	7.9	7.6	12.2	11.7	7.0	6.7	\$3,780.8	39.7%
Passive Emerging Markets (3)												
State Street	6.6	6.6	14.3	14.3					8.3	8.3	\$317.1	3.3%
									Since	10/1/92		
Equity Only (4) (6)	4.7	5.0	21.4	21.7	6.3	5.7	11.7	11.1	7.3	6.9	\$9,516.8	100.0%
Total Program (5) (6)	4.7	5.0	21.4	21.7	6.3	5.7	11.7	11.1	7.5	6.9	\$9,516.8	100.0%
SBI Int'l Equity Target (6)		5.0		21.7		5.7		11.1		6.9		
MSCI ACWI ex. U.S. (7)		5.0		21.7		5.7		11.1		7.1		
		4.6		23.8		7.6		11.7		6.8		
MSCI World ex U.S. (net) MSCI EAFE (net)		4.6		23.8		7.6 8.1		11.7		6.8		
x 7								0000000				
MSCI Emerging Markets (8)		6.6		14.3		-0.4		9.2		8.4		

(1) Since retention 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 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 ex U.S. (net) thereafter.

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

COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Calendar Year Returns

	2013		2012		2011		2010		2009	
	Actual		Actual		Actual		Actual		Actual	
	%	%	%	%	%	%	%	%	%	%
Active Developed Markets (1)			000000 02		2110 MBP (A480 M	TONES OF	1072011.188		(3)(3)(2)(2)(3)(1)	2002200000
Acadian	26.1	21.0	17.6	16.4	-12.9		13.9	8.9	28.8	33.7
Columbia	23.9	21.0	19.0	16.4	-12.1		15.2	8.9	29.3	33.7
J.P. Morgan	19.5	21.0	18.4	16.4		-12.2	7.6	8.9	37.5	33.7
Marathon	28.5	21.0	17.9	16.4		-12.2	14.4	8.9	29.8	33.7
McKinley	28.0	21.0	16.9	16.4		-12.2	11.8	8.9	24.1	33.7
Pyramis (Fidelity)	26.7	21.0	20.3	16.4		-12.2	11.7	8.9	35.1	33.7
Aggregate	25.4	21.0	17.9	16.4	-11.7	-12.2	11.9	8.9	31.9	33.7
Active Emerging Markets (2)										
Capital International	0.7	-2.6	13.8	18.2	-22.8	-18.4	16.1	18.9	83.1	78.5
Morgan Stanley	0.5	-2.6	21.1	18.2	-17.8	-18.4	18.4	18.9	71.7	78.5
Aggregate	0.6	-2.6	17.5	18.2	-20.6	-18.4	17.1	18.9	77.3	78.5
Semi-Passive Developed Markets	s (1)									
AQR	24.1	21.0	20.8	16.4	-13.9	-12.2	11.4	8.9	36.0	33.7
Pyramis (Fidelity)	23.2	21.0	19.4	16.4	-12.6	-12.2	11.5	8.9	30.2	33.7
State Street	25.3	21.0	17.3	16.4	-15.6	-12.2	8.7	8.9	34.9	33.7
Aggregate	24.0	21.0	19.2	16.4	-13.8	-12.2	10.6	8.9	33.6	33.7
Passive Developed Markets (1)										
State Street	21.4	21.0	16.7	16.4	-11.9	-12.2	9.9	8.9	34.0	33.7
Passive Emerging Markets (2)										
State Street	-2.5	-2.6	18.5	18.2						
Equity Only (3) (4)	17.8	15.3	17.6	16.8	-14.2	-13.7	12.3	11.2	41.2	41.5
Total Program (4)	17.8	15.3	17.6	16.8	-14.2	-13.7	12.3	11.2	41.2	41.5
SBI Int'l Equity Target (5)		15.3		16.8		-13.7		11.2		41.5
MSCI ACWI Free ex. U.S. (net)		15.3		16.8		-13.7		11.2		41.5
MSCI World ex U.S. (net)		21.0		16.4		-12.2		8.9		33.7
MSCI EAFE Free (net)		22.8		17.3		-12.1		7.7		31.8
MSCI Emerging Markets Free (net))	-2.6		18.2		-18.4		18.9		78.5

(1) Since 6/1/08 the developed markets manager's 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).

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

ACADIAN ASSET MANAGEMENT, LLC Periods Ending June, 2014

Portfolio Manager: John Chisholm

Assets Under Management: \$400,653,859

Investment Philosophy

Acadian believes there are inefficiencies in the global equity markets that can be exploited by a disciplined quantitative investment process. In evaluating markets and stocks. Acadian believes it is most effective to use a range of measures, including valuation, price trends, financial quality and earnings information. Risk control is a critical part of the Acadian approach. Acadian's process seeks to capture value-added at both the stock and the sector/country level. The process is active and bottom-up, but each stock forecast also contains a sector/country forecast. Selection is made from a very broad investment universe using disciplined, factordriven quantitative models. Portfolios are constructed with an optimizer and are focused on targeting a desired level of active risk relative to a client's chosen benchmark index.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.2%	4.6%
Last 1 year	28.7	23.8
Last 2 years	25.0	20.4
Last 3 years	9.8	7.6
Last 4 years	15.2	12.9
Last 5 years	14.1	11.7
Since Inception	6.7	6.4
(7/05)		

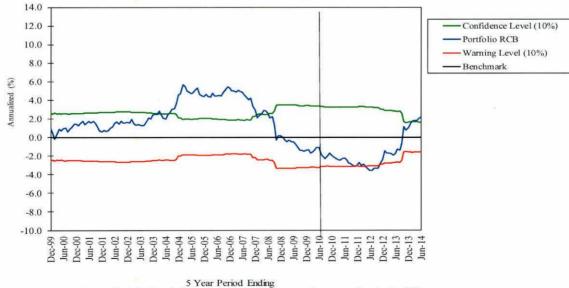
Staff Comments

Staff has no concerns at this time.

Recommendations

No action required.

ACADIAN ASSET MANAGEMENT Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI.

COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC Periods Ending June, 2014

Staff Comments Investment Philosophy Columbia's philosophy focuses on key forces of change Staff met with the manager during the quarter. in markets and the companies that will benefit. The Staff has no concerns at this time. firm believes that in a global marketplace, where sustainable competitive advantage is rare, their research should focus on the dynamics of change. A good understanding of the likely impact of these changes at a company level, complemented with an appreciation of the ability of management to exploit these changes, creates significant opportunities to pick winners and avoid losers. Recommendations **Quantitative Evaluation** No action required. Benchmark Actual Last Quarter 4.0% 4.6% 23.8 Last 1 year 17.5

William Davies

Portfolio Manager:

Last 2 years

Last 3 years

Last 4 years

Last 5 years

(3/00)

Since Inception

COLUMBIA MANAGEMENT	INVESTMENT ADVISERS
Rolling Five Year Returns	Compared to Benchmark

20.4

7.6 12.9

11.7

3.8

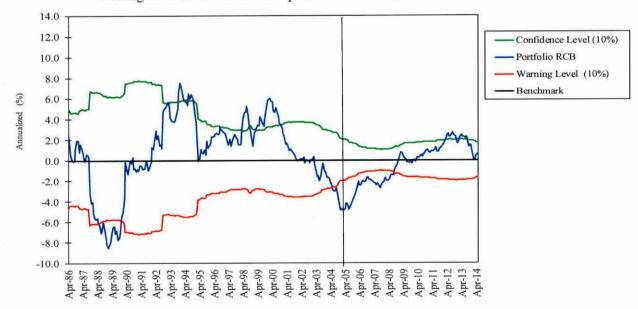
18.3

7.3

13.9

12.5

2.4



⁵ Year Period Ending Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Assets Under Management: \$359,391,394

J.P. MORGAN INVESTMENT MANAGEMENT INC. Periods Ending June, 2014

Portfolio Manager: James Fisher

Investment Philosophy

JP Morgan's international equity strategy seeks to add value through active stock selection, while remaining diversified by both sector and region. The portfolio displays a large capitalization size bias and a slight growth orientation. Stock selection decisions reflect the insights of approximately 150 locally based investors, ranking companies within their respective local markets. The most attractive names in each region are then further validated by a team of Global Sector Specialists who seek to take the regional team rankings and put these into a global context. The team of six senior portfolio managers draws together the insights of both the regional and global specialists, constructing a portfolio of the most attractive names.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	4.6%	4.6%
Last 1 year	21.0	23.8
Last 2 years	19.1	20.4
Last 3 years	7.4	7.6
Last 4 years	13.1	12.9
Last 5 years	12.1	11.7
Since Inception (7/05)	6.3	6.4

Assets Under Management: \$317,046,415

Staff Comments

Staff met with the manager during the quarter.

Staff has no concerns at this time.

Recommendations

No action required.

J.P. MORGAN INVESTMENT MANAGEMENT, INC. Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI

MARATHON ASSET MANAGEMENT LLP Periods Ending June, 2014

Portfolio Manager: William Arah

Assets Under Management: \$791,745,743

Investment Philosophy

Marathon uses a blend of flexible, qualitative disciplines to construct portfolios which exhibit a value bias. Style and emphasis will vary over time and by market, depending on Marathon's perception of lowest risk opportunity. Since they believe that competition determines profitability, Marathon is attracted to industries where the level of competition is declining and they will hold a sector position as long as the level of competition does not increase. At the stock level, Marathon tracks a company's competitive position versus the attractiveness of their products or services and attempts to determine whether the company is following an appropriate reinvestment strategy for their current competitive position.

Quantitative Evaluation

	Custom						
	Actual	Benchmark					
Last Quarter	3.9%	4.6%					
Last 1 year	24.2	23.8					
Last 2 years	23.3	20.4					
Last 3 years	10.9	7.6					
Last 4 years	15.2	12.9					
Last 5 years	14.4	11.7					
Since Inception	9.1	5.7					
(11/93)							

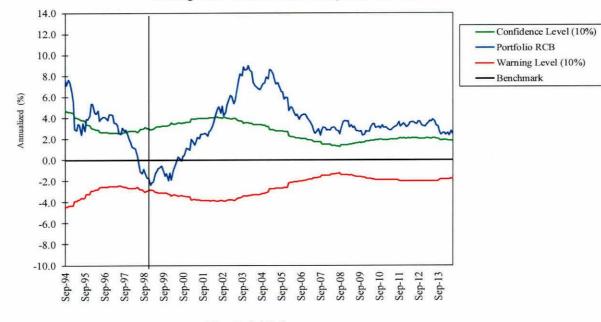
Staff Comments

Staff has no concerns at this time.

Recommendations

No action required.

MARATHON ASSET MANAGEMENT Rolling Five Year Returns Compared to Benchmark



⁵ Year Period Ending Note: Area to the left of vertical line includes performance prior to retention by the SBI.

MCKINLEY CAPITAL MANAGEMENT LLC Periods Ending June, 2014

Portfolio Manager: Robert A. Gillam

Assets Under Management: \$317,217,028

Investment Philosophy

At McKinley Capital, investment decisions are based on the philosophy that excess market returns can be achieved through the construction and active management of a diversified, fundamentally sound portfolio of inefficiently priced common stocks whose earnings growth rates are accelerating above market expectations. A disciplined quantitative investment process drives all product strategies. The firm can be described as a bottom-up growth manager. They employ both a systematic screening process and a qualitative overview to construct and manage portfolios. Investment ideas are initially generated by the quantitative investment process. The balance of the qualitative overlay seeks to identify securities with earnings estimates that are reasonable and sustainable. All portfolios managed by McKinley Capital use the same investment process and construction methodology to manage portfolios.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.9%	4.6%
Last 1 year	22.3	23.8
Last 2 years	21.5	20.4
Last 3 years	8.5	7.6
Last 4 years	13.7	12.9
Last 5 years	12.6	11.7
Since Inception	5.8	6.4
(7/05)		

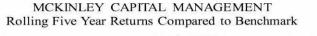
Staff Comments

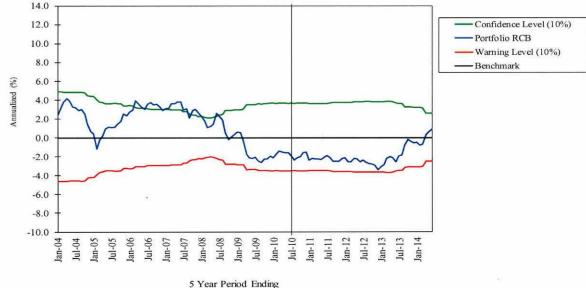
Stable organization and process with improved recent returns. The SBI has confidence in the strategy to add value when growth is being rewarded in the market.

Staff met with the manager during the quarter.

Recommendations

No action required.





Note: Area to the left of vertical line includes performance prior to retention by the SBI

PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Active) Periods Ending June, 2014

Portfolio Manager: Chris Steward & Brian Hoesly

Assets Under Management: \$370,551,226

Staff Comments

Recommendations

Staff met with the manager during the quarter.

Investment Philosophy

Pyramis' International Growth is a core, growthoriented strategy that provides diversified exposure to the developed international markets. The investment process combines active stock selection and regional asset allocation. Four portfolio managers in London, Tokyo, Hong Kong, Smithfield Rhode Island, and Toronto construct regional sub-portfolios, selecting stocks based on Fidelity analysts' bottom-up research and their own judgment and expertise. Portfolio guidelines seek to ensure risk is commensurate with the performance target and to focus active risk on stock selection. Resulting portfolios typically contain between 200-250 holdings.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	3.4%	4.6%
Last 1 year	20.8	23.8
Last 2 years	22.0	20.4
Last 3 years	9.3	7.6
Last 4 years	14.5	12.9
Last 5 years	13.5	11.7
Since Inception (7/05)	8.0	6.4
(1105)		

No action required.

PYRAMIS GLOBAL ADVISORS TRUST CO. - INTL GROWTH Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI

CAPITAL INTERNATIONAL, INC. Periods Ending June, 2014

Portfolio Manager: Victor Kohn

Assets Under Management: \$769,146,789

Investment Philosophy

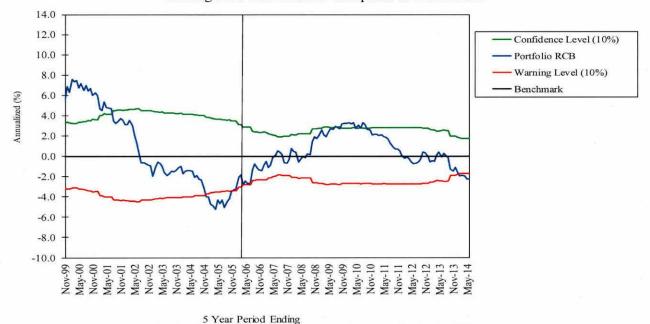
Capital International's philosophy is value-oriented, as they focus on identifying the difference between the underlying value of a company and the price of its securities in its home market. Capital International's basic, fundamental, bottom-up approach is blended with macroeconomic and political judgments on the outlook for economies, industries, currencies and markets. The team of portfolio managers and analysts each select stocks for the portfolio based on extensive field research and direct company contact.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.3%	6.6%
Last 1 year	13.3	14.3
Last 2 years	8.8	8.4
Last 3 years	-2.9	-0.4
Last 4 years	2.9	6.0
Last 5 years	6.8	9.2
Since Inception	10.8	11.5
(3/01)		

No action required.

CAPITAL INTERNATIONAL, INC. Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Staff Comments

Recommendations

Staff met with the manager during the quarter.

MORGAN STANLEY INVESTMENT MANAGEMENT INC. Periods Ending June, 2014

Portfolio Manager: Ruchir Sharma

Investment Philosophy

Morgan Stanley's style is core with a growth bias. They follow a top-down approach to country allocation and a bottom-up approach to stock selection. Morgan Stanley's macro-economic and stock selection analyses are qualitative as well as quantitative, concentrating on fundamentals. Their top-down analysis highlights countries with improving fundamentals and attractive valuations. Their bottom-up approach to stock selection focuses on purchasing companies with strong operating earnings potential at attractive valuations.

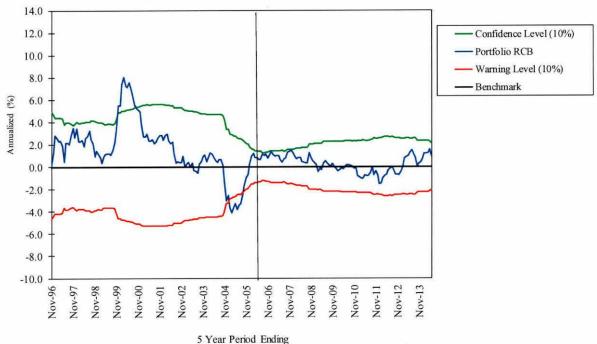
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.6%	6.6%
Last 1 year	12.0	14.3
Last 2 years	10.2	8.4
Last 3 years	2.3	-0.4
Last 4 years	7.6	6.0
Last 5 years	10.3	9.2
Since Inception	12.2	11.5
(3/01)		

NT (* 1

No action required.

MORGAN STANLEY INVESTMENT MANAGEMENT Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI.

Assets Under Management: \$847,013,571

Staff Comments

Recommendations

Staff has no concerns at this time.

AQR CAPITAL MANAGEMENT, LLC Periods Ending June, 2014

Portfolio Manager: Cliff Asness

Assets Under Management: \$366,175,905

Staff Comments

Staff has no concerns at this time.

Investment Philosophy

AQR employs a disciplined quantitative approach emphasizing both top-down country/currency allocation and bottom-up security selection decisions to generate excess returns. AQR's investment philosophy is based on the fundamental concepts of value and momentum. AQR's international equity product incorporates stock selection, country selection, and currency selection models as the primary alpha sources. Dynamic strategy allocation (between the three primary alpha sources) and style weighting are employed as secondary alpha sources.

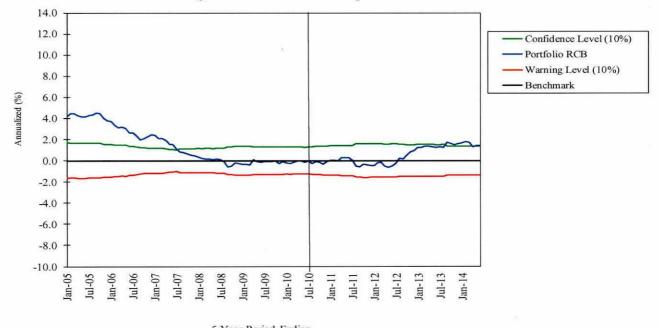
Quantitative Evaluation

Actual Benchmark Last Quarter 3.3% 4.6% Last 1 year 23.4 23.8 Last 2 years 23.8 20.4Last 3 years 8.5 7.6 Last 4 years 14.4 12.9 Last 5 years 13.3 11.7 Since Inception 7.0 6.4 (7/05)

Recommendations

No action required.

AQR CAPITA	L MANAGEM	ENT, LLC
Rolling Five Year R	eturns Compare	ed to Benchmark



⁵ Year Period Ending Note: Area to the left of vertical line includes performance prior to retention by the SBI

PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Semi-Passive) Periods Ending June, 2014

Portfolio Manager: Cesar Hernandez

Assets Under Management: \$545,626,328

Investment Philosophy

Pyramis' Select International strategy combines active stock selection with quantitative risk control to provide consistent excess returns above the benchmartk while minimizing relative volatility and risk. By combining five regional sub-portfolios in the U.K., Canada, Continental Europe, Japan, and the Pacific Basin ex Japan, the portfolio manager produces a portfolio made up of the best ideas of the firm's research analysts. Each regional portfolio is created so that stock selection is the largest contributor to active return while systematic, sector, and factor risks are minimized. The portfolio manager uses a combination of proprietary and thirdparty optimization models to monitor and control risk within each regional module. Resulting portfolios typically contain between 275 and 325 holdings.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	4.5%	4.6%
Last 1 year	24.1	23.8
Last 2 years	21.3	20.4
Last 3 years	8.5	7.6
Last 4 years	14.0	12.9
Last 5 years	12.6	11.7
Since Inception (7/05)	7.4	6.4

Staff Comments

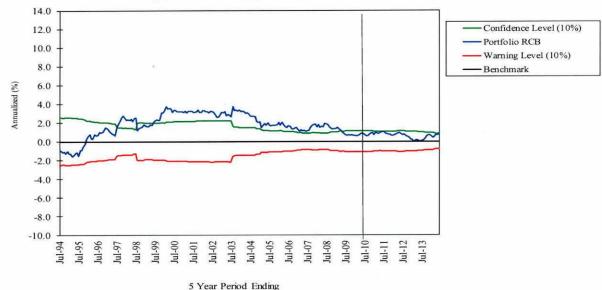
Staff met with the manager during the quarter.

Staff has no concerns at this time.

Recommendations

No action required.

PYRAMIS GLOBAL ADVISORS TRUST CO. - SELECT INTL Rolling Five Year Returns Compared to Benchmark





STATE STREET GLOBAL ADVISORS (Semi-Passive) Periods Ending June, 2014

Portfolio Manager: Adel Daghmouri

Investment Philosophy

SSgA's Alpha strategy is managed using a quantitative process. Stock selection provides the best opportunity to add consistent value. Industry factors have come to dominate country factors and an approach that uses industry weights to add incremental value complements stock selection. Unwanted biases are controlled through disciplined risk-control techniques. Country and regional allocations are a result of the security selection process but are managed to remain with \pm 5% of the benchmarks allocation. Sector and industry allocations are managed to be within \pm 3% of the benchmarks allocation. The portfolio managers on this team have extensive experience and insight, which is used in conjunction with the models to create core portfolios.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	3.2%	4.6%
Last 1 year	25.9	23.8
Last 2 years	23.6	20.4
Last 3 years	7.3	7.6
Last 4 years	12.8	12.9
Last 5 years	11.5	11.7
Since Inception (7/05)	5.9	6.4

Assets Under Management: \$334,230,875

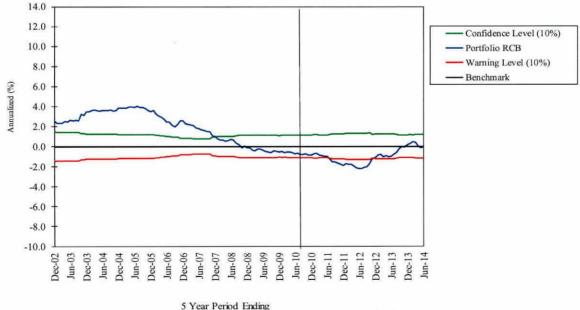
Staff Comments

There have been changes to the investment team recently and shortly after inception of the account. In addition, significant changes are being made to the investment process. The SBI is monitoring this strategy closely due to these changes and to the portfolio's recent underperformance.

Recommendations

No action required.

STATE STREET GLOBAL ADVISORS - ALPHA Rolling Five Year Returns Compared to Benchmark



Note: Area to the left of vertical line includes performance prior to retention by the SBI

STATE STREET GLOBAL ADVISORS (Passive Developed Markets) Periods Ending June, 2014

Portfolio Manager: Lynn Blake

Investment Philosophy

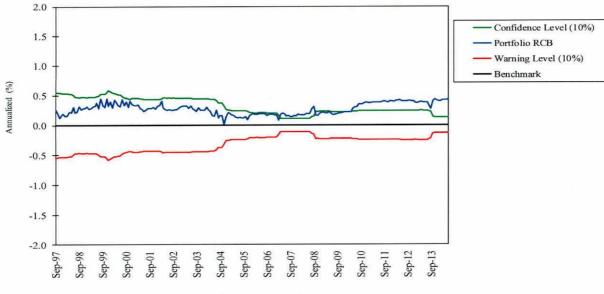
State Street Global Advisors (SSgA) passively manages the portfolio against the Morgan Stanley Capital International (MSCI) World ex U.S. index of 23 markets located in the developed markets outside of the United States (including Canada). SSgA fully replicates the index whenever possible because it results in lower turnover, higher tracking accuracy and lower market impact costs. The MSCI World ex U.S. (net) index reinvests dividends assuming a withholding tax on dividends, according to the Luxembourg tax rate. Whereas the portfolio reinvests dividends using all available reclaims and tax credits available to a U.S. pension fund, which should result in modest positive tracking error, over time.

Quantitative Evaluation

	Actual	Benchmark				
Last Quarter	4.8%	4.6%				
Last 1 year	24.3	23.8				
Last 2 years	20.8	20.4				
Last 3 years	7.9	7.6				
Last 4 years	13.3	12.9				
Last 5 years	12.2	11.7				
Since Inception	7.0	6.7				
(10/92)						

No action required.

SSGA - PASSIVE DEVELOPED MARKETS Rolling Five Year Returns Compared to Benchmark



5 Year Period Ending

Assets Under Management: \$3,780,754,871

Staff Comments

Recommendation

Staff met with the manager during the quarter.

Staff has no concerns at this time.

STATE STREET GLOBAL ADVISORS (Passive Emerging Markets) Periods Ending June, 2014

Portfolio Manager: Tom Coleman

Investment Philosophy

State Street Global Advisors passively manages the portfolio against the Morgan Stanley Capital International (MSCI) Emerging Markets. index of 21 markets located in the emerging markets outside of the United States. SSgA fully replicates the index whenever possible because it results in lower turnover, higher tracking accuracy and lower market impact costs.

Quantitative Evaluation

	Actual	Benchmark				
Last Quarter	6.6%	6.6%				
Last 1 year	14.3	14.3				
Last 2 years	8.5	8.4				
Last 3 years	N/A	N/A				
Last 4 years	N/A	N/A				
Last 5 years	N/A	N/A				
Since Inception	8.3	8.3				
(12/11)						

Assets Under Management: \$317,139,171

Staff Comments

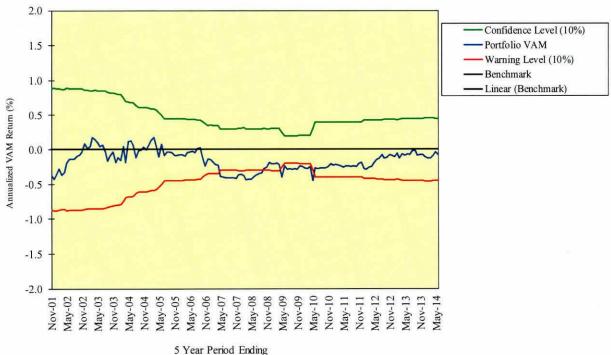
Staff met with the manager during the quarter.

Staff has no concerns at this time.

Recommendation

No action required.

SSGA - PASSIVE EMERGING MARKETS Rolling Five Year VAM



Note: Shaded area includes performance prior to the retention by the SBI.



STATE BOARD OF INVESTMENT

Non-Retirement Manager Evaluation Reports

Second Quarter, 2014

(Blank) A-82

Non-Retirement Managers

Table of Contents

	Page
Non-Retirement Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-84
Non-Retirement Manager Performance Summary (by calendar year)	A-85
GE Asset Management Inc. – Assigned Risk Plan	A-86
RBC Global Asset Management (U.S.) Inc. – Assigned Risk Plan	A-87
Galliard Capital Management, Inc.	A-88
Internal Stock Pool – Trust/Non-Retirement Assets	A-89
Internal Bond Pool – Income Share Account	A-90
Internal Bond Pool – Trust/Non-Retirement Assets	A-91

NON - RETIREMENT MANAGERS Periods Ending June, 2014

	Qu Actual %	arter Bmk %	1 Y Actual %	ear Bmk %	3 Ye Actual %	ars Bmk %	5 Ye Actual %	ars Bmk %	Since Inceptio Actual %		Market Value (in millions)
GE Asset Management (S&P 500 Index)	5.1	5.2	25.3	24.6	16.5	16.6	16.9	18.8	10.3	9.8	\$60.0
RBC Global Asset Management (2) (Barclays Capital Intermediate Gover	0.9 rnment)	0.9	1.5	1.5	1.9	2.0	4.8	2.9	5.5	5.6	\$241.9
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	0.4	0.3	1.9	1.2	2.5	1.0	3.1	1.2	5.0	3.8	\$1,549.3
Internal Stock Pool (S&P 500 Index)	5.2	5.2	24.5	24.6	16.5	16.6	18.8	18.8	9.4	9.4	\$1,605.0
Internal Bond Pool - Income Share (Barclays Capital Aggregate)	1.9	2.0	5.2	4.4	4.6	3.7	5.7	4.9	7.3	6.9	\$119.5
Internal Bond Pool - Trust (Barclays Capital Aggregate)	1.9	2.0	5.0	4.4	4.3	3.7	5.3	4.9	6.7	6.2	\$871.9

(1) Since retention by the SBI. Time period varies by 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 Yr. Tsy/Ag, 15% ML 3-5 Yr. Tsy/Ag, and 10% ML 91 day T-Bill was utilized.

NON - RETIREMENT MANAGERS Calendar Year Returns

	20	2013		012 2011			201	0	2009		
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	
GE Asset Management (S&P 500 Index)	34.5	32.4	16.8	16.0	-2.2	2.1	10.7	15.1	32.3	26.5	
RBC Global Asset Management (1) (Barclays Capital intermediate Govern	-1.3 ment)	-1.2	1.8	1.7	7.1	6.2	8.4	5.0	8.3	0.9	
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	2.2	1.0	2.8	0.8	3.4	1.2	4.1	1.5	4.7	1.9	
Internal Stock Pool (S&P 500 Index)	32.2	32.4	16.0	16.0	2.2	2.1	15.1	15.1	26.3	26.5	
Internal Bond Pool - Income Share (Barclays Capital Aggregate)	0.6	-2.0	6.2	4.2	5.3	7.8	7.0	6.5	12.9	5.9	
Internal Bond Pool - Trust (Barclays Capital Aggregate)	0.0	-2.0	5.8	4.2	5.6	7.8	6.3	6.5	12.2	5.9	

 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 Yr. Tsy/Ag, 15% ML 3-5 Yr. Tsy/Ag, and 10% ML 91 day T-Bill was utilized.

Portfolio Manager: Dave Carlson

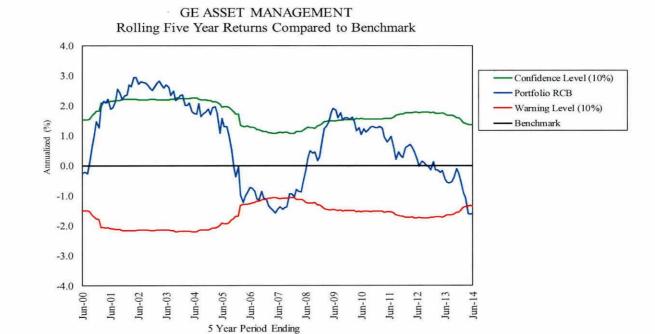
Investment Philosophy Assigned Risk Plan

GE's Multi-Style Equity program attempts to outperform the S&P 500 consistently while controlling overall portfolio risk through a multiple manager approach. A value portfolio, a growth portfolio and a research portfolio are combined to create a well diversified equity portfolio while maintaining low relative volatility and a style-neutral position between growth and value. All GE managers focus on stock selection from a bottom-up perspective.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.1%	5.2%
Last 1 year	25.3	24.6
Last 2 years	24.3	22.6
Last 3 years	16.5	16.6
Last 4 years	19.1	20.0
Last 5 years	16.9	18.8
Since Inception	10.3	9.8
(1/95)		

No action required.



Staff Comments

Staff met with GE during the quarter.

Staff has no concerns at this time.

Recommendation

Assets Under Management: \$59,978,969

Portfolio Manager: Brian Svendahl

Investment Philosophy Assigned Risk Plan

RBC uses a top-down approach to fixed income investing. Their objective is to obtain superior long-term investment returns over a pre-determined benchmark that reflects the quality constraints and risk tolerance of the Assigned Risk Plan. Due to the specific liability requirement of the plan, return enhancement will focus on sector analysis and security selection. Yield curve and duration analysis are secondary considerations.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	0.9%	0.9%
Last 1 year	1.5	1.5
Last 2 years	0.5	0.5
Last 3 years	1.9	2.0
Last 4 years	2.7	2.2
Last 5 years	4.8	2.9
Since Inception	5.5	5.6
(7/91)		

No action required.

* From 4/1/02-6/30/11, blended benchmark consisted of 25% Merrill Lynch (ML) Mortgage Master, 25% ML 1-3 Yr. Gov't, 25% ML 5-10 Yr. Tsy/Ag, 15% ML 3-5 Yr. Tsy/Ag, 10% ML 91 day T-Bill. Effective 7/1/11, Barclays Capital Intermediate Government Index.



RBC GLOBAL ASSET MANAGEMENT

Assets Under Management: \$241,920,355

Staff Comments

Recommendation

Staff has no concerns at this time.

A-87

GALLIARD CAPITAL MANAGEMENT, INC. Periods Ending June, 2014

Portfolio Manager: Karl Tourville

Assets Under Management: \$1,549,256,562

Investment Philosophy

Galliard Capital Management manages the Fixed Interest Account in the Supplemental Investment Fund. The stable value fund is managed to protect principal and provide competitive interest rates using instruments somewhat longer than typically found in money markettype accounts. The manager invests cash flows to optimize yields. The manager invests in high quality fixed income securities and investment contracts with U.S. and non-U.S. financial institutions. To maintain necessary liquidity, the manager invests a portion of the portfolio in its Stable Return Fund and in cash equivalents. The Stable Return Fund is a large, daily priced fund consisting of a wide range of stable value instruments that is available to retirement plans of all sizes.

Quantitative Evaluation

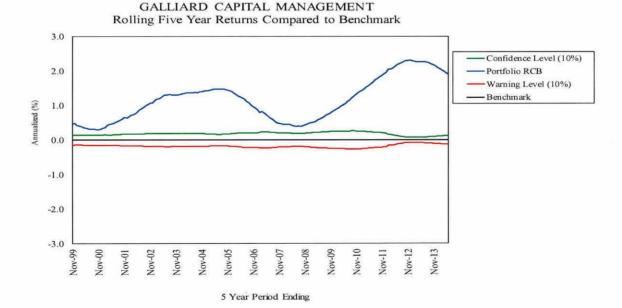
	Actual	Benchmark
Last Quarter	0.4%	0.3%
Last 1 year	1.9	1.2
Last 2 years	2.2	1.0
Last 3 years	2.5	1.0
Last 4 years	2.8	1.0
Last 5 years	3.1	1.2
Since Inception	5.0	3.8
(11/94)		

Staff Comments

Staff has no concerns at this time.

Recommendation

No action required.



Portfolio Manager: Mike Menssen

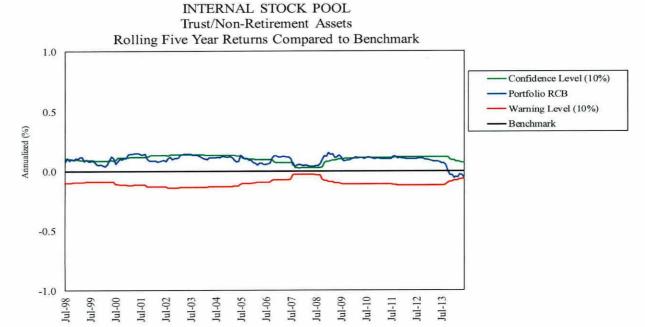
Investment Philosophy Environmental Trust Fund Permanent School Fund

The Internal Equity Pool is managed to closely track the S&P 500 Index. The strategy replicates the S&P 500 by owning all of the names in the index at weightings similar to those of the index. The optimization model's estimate of tracking error with this strategy is approximately 10 basis points per year.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.2%	5.2%
Last 1 year	24.5	24.6
Last 2 years	22.5	22.6
Last 3 years	16.5	16.6
Last 4 years	19.9	20.0
Last 5 years	18.8	18.8
Since Inception	9.4	9.4
(7/93)		

No action required.



5 Year Period Ending

Staff Comments

Staff has no concerns at this time.

Recommendation

Assets Under Management: \$1,604,970,912

Portfolio Manager: Mike Menssen

Investment Philosophy Income Share Account

The investment approach emphasizes sector and security selection. The approach utilizes sector trading and relative spread analysis of both sectors and individual issues. The portfolio weightings in mortgage and corporate securities are consistently equal to or greater than the market weightings. The portfolio duration remains close to the benchmark duration but may be shortened or lengthened depending on changes in the economic outlook.

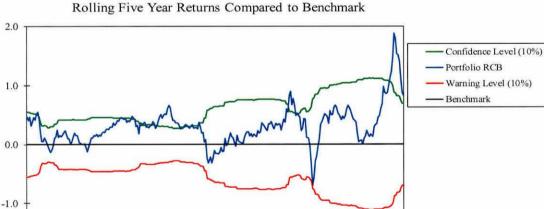
Quantitative Evaluation

Actual Benchmark Last Quarter 1.9% 2.0% Last 1 year 5.2 4.4 Last 2 years 3.6 1.8 Last 3 years 3.7 4.6 Last 4 years 4.5 3.7 Last 5 years 4.9 5.7 Since Inception 7.3 6.9 (7/86)

Annualized (%)

No action required.

INTERNAL BOND POOL - INCOME SHARE ACCOUNT Rolling Five Year Returns Compared to Benchmark



-2.0 Jun-02 Jun-06 Jun-07 Jun-08 90-unf Jun-11 Jun-92 Jun-94 Jun-95 Jun-96 79-nul Jun-98 99-nul Jun-00 Jun-03 Jun-05 10 13 4 Jun-91 Jun-93 Jun-01 Jun-04 12 l-m Jun-1 -Inj -un

Five Year Period Ending

Assets Under Management: \$119,455,932

Staff Comments

On July 1, 2014, management of the bonds in the Income Share Account transitioned from an internal portfolio managed by Mike Menssen to the externally managed Bond Market Account (SIF).

Recommendation

Portfolio Manager: Mike Menssen

Investment Philosophy Environmental Trust Fund Permanent School Trust Fund

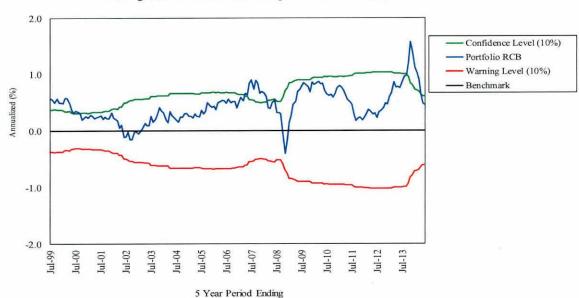
The internal bond portfolio's investment approach emphasizes sector and security selection. The approach utilizes sector trading and relative spread analysis of both sectors and individual issues. The portfolio weightings in mortgage and corporate securities are consistently equal to or greater than the market weightings. The portfolio duration remains close to the benchmark duration but may be shortened or lengthened depending on changes in the economic outlook.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.9%	2.0%
Last 1 year	5.0	4.4
Last 2 years	3.2	1.8
Last 3 years	4.3	3.7
Last 4 years	4.3	3.7
Last 5 years	5.3	4.9
Since Inception	6.7	6.2
(7/94)*		

No action required.

* Date started managing the pool against the Barclays Capital Aggregate.



INTERNAL BOND POOL - TRUST/NON-RETIREMENT ASSETS Rolling Five Year Returns Compared to Benchmark

Assets Under Management: \$871,856,276

Staff Comments

Recommendation

Staff has no concerns at this time.

A-91

This page left blank intentionally.



STATE BOARD OF INVESTMENT

Deferred Compensation Plan Evaluation Reports

Second Quarter, 2014

(Blank) A-94

Deferred Compensation Plan

Table of Contents

	Page
Fund Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-96
Fund Manager Performance Summary (by calendar year)	A-98
Janus Twenty	A-100
Vanguard Index Institutional Plus	A-101
Vanguard Mid-Cap Index Institutional	A-102
T. Rowe Price Small Cap Stock Fund	A-103
Vanguard Balanced Index Institutional Fund	A-104
Dodge & Cox Income Fund	A-105
Vanguard Total Bond Market Index Institutional	A-106
Fidelity Diversified International	A-107
Vanguard Total International Stock Index Institutional Plus	A-108
State Street Global Advisors MN Target Retirement Funds	A-109

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS (1) Periods Ending June, 2014

	Qua	arter	1 Year		3 Years		5 Years		Since (2) Retention		State's Participation
457 Mutual Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	by S	BI	In Fund
	%	%	%	%	%	%	%	%	%	%	(\$ millions)
Large Cap Equity:											
Janus Twenty	3.7	5.2	26.3	24.6	14.8	16.6	14.3	18.8	4.0	4.3	\$526.2
(S&P 500)											
Vanguard Institutional Index Plus (S&P 500)	5.2	5.2	24.6	24.6	16.6	16.6	18.8	18.8	4.4	4.3	\$925.7
Mid Cap Equity:											
Vanguard Mid-Cap Index	4.5	4.5	26.3	26.3	15.4	15.5	22.0	22.1	10.4	10.4	\$390.5
(CRSP US Mid-Cap) (3)											
Small Cap Equity:											
T. Rowe Price Small-Cap Stock	2.1	2.0	24.0	23.6	15.9	14.6	23.2	20.2	10.7	8.0	\$618.6
(Russell 2000)											
Balanced:											
Vanguard Balanced Index Inst. Fund (60% CRSP US Total Market,	3.7	3.7	16.4	16.6	11.4	11.5	13.7	13.7	7.5	7.4	\$647.6
40% Barclays Capital Agg) (4)											
Bond:											
Dodge & Cox Income Fund	2.2	2.0	6.6	4.4	4.9	3.7	6.6	4.9	6.2	5.6	\$198.7
(Barclays Capital Aggregate)	3.5	0.0	6 B		2.25	12010-001	5 8				
Vanguard Total Bond Market Index Inst.	2.0	2.0	4.3	4.4	3.6	3.7	4.8	4.9	4.8	4.8	\$172.3
(Barclays Capital Aggregate)											
International:		2.2		122 (2)	12020	2.12		2.272	202	12112	
Fidelity Diversified International (MSCI EAFE-Free)	3.9	4.1	23.0	23.6	8.7	8.1	12.1	11.8	7.5	4.6	\$296.6
Vanguard Total International Stock Index (FTSE Global All Cap ex US) (5)	5.0	5.2	22.5	22.8	5.9	6.1	11.1	11.2	5.9	6.1	\$159.4

Numbers in blue include returns prior to retention by SBI.

Benchmarks for the Funds are noted in parentheses 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 is reported under the Deferred Compensation Plan accounts within Tab A.
- (2) Vanguard Total International retained July 2011; Vanguard Mid-Cap Index Fund retained January 2004; Vanguard Balanced, Vanguard Total Bond Mkt. retained December 2003; all others, July 1999.
- (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 Capital US Aggregate Bond Index beginning January 2013. Prior to that date it was 60% MSCI US Broad Market Index and 40% Barclays Capital US Aggregate Bond Index.
- (5) Benchmark is the FTSE Global All Cap ex US Index beginning June 2013; MSCI ACWI ex US 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 Ending June, 2014

	0.00	Ouarter 1 Year 3 Years				5 Ye	are	Since F by the	Retention	State Participation		
SSgA Target Retirement Funds	Actual	Bmk	Actual		Actual			Actual Bmk		Bmk	in Fund	
sogit talget teat entert tallas	%	%	%	%	%	%	%	%	%	%	(\$ millions)	
Income Fund	3.0	3.1	9.8	9.9	6.7	6.8	8.8	9.1	6.7	6.8	\$30.0	
2015 Fund	3.2	3.2	10.6	10.7	8.0	8.2	10.7	10.9	8.0	8.2	\$32.9	
2020 Fund	3.9	3.9	13.9	14.0	10.2	10.3	12.8	13.0	10.2	10.3	\$54.2	
2025 Fund	4.1	4.1	16.6	16.7	11.5	11.6	14.2	14.3	11.5	11.6	\$40.8	
2030 Fund	4.2	4.2	18.3	18.4	12.2	12.3	15.0	15.2	12.2	12.3	\$23.0	
2035 Fund	4.3	4.3	19.6	19.7	12.6	12.7	15.6	15.8	12.6	12.7	\$17.9	
2040 Fund	4.5	4.5	20.7	20.8	12.5	12.6	15.9	16.1	12.5	12.6	\$11.2	
2045 Fund	4.6	4.6	21.8	21.9	12.6	12.7	16.1	16.2	12.6	12.7	\$7.4	
2050 Fund	4.6	4.6	22.0	22.1	12.7	12.7	16.1	16.3	12.7	12.7	\$5.0	
2055 Fund	4.6	4.6	22.0	22.1	12.6	12.7	16.1	16.3	12.6	12.7	\$2.3	
2060 Fund	4.6	4.6	22.0	22.1	12.7	12.7			12.7	12.7	\$2.9	

Note: Each 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.

		rter	1 Y	ear	3 Y	ears	5 Ye	ears		
SSgA Index Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%		
S&P 500 Index Fund (S&P 500)	5.2	5.2	24.6	24.6	16.6	16.6	18.8	18.8	16.6	16.6
DJ-UBS Roll Select Commodity Index Fund (DJ-UBS Roll Select Commodity Index)	0.7	0.8	8.5	8.9					0.5	0.8
Russell Small/Mid Cap Index Fund (Russell Small Cap Completeness Index)	3.5	3.5	27.3	27.4					26.4	26.4
Global All Cap Equity ex US Index Fund (MSCI ACWI ex U.S. IMI)	5.0	4.9	22.7	22.3	6.2	5.9			6.2	5.9
Global Real Estate Securities Index Fund (FTSE EPRA/NAREIT Dev Liquid)	8.0	7.8	13.6	12.8	9.9	9.1			9.9	9.1
Long Government Bond Index Fund (Barclays Capital Long Government)	4.7	4.7	6.4	6.4	8.6	8.7	7.4	7.4	8.6	8.7
Bond Index Fund (Barclays Capital Aggregate)	2.0	2.0	4.4	4.4	3.6	3.7	4.9	4.9	3.6	3.7
Inflation Protection Bond Index Fund (Barclays Capital U.S. TIPS)	3.8	3.8	4.4	4.4	3.5	3.6	5.5	5.6	3.5	3.6
High Yield Bond Index Fund (Barclays Capital U.S. High Yield Very Liquid)	2.5	2.4	12.3	12.0	9.3	9.5			9.3	9.5
U.S. Short-Term Govt/Credit Index Fund (Barclays Capital 1-3 Yr Govt/Credit)	0.3	0.3	1.0	1.1	1.8	1.0			1.8	1.0

Numbers in blue include returns prior to retention by SBI.

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

*Target Retirement Funds inception date is July 2011.

MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS (1) Calendar Year Returns

	2013		2012		20	2011		2010)9
457 Mutual Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
Large Cap Equity:										
Janus Twenty	33.1	32.4	22.3	16.0	-8.2	2.1	7.0	15.1	43.3	26.5
(S&P 500)										
Vanguard Institutional Index Plus (S&P 500)	32.4	32.4	16.0	16.0	2.1	2.1	15.1	15.1	26.7	26.5
Mid Cap Equity:										
Vanguard Mid-Cap Index	35.2	35.4	16.0	16.0	-2.0	-1.9	25.7	25.7	40.5	40.5
(CRSP US Mid-Cap) (2)										
Small Cap Equity:										
T. Rowe Price Small-Cap Stock	37.7	38.8	18.0	16.3	-0.1	-4.2	32.5	26.9	38.5	27.2
(Russell 2000)										
Balanced:										
Vanguard Balanced Index Inst. Fund (60% CRSP US Total Market, 40% Barclays Capital Agg) (3)	18.1	18.2	11.5	11.6	4.3	4.1	13.3	13.5	20.2	19.7
Bond:										
Dodge & Cox Income Fund	0.6	-2.0	8.0	4.2	4.8	7.8	7.2	6.5	16.1	5.9
(Barclays Capital Aggregate)										
Vanguard Total Bond Market Index Inst.	-2.1	-2.0	4.2	4.2	7.7	7.8	6.6	6.5	6.1	5.9
(Barclays Capital Aggregate)										
International:										
Fidelity Diversified International	25.2	22.8	19.4	17.3	-13.8	-12.1	9.7	7.7	31.8	31.8
(MSCI EAFE-Free)										
Vanguard Total International Stock Index (FTSE Global All Cap ex US) (4)	15.2	15.9	18.3	17.0	-14.6	-14.3	11.1	10.7	36.7	40.4

Numbers in blue include returns prior to retention by SBI.

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

 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 Capital US Aggregate Bond Index beginning January 2013. Prior to that date it was 60% MSCI US Broad Market Index and 40% Barclays Capital US Aggregate Bond Index.
- (4) Benchmark is the FTSE Global All Cap ex US Index beginning June 2013; MSCI ACWI ex US 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

	2013		201	12	2011		2010		200)9
SSgA Target Retirement Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
Income Fund	5.1	5.3	9.7	9.8	4.6	4.8	9.6	10.1	14.8	15.0
2015 Fund	5.6	5.8	11.0	11.0	6.9	7.1	12.1	12.5	15.3	14.4
2020 Fund	8.8	9.1	12.5	12.5	7.3	7.4	13.6	13.9	18.3	17.5
2025 Fund	13.2	13.5	13.7	13.7	5.9	6.0	14.6	14.7	20.3	19.6
2030 Fund	16.0	16.3	14.3	14.1	4.9	5.0	15.1	15.3	21.9	21.4
2035 Fund	18.1	18.5	14.9	14.7	3.5	3.6	15.7	15.8	24.3	23.9
2040 Fund	19.7	20.0	15.5		1.5	1.6	15.9	16.1	26.7	26.5
2045 Fund	21.3		16.0		0.0	0.1	16.2	16.2	27.2	27.0
2050 Fund	21.4		15.9		0.1	0.1	16.1	16.2	27.2	27.0
2055 Fund	21.4		15.9		0.1	0.1	16.1	16.2	27.2	27.0
2060 Fund	21.4	21.7	16.0	15.8						

Note: Each 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.

	20	13	201	12	20	11	201	0	200	09
SSgA Index Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
S&P 500 Index Fund	32.4	32.4	16.0	16.0	2.1	2.1	15.1	15.1	26.7	26.5
(S&P 500)										
DJ-UBS Roll Sheet Commodity Index Fund	-9.3	-9.1								
(DJ-UBS Roll Select Commodity Index)										
Russell Small/Mid Cap Index Fund	38.4	38.5								
(Russell Small Cap Completeness Index)										
Global All Cap Equity ex U.S. Index Fund	15.4	15.8	18.2	17.0						
(MSCI ACWI ex U.S. IMI)										
Global Real Estate Securities Index Fund	2.7	2.5	28.9	27.5	-5.4	-5.8	19.1	18.4		
(FTSE EPRA/NAREIT Dev Liquid)										
Long Government Bond Index Fund	-12.5	-12.5	3.8	3.8	29.2	29.1	9.5	9.4	-12.2	-12.2
(Barclays Capital Long Government)										
Bond Index Fund	-2.1	-2.0	4.2	4.2	7.8	7.8	6.6	6.5	6.4	5.9
(Barclays Capital Aggregate)										
Inflation Protection Bond Index Fund	-8.6	-8.6	6.9	7.0	13.5	13.6	6.2	6.3	11.3	11.4
(Barclays Capital U.S. TIPS)										
High Yield Bond Index Fund	6.6	6.6	14.8	15.4	5.7	6.1	12.5	15.1		
(Barclays Capital U.S. High Yield Very Liquid)										
U.S. Short-Term Govt/Credit Bond Index Fund	0.6	0.6	3.9	1.3	1.5	1.6	2.4	2.8		
(Barclays Capital 1-3 Yr Govt/Credit)										

Numbers in blue include returns prior to retention by SBI.

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

MN STATE 457 DEFERRED COMPENSATION PLAN LARGE CAP EQUITY - JANUS TWENTY Periods Ending June, 2014

State's Participation in Fund: \$526,217,697 **Total Assets in Fund:** \$9,567,919,646

Investment Philosophy Janus Twenty

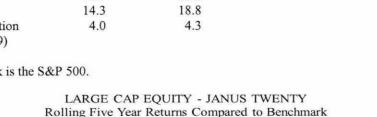
Portfolio Manager: Marc Pinto

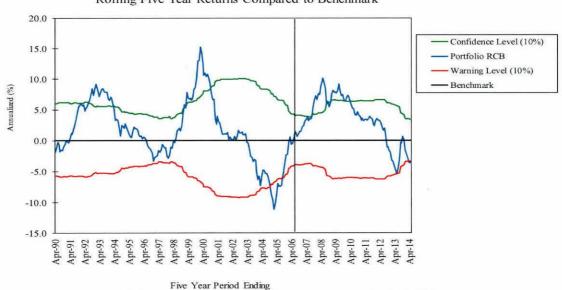
The investment objective of this fund is long-term growth of capital from increases in the market value of the stocks it owns. The fund will concentrate its investments in a core position of between twenty to thirty common stocks. This non-diversified fund seeks to invest in companies that the portfolio manager believes have strong current financial positions and offer growth potential.

Quantitative Evaluation

Actual Benchmark* Last Quarter 3.7% 5.2% Last 1 year 26.3 24.6 Last 2 years 20.9 22.6 Last 3 years 16.6 14.8 Last 4 years 16.720.0 Last 5 years 14.3 18.8 Since Retention 4.0 4.3 by SBI (7/99)

*Benchmark is the S&P 500.





Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

Staff Comments

Staff continues to monitor the change in portfolio manager from 2013.

Recommendation

No action required.

A-100

MN STATE 457 DEFERRED COMPENSATION PLAN EQUITY INDEX – VANGUARD INSTITUTIONAL INDEX PLUS Periods Ending June, 2014

Portfolio Manager: Mike Buek	State's Participation in Fund Total Assets in Fund:	: \$925,733,121 \$80,775,000,000	
Investment Philosophy Vanguard Institutional Index	Staff Comments		
This fund attempts to provide investment results, before fund expenses, that parallel the performance of the	No tracking issues.		

This fund attempts to provide investment results, before fund expenses, that parallel the performance of the Standard & Poor's 500 Index. The fund invests in all 500 stocks listed in the S&P 500 index in approximately the same proportions as they are represented in the index. The managers have tracked the S&P 500's performance with a high degree of accuracy. The fund may use futures and options for temporary purposes, but generally remains fully invested in common stock.

Quantitative Evaluation

Benchmark* Actual 5.2% 5.2% Last Quarter Last 1 year 24.6 24.6 22.6 22.6 Last 2 years 16.6 Last 3 years 16.6 Last 4 years 20.0 20.0 18.8 18.8 Last 5 years Since Retention 4.4 4.3 by SBI (7/99)

Recommendation

No action required.

*Benchmark is the S&P 500.



EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS Rolling Five Year Returns Compared to Benchmark

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN MID CAP EQUITY - VANGUARD MID-CAP INDEX Periods Ending June, 2014

\$390,487,160

State's Participation in Fund:

Portfolio Manag	er: Donald But	tler	Total Assets in Fund:	\$10,077,000,000	
Investment Philosophy Vanguard Mid-Cap Index			Staff Comments		
index by investing a	th designed to trac Mid Cap 450 of stocks of und attempts to r all, or substantially e up the index, ho	ck the performance Index, a broadly medium-size U.S. replicate the target y all, of its assets in Idding each stock in	No tracking issues.		
Qu	antitative Evalu	ation	Recommendati	on	
	Actual	Benchmark*	No action required.		
Last Quarter	4.5%	4.5%			
Last 1 year	26.3	26.3			
Last 2 years	25.6	25.8			
Last 3 years	15.4	15.5			

*Benchmark is the CRSP US Mid-Cap Index.

20.8

22.0

10.4

Last 4 years

Last 5 years

Since Retention

by SBI (1/04)



MID CAP EQUITY - VANGUARD MID-CAP INDEX

20.9

22.1

10.4

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN SMALL CAP EQUITY - T. ROWE PRICE SMALL CAP STOCK FUND Periods Ending June, 2014

Portfolio Manager: Gregory A. McCrickard Investment Philosophy T. Rowe Price Small Cap Equity Fund			State's Participation in Fund: \$618,613,526 Total Assets in Fund: \$10,372,810,501 Staff Comments			
The strategy of this fund is to invest primarily in stocks of small to medium-sized companies that are believed to offer either superior earnings growth or appear undervalued. The fund normally invests at least 80% of assets in equities of small companies in the Russell 2000 or S&P Small-Cap 600. The manager does not favor making big bets on any particular sector or any particular stock. The fund's combination of growth and value stocks offers investors relatively more stable performance compared to other small cap stock funds.			Staff has no concerns at this time.			
Quantitative Evaluation		Recommendation				
	Actual	Benchmark*	No action required.			
Last Quarter	2.1%	2.0%				
Last 1 year	24.0	23.6				
Last 2 years	23.8	23.9				
Last 3 years	15.9	14.6				

*Benchmark is the Russell 2000.

22.4

23.2

10.7

Last 4 years

Last 5 years

Since Retention

by SBI (7/99)

Rolling Five Year Returns Compared to Benchmark 8.0 Confidence Level (10%) 6.0 Portfolio RCB Warning Level (10%) 4.0 Benchmark Annualized (%) 2.0 ~ 0.0 -2.0 -4.0 -6.0 Jun-11 Jun-12 Jun-13 Jun-14 90-unf Jun-10 Jun-90 Jun-92 Jun-93 Jun-94 Jun-95 Jun-96 79-nul Jun-98 99-nul Jun-00 Jun-02 Jun-04 Jun-05 Jun-06 Jun-07 Jun-08 Iq-nul Jun-01 Jun-03

SMALL CAP EQUITY - T. ROWE PRICE SMALL CAP STOCK FUND

19.9

20.2

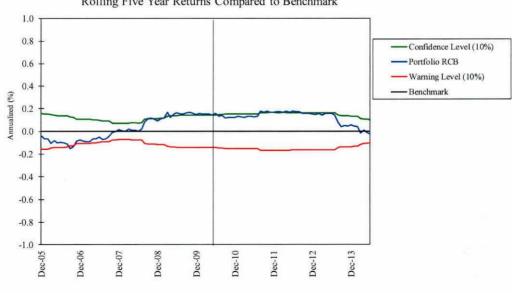
8.0

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN BALANCED – VANGUARD BALANCED INDEX INSTITUTIONAL FUND Periods Ending June, 2014

Portfolio Manage	er: Michael Pe	rre	State's Participation in Fund: Total Assets in Fund:	\$647,625,762 \$6,896,000,000	
Investment Philosophy Vanguard Balanced Index Fund The fund's assets are divided between stocks and bonds, with an average of 60% of its assets in stocks and 40% in bonds. The fund's stock segment attempts to track the performance of the MSCI US Broad Market Index, an unmanaged index representing the overall U.S. equity market. The fund's bond segment attempts to track the performance of the Barclays Capital Aggregate Bond Index, an unmanaged index that covers virtually all taxable fixed-income securities.					
		Staff Comments			
		No tracking issues.			
Quantitative Evaluation		Recommendation			
	Actual	Benchmark*	No action required.		
Last Quarter	3.7%	3.7%			
Last 1 year	16.4	16.6			
Last 2 years	14.3	14.4			
Last 3 years	11.4	11.5			

*Benchmark is 60% CRSP US Total Market Index and 40% Barclays Capital US Aggregate Bond Index.



BALANCED - VANGUARD BALANCED INDEX Rolling Five Year Returns Compared to Benchmark

13.7

13.7

7.4

13.6

13.7

7.5

Last 4 years

Last 5 years

Since Retention

by SBI (12/03)

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN BOND – DODGE & COX INCOME FUND Periods Ending June, 2014

State's Participation in Fund:\$198,714,576Total Assets in Fund:\$27,835,072,375

Staff Comments

Staff has no concerns at this time.

Portfolio Manager: Dana Emery

Investment Philosophy Dodge & Cox Income Fund

The objective of this fund is a high and stable rate of current income with capital appreciation being a secondary consideration. This portfolio is invested primarily in intermediate term, investment-grade quality corporate and mortgage bonds and, to a lesser extent, government issues. While the fund invests primarily in the U.S. bond market, it may invest a small portion of assets in dollar-denominated foreign securities. The duration of the portfolio is kept near that of the bond market as a whole.

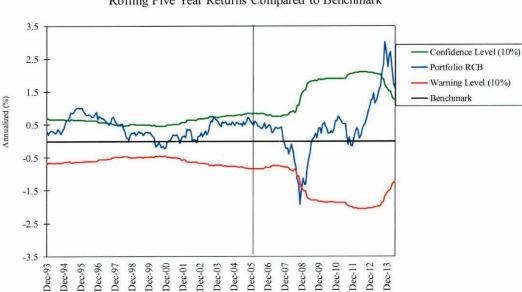
Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	2.2%	2.0%
Last 1 year	6.6	4.4
Last 2 years	4.4	1.8
Last 3 years	4.9	3.7
Last 4 years	5.2	3.7
Last 5 years	6.6	4.9
Since Retention	6.2	5.6
By SBI (7/99)		

Recommendation

No action required.

*Benchmark is the Barclays Capital Aggregate.



BOND - DODGE & COX INCOME FUND Rolling Five Year Returns Compared to Benchmark

Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN BOND – VANGUARD TOTAL BOND MARKET INDEX INSTITUTIONAL Periods Ending June, 2014

Portfolio Manage	r: Kenneth Vo	olpert	State's Participation in Fund:\$172,331,886Total Assets in Fund:\$22,372,000,000		
Investment Philosophy Vanguard Total Bond Market Index Institutional			Staff Comments		
The fund attempts to track the performance of the Barclays Capital Aggregate Bond Index, which is a widely recognized measure of the entire taxable U.S. bond market. The index consists of more than 7,800 U.S. Treasury, federal agency, mortgage-backed, and investment-grade corporate securities. Because it is not practical or cost-effective to own every security in the index, the fund invests in a large sampling that matches key characteristics of the index (such as market-sector weightings, coupon interest rates, credit quality, and maturity). To boost returns, the fund holds a higher percentage than the index in short-term, investment- grade corporate bonds and a lower percentage in short- term Treasury securities.			No tracking issues.		
Qua	antitative Evalu	ation	Recommendation		
	Actual	Benchmark*	No action required.		
Last Quarter	2.0%	2.0%			
Last 1 year	4.3	4.4			
Last 2 years	1.7	1.8			
Last 3 years	3.6	3.7			

*Benchmark is the Barclays Capital Aggregate.

3.6

4.8

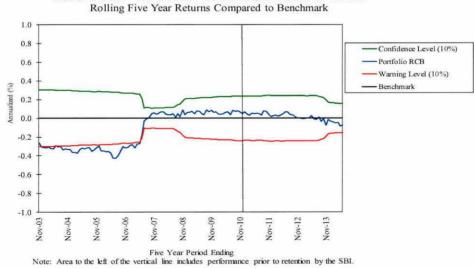
4.8

Last 4 years

Last 5 years

Since Retention

by SBI (12/03)



BOND INDEX - VANGUARD TOTAL BOND MARKET INDEX

3.7

4.9

4.8

A-106

MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL – FIDELITY DIVERSIFIED INTERNATIONAL Periods Ending June, 2014

State's Participation in Fund:\$296,633,541Total Assets in Fund:\$15,095,020,000

Portfolio Manager: William Bower

Investment Philosophy Fidelity Diversified International

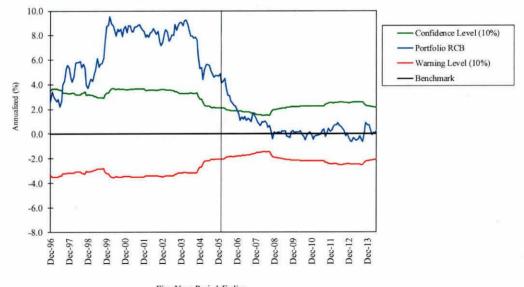
The goal of this fund is capital appreciation by investing in securities of companies located outside of the United States. While the fund invests primarily in stocks, it may also invest in bonds. Most investments are made in companies that have a market capitalization of \$100 million or more and which are located in developed countries. To select the securities, the manager uses fundamental analysis of companies supplemented by relevant economic and regulatory factors and computer-aided quantitative analysis. The manager rarely invests in currency to protect the account from exchange fluctuations.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	3.9%	4.1%
Last 1 year	23.0	23.6
Last 2 years	20.6	21.1
Last 3 years	8.7	8.1
Last 4 years	13.8	13.3
Last 5 years	12.1	11.8
Since Retention	7.5	4.6
By SBI (7/99)		

*Benchmark is the MSCI EAFE-Free.

INTERNATIONAL - FIDELITY DIVERSIFIED INTERNATIONAL Rolling Five Year Returns Compared to Benchmark



Five Year Period Ending Note: Area to the left of the vertical line includes performance prior to retention by the SBI.

Staff Comments

Staff has no concerns at this time.

Recommendation

No action required.

MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL - VANGUARD TOTAL INTERNATIONAL STOCK INDEX Periods Ending June, 2014

Q150 277 221

Portfolio Manage	r: Michael Pe	rre	State's Participation in Fund: Total Assets in Fund:	\$159,377,231 \$90,957,000,000				
Inves Vanguard Tota	stment Philosoj al Internationa	and a second	Staff Comments					
The fund seeks to t Global All Cap ex measure equity mar emerging markets, fund assets are inves common stocks incl assets are allocated b the index.	rack the perform US Index, an ket performance excluding the Un sted in the small, uded in the targe	ance of the FTSE index designed to in developed and nited States. The mid, and large cap t index. The fund	Tracking error due to fair value pricing.					
Qua	antitative Evalu	ation	Recommendation					
	Actual	Benchmark*	No action required.					
Last Quarter	5.0%	5.2%						
Last 1 year	22.5	22.8						
Last 2 years	18.0	18.3						
Last 3 years	5.9	6.1						

Numbers in blue include returns prior to retention by SBI.

11.7

11.1

5.9

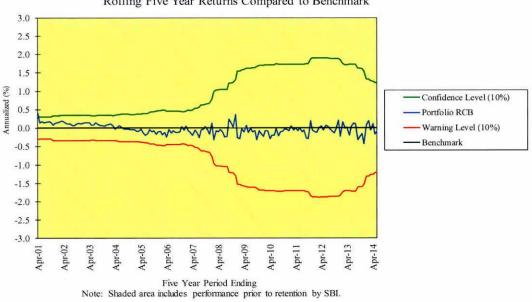
Last 4 years

Last 5 years

Since Retention

by SBI (7/11)

* Benchmark is the FTSE Global All Cap ex US Index beginning June 2013; MSCI ACWI ex US IMI Index beginning December 2010; MSCI EAFE + 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.



INTERNATIONAL - VANGUARD TOTAL INTERNATIONAL INDEX Rolling Five Year Returns Compared to Benchmark

11.5

11.2

6.1

MN STATE 457 DEFERRED COMPENSATION PLAN TARGET RETIREMENT FUNDS – STATE STREET GLOBAL ADVISORS (SSgA) Periods Ending June, 2014

Po	rtfolio M	anager:	Various	Index	Fund Ma	nagers		's Partic Assets i		in Fund:	\$227,597 \$2,510,958	
	Investment Philosophy Target Retirement Funds							S	taff Cor	nments		
allo wit retu infl vol resu sho obj	becation mix h longer t urn object ation, the atility, and ults in larg rter time ectives that	x is the tim ime horizo ives whice ability a reduced ver starting horizons at reflect	ne horizon ons are as h reflect to take d need for equity al are assig a lower t	n of each signed i the nee on mo regular location gned ris olerance	ning the am n fund. Fu nitial risk ed to outp re short-to income. T s. Funds v sk and ret for volati , and theref	nds and pace erm This vith turn ility	Staff has no concerns at this time.					
	ver equity a							R	ecomme	ndation		
mix •	into a specific specific spectrum of the spect	horizon cific risk/r rrent capit n the forv to differe	of each for return object al market ward look ntiate the as to off	fund, wh ective. assumpt ting risk risk/retu	nich transla tions and th /return of arn profiles actly differ	heir the for	4					
nd	Total Equity	Total Fixed Income	US 1-3 Yr Gov't Credit	US TIPS	Allocation US Agg - Bonds	ns: Reba US High Yield Bonds	US Long- Term Gov't Bonds	Large US Stocks	Small/ Mid Cap Stocks	Commodit	Non- US ies Stocks	Globa REIT
50	90.0	10.0	0.0	0.0	0.0	0.0	10.0	35.9	16.0	3.5	34.6	0.0
5	90.0	10.0	0.0	0.0	0.0	0.0	10.0	35.9	16.0	3.5	34.6	0.0
0	90.0	10.0	0.0	0.0	0.0	0.0	10.0	35.9	16.0	3.5	34.6	0.0
5	88.5	11.5	0.0	0.0	1.5	0.0	10.0	35.7	15.3	3.5	34.0	0.0
0	83.5	16.5	0.0	0.0	6.5	0.0	10.0	35.0	13.0	3.5	32.0	0.0
5	77.8	22.2	0.0	0.4	11.0	0.8	10.0	33.7	10.9	3.5	29.7	0.0
0	70.3	29.7	0.0	2.7	13.2	3.8	10.0	31.3	8.8	3.5	26.7	0.0
.5	61.3	38.7	0.0	9.2	18.0	6.0	5.5	27.1	6.5	3.5	22.0	2.2
0	48.7	51.3	1.2	17.8	25.0	6.8	0.5	20.6	4.1	3.5	15.7	4.0
20	40.7	51.5										4.8

Note: Totals may not add due to rounding.

17.5

20.0

18.8

18.0

63.8

65.0

2015

Income

36.2

35.0

20.5

20.0

7.0

7.0

0.0

0.0

14.5

13.8

2.6

2.6

3.5

3.5

10.6

10.1

5.0

5.0

This page left blank intentionally.

TAB D

DATE: August 12, 2014

TO: Members, Investment Advisory Council

FROM: Ryan Hill and Andrew Krech

Staff has reviewed the following information agenda item:

• Review of current strategy.

INFORMATION ITEM:

Review of Current Strategy.

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

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

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

ATTACHMENT A

Minnesota State Board of Investment Pooled Alternative Investments Combined Funds June 30, 2014

Combined Funds Market Value

\$59,450,445,832

Amount Available for Investment

\$4,462,371,288

	Current Level	Target Level	Difference
Market Value (MV)	\$7,427,717,878	\$11,890,089,166	\$4,462,371,288
MV +Unfunded	\$12,234,240,041	\$20,807,656,041	\$8,573,416,000

		Unfunded	
Asset Class	Market Value	Commitment	Total
Private Equity	\$4,513,772,992	\$3,079,781,822	\$7,593,554,814
Real Estate	\$695,821,234	\$168,086,836	\$863,908,070
Resource	\$1,220,566,450	\$1,050,937,371	\$2,271,503,821
Yield-Oriented	\$997,557,202	\$507,716,134	\$1,505,273,335
Total	\$7,427,717,878	\$4,806,522,162	\$12,234,240,041

(Blank) -4-

ATTACHMENT B

Minnesota State Board of Investment - Alternative Investments -

As of June 30, 2014

		As of June 30, 20						
Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC	Period Years
I. REAL ESTATE								
Blackstone								
Blackstone Real Estate Partners V	100,000,000	97,030,342	104,759,534	68,384,068	4,174,052		1.78	
Blackstone Real Estate Partners VI	100,000,000	98,737,973	144,144,365	39,533,393	3,520,125		1.86	
Blackstone Real Estate Partners VII Blackstone Strategic Partners (CSFB)	100,000,000	70,483,414	84,376,856	14,542,495	29,516,586	22.51	1.40	2.59
Strategic Partners III RE	25,000,000	25,555,711	10,756,882	2,976,030	9,006	-10.02	0.54	9.00
Strategic Partners IV RE	50,000,000	49,370,807	26,610,996	18,193,286	1,217,406	-2.34	0.91	6.0
Colony Capital	80 000 000	70 400 200	2 (00	00.000 404	1 617 672	1 (0		10.0
Colony Investors II Colony Investors III	80,000,000 100,000,000	78,482,328 100,000,000	2,600 4,769,078	90,022,404 168,237,707	1,517,672 0	4.68 14.57	1.15 1.73	
Silverpeak Real Estate Partners	100,000,000	100,000,000	1,102,010	100,251,101	0	A. (1.70	10.5
Silverpeak Legacy Pension Partners II	75,000,000	70,753,841	30,671,619	44,736,036	9,857,501	1.28	1.07	
Silverpeak Legacy Pension Partners III	150,000,000	66,143,137	26,970,790	0	83,274,488	-14.77	0.41	6.1
T.A. Associates Realty Realty Associates Fund VI	50,000,000	50,000,000	354,630	75,950,501	0	9.42	1.53	12.0
Realty Associates Fund VII	75,000,000	75,000,000	37,146,043	37,279,081	ő	-0.16	0.99	
Realty Associates Fund VIII	100,000,000	100,000,000	64,389,691	13,781,239	0	-4.01	0.78	
Realty Associates Fund IX	100,000,000	100,000,000	93,118,324	40,825,360	0	9.63	1.34	
Realty Associates Fund X	100,000,000	65,000,000	67,749,825	2,582,845	35,000,000	9.61	1.08	
Real Estate Total	1,205,000,000	1,046,557,553	695,821,234	617,044,445	168,086,836		1.25	
I. RESOURCE Apache Corp.								
1986 Net Profits Interest	30,000,000	30,000,000	3,056,730	57,291,940	0	12.17	2.01	27.50
EIG Global Energy Partners								
EIG Energy Fund XIV EIG Energy Fund XV	100,000,000	105,190,917 108,957,172	52,479,992 117,397,435	80,306,530 21,480,550	9,422,519 41,042,828	8.15 12.79	1.26	7.20
EIG Energy Fund XVI	200,000,000	25,500,000	19,050,821	21,480,550	174,500,000		0.75	
EnCap Energy					· · · · · · · · · · · · · · · · · · ·			
EnCap Energy Capital Fund VII	100,000,000	89,680,365	22,910,493	114,726,305	10,872,378	18.13	1.53	7.0
EnCap Energy Capital Fund VIII	100,000,000	68,145,326	73,017,450	7,262,765	31,854,674	11.13	1.18	3.7
Encap Energy Fund IX Energy & Minerals Group	100,000,000	18,932,869	18,397,031	0	81,067,131	-4.11	0.97	1.5
NGP Midstream & Resources	100,000,000	98,077,949	131,675,488	97,861,601	2,233,074	24.57	2.34	7.2
The Energy & Minerals Group Fund II	100,000,000	74,182,903	111,111,597	132,688	25,817,097	33.39	1.50	2.7
The Energy & Minerals Group Fund III	200,000,000	24,713,607	24,713,607	0	175,286,393	-1.07	1.00	0.32
Energy Capital Partners Energy Capital Partners II-A	100,000,000	82,947,645	104,029,588	28,412,880	20,992,888	22.57	1.60	3.95
Energy Capital Partners III	200,000,000	9,924,224	9,924,224	20,412,000	190,075,776	0.00	1.00	0.53
First Reserve		-1	.,					
First Reserve Fund X	100,000,000	100,000,000	7,664,930	174,944,249	0	30.60	1.83	9.60
First Reserve Fund XI First Reserve Fund XII	150,000,000 150,000,000	150,000,000 139,333,432	87,268,039 117,094,517	80,067,085 40,541,046	10 666 569	2.51 3.77	1.12	7.5
First Reserve Fund XIII	200,000,000	139,333,432	0	40,541,048	10,666,568 200,000,000	N/A	0.00	0.6
NGP	200,000,000		-					100.000
Natural Gas Partners IX	150,000,000	135,957,074	85,667,002	139,330,537	11,382,735	15.42	1.65	6.69
NGP Natural Resources X	150,000,000	88,526,690	96,577,484	1,594,924	61,473,310	8.94	1.11	2.72
Sheridan Sheridan Production Partners I	100,000,000	100,002,260	78,865,997	79,750,000	0	12.37	1.59	7.2
Sheridan Production Partners I Sheridan Production Partners II	100,000,000	95,750,000	59,664,024	5,750,000	4,250,000		0.68	3.75
Resource Total	2,580,000,000	1,545,822,433	1,220,566,450	929,453,101	1,050,937,371		1.39	
II. YIELD-ORIENTED								
Audax Group Audax Mezzanine Fund III	100,000,000	54,601,376	46,911,686	15,543,607	45,398,624	8.16	1.14	4.24
Citicorp Mezzanine								
CM Liquidating Partnership	100,000,000	88,029,296	3,275,907	132,324,719	0	15.83	1.54	14.66
Crescent Capital Group	75 000 000	(0.0(0.043	6 107 660	166 102 401	29,701,079	26.02	2.26	17.74
TCW/Crescent Mezzanine Partners III Gold Hill Venture Lending	75,000,000	68,868,042	6,197,550	156,103,491	29,701,079	30.03	2.30	13.25
Gold Hill Venture Lending	40,000,000	40,000,000	5,387,292	62,355,021	0	11.44	1.69	9.75
Gold Hill 2008	25,852,584	25,852,584	22,443,378	14,583,367	0	12.84	1.43	6.00
GS Mezzanine Partners				100 500 500	1000	0.50		10.00
GS Mezzanine Partners III GS Mezzanine Partners 2006 Institutional	75,000,000	74,934,629 74,999,888	712,030 24,073,369	100,709,739 102,445,787	65,371 25,000,112	8.53 3.90	1.35	10.9
GS Mezzanine Partners 2000 Institutional GS Mezzanine Partners V	150,000,000	88,656,155	45,674,437	72,781,287	52,327,832	10.49	1.34	6.6
Merit Capital Partners						0.000		
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	2,054,872	111,114,465	2,756,759	15.51		14.49
Merit Mezzanine Fund IV	75,000,000	70,178,571	29,306,049	70,633,359	4,821,429	8.13	1.42	9.54
<i>Merit Mezzanine Fund V</i> Merit Energy Partners	75,000,000	51,306,122	44,528,300	12,026,111	23,693,878	4.92	1.10	4.5.
Merit Energy Partners B	24,000,000	24,000,000	53,717,995	143,058,902	0	24.54	8.20	18.0
Merit Energy Partners C	50,000,000	50,000,000	161,366,496	364,427,735	0	31.25	10.52	15.6
Merit Energy Partners D	88,000,000	70,938,303	88,146,276	286,240,815	0	23.93		13.10
Merit Energy Partners E	100,000,000	39,983,197 57,841,607	53,646,676 45,370,745	62,965,133 22,337,486	0 42,158,394	16.54 3.48	2.92	9.7 8.2
Merit Energy Partners F Merit Energy Partners H	100,000,000	81,860,748	45,370,745 80,033,945	3,339,129	18,139,252	1.90	1.02	3.4
Portfolio Advisors	100,000,000	01,000,740	00,000,040	5,557,127				2.1
DLJ Investment Partners II	27,375,168	23,164,217	885,810	34,750,077	4,955,172			14.49
DLJ Investment Partners III	100,000,000	55,454,629	17,401,868	52,668,672	46,544,660	5.74	1.26	8.02

Minnesota State Board of Investment - Alternative Investments -

As of June 30, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Prudential Capital Partners		Constanting of the						
Prudential Capital Partners I Prudential Capital Partners II	100,000,000	97,768,017 94,465,185	3,955,694	148,562,578	6,975,419			
Prudential Capital Partners III	100,000,000	93,030,745	29,324,265 76,237,075	108,063,400 54,978,126	5,936,783 9,875,722	9.06 12.67		9.00 5.20
Prudential Capital Partners IV	100,000,000	32,007,544	31,951,098	1,024,370	67,992,456	5.73		2.44
Summit Partners	46 000 000	10 500 000		13 - 13 - 14 - 14 - 14 - 14 - 14 - 14 -				
Summit Subordinated Debt Fund II Summit Subordinated Debt Fund III	45,000,000 45,000,000	40,500,000 42,690,965	3 13,423,190	93,649,473 42,695,450	4,500,000			
Summit Subordinated Debt Fund IV	50,000,000	37,605,902	28,303,983	17,592,684	2,850,000 12,394,098	8.55 7.69		10.37 6.26
Windjammer Capital Investors						1.00		0.20
Windjammer Mezzanine & Equity Fund II Windjammer Senior Equity Fund III	66,708,861	52,095,147	1,985,663	79,007,099	14,360,347	8.83		
Windjammer Senior Equity Fund IV	75,000,000 100,000,000	64,451,545 25,871,117	57,168,964 24,072,583	56,621,134 192,829	13,139,865 74,128,883	16.05 -6.90		8.49 2.35
Yield-Oriented Total	2,246,936,613	1,678,398,773	997,557,202	2,422,796,046	507,716,134	-0.90	2.04	2.55
IV. PRIVATE EQUITY	2,240,000,015	1,078,398,775	551,551,202	2,422,790,040	507,710,134		2.04	
Adams Street Partners								
Adams Street Global Secondary Fund 5	100,000,000	23,170,000	19,371,344	4,634,115	76,830,000	5.15	1.04	2.03
Advent International Advent International GPE VI-A	50,000,000	47 460 005	64 304 063	28 (27 07)	2 5 40 005	10.40		
Advent International GPE VII-A	50,000,000 90,000,000	47,450,005 36,360,000	54,304,953 45,946,811	28,637,971 900,000	2,549,995 53,640,000	18.43 27.65	1.75	6.25
Affinity Ventures	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	50,500,000	45,546,011	500,000	33,040,000	27.05	1.29	1.70
Affinity Ventures IV	4,000,000	4,000,000	1,506,066	1,541,970	0		0.76	10.00
Affinity Ventures V APAX Partners	5,000,000	4,250,000	2,781,613	1,218,342	750,000	-1.86	0.94	5.99
Apax VIII - USD	200,000,000	46,099,370	44,849,662	0	153,900,630	-4.13	0.97	1.31
aPriori			and the statistics of		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		5.51	1.51
DLJ Merchant Banking Partners III Bane Fund	125,000,000	121,917,361	9,952,917	278,705,787	3,082,639	19.48	2.37	13,75
Banc Fund Banc Fund VII	45,000,000	45,000,000	40,481,010	812,725	0	1 17	0.02	0.26
Banc Fund VIII	98,250,000	98,250,000	129,903,104	7,661,973	0	-1.17 14.60	0.92	9.25 6.18
Banc Fund IX	67,000,000	0	0	0	67,000,000	N/A	0.00	0.05
Blackstone Blackstone Capital Partners IV	70,000,000	72,150,427	31,298,982	164,364,076	2 120 001	27.70	2.71	11.07
Blackstone Capital Partners V	140,000,000	129,280,499	122,323,008	77,829,763	2,120,881 12,642,206	37.70	2.71 1.55	11.97 8.41
Blackstone Capital Partners VI	100,000,000	45,462,787	52,494,285	5,119,762	54,537,213	12.85	1.27	5.93
Blackstone Strategic Partners (CSFB) DLJ Strategic Partners	100,000,000	95,064,515	1 1 (0 000	1 40 3 40 074				
Strategic Partners II-B	100,000,000	83,892,891	4,468,880 4,832,264	169,360,076 155,679,724	3,385,485 10,307,109	22.45 35.19	1.83 1.91	13.44 10.95
Strategic Partners III VC	25,000,000	24,195,371	10,748,435	21,633,298	804,629	6.60	1.34	9.08
Strategic Partners III-B	100,000,000	76,520,773	45,228,001	68,727,242	16,637,131	7.06	1.49	9.08
Strategic Partners IV-B Strategic Partners IV VC	100,000,000 40,500,000	89,674,343 38,641,845	57,793,786 27,374,946	84,096,577 26,978,105	10,325,657	13.95	1.58	6.26
Strategic Partners V	100,000,000	68,594,074	79,614,862	25,969,315	1,693,261 31,405,926	9.78 36.57	1.41 1.54	6.03 2.87
Strategic Partners VI	150,000,000	7,500,000	7,500,000	0	142,500,000	0.00	1.00	0.21
BLUM Capital Partners Blum Strategic Partners II	50,000,000	40,185,889	261 267	00 700 070	0.107.604			
Blum Strategic Partners III	75,000,000	74,806,485	261,257 16,283,617	89,708,870 59,233,049	2,127,584 193,515	22.43 -1.03	2.24	12.95 9.08
Blum Strategic Partners IV	150,000,000	147,168,674	85,934,504	63,978,778	15,258,645	0.17	1.02	6.61
Carval Investors								
CVI Global Value Fund CarVal Credit Value Fund I	200,000,000 100,000,000	190,000,000 95,000,000	89,701,972 152,282,751	220,471,602 23,494,887	10,000,000 5,000,000	9.89 22.27	1.63 1.85	7.46
CVI Credit Value Fund A II	150,000,000	142,500,000	166,636,718	428,690	7,500,000	19.73	1.05	1.66
Chicago Growth Partners (William Blair)					e secorem			
William Blair Capital Partners VII Chicago Growth Partners I	50,000,000 50,000,000	48,150,000 52,441,998	1,951,929 18,670,534	64,492,866 40,242,061	1,650,000 300,000	8.06		13.31
Chicago Growth Partners II	60,000,000	51,416,980	51,483,630	32,667,311	8,331,020	2.96 18.29	1.12 1.64	8.93 6.30
Court Square Capital Partners	<i>2</i> 8		1.5	1200 - Marine	0,001,020	10.27	1.04	0,50
Court Square Capital Partners Court Square Capital Partners II	100,000,000	80,294,872	1,355,559	180,017,021	10,505,273	28.94		12.55
Court Square Capital Partners II Court Square Capital Partners III	175,000,000	158,809,890 26,865,456	98,791,842 24,815,022	136,495,781 1,950,384	17,830,316 148,134,544	10.45	1.48 1.00	7.82 2.08
Crescendo	175,000,000	20,000,400	24,015,022	1,000,004	140,154,544	-2.05	1.00	2,00
Crescendo IV	101,500,000	101,500,000	16,097,885	34,972,153	0	-6.84	0.50	14.31
CVC Capital Partners CVC European Equity Partners V	121,668,315	120,221,308	113,011,394	56,196,486	1 447 007	10 70	4.24	121
CVC Capital Partners VI	308,068,076	2,139,605	1,038,187	30,190,480	1,447,007 305,928,471		1.41 0.49	6.26 0.98
Diamond Castle Partners Diamond Castle Partners IV								
DSV Partners	100,000,000	89,548,359	42,941,640	51,011,538	10,492,126	0.75	1.05	7.81
DSV Partners IV Elevation Partners	10,000,000	10,000,000	31,652	39,196,082	0	10.61	3.92	29.22
Elevation Partners Fox Paine & Company	75,000,000	68,979,413	9,477,697	97,347,813	12,106,177	10,81	1.55	9.12
Fox Paine Capital Fund II GHJM Marathon Fund	50,000,000	45,926,013	17,402,797	73,394,027	12,326,825	19.51	1.98	14.00
GHJM Marathon Fund V TrailHead Fund	50,000,000	49,928,158	36,595,918	55,935,083	148,553		1.85	9.74
GS Capital Partners	20,000,000	10,014,187	8,851,931	6,955	9,985,813	-8.70	0.88	2.35
GS Capital Partners 2000	50,000,000	50,000,000	6,925,901	104,131,433	0	22.47	2.22	13.83
GS Capital Partners V	100,000,000	66,390,364	36,646,577	149,074,047		17.44	2.80	9.25
GS Capital Partners VI GTCR Golder Rauner	100,000,000	68,765,149	35,407,290	55,919,857	23,401,845	4.34	1.33	7.41
GolderThomaCressey & Rauner Fund IV	20,000,000	20,000,000	115,507	42,300,018	0	25.06	2.12	20.41
						-3.88		16.00
GTCR VI	90,000,000	90,000,000	2,258,466	77,813,800	0			
GTCR VI GTCR VII	90,000,000 131,250,000	129,390,615	552,460	306,551,141	1,859,375	21.93	2.37	14.39
GTCR VI	90,000,000				1,859,375 5,460,067			

Minnesota State Board of Investment

- Alternative Investments -As of June 30, 2014

Indiana & Friedman Capital Partners V 160,000,000 146,115,880 20,381,384 15,517,142 28,02 2.44 Helmma & Friedman Capital Partners VI 175,000,000 186,551,235 77,064,775 21,091,100 77,713,84 11,64 1.76 Helmma & Friedman Capital Partners VI 196,902,000 186,751,235 77,064,775 21,091,100 77,713,84 11,110 Helmma & Friedman Capital Partners VI 196,902,901 40,703,241 39,966,837 33,8754,335 10,202,164 0.15,52 22,21 10,202,184 10,202,184 10,202,184 10,202,184 10,202,184 10,202,184 10,202,184 10,202,184 10,212,184 10,212,184 10,212,184 15,017,121 23,012,184 15,017,121 23,017,201 13,017,121 23,017,201 13,017,121 15,017,002 14,017,120 14,014,120 14,014,120 14,017,121 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120 14,014,120	Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Helman & Friedman Capital Partners VI 175,000,000 186,551,255 79366,735 125,091,108 7,757,134 1.16.9 K. Investment Partners 196,929,501 46,703,241 39,966,837 3,347,503 150,226,560 -7,95 0,93 K.K.M.Blornikan Fund 200,000,000 200,000,000 65,055,963 33,87,54,353 10 152,224,210 159 Learning Capital Partners 200,000,000 60,137,121 68,345,231 68,342 139,862,379 18,40 144,773 84 144 144,773 144 144 144,773 144 144,773 145,753 13,864,754 13,986,2879 18,20 1,15 Learington Capital Partners VI 200,000,000 60,137,121 68,342 139,862,379 18,40 143 144 145,753 143,753,753 143,753,753 143,753,753								and a second sec	
Helman & Friedman Capital Partners VII 50,000,000 31,887,368 32,670,143 2,385,664 18,112,032 7.11 1.10 IAF Taud VII 196,292,501 46,703,241 39,966,837 3,347,503 150,220,201 -7.95 0.93 1 KKR Millionis bursts 200,000,000 202,075,014 155,097,783 148,055,324 10,552,184 8.01 1.52 2 1.53 1 1.53 1.54 1.55 1.55 1.55 1.55 1.56 1.56 1.56 1.56 1.50 1.56 1.50									9.58 7.25
IK is und 10 196.929,501 46,703,241 39,666,837 3,347,503 150.226,260 -7.95 0.93 KARP 2006 TRANS Roberts 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 200,000,000 45,850,237 158,861,844 158,807,248 110,532,101 55,800,265 78,861,844 158,807,249 120,200,000 N/A 0 0 0 158,000,000 N/A 0 0 0 0 158,000,000 N/A 0 0 0 0 158,000,000 N/A 0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
IK Fund VII 196,225,210 -6,795 0.93 KARDberg Krows Roberts 200,000,000 260,000,000 65,505,963 338,774,355 100,226,260 -7.95 0.85 KRK Millennian Fund 200,000,000 260,000,000 65,505,963 338,774,355 100,252,184 61,52 2.20 11 Corean Equity Investors VI 200,000,000 64,377,211 65,8342 100,802,879 18.20 1.41 11 Lexingting Capital Partners 100,000,000 98,365,297 59,580,002 78,861,484 11,644,703 8.46 1.41 11 Merced Partners II 100,000,000 103,290,695 109,971,07 0 8.12 33 0 2.42 1.33 Merced Partners II 100,000,000 100,000,000 103,290,695 109,971,07 0 8.12 33 76 34 1.44 1.33 200,000 1.33 33 34		50,000,000	51,007,500	52,070,145	2,505,004	10,112,052	1.11	1.10	2.10
KKR 2006 Fund 200,000,000 200,000 <td></td> <td>196,929,501</td> <td>46,703,241</td> <td>39,966,837</td> <td>3,347,503</td> <td>150,226,260</td> <td>-7.95</td> <td>0.93</td> <td>0.79</td>		196,929,501	46,703,241	39,966,837	3,347,503	150,226,260	-7.95	0.93	0.79
KRF. 2006 Fund 200,000,000 202,775,014 155,093,788 148,055,324 103,802,879 8.00 1.59 Green Equip Investor IV 200,000,000 60,137,121 66,345,231 658,142 103,802,879 18.20 11.5 Lasington Capital Partners VII 200,000,000 144,195,376 135,693,005 73,615,706 51,804,624 19.20 1.40 Lasington Capital Partners VII 200,000,000 0 0 0 150,000,000 0 150,000,000 0 150,000,000 0 150,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000 101,000,000,000 101,000,000,000 110,000,000 110,000,000 101,000,000,000 101,000,000,000 100,000,000 101,000,000,000 101,000,000,000 101,000,000,000 102,000,000 111,000,000,000 101,000,000,000 101,000,000,000 101,000,000,000 111,0									
Lemard Green & Partners Green Explicit Neurostro VI Lexington Capital Partners Lexington Capital Partners Higher Capi									
Green Equip. Investors VI 200,000,00 60,137,121 68,345,231 638,342 19,862,879 18.20 1.15 1 Lexington Cipital Partners VI.B 100,000,000 98,365,297 59,580,026 78,861,448 1633,470 8.46 1.41 1 Lexington Cipital Partners VI.B 150,000,00 63,768,881 21,989,450 104,405,983 0 24.63 1.88 7.88,61,448 1.83,203,000 78,81,200,000 0 78,81,200,000 0 78,81,200,000 0 78,81,200,000 0 78,81,200,000 0 78,81,200,000 0 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,200,000 78,81,480,953 0 78,81,480,953 0 78,81,480,953 0 78,81,480,953 0 78,81,480,953 0 78,81,480,953 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <td></td> <td>200,000,000</td> <td>202,775,014</td> <td>155,093,758</td> <td>148,055,324</td> <td>10,529,184</td> <td>8.03</td> <td>1.50</td> <td>7.76</td>		200,000,000	202,775,014	155,093,758	148,055,324	10,529,184	8.03	1.50	7.76
Lexington Capital Partners VI Lexington Capital Partners VII Lexington Capital Partners VII Lexington Capital Partners VII Lexington Capital Partners VII Lexington Capital Partners VII Partners III 100,000,000 NM edge Partners III Nordic Capital Partners III Nordic Capital Nordic Cap		200 000 000	60 137 121	68 345 231	658 342	139 862 879	18 20	1 15	2.29
Lacington Capital Partners VI-B 100,000,000 98,365,297 59,58,022 77,88,148 1,63,703 84 1,41 Lacington Capital Partners VIII 150,000,000 0		200,000,000	00,137,121	00,545,251	058,542	159,002,075	10.20	1.15	6.67
Lacington Capital Pattners VIII 150,000,000 0		100,000,000	98,365,297	59,580,026	78,861,484	1,634,703	8.46	1.41	8.51
Nerced Partners II 75,000,000 63,768,881 21,989,450 104,406,983 0 24,63 1.98 Merced Partners III 100,000,000 100,000,000 103,200,655 19,997,107 0 8.12 1.33 Nordic Capital Nordic Capital Nordic Capital 100,000,000 103,200,655 19,997,107 0 8.12 1.33 Nordic Capital Nordic Capital 198,692,528 43,660,668 40,601,334 164,069 155,031,660 15.87 0.33 0 Public Pension Capital Management 198,692,528 43,600,868 40,601,334 164,069 155,031,660 15.87 0.33 0 1.23 0.44 0.87 1.23 0.34 1.25 0.34 1.25 0.35 1.23 1.35 0.60,000 N/A 0.00 0 0 0 0 0 1.23 0.44 0.37 1.25 0.31 1.16 1.00 0.123 1.28 1.415 1.03 1.03 1.22 0.34 1.25 0.35									5.05
Merced Parimers II 75,000,000 63,768,881 21,989,450 104,406,983 0 24,63 1.23 Merced Parimers IV 125,000,000 46,875,000 45,899,953 0 78,125,000 493 0.23 0.83 0.23 0.73 0.75		150,000,000	0	0	0	150,000,000	N/A	0.00	0.32
Mescel Partners II 100,000,000 100,000,000 100,200,655 19,99,107 0 8.12 1.23 Nordic Capital Fund VIII 125,000,000 45,80,9953 13,657,628 49,418 183,283,330 -18,79 0,850 PERMIRA 198,692,528 43,660,688 40,601,334 164,069 155,031,660 -15,87 0,33 0 8,000,000 0 0 0 80,000,000 N/A 0,000,000 N/A 0,000,000 N/A 0,000,000 N/A 0,000,000 N/A 0,000,000 N/A 0,000,000 12,87,149 5,465,766 0 -12,29 0,34 1 Sightline Healthcare Fund IV 7,700,000 85,337,537 66,373,755 166,175,499 11,611,453 10,81,373,754 164,373,754 164,373,754 164,175,397,545 11,611,453 10,000,000 85,337,537 66,357,494 162,052,000 14,22,003 84,676,589 15,98 0,22 164,15 164,175,397,545 164,175,397,545 164,052,000,113,21,000 18,397,3754 164,052,000,113,21,000 18,397,3754		75 000 000	63 769 991	21 080 460	104 406 083	0	24 62	1.09	7.25
Marced Partners IV 125,000,000 46,875,000 43,806,953 0 78,125,000 4.93 0.98 Nordic Capital Fund YIII 200,416,885 17,132,954 13,657,628 49,418 183,253,930 18.79 0.80 0 Permira V 198,692,525 43,660,868 40,601,334 164,609 155,031,660 15.877 0.93 0 Partine Persion Capital Management 7,603,265 7,603,265 7,603,265 7,603,265 0,19,44 0,480,000,000 0 0 0 0 0.80,000,000 N/A 0.000 1.287,149 5,465,766 0.12,29 0.34 11.681,453 10.18 1.70 10 Sightfine Healthcare Fund IV 7,700,000 7,753,673 2,728,881 4,621,834 0 1.34 10.84 1.461,453 10.18 1.70 10 Sightfine Healthcare Fund IV 100,000,000 13,237,411 14,083,609 0 84,676,589 1.59,378,81 14,42 1.61,423 10.18 1.70 10 1.51,378,81 1.60,000,000									4.15
Nordic Capital Nordic Capital Nordic Capital Fund YIII 200,416,885 17,132,954 13,657,628 49,418 183,283,930 18.79 0.80 PERMIRA Permira V 198,692,523 43,660,868 40,601,334 164,069 155,031,660 155,031,660 155,031,660 155,031,660 158,77 0.93 0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.97</td></t<>									0.97
Nondic Capital Fund VIII 200,416,885 17,132,954 13,657,628 49,418 183,283,930 -18.79 0.80 Permina V Permina V 198,692,523 43,660,868 40,601,334 164,069 155,031,660 15.87 0.83 0 Public Pension Capital Management Public Pension Capital 80,000,000 0 0 0 80,000,000 N/A 0.000 Styline Healthcare Fund IV 7,603,265 7,603,265 521,963 6,094,262 0 4.48 0.87 Styline Intellite Healthcare Fund IV 7,700,000 7,733,673 2,728,881 4,621,834 0 -1.34 0.95 10 Styler Lake Partners II 100,000,000 85,337,373 6,638,404 70,971,978 16,642,539 -1.58 62,137,844 1,641,453 10.18 10.8 16,025,000 3,597,893 5,200,011 4.42 0.83 3,978,953 5,600,001 3,82 0.8 1.42 0.8 1.63,250 0 1.42 0.8 0.8 1.13 1.13 1.13 1.13				17.9 C.		200 4 00000			
Permia V 198,692,528 43,660,868 40,601,334 164,069 155,031,660 15.87 0.93 0 Public Pension Capial 80,000,000 0 0 0 0 80,000,000 N/A 0.00 0 0 0 80,000,000 N/A 0.00 0	Nordic Capital Fund VIII	200,416,885	17,132,954	13,657,628	49,418	183,283,930	-18.79	0.80	0.80
Public Pension Capital Management Public Pension Capital 80,000,000 0 0 0 80,000,000 N/A 0.00 RWI Ventures RWI Ventures I WI Ventures 7,603,265 7,603,265 521,963 6,094,262 0 4.48 0.87 3 Sightline Healthcare Fund IV 7,700,000 7,753,673 2,728,881 4,621,834 0 1.34 0.95 10 Silver Lake Partners II 100,000,000 83,314,15 46,003,785 106,175,489 11,681,453 10.18 1.70 10 Silver Lake Partners IV 100,000,000 15,323,411 14,035,609 0 84,676,58 1.59 9.92 1,150,944 3,597,593 5,200,001 1.42 0.78 0 9.94 1.00,000,000 14,329,999 31,150,941 3,527,476 8,75,000 8,10 1.83 0.13,81 1.42 0.96 0 1.82 0.96 0 1.82 0.96 0 1.22 0.96 0 1.22 0.96 0 1.80 1.80 1.81 1.80							10.00		
Public Pension Capital 80,000,000 0 0 0 0 80,000,000 N/A 0.00 RWI Ventures 7,603,265 521,963 6,094,262 0 4.48 0.87 13 Sightine Healthcare Fund III 20,000,000 7,753 2,728,81 4,621,834 0 -1.34 0.95 10 Silver Lake Partners 100,000,000 89,314,415 46,093,785 106,175,489 11,681,453 10.18 1.70 10 Silver Lake Partners III 100,000,000 85,337,573 6,728,81 4,621,834 0 -1.34 0.92 1 Split Rock Partners III 100,000,000 43,275,001 33,764,092 77,70,098 5,200,001 -4.42 0.78 9 Split Rock Partners Splot Rock Partners		198,692,528	43,660,868	40,601,334	164,069	155,031,660	-15.87	0.93	0.50
RWI Ventures 7,603,265 7,603,265 521,963 6,094,262 0 4.48 0.87 3 Sightline Healthcare Fund IV 7,700,000 7,753,673 2,728,881 4,621,834 0 -1.34 0.95 10 Sightline Healthcare Fund IV 7,700,000 8,313,4115 4,609,785 10,611,75,489 11,681,453 10.18 1.0 10 0.000,000 15,337,3173 66,354,044 7,021,020 15,397,843 16.42 15,397,843 16.42 1.18 1.0 1.0 11,681,453 10.18 1.0 1.0 11,681,453 10.18 1.0 1.0 1.00,000,000 15,337,317 66,354,044 7,021,020 15,397,893 5,200,001 4.42 0.78 0.0 1.0 0.18 1.0 0.0 1.0 0.0 0.00 1.0 0.0 0.0 1.0 0.0 1.0 0.0 0.0 1.0 0.0 0.0 1.0 1.0 0.0 0.0 1.0 1.0 1.0 0.0 0.0 1.0		80.000.000	0	0	0	80 000 000	N/A	0.00	0.12
RWT Ventures I 7,603,265 7,603,265 7,603,265 521,963 6,094,262 0 4.48 0.87 3 Sightline Healthcare Fund III 20,000,000 20,000,000 1,287,149 5,465,766 0 1.2.29 0.34 1.3 Sightline Lake Partners 100,000,000 85,337,573 66,385,404 7,021,026 15,397,854 16.42 1.64 0.76 5 59,18 66,050,000 44,799,999 31,150,944 3,597,893 5,200,001 4.42 0.78 5 0.000 1.83,274,070 8,510,219 1.60,25,000 1.80 0.33,764,022 7,770,098 16,025,000 1.81 1.01 1.33 1.12 2.30 0.31 1.60,050,000 33,764,022 7,770,000 1.50 <td< td=""><td></td><td>80,000,000</td><td>U</td><td>0</td><td>0</td><td>30,000,000</td><td>N/A</td><td>0.00</td><td>0.12</td></td<>		80,000,000	U	0	0	30,000,000	N/A	0.00	0.12
Sightline Healthcare Fund IV 20,000,000 20,000,000 1,287,149 5,465,766 0 -12.29 0.34 13 Sightline Healthcare Fund IV 7,700,000 7,753,673 2,728,881 4,621,834 0 -1.34 0.95 10 Silver Lake Partners II 100,000,000 89,314,415 46,093,785 166,175,489 11,681,453 10.18 1.70 10 Silver Lake Partners II 100,000,000 85,337,573 66,355,404 70.921,026 15,397,584 164,27 1.87 1.61 15 1.62 1.60 1.61 15 1.61 15 1.61 15 1.61 15 1.61 15 1.61 15 1.61 15 1.61 <td></td> <td>7,603,265</td> <td>7,603,265</td> <td>521,963</td> <td>6,094,262</td> <td>0</td> <td>-4.48</td> <td>0.87</td> <td>8.00</td>		7,603,265	7,603,265	521,963	6,094,262	0	-4.48	0.87	8.00
Sightime Healthcare Fund IV 7,700,000 7,753,673 2,728,881 4,621,834 0 -1.34 0.95 10 Silver Lake Partners II 100,000,000 89,314,415 46,003,755 66,385,404 70,921,026 15,397,854 16,414,51 10.18 1.70 10 Silver Lake Partners II 100,000,000 15,332,371 16,615,549 11,681,453 10.18 1.70 10 Split Rock Partners IV 100,000,000 44,799,999 31,150,944 5,597,833 5,200,001 44,22 0.96 6 Summit Partners I 60,000,000 44,799,999 31,375,4092 7,770,098 16,025,000 -1.12 0.96 6 Summit Ventures V 25,000,000 24,125,000 84,548 33,274,796 875,000 81 10 11.8 1 11.2 1.18 1 1.18 1 1.12 1.18 1 1.16 1.18 1 1.16 1.18 1.16 1.16 1.16 1.15 1.16 1.16 1.16		1000 C							
Silver Lake Partners II 100,000,000 89,314,415 46,093,785 106,175,489 11,681,453 10.18 1.70 10 Silver Lake Partners III 100,000,000 85,337,573 66,385,404 70,921,026 15,397,854 16.42 1.61 75 Split Rock Partners II 100,000,000 15,323,411 14,083,609 0 84,675,589 1.59 0.92 0.93 84,676,589 1.59 0.92 0.93 84,676,589 1.59 0.92 0.93 84,676,589 1.602,5000 -4.42 0.78 0.90 0.94 84,676,589 1.602,5000 -4.42 0.78 0.90 1.01 1.02 0.91 1.01 1.01 0.000,000 5.000,000 1.01 1.31 1.0 1.01 1.01 1.01 1.01 1.01 1.02 0.02,947 102,022,947 102,022,947 102,022,947 102,022,947 102,022,947 102,022,947 102,022,947 102,022,947 102,000,000 1.01 1.01 1.01 1.01 1.01 1.01 1.01									15.44
Silver Lake Partners II 100,000,000 89,314,415 60,335,404 70,01,75,489 11,681,433 10.18 1.70 10 Silver Lake Partners IV 100,000,000 15,337,573 66,385,404 70,921,026 15,397,584 16,42 16,41 16,1 Split Rock Partners IV 100,000,000 44,799,999 31,150,944 3,597,833 5,200,001 -4,42 0,78 5,97,874 66,000,000 43,275,000 33,764,092 7,770,098 16,025,000 -18,80 3,274,796 87,5000 81,518 31,274,796 87,5000 18,80 10,138 11,12 3,274,796 16,025,000 18,80 3,274,796 87,5000 18,80 3,274,796 87,5000 11,81 10,000,000 18,80,313 3,4128,882 1,085,000 0,31 1,03 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 11,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 10,33 <td></td> <td>7,700,000</td> <td>7,753,673</td> <td>2,728,881</td> <td>4,621,834</td> <td>0</td> <td>-1.34</td> <td>0.95</td> <td>10.76</td>		7,700,000	7,753,673	2,728,881	4,621,834	0	-1.34	0.95	10.76
Silver Lake Partners III 100,000,000 85,337,573 66(385,404) 70,921,026 15,379,854 16.42 1.61 Split Rock Partners IV 100,000,000 15,323,411 14,083,609 0 84,676,589 -15.98 0.92 Split Rock Partners I 50,000,000 44,799,999 31,150,944 3,597,893 5,200,001 -4.42 0.78 5 Summit Partners II 60,000,000 24,125,000 84,548 33,274,796 875,000 8.10 1.38 16 Summit Partners I 100,000,000 54,000,000 51,899,350 8,676,064 46,000,000 18.77 1.18 1 Thoma Cressey Find VII 50,000,000 53,913,810 96,053,915 0 23.30 2.30 1.03 10 Thoma Cressey Find VIII 70,000,000 69,30,517 69,406,154 92,278,22 770,000 15,443,410 13,574,160 5,875,000 8.07 1.37 Thoma Cressey Find VIII 70,000,000 29,400,000 15,140,474 10,504,694 600,000 2.60 <		100,000,000	90 214 416	46 002 786	106 175 490	11 691 457	10.19	1 70	10.00
									7.25
Split Rock Partners 50(00,000 44,799,999 31,150,944 3,597,893 5,200,001 4.42 0.78 63 Split Rock Partners II 60,000,000 43,275,000 33,764,092 7,770,098 16,025,000 -1.82 0.96 0.96 Summit Partners V 25,000,000 24,125,000 84,548 33,274,796 875,000 8.10 1.38 1.12 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.97 0.96 0.96 0.96 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.98 0.97 0.93 0.93 0.97 0.98 0.97 0.93 0.93 0.93 0.93 0.97 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93					Construction and Construction and Construction				1.75
Split Rock Partners II 60,000,000 43,275,000 33,764,092 7,770,098 16,025,000 -1.82 0.96 6 Summit Partners 25,000,000 24,125,000 84,548 33,274,796 875,000 81,0 1.38 10 Summit Ventures V 25,000,000 54,000,000 51,899,350 8,676,664 46,000,000 18,70 1.12 2 Thoma Cressey Fund VII 35,000,000 50,000,000 55,43,810 96,053,915 0 23,30 2,03 10.0 12,02 10,000,000 59,43,810 96,053,915 0 23,30 2,03 10.0 12.0 12,02 10,000,000 15,140,474 10,504,694 600,000 -2.65 0.87 11 30,000,000 15,042,474 10,504,694 600,000 -2.65 0.87 11.3 Thomas McNerney & Partners I 30,000,000 15,040,000 13,1574,160 5,875,000 80,7 1.39 8 Varde Fund X 100,000,000 150,000,000 150,000,000 150,000,000 12,11 1.4		340 18	11 A	13 14		N 250			
Summit Partners 25,000,000 24,125,000 84,548 33,274,796 875,000 8.10 1.38 10 Summit Partners Growth Equity Fund VIII 100,000,000 54,400,000 51,899,350 8,676,064 46,000,000 18,70 1.12 31,71 Thoma Cressey Interset 102,022,947 68,517,219 52,350,371 0 19,72 1.18 1 Thoma Cressey Fund VI 35,000,000 53,43,810 96,053,915 0 23,30 2.00 1 Thoma Cressey Fund VII 70,000,000 69,832,574 69,405,154 92,278,226 770,000 15.04 2.35 2.00 1 1.03 13,174,160 5,875,000 8.07 1.13 1.13 1.13 1.14 1.05,046,044 600,000 1.5,100 1.5,100 1.5,10 2.00 1.30 1.35 1.14 1.30 1.30 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.3									9.16
Summit Ventures V 25,000,000 24,125,000 84,548 33,274,796 875,000 81,0 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.38 10 1.33 11 13 11 13 11 13 11 13 11 13 11 13 11 13 11 13 11 13 11 13 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 11 31 31 31 31 31 31 31 31 31 31 31 31 31 31 31 31 31 31 31 <td></td> <td>60,000,000</td> <td>43,275,000</td> <td>33,764,092</td> <td>7,770,098</td> <td>16,025,000</td> <td>-1.82</td> <td>0.96</td> <td>6.17</td>		60,000,000	43,275,000	33,764,092	7,770,098	16,025,000	-1.82	0.96	6.17
Summit Partners Growth Equity Fund VIII 100,000,000 54,000,000 81,899,350 8,676,664 46,000,000 18,70 1.12 2 T. Rowe Price 102,022,947 102,022,947 68,517,219 52,350,371 0 19,72 1.18 3 Thoma Cressey Thoma Cressey 33,015,000 58,331,0 66,533,915 0 23,30 2.00 1.03 12 Thoma Cressey Fund VIII 70,000,000 55,438,10 96,053,915 0 23,30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.30 2.03 2.03 2.03 2.03 2.03 2.03 2.03 2.03 2.03 2.03 2.03 <t< td=""><td></td><td>25 000 000</td><td>24.126.000</td><td>04 640</td><td>22 224 206</td><td>976 000</td><td>8 10</td><td>1 20</td><td>16.25</td></t<>		25 000 000	24.126.000	04 640	22 224 206	976 000	8 10	1 20	16.25
T. Rowe Price 102,022,947 102,022,947 68,517,219 52,350,371 0 19.72 1.18 T Thoma Cressey Indiana Cressey Indiana Cressey Indiana Cressey 102,022,947 68,517,219 52,350,371 0 19.72 1.18 1 Thoma Cressey Fund VII 50,000,000 50,000,000 68,932,574 69,406,154 92,278,226 770,000 15.04 2.33 2.03 13 Thoma Cressey Fund VIII 70,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 113 34,128,882 0.1054 2.35 8 70,000 15.04 2.35 8 70,000 15.04 2.35 8 70,000 15.04 70,000 15.14 2.35 8 70,000 15.14 2.35 8 70,000 15.14 2.35 8 70,000 15.14 2.35 8 70,000 15.14 2.00 1.35 71.33 8 2.35 70,000 1.35 1.41 14 14 150,000,000 151,190,600 0 0 12.11									3.15
Thoma Cressey Thoma Cressey Fund VI 35,000,000 33,915,000 698,131 34,128,882 1,085,000 0.31 1.03 15 Thoma Cressey Fund VII 50,000,000 55,43,810 96,053,915 0 2.30 1.03 15 Thoma Cressey Fund VIII 70,000,000 68,932,574 69,406,154 92,278,226 770,000 15.04 2.35 87 ThomasMcNerney & Partners I 30,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 11 ThomasMcNerney & Partners I 50,000,000 44,125,000 47,653,403 13,574,160 5,875,000 807 1.39 8 Varde Fund 100,000,000 150,000,000 159,180,600 0 20,000,000 9,181 1.43 4 Vestar Capital Partners 200,000,000 150,000,000 152,185,820 0 20,000,000 9,41 1.07 0 Vestar Capital Partners IV 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13,54 1.84 1.05 2 Vestar Capital Partners IV 100,000,000 100,000,000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>N/A</td>									N/A
Thoma Cressey Fund VI 35,000,000 53,915,000 668,131 34,128,882 1,085,000 0.031 1.03 1 Thoma Cressey Fund VII 50,000,000 5,543,810 96,053,915 23.30 24.30 23.30 24.30 23.30 23.30 <td></td> <td>102,022,217</td> <td>100,000,010</td> <td></td> <td></td> <td></td> <td>1.4.6.400.000</td> <td></td> <td></td>		102,022,217	100,000,010				1.4.6.400.000		
Thoma Cressey Fund VIII 70,000,000 68,932,574 69,406,154 92,278,226 770,000 15.04 2.35 88 ThomasMcNerney & Partners 30,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 113 ThomasMcNerney & Partners I 50,000,000 44,125,000 47,653,403 13,574,160 5,875,000 8.07 1.39 80 Varde Fund 100,000,000 100,000,000 59,780,269 140,385,254 0 15.18 2.00 60 Varde Fund X 150,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 C Vestar Capital Partners 75,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 34,653,913 36,225,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Equity Partners 100,000,000 100,000,000 139,902,706 0 10.45 1.05 2 Warburg Pincus Private Equity XI 200,000,000 100,000,000 139,902,706 <td></td> <td>35,000,000</td> <td>33,915,000</td> <td>698,131</td> <td>34,128,882</td> <td>1,085,000</td> <td></td> <td></td> <td>15.86</td>		35,000,000	33,915,000	698,131	34,128,882	1,085,000			15.86
ThomasMcNerney & Partners 30,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 11 ThomasMcNerney & Partners I 50,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 11.3 Varde Fund 100,000,000 100,000,000 59,780,269 140,385,254 0 15.18 2.00 6 Varde Fund X 100,000,000 150,000,000 152,1590,600 0 0 12.11 1.43 4 Vestar Capital Partners Vestar Capital Partners 20,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 8 Warburg Pincus Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity X 10									13.85
Thomas/CNerney & Partners I 30,000,000 29,400,000 15,140,474 10,504,694 600,000 -2.65 0.87 1.39 8 Varde Fund 50,000,000 44,125,000 47,653,403 13,574,160 5,875,000 8.07 1.39 8 Varde Fund X 100,000,000 150,000,000 59,780,269 140,385,254 0 15.18 2.00 6 Varde Fund X 200,000,000 150,000,000 159,780,269 140,385,254 0 12.11 1.43 4 Varde Fund X 200,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 C Vestar Capital Partners IV 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 8 Warburg Pincus Princus Pincus Princus Princu		70,000,000	68,932,574	69,406,154	92,278,226	770,000	15.04	2.35	8.16
ThomasMcNerney & Partners II 50,000,000 44,125,000 47,653,403 13,574,160 5,875,000 8.07 1.39 8 Varde Fund IX 100,000,000 100,000,000 59,780,269 140,385,254 0 15.18 2.00 6 Varde Fund X 150,000,000 150,000,000 215,190,600 0 0 12.11 1.43 4 Varde Fund XI 200,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 0 Vestar Capital Partners Vestar Capital Partners 75,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 1.44 Vestar Capital Partners 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 8 Warburg Pincus Fincus Private Equity VIII 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity XI		30,000,000	29 400 000	15 140 474	10 504 694	600.000	-2 65	0.87	11.65
Varde Fund Varde Fund IX 100,000,000 100,000,000 59,780,269 140,385,254 0 15.18 2.00 6 Varde Fund X 150,000,000 150,000,000 215,190,600 0 0 12.11 1.43 6 Varde Fund XI 200,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 0 Vestar Capital Partners V 75,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 8 Warburg Pincus Private Equity Partners 100,000,000 100,000,000 3,692,25,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Private Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 6 Warburg Pincus Private Equity X 150,000,000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8.00</td>									8.00
Varde Fund IX 100,000,000 100,000,000 59,780,269 140,385,254 0 15.18 2.00 6 Varde Fund X 200,000,000 150,000,000 215,190,600 0 0 12.11 1.43 4 Varde Fund XI 200,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 0 Vestar Capital Partners V 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 34,653,913 36,225,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 59,398,856 186,663,449 0 16.17 2.46 12 Warburg Pincus Private Equity XI 100,000,000 150,060,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 <td></td> <td>50,000,000</td> <td>11,125,000</td> <td>,,</td> <td></td> <td>-,,</td> <td></td> <td></td> <td></td>		50,000,000	11,125,000	,,		-,,			
Varde Fund XI 200,000,000 180,000,000 192,158,820 0 20,000,000 9.41 1.07 0 Vestar Capital Partners V 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13,54 1.84 14 Vestar Capital Partners IV 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13,54 1.84 14 Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3,37 1.19 8 Warburg Pincus Equity Partners 100,000,000 100,000,000 59,398,856 186,663,449 0 1.62 16 Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity XI 100,000,000 150,060,914 132,084,213 79,061,379 9 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 57,450,000 62,939,121 127,479,300 92,550,000 16									6.02
Vestar Capital Partners 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13,54 1.84 14 Vestar Capital Partners IV 55,000,000 74,741,675 65,503,665 23,187,761 583,554 3,37 1.19 88 Vestar Capital Partners V 100,000,000 34,653,913 36,225,260 0 65,346,087 10.45 1.05 22 Warburg Pincus Equity Partners 100,000,000 100,000,000 59,398,856 186,663,449 0 16.17 2.46 12 Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity XI 200,000,000 150,669,914 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 8 Warburg Pincus Private Equity XI 200,000,000 93,180,000 36,492,900 139,155,230 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4.19</td>									4.19
Vestar Capital Partners IV 55,000,000 52,761,494 7,170,736 89,682,116 746,945 13.54 1.84 14 Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 58 Warburg Pincus 100,000,000 100,000,000 3,653,913 36,222,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Pincus Private Equity VIII 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 166 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 41,088,907 139,702,706 0 10.17 2.46 12 Warburg Pincus Private Equity XI 200,000,000 150,060,014 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.2 1.88 8 Warburg Pincus Private Equity XI 200,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 6		200,000,000	180,000,000	192,158,820	0	20,000,000	9.41	1.07	0.97
Vestar Capital Partners V 75,000,000 74,741,675 65,503,665 23,187,761 583,554 3.37 1.19 8 Vestar Capital Partners VI 100,000,000 34,653,913 36,225,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 1.62 Warburg Pincus Equity VIII 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 1.62 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 1.62 Warburg Pincus Private Equity XI 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 10 Wayzata Opportunities Fund II 150,000,000 57,450,000 62,293,121 127,479,300 92		55 000 000	52 761 404	7 170 736	89 682 116	746 945	13 54	1.84	14.54
Vestar Capital Partners VI 100,000,000 34,653,913 36,225,260 0 65,346,087 10.45 1.05 2 Warburg Pincus Warburg Pincus Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 59,398,856 186,663,449 0 16.17 2.46 12 Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity XI 200,000,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 8 Warburg Pincus Private Equity XI 200,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 8 Wayzata Opportunities Fund III 150,000,000 57,450,000 62,233,121 127,479,300 92,550,000 16.44 3.30 6 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2									8.53
Warburg Pincus 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 166 Warburg Pincus Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 166 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 59,398,856 186,663,449 0 16.17 2.46 12 Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 1 Wayzata Opportunities Fund 100,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 8 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 Wetsh Carson Anderson & Stowe VIII 100,000,000 123,750,000 123,750,000 136,97,084									2.77
Warburg Pincus Equity Partners 100,000,000 100,000,000 3,099,131 158,591,853 0 9.94 1.62 16 Warburg Pincus Private Equity VIII 100,000,000 100,000,000 59,398,856 186,663,449 0 16.17 2.46 12 Warburg Pincus Private Equity XX 100,000,000 150,060,914 132,084,213 79,061,379 0 9.91 1.41 6 Warburg Pincus Private Equity X 100,000,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 6 Wayzata Dportunities Fund 100,000,000 57,450,000 66,29,900 139,155,230 6,820,000 10.26 1.89 8 Wayzata Opportunities Fund III 150,000,000 57,450,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 WeishCarsonAnderson & Stowe VIII 100,000,000 123,750,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 WeishCarsonAnderson & Stowe VIII 100,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.89 8 WeishCarsonAnd	Warburg Pincus								
Warburg Pincus Private Equity IX 100,000,000 100,000,000 41,088,907 139,702,706 0 10.94 1.81 8 Warburg Pincus Private Equity X 150,000,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 1 Wayzata 00portunities Fund 100,000,000 57,450,000 62,293,121 127,479,300 92,550,000 1.44 3.06 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 Welsh Carson Anderson & Stowe VIII 100,000,000 122,750,000 122,929 128,668,552 0 3.10 1.29 15 Welsh Carson Anderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.84 4 1.47 8	Warburg Pincus Equity Partners								
Warburg Pincus Private Equity X 150,000,000 150,060,914 132,084,213 79,061,379 0 9.01 1.41 6 Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 1 Wayzata 0portunities Fund 100,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 8 Wayzata Opportunities Fund II 150,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 6 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 WelshCarsonAnderson & Stowe WelshCarsonAnderson & Stowe IX 100,000,000 122,929 128,668,552 0 3.10 1.29 15 WelshCarsonAnderson & Stowe X 100,000,000 123,750,000 13,697,084 184,171,644 1,250,000,006 1.47 8 WelshCarsonAnderson & Stowe X 100,000,000 86,704,811 88,332,927	Warburg Pincus Private Equity VIII								
Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 1 Warburg Pincus Private Equity XI 200,000,000 89,383,377 91,416,058 4,519,400 110,616,623 9.66 1.07 1 Wayzata Opportunities Fund 100,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 6 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 WelshCarsonAnderson & Stowe WelshCarsonAnderson & Stowe VIII 100,000,000 120,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.60 14 WelshCarsonAnderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.60 14 WelshCarsonAnderson & Stowe IX 100,000,000 98,78,466 73,682,121 71,003,214 2,000,000 1.67 1.47 8 WelshCarsonAnderson & Stowe XI 1000,000									8.93 6.68
Wayzata Opportunities Fund 100,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 58 Wayzata Opportunities Fund 150,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 60 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 22 WelshCarsonAnderson & Stowe WelshCarsonAnderson & Stowe VIII 100,000,000 122,929 128,668,552 0 3.10 1.29 15 WelshCarsonAnderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.60 14 WelshCarsonAnderson & Stowe X 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 6.78 1.47 8 WelshCarsonAnderson & Stowe XI 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 6.78 1.47 8 WelshCarsonAnderson & Stowe XI									1.52
Wayzata Opportunities Fund 100,000,000 93,180,000 36,492,900 139,155,230 6,820,000 10.26 1.89 86 Wayzata Opportunities Fund II 150,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 6 Wayzata Opportunities Fund III 150,000,000 57,450,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 Welsh Carson Anderson & Stowe Welsh Carson Anderson & Stowe VIII 100,000,000 122,929 128,668,552 0 3.10 1.29 15 Welsh Carson Anderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.89 160 144 160 160 147 8 160 14 160 147 18 160 14 160 147 18 160 14 125,000,000 122,929 128,668,552 0 3.10 1.29 157 Welsh Carson Anderson & Stowe IX 100,000,000 98,578,466 73,682,121 71,003,214		200,000,000	07,000,077			,			
Wayzata Opportunities Fund II 150,000,000 57,450,000 62,293,121 127,479,300 92,550,000 16.44 3.30 6 Wayzata Opportunities Fund III 150,000,000 18,390,000 16,203,006 136,917 131,610,000 -13.76 0.89 2 WelshCarsonAnderson & Stowe WelshCarsonAnderson & Stowe IX 100,000,000 100,000,000 122,929 128,668,552 0 3.10 1.29 15 WelshCarsonAnderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 10.83 1.60 14 7 WelshCarsonAnderson & Stowe IX 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 18.47 8 WelshCarsonAnderson & Stowe XI 100,000,000 86,704,811 88,332,927 30,600,267 13,295,189 13.07 1.37 5 Private Equity Total 10,230,601,517 7,146,671,239 4,513,772,992 6,675,273,044 3,079,781,822 1.57									8.53
WelshCarsonAnderson & Stowe 100,000,000 100,000,000 122,929 128,668,552 0 3.10 1.29 15 WelshCarsonAnderson & Stowe VIII 100,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.60 14 WelshCarsonAnderson & Stowe X 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 6.78 1.47 8 WelshCarsonAnderson & Stowe X 100,000,000 86,704,811 88,332,927 30,600,267 13,295,189 13.07 1.37 5 Private Equity Total 10,230,601,517 7,146,671,239 4,513,772,992 6,675,273,044 3,079,781,822 1.57	Wayzata Opportunities Fund II								6.69
WelshCarsonAnderson & Stowe VIII 100,000,000 100,000,000 122,929 128,668,552 0 3.10 1.29 15 WelshCarsonAnderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 1.60 1.60 1.60 1.60 1.64 1.60 1.67 1.64 1.60 1.67 1.64 1.250,000 1.83,871,044 1.250,000 1.68 1.60 1.47 8 1.60 1.47 8 1.60 1.47 8 1.64 1.47 8 1.60 1.47 8 1.60 1.47 8 1.60 1.47 8 1.64 1.47 1.60 1.47 8 1.64 1.47 8 1.60 1.47 8 1.60 1.47 8 1.60 1.47 8 1.60 1.47 8 1.60 1.47 8 1.67 1.67 1.37 5 1.37 5 1.37 5 1.37 5 1.37 5 1.37 5 1.46<		150,000,000	18,390,000	16,203,006	136,917	131,610,000	-13.76	0.89	2.04
WelshCarsonAnderson & Stowe IX 125,000,000 123,750,000 13,697,084 184,171,644 1,250,000 10.83 1.60 14 WelshCarsonAnderson & Stowe X 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 6.78 1.47 8 WelshCarsonAnderson & Stowe XI 100,000,000 86,704,811 88,332,927 30,600,267 13,295,189 13.07 1.37 5 Private Equity Total 10,230,601,517 7,146,671,239 4,513,772,992 6,675,273,044 3,079,781,822 1.57		100 000 000	100 000 000	122 020	128 668 552	0	3 10	1 20	15.93
WelshCarsonAnderson & Stowe X 100,000,000 98,578,466 73,682,121 71,003,214 2,000,000 6.78 1.47 8 WelshCarsonAnderson & Stowe XI 100,000,000 86,704,811 88,332,927 30,600,267 13,295,189 13.07 1.37 5 Private Equity Total 10,230,601,517 7,146,671,239 4,513,772,992 6,675,273,044 3,079,781,822 1.57									14.01
WelshCarsonAnderson & Stowe XI 100,000,000 86,704,811 88,332,927 30,600,267 13,295,189 13.07 1.37 5 Private Equity Total 10,230,601,517 7,146,671,239 4,513,772,992 6,675,273,044 3,079,781,822 1.57									8.54
									5.94
	Private Equity Total	10,230,601,517	7,146,671,239	4,513,772,992	6,675,273,044	3,079,781,822		1.57	
Alternatives Total 16,262,538,129 11,417,449,999 7,427,717,878 10,644,566,636 4,806,522,162 1.58	Alternatives Total	16,262,538,129	11,417,449,999	7,427,717,878	10,644,566,636	4,806,522,162		1.58	

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

TAB E

DATE: August 12, 2014

TO: Members, Investment Advisory Council

FROM: Tammy Brusehaver, Mike Menssen and LeaAnn Stagg

SUBJECT: SBI Transition Management

Periodically, the SBI must move pension assets for purposes of rebalancing of the assets, managing cash flows into and out of portfolios, implementing investment policy changes and funding or terminating investment managers. In order to restructure these assets, Staff has handled such movements internally, relied on our investment managers, and in more complex situations, utilized the services of a transition manager. When Staff has used a transition manager, it has been limited to State Street Global Markets (SSGM) in conjunction with the custodial services provided by State Street Bank.

A transition manager acts as a very short-term asset manager. They are tasked with converting a legacy portfolio to a new, target portfolio in an efficient and cost effective manner while managing multiple tasks. While the SBI restructures or rebalances assets infrequently, the size of an asset restructuring can be large, generating sizable transition costs which must be prudently managed. In order to introduce competition into the transition manager selection process, Staff is proposing to establish a "bench" of transition managers from which to solicit bids as the need to restructure assets demands.

At the August IAC meeting, Staff will present an overview of transition management and its use at the SBI. We have included a research paper provided by Callan which provides a good explanation of the transition management process. Staff has been reviewing potential transition management service providers and is in the process of determining which candidates best meet our needs. Additionally, Staff is considering the use of a third party "transaction cost analysis" provider to help provide standardization and transparency in the measurement of transition costs. We will not be making any recommendations at the August meeting, but will instead be asking the IAC members for comments and feedback on their own experiences with transition management services. We anticipate presenting our findings at the November IAC meeting for your consideration and a recommendation to the Board at the December meeting.





July 2013

Research

Transition Management

Beyond the Basics

- Fund sponsors employ transition management for portfolio liquidation, benchmark or manager changes, asset allocation shifts, portfolio rebalancing, and other restructuring. The objective is to preserve the value of the legacy portfolio and give the target portfolio the best possible start.
- Callan believes the transition manager must accept the role of a fiduciary because the manager is entrusted with executing an effective liquidation and asset reallocation, while managing cost and risk throughout the entire process.
- In this paper, Callan reviews the various explicit and implicit costs of a transition, discusses multiple available sources of liquidity, and offers discussion points for plan sponsors vetting a potential manager's transition management capabilities.

Introduction

Transition management is the cost-effective and efficient restructuring of institutional portfolios from single or multiple investment managers/asset classes to a new allocation over a short-term horizon. The concept behind transition management is relatively simple and straightforward; however, passing the baton from legacy portfolio to target portfolio is a complex transaction that can be fraught with uncertainty. Transition management goes beyond the basics—it is not just another trade—and every activity in the transition process has cost and risk ramifications. Explicit commission costs or trading basis point charges are but a small percentage of the actual transition costs.

A fund sponsor seeks out a transition manager to assist with portfolio liquidation, benchmark or manager changes, asset allocation shifts, portfolio rebalancing, and/or other restructuring of designated investment portfolios or company stock (single stock portfolios). Transition management is not merely a trading activity; rather, it should be treated as short-term asset management that requires prudence and investment discretion. It requires the skill and judgment of an investment fiduciary. The distinguishing factor of a transition manager is that it "terminates" itself naturally after the completion of a transition; so, the transition manager is actually an asset "reallocation" manager.

Transition management centralizes the coordination of activities and parties involved in order to eliminate unnecessary transactions, reduce costs, and maintain the maximum amount of market exposure (asset class or manager style) during the transition period. The transition manager is responsible for managing risks, implementation shortfall (explicit and implicit costs), information leakage, trading (in-kind transfer, crossing, agency and/or principal basis), and liquidity considerations. Identifying "Point A" [legacy portfolio(s)]—and especially "Point B" [target portfolio(s)]—is critical. You cannot establish a coherent portfolio transition strategy without knowing Point B.¹

Transition management centralizes the coordination of activities and parties involved in order to eliminate unnecessary transactions, reduce costs, and maintain the maximum amount of market exposure (asset class or manager style) during the transition period. While this is no small task, the transition manager is entrusted to prudently manage the process. The objective is to preserve the value of the legacy portfolio while giving the target portfolio (whether an asset class and/or manager) an optimal beginning.

Understanding Transition Costs

In an ideal world, the legacy portfolio would instantly map to the target portfolio at zero cost. But the reality is that transitions are one of the most complex transactions with which a fund sponsor must contend, and every single activity in the process has cost (risk) ramifications. While the final costs are not known until the actual liquidation of the legacy portfolio(s) and funding of the target portfolio(s), ensuring that all parties understand the costs inherent in the transition process will help to avoid unpleasant surprises.

Implementation shortfall—which compares the value of the assets at the end of the transition to the value of the portfolio assuming an immediate shift to the destination portfolio—is the accepted measurement of transition cost.² The difference in value is the total cost to implement change.

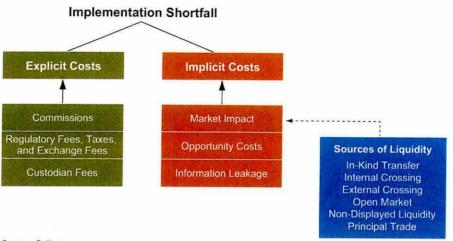
The measure is the total performance of the transition assets compared to the performance of the target portfolio; thus, it is crucial that the target portfolio is defined. Although there are different variations to the calculation of implementation shortfall, the basic premise is the same. **Exhibit 1** illustrates the explicit and implicit costs that make up the implementation shortfall.

¹ Firing a manager without a replacement manager can be problematic because the assets to be liquidated would be subjected to a myriad of uncertainties and costs. The liquidation is a one-way trade given that the target manager is unknown. The exit and temporary parking costs can be expensive. The exit costs are commissions, regulatory fees, taxes, custodian fees, foreign currency execution, exchange fees, etc. The temporary parking costs are investment management fees (short-term investment fund management fees for all cash liquidation and investment management index/passive fees) and/or optimized solution costs (such as synthetic overlay using futures, ETFs, swaps, etc.) that may apply while waiting for the target manager.

² Implementation shortfall was introduced by Andre Perold, who defined it as the difference between the actual portfolio return and the paper return benchmark. ("The implementation shortfall: Paper vs. reality." The Journal of Portfolio Management, Spring 1988: 4 – 9.)

Exhibit 1

The Components of Implementation Shortfall: Explicit and Implicit Costs



Source: Callan

Explicit costs are the most visible during the transition period. These include commissions (compensation for the transition manager),³ regulatory fees, taxes, exchange fees, and custody fees. Explicit costs are the most discernible, yet they are also the smallest component of the total transition cost. The largest explicit cost is commissions. The cost is normally expressed in cents per share or basis points of the notional traded value. The explicit fees depend on the trading strategy that is selected prior to execution. **Implicit costs** constitute the largest portion of the entire transition cost. They include market impact, opportunity costs, and information leakage.

Market Impact and Sources of Liquidity

A transition planning phase is essential to mitigate market impact, which is the price movement of the securities in the portfolio when the trade order is sent. It is influenced by numerous factors, including the volume of the security being traded, liquidity (average daily trading volume), bid/ask spread, price volatility of the security, and the particular country/exchange where the security is traded. The trade needs to be executed with stealth, speed, and strength.

Because of the significant cost attached to market impact, it is where the transition manager earns its keep, and the manager's ability to optimize multiple sources of liquidity is of utmost importance. These sources include in-kind transfer, internal crossing, external crossing, open market, non-displayed liquidity, and principal trade.

3 Sources of compensation can include foreign currency (FX) fees or spread earned, click fees, finder's fees, revenue sharing arrangements with broker dealers, etc. **In-kind transfer** matches the legacy portfolio(s) against the target portfolio(s) to determine which securities are common to both the sell side and the buy side of the transition. This type is always optimal because there is no liquidity impact and it is instantaneous. There is no change in ownership and no bid/ask spread.

Internal and external crossing use electronic venues to anonymously match orders between buyer and seller at a specified price. Internal crossing is the ability to cross the transition flow against the manager's other trading flows, which result from other transitions or securities/funds moving in and out of their portfolios or books. Depending on the transition manager's depth of internal liquidity, internal crossing is ideal because it reveals little; if natural internal crosses are present, there is virtually no market impact. However, waiting for a cross can introduce timing risk. External crossing provides the same benefits as internal crossing. The main difference is that the transition manager is now seeking external liquidity, typically through electronic networks that cater to institutional order flow. (Examples of external crossing networks include ITG's POSIT®, Liquidnet, and BIDS.) The drawbacks are the size and liquidity of the cross, and information leakage. Dark pools of liquidity, which are technically considered external crossing, are categorized as non-displayed liquidity for the purposes of this paper.

Open market uses the primary exchange where a stock is listed; essentially, the transition manager has to execute the order out in the marketplace. Market impact is high because the transition manager has to pay the bid/ask spread. Although the speed of going to the market reduces timing risk, the liquidity impact could be substantial. Ultimately, the primary exchange is the single largest source of liquidity for any given security.

Given that market trading is slowly going away from central exchanges where pricing transparency exists, dark pools are becoming part of the toolkit available to transition managers.

Non-displayed liquidity is actually the floor brokers (not specialists) who are willing to buy or sell individual stocks if there is a need for liquidity. Floor brokers will not display or advertise the bid/ask price and size on any trading screen. Access to non-displayed liquidity, via internal or external brokers, can be very important for an optimal transition. Another component of non-displayed liquidity is the proliferation of so-called "dark pools" of liquidity. Given that market trading is slowly going away from central exchanges where pricing transparency exists, dark pools are becoming part of the toolkit available to transition managers. Depending on how open and transparent—or how murky, dark, or toxic—it is, investors should be mindful that such non-displayed liquidity access is not a free lunch. Transition managers have to understand the liquidity characteristics of dark pools and be astute in going in and out; in short, "swim at your own risk."

Principal trade is the ability of a broker/dealer to utilize capital to implement transactions by acting as the buyer or seller and counterparty to the transaction. The broker/dealer is not acting as an agent (where the agent is seeking to achieve the best execution in the markets for the client). When liquidity and timing are issues, principal trades may be the right option. The speed is immediate; however, the commissions and spreads of such arrangements can be very high.

Opportunity Costs and Information Leakage

Opportunity costs occur when the value of the target portfolio rises and/or the value of the legacy portfolio falls before the full completion of the transition. This is the tracking error between the legacy and the

target portfolio (or the cost of not being invested in the target portfolio). This is the single largest cost in any transition. The magnitude of the opportunity cost is exacerbated when a transition involves multiple asset classes because the legacy and target portfolios cut across the asset allocation target of a fund sponsor. The transition manager is responsible for the timing of implementation of the asset allocation shift. Thus, the expert use of synthetic overlay and trading strategies is paramount. A good transition manager knows how to manage the tracking error and asset allocation exposure gaps, especially if they are acting as a discretionary fiduciary. The management of opportunity cost is no longer a trading issue, but an investment management exercise.

Information leakage costs occur even before the actual liquidation begins and can persist during the transition period. One common practice by fund sponsors is to bid out the details of a transition every time there is portfolio restructuring. Such a practice often compromises the value of the assets being transitioned even before the actual start date of the liquidation. Another approach is to hire a bench or pool of transition managers under an optional use contract, perhaps over a three-to-five-year period. Limiting the disclosure to a few helps to preserve confidentiality. The process is further solidified if the transition managers are contracted as fiduciaries. Another aspect of information leakage is when a transition manager is trying to get to an indication of interest for a specific security at a certain price point or testing the liquidity of the market. This is also known as "pinging" the market and it could lead to information leakage. The impact of information leakage can be felt primarily in three ways:⁴

- 1. Price impact occurs when the stock price moves in opposition to the transition manager's trade order (e.g., the price increases for a buy order) because of information leakage.
- Gaming takes place when traders use information about the transition manager's trade order to affect execution and thereby manipulate prices.
- Adverse selection is when the transition manager's execution is conditioned on whether the stock price moves in the transition manager's favor (e.g., the buy order gets executed if the stock moves downward later, but not if it moves up).

Just like opportunity costs, information leakage cannot be completely quantified. The only way to try to control this cost is to manage information from all parties involved—fund sponsor, consultants, investment managers (terminated, current, and newly hired), custodian, and the transition manager.

Setting Policies and Guidelines

During the transition process, the transition manager is looked upon as a discretionary caretaker of the portfolio(s) to be liquidated and as the conduit for the funding of the target portfolio(s). A fund sponsor has to establish certain guidelines with a transition manager and at minimum should include the following responsibilities:

 Strategy development: Before the transition, the transition manager should provide the fund sponsor with a written portfolio transition (liquidation) strategy, including the time frame required, to achieve the desired objective of liquidating the legacy portfolio(s) and building (and/or funding) the target portfolio(s).

During the transition process, the transition manager is looked upon as a discretionary caretaker of the portfolio(s) to be liquidated and as the conduit for the funding of the target portfolio(s).

^{4 &}quot;Are You Playing in a Toxic Dark Pool? A Guide to Preventing Information Leakage." Hitesh Mittal, Head of Algorithmic Trading, Investment Technology Group, June 2008.

- Fiduciary responsibility: The transition manager will act as a fully discretionary fiduciary and will
 perform the portfolio transition—from legacy to target portfolio(s)—with utmost care and prudence.
 The fund sponsor realizes that markets fluctuate and risks are inherent during the transition period.
 However, market forces do not absolve the transition manager from negligence. The transition manager
 also must carry the appropriate coverage for errors and omissions and professional liability insurance.
- Seamless execution: The manager should minimize tracking error and maintain asset class (benchmark) exposure, and should coordinate trading activity with investment managers (both legacy and target portfolios) and the custodial bank. During the transition period, the preservation of capital must be taken into consideration through the expert use of all sources of liquidity, namely: in-kind transfers ("cherry picking" of the legacy portfolio for the target portfolio), internal and external crossing networks, primary exchanges, non-displayed liquidity, and principal trades. The strategic and tactical deployment of cash, futures, ETFs, and other hedging strategies are among the tools required to accomplish a smooth transition.
- Daily reporting: During the transition period, daily reporting of all trade activity—from commencement
 of the liquidation to the completion and full funding of the target portfolios—should be available to the
 fund sponsor.
- Final analysis: After the completion of the transition, the transition manager should provide the fund sponsor with a report on the outcome of the transition. The report should include relevant statistics (e.g., tracking error, costs, volume-weighted average price, T Standard, etc.) and full trading/transaction reports.

The Fiduciary Transition Manager

Since the concept of the "fiduciary" transition manager was introduced by Callan in 2004, there has been much debate on what that really entails. To help determine the extent of a transition manager's fiduciary scope of responsibilities, a fund sponsor should use the following list as a starting point for deeper conversations. Confirm whether the manager will:

- Provide at a minimum three options to effectuate a transition (liquidation), detail the costs, pros, and cons for each, and include a recommendation.
- Vote proxies during the transition period.
- · Be responsible for mandatory and voluntary corporate actions.
- Retain investment discretion and control of the transition/legacy portfolio(s) absent a target portfolio(s) and, if so, the maximum length of such investment discretion.
- Apply risk management tools to manage tracking error and mitigate risk.
- Ensure best execution in the selection and evaluation of broker outlets, whether on an agency or principal basis.
- Be able to contract in writing as a fiduciary.
- Disclose all sources of revenue, including the other side of the trade, foreign currency, click fees, dark pool utilization, etc.

- · Contain costs and fees detrimental to the value of assets.
- Curtail information leakage, including pre-hedging and front running activities detrimental to the fund sponsor.
- Disclose all aspects of foreign currency execution, including all sources of revenue.
- Accept and report using the T Standard as the relevant measure for implementation shortfall.
- Accept that what is in the best interest of the fund sponsor, the plan, and its beneficiaries is of paramount importance and may not necessarily be aligned with the transition manager's best interests.

Beyond the Basics

Transition management goes beyond the basics. During that period when the baton is being passed from legacy portfolio(s) to target portfolio(s), an extremely complex transaction occurs. In managing that process, the transition manager becomes the discretionary caretaker of the assets involved and must accept the role of a fiduciary—a role with many inherent responsibilities. The transition manager is entrusted with executing an effective liquidation and is also required to be a cost and risk manager, a project manager, and an asset reallocation manager. Ultimately, the objective is to preserve the value of the legacy portfolio and give the target portfolio the best possible start.



Author - Virgilio "Bo" Abesamis III

Virgilio "Bo" Abesamis III is an Executive Vice President and is the Manager of Callan's Trust, Custody and Securities Lending Group. He joined Callan in 1987 and is a shareholder of the firm.

This paper is a revised version of a paper written by the same author and published by Callan in 2004. If you have any questions or comments, please email institute@callan.com.

About Callan

Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional clients with creative, customized investment solutions that are uniquely backed by proprietary research, exclusive data, ongoing education and decision support. Today, Callan advises on more than \$1.8 trillion in total assets, which makes us among the largest independently owned investment consulting firms in the U.S. We use a client-focused consulting model to serve public and private pension plan sponsors, endowments, foundations, operating funds, smaller investment consulting firms, investment managers, and financial intermediaries. For more information, please visit www.callan.com.

About the Callan Investments Institute

The Callan Investments Institute, established in 1980, is a source of continuing education for those in the institutional investment community. The Institute conducts conferences and workshops and provides published research, surveys, and newsletters. The Institute strives to present the most timely and relevant research and education available so our clients and our associates stay abreast of important trends in the investments industry.

© 2013 Callan Associates Inc.

Certain information herein has been compiled by Callan and is based on information provided by a variety of sources believed to be reliable for which Callan has not necessarily verified the accuracy or completeness of or updated. This report is for informational purposes only and should not be construed as legal or tax advice on any matter. Any investment decision you make on the basis of this report is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation. Reference in this report to any product, service or entity should not be construed as a recommendation, approval, affiliation or endorsement of such product, service or entity by Callan. Past performance is no guarantee of future results. This report may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The Callan Investments Institute (the "Institute") is, and will be, the sole owner and copyright holder of all material prepared or developed by the Institute. No party has the right to reproduce, revise, resell, disseminate externally, disseminate to subsidiaries or parents, or post on internal web sites any part of any material prepared or developed by the Institute, without the Institute's permission. Institute clients only have the right to utilize such material internally in their business.

Callan

Corporate Headquarters

Callan Associates 101 California Street Suite 3500 San Francisco, CA 94111 800.227.3288 415.974.5060

Regional Offices

Atlanta, GA 800.522.9782

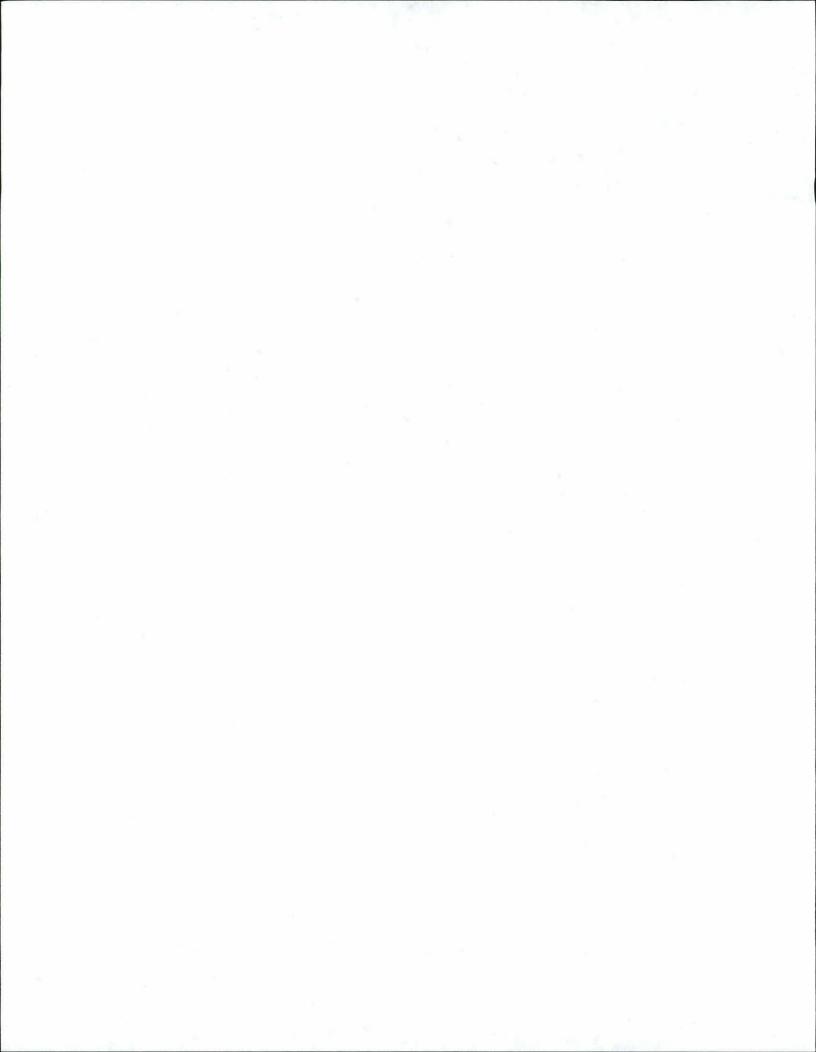
Chicago, IL 800.999.3536 Denver, CO 855.864.3377

Summit, NJ 800.274.5878

www.callan.com

TAB

F



DATE: August 12, 2014

TO: Members, Investment Advisory Council

FROM: Mansco Perry III

SUBJECT: MSBI Alternative Investment Program

Recently, J.J. Kirby accepted a positon as Research Director for a local family office Wealth Management Institution. With J.J.'s departure, there has now been a complete turnover of the staff covering the SBI's Alternative Investment Program. Ryan Hill, who had been working on our fixed income program, has been transitioning to the Alternatives program for the past six months. Recently, Andrew Krech joined the SBI from the Macalester College Investment Office and has joined Ryan in our Alternatives program. Andrew worked for me at Macalester when I served as its CIO. We also have plans to add to the Alternatives team.

As a result of J.J.'s departure, we will not be making a recommendation for new investments this quarter. We are in the process of performing due diligence on several managers. Given the transitioning, I believe it's prudent to ensure that the members of the team going forward are comfortable with our recommendations rather than rely solely upon the work done by a departing member of the team.

Given the transitioning taking place, I decided to take this opportunity to give the IAC a review of the current status of the Alternatives program. A significant part of this discussion will focus not only on performance to date, but we plan on sharing how we believe we will approach the portfolio as we progress forward. We have no firm plans but believe that we should investigate a broader investment opportunity set than has historically been the case. We will not be making any recommendations or drawing any conclusions. However, we are hoping that members of the IAC will provide comments and give us their perspectives. While we anticipate that we will broaden the scope of opportunities we will investigate, we do anticipate that we will continue to support the many successful general partner groups that have been helpful in making the SBI's Alternative program a successful one.



DATE: August 12, 2014

TO: Members, Investment Advisory Council

FROM: Ryan Hill and Andrew Krech

SUBJECT: MSBI Alternative Investment Program

Background

The MSBI has traditionally employed a bottom-up investment strategy in the Alternatives portfolio, whereby investment decisions were largely determined by the deal flow opportunity set available at the time and the amount of capital the MSBI sought to deploy over a given time horizon. While the Alternatives portfolio is diversified across four broad sub-asset class sectors (Private Equity, Resources, Real Estate, and Yield-Oriented), there are several sub-asset classes to which the MSBI has no exposure. The purpose of this memo is to (a) summarize the current Alternatives portfolio and performance, (b) discuss additional sub-asset classes to which the MSBI has no exposure, and (c) summarize potential impacts to both the Alternatives and Combined Funds portfolios of adding exposure to additional sub-asset classes.

Current Alternatives Portfolio

Because the MSBI's investment in a limited partnership cannot represent more than 20% of the total fund <u>and</u> there must be at least four additional limited partners in any investment, the MSBI has increasingly been forced to focus on funds with larger capital fundraising targets. The overall commitment levels have generally risen over time as the Combined Funds portfolio has increased in size, with recent commitment sizes ranging from \$100 to \$200 million per deal.

The asset allocation of the Combined Funds on a market value basis, as of 6/30/2014, is as follows:

		Actual*
•	Domestic Equity	45.8%
•	Fixed Income	23.4%
•	International Equity	15.7%
٠	Alternatives	12.6%
•	Cash	2.6%

*May not add to 100% due to rounding.

	Combined Funds, Ex Alternatives	Alternatives Portfolio	Total Combined Funds
Equity Assets	61.4%	6.9%	68.3%
Credit Assets	23.4%	1.9%	25.3%
Real Assets	0%	3.8%	3.8%
Cash	2.6%	0%	2.6%
Total	87.4%	12.6%	100%

An analysis of the underlying exposures of the Combined Funds implies the following allocation as of 6/30/2014:

In evaluating underlying exposures, staff sought to determine the percentage of the Combined Funds portfolio that is invested in equity assets, credit assets, and real assets. Staff analyzed the Alternatives portfolio, categorized each investment by exposure type, and determined that approximately 68% of the Combined Funds portfolio is invested in equity assets, 25% in credit assets, and 4% in real assets (e.g. private real estate and energy). The remaining 3% of the portfolio is invested in cash.

As of 6/30/2014, the Alternatives portfolio has a market value of \$7.4 billion and an unfunded commitment level of \$4.5 billion. The allocation of the Alternatives portfolio is provided in the table below.

	Market Value (%)	Unfunded (%)	MV + Unfunded (%)
Private Equity	61	64	62
Resources	23	23	23
Real Estate	9	4	7
Yield-Oriented	7	9	8

As measured by the average age of each portfolio (market value + unfunded), the Real Estate and Yield-Oriented portfolios are more mature than the Private Equity and Resources portfolios. This implies that consistent investment in private equity and resources has increased exposure to these areas over time, while at the same time exposure to real estate and yield-oriented investments has been reduced.

The Alternatives portfolio is concentrated in funds that primarily focus on North American companies. Global funds, which make up 30% of the portfolio, have mandates that allow for investment around the world, but in actuality are predominantly invested in North America and Europe. At present, the Alternatives portfolio has little to no exposure to other parts of the world, including Asia or South America.

•	North America	63%
•	Global	30%

• Europe 7%

Approximately 77% of the current Alternatives portfolio is made up of follow-on investments, meaning that the SBI has participated in subsequent funds after making an initial investment with a manager.

Investment Performance of the Alternatives Portfolio

	1YR	3YR	5YR	10YR	20YR
Private Equity	20.3	13.6	17.6	16.2	15.7
Resources	15.9	13.7	13.5	25.1	19.0
Real Estate	18.0	12.0	6.0	7.3	9.0
Yield-Oriented	17.0	12.5	13.6	16.2	15.7
Total Alternatives	18.9	13.2	14.7	15.5	14.4
Combined Funds	18.6	11.5	14.5	8.4	9.0

The historical investment performance of the Alternatives portfolio, its underlying sub-strategies, and the Combined Funds is summarized in the table below.

The Alternatives portfolio has outperformed the Combined Funds portfolio over every time period, with the level of outperformance being greater over longer time periods. Within the Alternatives portfolio, the Resources portfolio has been the best performing portfolio over the long-term.

Opportunity Set

There are several sub-asset classes to which the MSBI currently has no exposure, including but not limited to:

Private Markets

- **Direct Lending:** Typically senior, secured, and highly customized floating-rate private financings to middle-market companies.
- **Distressed Debt:** Securities of companies or government entities that are experiencing financial distress, default, or are in bankruptcy.
- **Timberland/Agriculture:** Farms and plantations producing trees and other agricultural products.
- **Private Infrastructure:** Long lived, income-generating assets that often operate under long term price contracts, such as toll roads, airports, water treatment, or shipping vessels.
- **Commodities:** Typically involves futures contracts or options on agricultural products, oil and gas, or precious and industrial metals.
- Unconstrained/Opportunistic: Strategies that can hold a variety of asset types. These strategies may take short positions, use leverage, and have varying degrees of net market exposure.

Public Markets

- **Real Estate Investment Trusts (REITs):** Publicly traded shares of a company that owns and operates commercial real estate properties.
- Master Limited Partnerships (MLPs): Publicly traded limited partnership that owns and operates assets related to production, transportation and processing of oil and gas.
- Listed Infrastructure: Investments in the publicly traded securities of companies that build, own, or operate infrastructure assets.

Investments in public structures such as MLPs and REITs would result in increased liquidity of the Alternatives portfolio, as well as allow for rebalancing and reduction of the unallocated portion of the portfolio. This is in contrast to the current Alternatives portfolio, which is entirely composed of illiquid private market investments.

In addition to greater liquidity, the possible benefits of including additional asset classes in the Alternatives pool include greater diversification and potentially lower volatility, increased inflation protection, and reduced contribution of equity risk to the Combined Funds.

Summary

The existing Alternatives pool, while invested across four broad asset classes (Private Equity, Real Estate, Yield-Oriented and Resources), remains relatively concentrated in U.S. Private Equity. Consideration should be given to the possible benefits of further diversification of the portfolio. Diversification could be achieved across multiple horizons:

- Investments in additional asset sub-classes
- Investments in new geographic regions (e.g. non-U.S., non-Europe)
- Investments in smaller funds, which may imply smaller commitment sizes

The Alternatives portfolio may also benefit from investment in public structures, which would accommodate rebalancing more easily than the existing, entirely private portfolio. In addition, investment in public structures would allow for the unallocated portion of the portfolio to be put to work more easily.

Another aspect of the Alternatives portfolio that should be monitored is the underling risk exposure of the portfolio, and the impact of those risk exposures on the Combined Funds. The current Alternatives portfolio is heavily exposed to U.S. equity risk, given the large weight in domestic Private Equity and smaller weight in Credit and Real Assets. U.S. Equities also make up the largest exposure of the Combined Funds excluding Alternatives.

Staff plans to evaluate a broad set of investment options for the Alternatives portfolio than exists currently. We recognize that casting a wider net may not necessarily result in investments in new asset classes, new regions, or smaller funds. Staff believes that just as a clear investment thesis is necessary for any new investment, a well thought-out rationale should also exist for investments *not* made.