# AGENDA INVESTMENT ADVISORY COUNCIL MEETING Tuesday, May 22, 2012 12:00 Noon State Board of Investment Board Room – First Floor 60 Empire Drive, St. Paul, MN

TAB

| 1. | Approval of Minutes of February 21, 2011  |   |
|----|---|---|
| 2. | Report from the Executive Director (H. Bicker)  | A |
|    | A. Quarterly Investment Review<br>(January 1, 2012 – March 31, 2012)  |   |
|    | <ul> <li>B. Administrative Report <ol> <li>Reports on budget and travel</li> <li>Legislative Update</li> <li>Update on Sudan</li> <li>Update on Iran</li> <li>Litigation Update</li> </ol> </li> </ul>  | В |
| 3. | <ul> <li>Report from the SBI Administrative Committee (H. Bicker)</li> <li>A. Review of Executive Director's Proposed Workplan FY13.</li> <li>B. Review of Budget Plan for FY12, FY13, and FY14.</li> <li>C. Review of Continuing Fiduciary Education Plan.</li> <li>D. Review of Executive Director's Evaluation Process.</li> <li>E. Update of Disaster Recovery Plan.</li> </ul> | С |
| 4. | Review of manager performance for the period ending<br>March 31, 2012 (H. Bicker)   | D |
| 5. | Alternative Investment Report (J. Griebenow)  | E |
|    | A. Review of current strategy   |   |
| 6. | Review of Fixed Income Asset Class Target (H. Bicker)   | F |
| 7. | Review of Emerging Markets Equity Operational<br>Issues (H. Bicker)   | G |
| 8. | Other items   |   |

# **INVESTMENT ADVISORY COUNCIL**

# MINUTES

May 22, 2012

# Minutes Investment Advisory Council February 21, 2012

The Investment Advisory Council (IAC) met at 12:00 Noon Tuesday, February 21, 2012 in the Board Room – First Floor, 60 Empire Drive, St. Paul, Minnesota.

| MEMBERS PRESENT:  | Jeff Bailey, Dave Bergstrom, John Bohan, Kerry Brick, Dennis<br>Duerst, Laurie Hacking, Kristin Hanson (for Jim Schowalter), Judy<br>Mares-Lazar, Gary Martin, Malcolm McDonald, Denise Anderson,<br>LeaAnn Stagg, Mary Vanek and Elaine Voss.                  |
|-------------------|---|
| MEMBERS ABSENT:   | Doug Gorence and Jay Kiedrowski.  |
| SBI STAFF:        | Howard Bicker, Teri Richardson, Jim Heidelberg, Paul Anderson,<br>Tammy Brusehaver, Patricia Ammann, Stephanie Gleeson, Mike<br>Menssen, Ryan Hill, John Griebenow, J.J. Kirby, Aaron Griga,<br>Debbie Griebenow, Charlene Olson and Melissa Mader.             |
| OTHERS ATTENDING: | Ann Posey, Callan Associates Inc.; Celeste Grant, Christie Eller,<br>Micah Hines, Jim Gelbmann, Margaret Martin, House Majority<br>Research; Edgar Hernandez, SEIU; John Fischer, REAM; Jerry<br>Irsfeld, REAM; Bob Myers and Harold Kaupang, private citizens. |

The minutes of the November 22, 2011 meeting were approved.

# **Executive Director's Report**

Mr. Bicker, Executive Director, referred members to Tab A of the meeting materials and he reported that the Combined Funds had matched its Composite Index over the ten year period ending December 31, 2011 (Combined Funds 5.7% vs. Composite 5.7%) and had provided a real rate of return over the latest 20 year period (Combined Funds 7.8% vs. CPI 2.5%).

Mr. Bicker reported that the Combined Funds' assets increased 5.6% for the quarter ending December 31, 2011 due primarily to positive market performance. He said that the asset mix is essentially on target after being rebalanced, and he stated that the Combined Funds underperformed its Composite Index for the quarter (Combined Funds 5.5% vs. Composite 5.8%) and for the year (Combined Funds 1.5% vs. Composite 2.1%).

Mr. Bicker reported that the domestic stock manager group underperformed its target for the quarter (Domestic Stocks 12.0% vs. Domestic Equity Asset Class Target 12.1%) and for the year (Domestic Stock 0.4% vs. Domestic Equity Asset Class Target 1.0%). He said the international stock manager group underperformed for the quarter (International Stock 3.4% vs. International Equity Asset Class Target 3.7%) and for the year (International Stock -14.2% vs. International Equity Asset Class Target -13.7%). Mr. Bicker stated that the bond segment outperformed for

the quarter (Bonds 1.4% vs. Fixed Income Asset Class Target 1.1%) but underperformed for the year (Bonds 7.2% vs. Fixed Income Asset Class Target 7.8%). He stated that the alternative investments returned -2.9% for the quarter. He concluded his report with the comment that, as of December 31, 2011, the SBI was responsible for over \$57 billion in assets.

Mr. Bicker referred members to Tab B of the meeting materials for an update on the budget and travel for the quarter. Mr. Bicker stated that the Legislative Auditor is working on the financial audit of SBI operations for FY11 and that a copy of the audit report will be distributed as soon as it is available. He reported that the Pension Commission had met several times during the quarter, and he noted that at its next meeting the Commission is scheduled to discuss proposed technical corrections to legislation that originated from the State Auditor's working group that would make housekeeping changes to the investment authority for Duluth and St. Paul Teachers and to parts of 11A.

Mr. Bicker asked the retirement directors to discuss select and ultimate actuarial assumptions, which were recently discussed by the Pension Commission. Ms. Hacking explained that the idea is to capture a lower return expectation for a shorter select period and then resume the higher return expectation for the longer term. A lengthy discussion followed.

Mr. Bicker referred members to Attachment C in Tab B of the meeting materials and reviewed the transfer of assets for the consolidation of Minneapolis Police and Fire, Virginia Fire and seventeen local fire plans that took place on December 30, 2011. He briefly discussed the various procedures and statutory mandates for the various types of consolidations. He noted several difficulties staff faced in identifying and communicating with the various entities, getting instructions to them on proper handling of the assets and receiving proper amounts on time. A discussion followed and Mr. Bicker said that staff will continue to evaluate procedures to improve the process for future consolidations. Ms. Vanek stated that many more plans may choose to merge if legislation passes that allows them to make supplemental contributions. Mr. Bicker stated that updated information on Sudan and Iran is also included in Tab B.

Ms. Eller stated that the Lehman bankruptcy continues to proceed but is starting to wind down. She reported that the SBI is a defendant in some reverse class action cases regarding Tribune Co. and Lyondell, and she briefly described a reverse class action. Ms. Eller stated that the SBI was sued by the Break the Bonds organization about the SBI's investment in Israel bonds. She said the SBI moved to dismiss the lawsuit and the plaintiffs brought a summary judgment motion. She noted that those motions will be heard on March 5, 2012.

Mr. Bicker referred members to Tab C of the meeting materials and stated that the Consultant Review Committee had met during the quarter to evaluate seven responses staff had received for the RFP for consulting services. Ms. Hacking stated that the Committee reviewed the responses from both a cost perspective and a service perspective and that the Committee recommends that Callan Associates Inc. be retained as the SBI's general consultant and that Pension Consulting Alliance be retained as the SBI's special projects consultant. Mr. Bergstrom moved approval of the recommendation, as stated in Tab C of the meeting materials. Ms. Posey briefly discussed the expanded resources available to the SBI at Callan. Ms. Mares also noted several strengths of

the Callan organization. In response to a question from Mr. Brick, Mr. Bicker stated that PCA has done some salary related work for the SBI in the past, and he noted that the firm works with several other large public funds on a variety of issues. Mr. Bicker referred members to Tab D for individual manager performance.

Mr. Griebenow introduced John Sokoloff from Leonard Green and Partners, and Mr. Sokoloff gave a brief presentation on his firm and on the new private equity investment being recommended with his firm. After the presentation, Mr. Griebenow briefly described the other new investments being recommended with three existing managers, Court Square Capital Partners, Wayzata Investment Partners and Adams Street Partners. Mr. McDonald moved approval of all four recommendations as stated in Tab E of the meeting materials. Ms. Voss seconded the motion. A brief discussion followed on the specifics regarding each of the new investments. The motion passed.

A presentation by Bon French of Adams Street Partners followed on the private equity markets in general.

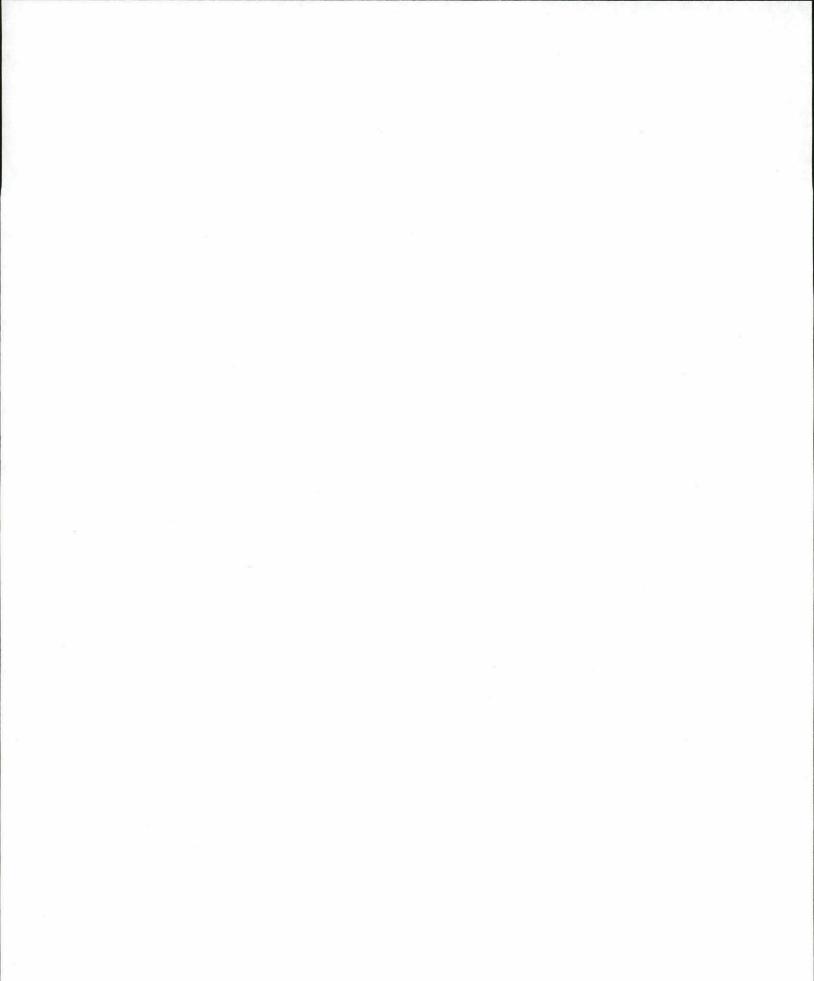
Ms. Richardson presented follow-up information on hedge funds (see Attachment A) and a discussion followed. It was decided that no further action was needed at this time.

The meeting adjourned at 2:34 P.M.

Respectfully submitted,

Yoward Buch-

Howard Bicker Executive Director



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|--|---|--|
| MINNESOTA<br>STATE<br>BOARD OF<br>INVESTMENT   | DATE:   | February 21, 2012  |
| THE STATES   | TO:<br>FROM:<br>SUBJECT:  | Members of the Investment Advisory Council<br>Teri Richardson<br>Follow-up to Hedge Fund Discussion at November 22, 2011<br>Meeting  |
| Board Members:<br>Governor<br>Mark Dayton<br>State Auditor<br>Rebecca Otto<br>Secretary of State<br>Mark Ritchie<br>Attorney General<br>Lori Swanson               | IAC and SBI<br>discussion be<br>market, and t<br>moved to the<br>about the use<br>The group age<br>in the context | ovember 22, 2011 Investment Advisory Council (IAC) meeting, the<br>staff held a lengthy discussion on the use of hedge funds. The<br>egan with some brief background on the size of the hedge fund<br>he broad categories of hedge fund strategies. The discussion then<br>definition of "hedge fund" and the philosophies of the IAC members<br>of hedge funds.<br>reed that hedge funds are not an asset class and are better understood<br>to of active management strategies. The funds can be used with the<br>nproving the active implementation risk/reward characteristics of an |
| Executive Director:<br>Howard J. Bicker  | discussion with 1. Deterr   | ncluded that the SBI needs to research the following for additional th the IAC:<br>nine if an acceptable program could be implemented within the trutional and statutory requirements of the state of Minnesota, and   |
| 60 Empire Drive<br>Suite 355<br>St. Paul, MN 55103<br>(651) 296-3328<br>FAX (651) 296-9572<br>E-mail:<br><u>minn.sbi@state.mn.us</u><br><u>www.sbi.state.mn.us</u> | object<br>of the<br>Also, the SBI<br>hedge fund p<br>resources, co<br>reporting capa                              | nine if there are funds that meet the legal requirements and the<br>ive of improving the active management risk/reward characteristics<br>SBI's equity and fixed income portfolios.<br>recognizes it does not have the resources needed to implement a<br>rogram. The SBI would need additional personnel, legal review<br>nsulting expertise, risk management tools, and monitoring and<br>abilities. To determine the resources needed, the SBI would first<br>nate the alternatives available to use to implement a hedge fund  |

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# **Constitutional and Statutory Requirements**

The constitution and statutes of Minnesota prohibit the SBI from engaging in any activity which creates general liability. The use of leverage within a portfolio, which is common in many hedge fund strategies, could violate this requirement. The SBI typically invests in separately managed accounts that are managed for the SBI only (the assets are not commingled with the assets of other investors), and the SBI owns the securities in the accounts. This structure would not meet constitutional requirements for strategies that use leverage. Excluding strategies that incorporate leverage, or restricting the hedge fund investment managers use of leverage would severely limit the options available to the SBI.

Many hedge funds are structured as limited partnerships. In this structure, investors own units of the fund which is invested on behalf of multiple investors. This structure limits the liability to the investors and is a structure that would comply with the requirements of the Minnesota constitution. (SBI invests in private equity via limited partnerships.) However, limited partnerships are subject to additional statutory requirements. The participation of the SBI in a limited partnership is limited to 20% and there must be at least four other unrelated investors in the fund. Additional advantages and disadvantages of limited partnerships relative to separately managed accounts are shown in **Exhibit A**.

The requirements of the laws and constitution of the State of Minnesota present a challenge to investing in hedge funds, but these requirements do not prevent such investments.

# **Hedge Fund Strategies**

Strategies with the objective of improving the risk/reward characteristics of equity and fixed income portfolios are common. Examples include long/short equity funds and distressed debt funds. In preliminary research, we found examples of managers of funds with the desired objectives that offered limited partnership structures. Additional research is needed to determine if the universe of managers that meet structure and objective criteria is sufficient.

# **Buy vs. Build Implementation**

As mentioned, the SBI would need to add resources to be able to establish a hedge fund program. The amount and type of resources is dependent on how the SBI would implement this program. The options range from complete outsourcing or "buying" the resources for all aspects of building and maintaining the program to "building" the infrastructure needed to manage all aspects of the program internally. **Exhibit B** is a summary of some of the options listed in order of ease of implementation. The three options shown represent the easiest option, the most involved option and one option (not the only option) between the extremes. The ease of implementation and need for resources are dependent on which aspects will be outsourced.

# Summary and Next Steps

The SBI staff believes that the state constitution and statutes do not prohibit the SBI from investing in hedge fund strategies, and strategies that meet the investment objectives are available. The next steps are to assess the available universe, and to further explore the infrastructure needed to implement a program, and research the alternatives available to the SBI. The following information will be provided at the next IAC meeting:

- 1. Information about funds that would meet SBI criteria
- 2. A more detailed description of the resources needed to manage a hedge fund program, and the advantages and disadvantages of outsourcing vs. internal
- 3. Information on consultants and vendors that provide the services related to managing the program
- 4. Estimated relative costs of implementation options
- 5. The potential for these strategies to make a meaningful contribution to the overall SBI portfolio
- 6. Assessment of the issues related to public fund investment in these strategies

# Exhibit A

|               | Commingled Limited Partnership Funds   | Separately Managed Accounts  |
|---------------|--|--|
| Description   | <ul> <li>Investor owns units of the fund</li> <li>The fund is invested on behalf of several investors</li> </ul>   | <ul> <li>Investor owns the securities directly</li> <li>Fund is invested on behalf of a single investor<br/>and is customized to reflect the requirements of<br/>the investor</li> </ul>   |
| Advantages    | <ul> <li>Complies with Minnesota constitution due to<br/>limited liability</li> <li>Audited financial statements are prepared annually</li> <li>Standardized reporting process</li> <li>May offer better liquidity</li> </ul>  | <ul> <li>Most transparency to holdings</li> <li>Ability to customize terms and fees</li> <li>Ability to customize strategy</li> <li>No risk of redemptions by other investors</li> <li>Not subject to statutory requirements for limited partnerships</li> </ul> |
| Disadvantages | <ul> <li>No customization of terms or guidelines</li> <li>Less transparency</li> <li>Risk of redemptions by other fund investors</li> <li>Subject to statutory requirement to be no more than 20% of fund and at least four other investors (SBI must have the right to liquidate investments if it becomes more than 20% of the fund or if there are less than four other investors)</li> </ul> | <ul> <li>Generally will not meet requirements of<br/>Minnesota constitution</li> </ul>   |

# Exhibit B

| Buy  |   | Build  |
|--|---|--|
| Fund of Funds  | <b>Outsourced Consultant/Management</b>   | Internally Managed Program   |
| All aspects of fund selection, legal,<br>monitoring, risk management, custody and<br>reporting are the responsibility of the fund<br>of funds manager  | Consultant is responsible for legal,<br>monitoring, risk management, reporting<br>and manager selection based on direction<br>of investor   | Staff is responsible for all aspects of fund<br>selection, legal, manager monitoring, risk<br>management, custody, and reporting   |
| <ul> <li>Requires the least development of internal resources</li> <li>Could be implemented in the least amount of time</li> <li>Can be used to learn with the intent of transitioning responsibilities to more customized solutions and staff input</li> <li>Offers little or no flexibility to customize to client specifications</li> <li>Little control over ongoing management of the funds</li> <li>The most expensive – 40bps to 100 bps plus incentive fees of 5% to 10% of profits over a cash benchmark (in addition to fees of underlying funds)</li> </ul> | <ul> <li>flexibility</li> <li>Requires some development of internal resources to approve, administer and monitor the hedge fund portfolio holdings</li> <li>Could also serve as learning opportunity for internal staff</li> <li>Estimated cost of 30bps to 50 bps (in addition to fees of underlying funds)</li> </ul> | <ul> <li>Offers the most flexibility</li> <li>Requires substantial development of internal resources</li> <li>Requires the largest number of staff with the most specialized skills</li> </ul> |

# TAB A

# LONG TERM OBJECTIVES Period Ending 3/31/2012

| COMBINED FUNDS: \$48.8 Billion  | Result   | <b>Compared to Objective</b>          |
|---|----------|---------------------------------------|
| Match or Exceed Composite Index (10 Yr.)  | 6.5% (1) | 0.1 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.)  | 8.3%     | 5.8 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

# Eight Plans of MSRS, PERA and TRA July 1, 2011

| Liabilities<br>Actuarial Accrued Liabilities                                      | \$60.4 billion |
|---|----------------|
| Assets<br>Current Actuarial Value   | \$47.5 billion |
| <b>Funding Ratio</b><br>Current Actuarial Value divided by<br>Accrued Liabilities | 78.7%          |

# **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: 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 7.8% during the first quarter of 2012. Positive investment returns caused the increase in market value.

|                   | Asset Growth                     |
|-------------------|----------------------------------|
|                   | <b>During First Quarter 2012</b> |
|                   | (Millions)                       |
| Beginning Value   | \$ 45,228                        |
| Net Contributions | -374                             |
| Investment Return | 3,918                            |
| Ending Value      | \$ 48,772                        |

Note: The significant increase in market value and contributions in June 2009 was due to the merger of the Basics and Post Funds.

# Asset Mix

Strong equity returns increased the allocations to domestic and international equities relative to the other asset classes. The cash allocation increased with a rebalance from domestic equities.

|                     | Policy  | Actual<br>Mix | Actual<br>Market Value |
|---------------------|---------|---------------|------------------------|
|                     | Targets | 3/31/2012     | (Millions)             |
| Domestic Stocks     | 45.0%   | 46.8%         | \$22,821               |
| Int'l. Stocks       | 15.0    | 14.5          | 7,085                  |
| Bonds               | 18.0    | 21.3          | 10,379                 |
| Alternative Assets* | 20.0    | 14.8          | 7,234                  |
| Cash                | 2.0     | 2.6           | 1,253                  |
|                     | 100.0%  | 100.0%        | \$48,772               |

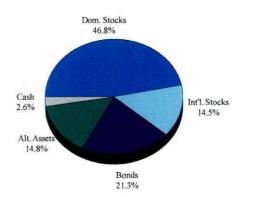
\* Any uninvested allocation is held in domestic bonds.

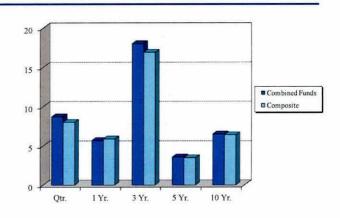
# Fund Performance (Net of Fees)

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

|                       | Perio      | d Endir | ng 3/31/2 | 2012  |        |
|-----------------------|------------|---------|-----------|-------|--------|
|                       | Annualized |         |           |       |        |
|                       | Qtr.       | 1 Yr.   | 3 Yr.     | 5 Yr. | 10 Yr. |
| <b>Combined Funds</b> | 8.7%       | 5.7%    | 18.0%     | 3.6%  | 6.5%   |
| Composite             | 8.0        | 5.9     | 16.9      | 3.5   | 6.4    |







# EXECUTIVE SUMMARY Stock and Bond Manager Performance

(Net of Fees)

# **Domestic Stocks**

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

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

#### Period Ending 3/31/2012 Annualized 1 Yr. 3 Yr. 5 Yr. 10 Yr. Otr. Dom. Stocks 13.6% 7.1% 24.6% 2.1% 4.5% Asset Class Target\* 12.9 7.2 24.3 2.2 4.7

\* 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       | Per                 | riod Endir | ng 3/31/2 | 012   |          |        |  |  |  |
|---|---------------------|------------|-----------|-------|----------|--------|--|--|--|
| (active, semi-passive and passive combined) |                     |            |           | A     | nnualize | ed     |  |  |  |
| outperformed its target for the quarter     |                     | Qtr.       | 1 Yr.     | 3 Yr. | 5 Yr.    | 10 Yr. |  |  |  |
| and matched its target for the year.        | Int'l. Stocks       | 11.3%      | -7.2%     | 19.2% | -1.4%    | 7.2%   |  |  |  |
|   | Asset Class Target* | 11.2       | -7.2      | 19.1  | -1.5     | 7.3    |  |  |  |
| 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.

\* 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). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) + Emerging Markets Free (EMF) (net), and from 7/1/99 to 12/31/00 was MSCI EAFE Free (net) + EMF (gross). From 7/1/99 to 9/30/03, the weight of each index fluctuated with market cap.

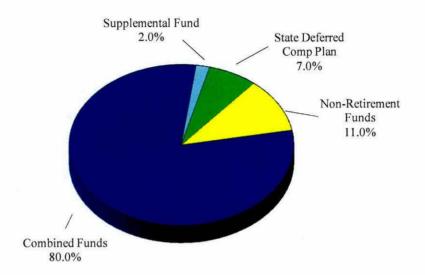
## Bonds

| The bond manager group (active and semi-passive  |                    | Per  | riod Endin | ng 3/31/20 | )12      |        |
|--|--------------------|------|------------|------------|----------|--------|
| combined) outperformed for the quarter and   |                    |      |            | A          | nnualize | ed     |
| matched its target for the year.   |                    | Qtr. | 1 Yr.      | 3 Yr.      | 5 Yr.    | 10 Yr. |
|  | Bonds              | 1.4% | 7.7%       | 10.3%      | 6.3%     | 6.0%   |
| <b>Barclays Capital Aggregate:</b> The Barclays<br>Capital Aggregate Bond Index reflects the<br>performance of the broad bond market for<br>investment grade (Baa or higher) bonds, U.S.<br>treasury and agency securities, and mortgage<br>obligations with maturities greater than one year. | Asset Class Target | 0.3  | 7.7        | 6.8        | 6.2      | 5.8    |

## **Alternative Investments**

|              | Period Ending 3/31/2012 |       |       |       |        |
|--------------|-------------------------|-------|-------|-------|--------|
|              | Annualized              |       |       | ed    |        |
|              | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Alternatives | 3.7%                    | 11.3% | 9.7%  | 7.4%  | 13.8%  |

# **EXECUTIVE SUMMARY** Funds Under Management



# 3/31/2012 Market Value (Billions)

| Retirement Funds                              |        |
|---|--------|
| Combined Funds                                | \$48.8 |
| Supplemental Investment Fund                  | 1.2    |
| - Excluding Deferred Compensation Plan Assets |        |
| State Deferred Compensation Plan              | 4.3    |
| Non-Retirement Funds                          |        |
| Assigned Risk Plan                            | 0.3    |
| Permanent School Fund                         | 0.8    |
| Environmental Trust Fund                      | 0.6    |
| Miscellaneous Trust Accounts                  | 0.1    |
| Other Post Employment Benefits Accounts       | 0.3    |
| State Cash Accounts                           | 4.7    |
| Total   | \$61.1 |

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# MINNESOTA STATE BOARD OF INVESTMENT

# QUARTERLY INVESTMENT REPORT

First Quarter 2012 (January 1, 2012 - March 31, 2012)

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# VARIOUS CAPITAL MARKET INDICES

|   |                      | Period Ending 3/31/2012 |                       |                    |                    |
|---|----------------------|-------------------------|-----------------------|--------------------|--------------------|
|   | Qtr.                 | Yr.                     | 3 Yr.                 | 5 Yr.              | 10 Yr.             |
| Domestic Equity   |                      |                         |                       |                    |                    |
| Dow Jones Wilshire Composite<br>Dow Jones Industrials<br>S&P 500                    | 12.9%<br>8.8<br>12.6 | 7.3%<br>10.2<br>8.5     | 24.5%<br>23.5<br>23.4 | 2.4%<br>4.2<br>2.0 | 5.0%<br>5.0<br>4.1 |
| Russell 3000 (broad market)<br>Russell 1000 (large cap)<br>Russell 2000 (small cap) | 12.9<br>12.9<br>12.4 | 7.2<br>7.9<br>-0.2      | 24.3<br>24.0<br>26.9  | 2.2<br>2.2<br>2.1  | 4.7<br>4.5<br>6.4  |
| <b>Domestic Fixed Income</b>  |                      |                         |                       |                    |                    |
| Barclays Capital Aggregate (1)  | 0.3                  | 7.7                     | 6.8                   | 6.2                | 5.8                |
| Barclays Capital Gov't./Corp. 3 month U.S. Treasury Bills                           | 0.1<br>0.0           | 8.5<br>0.0              | 7.1<br>0.1            | 6.3<br>1.0         | 5.9<br>1.8         |
| International   |                      |                         |                       |                    |                    |
| EAFE (2)<br>World ex-U.S. (3)   | 10.9<br>10.4         | -5.8<br>-6.7            | 17.1<br>17.6          | -3.5<br>-2.9       | 5.7<br>6.1         |
| Emerging Markets Free (4)<br>ACWI Free ex-U.S. (5)                                  | 14.1<br>11.3         | -8.5<br>-6.7            | 25.4<br>19.6          | 5.0<br>-1.1        | 14.5<br>7.7        |
| Salomon Non U.S. Gov't. Bond  | -0.2                 | 3.9                     | 6.9                   | 6.9                | 8.5                |
| Inflation Measure   |                      |                         |                       |                    |                    |
| Consumer Price Index CPI-U (6)<br>Consumer Price Index CPI-W (7)                    | 1.6<br>1.9           | 2.7<br>2.9              | 2.5<br>3.0            | 2.2<br>2.4         | 2.4<br>2.6         |

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

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

(3) Morgan Stanley Capital International World Ex-U.S. Index (Developed Markets) (Net index)

(4) Morgan Stanley Capital International Emerging Markets Free index. (Gross index)

(5) Morgan Stanley Capital International All Country World Index Ex-U.S. (Gross 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 12.9% return during the first quarter of During the quarter, the market responded 2012. favorably to a number of positive economic signals, such as the falling unemployment rate, increased consumer confidence, improving automobile sales and positive capital goods spending. The economy was also supported by on-going accommodating interest rate policies from the Federal Reserve. Within the Russell 3000, Technology reported the highest return for quarter at 21.5%. Utilities was the worst performing sector with a 0.04% return for the guarter. Large cap companies outperformed small cap companies and growth stocks outperformed their value counterparts.

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

| Russell 1000 Growth | 14.7%                                     |
|---------------------|---|
| Russell 1000 Value  | 11.1%                                     |
| Russell 2000 Growth | 13.3%                                     |
| Russell 2000 Value  | 11.6%                                     |
|                     | Russell 1000 Value<br>Russell 2000 Growth |

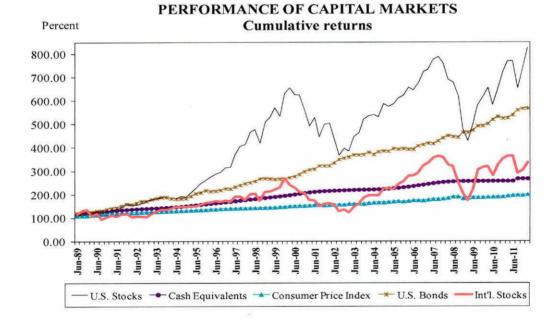
The Russell 3000 index returned 7.2% for the year ending March 31, 2012.

# DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 0.3% for the quarter. Yields on U.S. Treasuries rose as economic data suggested that the recovery was strengthening, prompting investors to take more risk. The 2-year U.S. Treasury ended the first quarter nine basis points higher at 0.3%, the 10-year yield rose by 33 basis points to 2.2%, and the 30-year increased by 45 basis points to 3.3%. Lower quality investment grade corporate bonds and high-quality commercial mortgagebacked securities significantly outperformed the benchmark during the first quarter, while U.S. Treasuries and Agency bonds underperformed.

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

| U.S. Treasury        | -1.3% |
|----------------------|-------|
| Agency               | 0.2   |
| Corporates           | 2.1   |
| Agency MBS           | 0.6   |
| Commercial Mortgages | 3.5   |
| 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 10.4% for the quarter. The quarterly performance of the six largest stock markets is shown below:

| United Kingdom | 7.6% |
|----------------|------|
| Japan          | 11.3 |
| Canada         | 6.4  |
| France         | 12.2 |
| Australia      | 9.0  |
| Germany        | 20.9 |

The World ex U.S. index returned -6.7% during the last year.

The World ex U.S. index is compiled by Morgan Stanley Capital International (MSCI) and is a measure of 23 markets located in Europe, Australasia, Far East, and Canada. The major markets listed above comprise about 74% of the value of the international markets in the index.

# **EMERGING MARKETS**

Emerging markets (as measured by MSCI Emerging Markets Free index gross) provided a return of 14.1% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

| China        | 9.9% |
|--------------|------|
| Brazil       | 13.8 |
| Korea        | 15.5 |
| Taiwan       | 14.5 |
| India        | 20.1 |
| South Africa | 11.2 |

The Emerging Markets Free index returned -8.5% during the last year.

The Emerging Markets Free (EMF) index is compiled by MSCI and measures performance of 21 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 72% of the value of the international markets in the index.

# **REAL ESTATE**

During the first quarter of 2012, real estate posted its ninth consecutive quarter of positive returns with the NCREIF Property Index posting a return of 2.6%. Even with accommodative monetary and fiscal policies, the real estate outlook for 2012 continues to be one of caution due to continued weakness in employment and weak demand.

# **PRIVATE EQUITY**

Private equity firms that spent the past two years shoring up their portfolio companies are finally ready and able to cash in on their strongest performers. Strategic buyers are also awash with cash, after putting away capital on their balance sheets during the recent economic contraction. Deal volume has steadily increased over the last two years, and private equity firms still maintain healthy levels of dry powder for deal-making. Because of the increased transaction volume, private equity performance has rebounded over the last two years.

# **RESOURCE FUNDS**

During the first quarter of 2012, crude oil traded between a range of \$97/bbl and \$110/bbl. The average price for the first quarter of 2012 was \$104/bbl which is approximately \$10/bbl more than the average price for the fourth quarter of 2011. Improved economic growth and unrest in the Middle East should continue to provide strength to oil prices.

# FIRST QUARTER

# **COMBINED FUNDS**

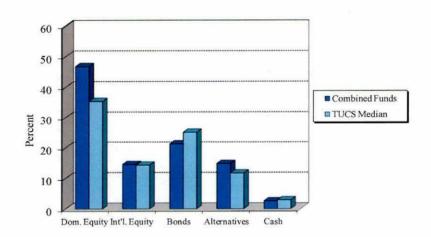
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

# Asset Mix Compared to Other Pension Funds

On March 31, 2012, the asset mix of the Combined Funds was:

|                      | <b>\$</b> Millions | %      |
|----------------------|--------------------|--------|
| Domestic Stocks      | \$22,821           | 46.8%  |
| International Stocks | 7,085              | 14.5   |
| Bonds                | 10,379             | 21.3   |
| Alternative Assets   | 7,234              | 14.8   |
| Unallocated Cash     | 1,253              | 2.6    |
| Total                | \$48,772           | 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.<br>Equity | Int'l<br>Equity | Bonds | Alternatives | Cash |
|----------------------------|----------------|-----------------|-------|--------------|------|
| Combined Funds             | 46.8%          | 14.5%           | 21.3% | 14.8%        | 2.6% |
| Median Allocation in TUCS* | 35.4           | 14.3            | 25.1  | 11.7**       | 2.9  |

\* Public and corporate plans over \$1 billion.

\*\* May include assets other than alternatives.

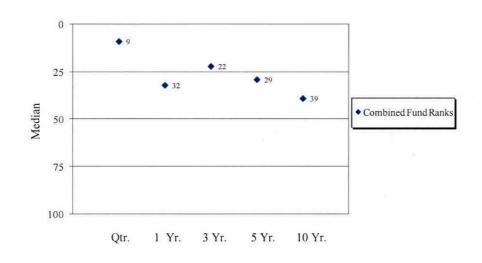
# COMBINED FUNDS Performance Compared to Other Pension Funds

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 3/31/2012 |       |       |       |        |
|--------------------------|-------------------------|-------|-------|-------|--------|
|                          | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Combined Funds           |                         |       |       |       |        |
| Percentile Rank in TUCS* | 9th                     | 32nd  | 22nd  | 29th  | 39th   |

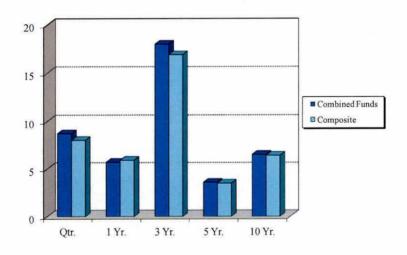
\* Compared to public and corporate plans greater than \$1 billion, gross of fees.

# 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<br>Index            | Combined<br>Funds<br>Composite*<br>1Q12 |
|-------------------------|----------------------------|---|
| Domestic Stocks         | Russell 3000               | 45.0%                                   |
| Int'l. Stocks           | MSCI ACWI Free ex-U.S.     | 15.0                                    |
| Bonds                   | Barclays Capital Aggregate | 22.4*                                   |
| Alternative Investments | Alternative Investments    | 15.6*                                   |
| 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.



|                  | Period Ending 3/31/2012 |       |       |       |        |
|------------------|-------------------------|-------|-------|-------|--------|
|                  | Annualized              |       |       |       |        |
|                  | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Combined Funds** | 8.7%                    | 5.7%  | 18.0% | 3.6%  | 6.5%   |
| Composite Index  | 8.0                     | 5.9   | 16.9  | 3.5   | 6.4    |

\*\* Actual returns are reported net of fees.

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# STOCK AND BOND MANAGERS Performance of Asset Pools (Net of Fees)

## **Domestic Stocks**

## Target: Russell 3000

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

|                        | Period Ending 3/31/2012 |       |       |       |        |
|------------------------|-------------------------|-------|-------|-------|--------|
|                        |                         |       |       |       |        |
|                        | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| <b>Domestic Stocks</b> | 13.6%                   | 7.1%  | 24.6% | 2.1%  | 4.5%   |
| Asset Class Target*    | 12.9                    | 7.2   | 24.3  | 2.2   | 4.7    |

\* 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.

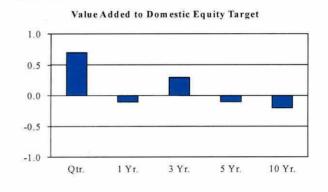
|                     | Period Ending 3/31/2012 |       |       |       |        |
|---------------------|-------------------------|-------|-------|-------|--------|
|                     |                         |       |       |       |        |
|                     | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Int'l. Stocks       | 11.3%                   | -7.2% | 19.2% | -1.4% | 7.2%   |
| Asset Class Target* | 11.2                    | -7.2  | 19.1  | -1.5  | 7.3    |

\* The Int'l Equity Asset Class Target is MSCI ACWI Free ex U.S. (net) effective 10/1/03. From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) + Emerging Markets Free (EMF) (net), and from 7/1/99 to 12/31/00 was MSCI EAFE Free (net) + EMF (gross). From 7/1/99 to 9/30/03, the weight of each index fluctuated with market cap.

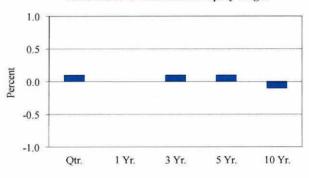
## Bonds

**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.

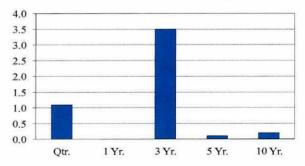
#### Period Ending 3/31/2012 Annualized 5 Yr. 10 Yr. 1 Yr. 3 Yr. Otr. 1.4% 7.7% 10.3% 6.3% 6.0% Bonds Asset Class Target 0.3 7.7 6.8 6.2 5.8



Value Added to International Equity Target



### Value Added to Fixed Income Target



# ALTERNATIVE INVESTMENTS Performance of Asset Categories (Net of Fees)

| Alternative Investments  |                |      |                |  |                   |        |
|--|----------------|------|----------------|--|-------------------|--------|
| Expectation: The alternative investments are   |                |      | Period Er      |  |                   |        |
| measured against themselves using actual portfolio returns.  |                | Otr. | Yr.            | AI<br>3 Yr.  | nualized<br>5 Yr. | 10 Yr. |
| returns.   | Alternatives   | 3.7% | 11.3%          |  | 7.4%              | 13.8%  |
|  |                |      |                |  |                   |        |
|  | Inflation      | 1.6% | 2.7%           | 2.5%   | 2.2%              | 2.4%   |
| Real Estate Investments (Equity emphasis)  |                |      |                |  |                   |        |
| Expectation: Real estate investments are expected to   |                | j    | Period End     |  |                   |        |
| exceed the rate of inflation by 5% annualized, over the  |                | Qtr. | Yr.            | Ani<br>3 Yr.   | nualized<br>5 Yr. | 10 Yr. |
| life of the investment.  |                | ~    |                |  |                   |        |
| The SBI began its real estate program in the mid-1980's<br>and periodically makes new investments. Some of the<br>existing investments are relatively immature and returns<br>may not be indicative of future results.     | Real Estate    | 0.7% | 14.0%          | -4.7%  | -1.7%             | 6.5%   |
| Private Equity Investments (Equity emphasis)   |                |      | <b>D</b> . 1 D | 1. 2/21  | 12012             |        |
| <b>Expectation:</b> Private equity investments are expected to exceed the rate of inflation by 10% annualized, over  |                |      | Period Er      |  | nualized          |        |
| the life of the investment.  |                | Qtr. | Yr.            | 3 Yr.  | 5 Yr.             | 10 Yr. |
| The SBI began its private equity program in the mid-<br>1980's and periodically makes new investments. Some<br>of the existing investments are relatively immature and<br>returns may not be indicative of future results. | Private Equity | 4.2% | 7.3%           | 14.1%  | 8.3%              | 13.8%  |
| Resource Investments (Equity emphasis)   |                |      |                |  |                   |        |
| Expectation: Resource investments are expected to  |                |      | Period End     | and the second sec |                   |        |
| exceed the rate of inflation by 5% annualized, over the life of the investment.  |                | Qtr. | Yr.            | 3 Yr.  | nualized<br>5 Yr. | 10 Yr. |
| The of the investment.   | n              | 4.2% | 26.7%          | 10.0%  | 9.5%              | 26.5%  |
| The SBI began its resource program in the mid-1980's<br>and periodically makes new investments. Some of the<br>existing investments are relatively immature and returns<br>may not be indicative of future results.        | Resource       | 4.2% | 20.7%          | 10.0%  | 9.3%              | 20.5%  |
| Yield Oriented Investments (Debt emphasis)   |                |      |                |  |                   |        |
| Expectation: Yield oriented investments are expected to  |                |      | Period End     |  |                   |        |
| exceed the rate of inflation by 5.5% annualized, over the life of the investment.  |                | Qtr. | Yr.            | An<br>3 Yr.  | nualized<br>5 Yr. | 10 Yr. |
| The SBI began its yield oriented program in 1994. Some<br>of the existing investments are relatively immature and<br>returns may not be indicative of future returns.  | Yield Oriented | 4.7% | 15.4%          | 9.2%   | 11.1%             | 15.8%  |

# 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 March 31, 2012 the market value of the entire Fund was \$1.2 billion.

| Investment Options  |  |
|---|--|
|   | 3/31/2012<br>Market Value<br>(In Millions) |
| <b>Income Share Account</b> – a balanced portfolio utilizing both common stocks and bonds.  | \$263                                      |
| <b>Growth Share Account</b> – an actively managed, all common stock portfolio.  | \$138                                      |
| <b>Common Stock Index Account</b> – a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.            | \$172                                      |
| <b>International Share Account</b> – a portfolio of non U.S. stocks that incorporates both active and passive management.   | \$80                                       |
| Bond Market Account – an actively managed, all bond portfolio.  | \$128                                      |
| <b>Money Market Account</b> – a portfolio utilizing short-term, liquid debt securities.   | \$211                                      |
| <b>Fixed Interest Account</b> – a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts. | \$178                                      |
| Volunteer Firefighter Account – a balanced portfolio only used  | \$7  |

# **Investment Options**

**Volunteer Firefighter Account** – a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.

# SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

# **INCOME SHARE ACCOUNT**

## **Investment Objective**

The primary investment objective of the Income Share Account is similar to that of the Combined Funds. The Account 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               |
|--------|----------------------|
| 60.0%  | 61.2%                |
| 35.0   | 34.3                 |
| 5.0    | 4.5                  |
| 100.0% | 100.0%               |
|        | 60.0%<br>35.0<br>5.0 |

# **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 3/31/2012 |       |       |       |        |  |
|----------------------|-------------------------|-------|-------|-------|--------|--|
|                      | Annuali                 |       |       |       | lized  |  |
|                      | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |  |
| <b>Total Account</b> | 8.5%                    | 7.2%  | 17.7% | 4.3%  | 5.5%   |  |
| Benchmark*           | 7.7                     | 7.4   | 17.0  | 3.7   | 5.1    |  |

\* 60% Russell 3000/35% Barclays Capital Aggregate Bond Index/ 5% T-Bills Composite since 10/1/03. 60% Wilshire 5000/35% Barclays Capital Aggregate Bond Index/5% T-Bills composite through 9/30/03.

|                      | Period Ending 3/31/2012 |       |       |         |        |
|----------------------|-------------------------|-------|-------|---------|--------|
|                      |                         |       | A     | nnualiz | ed     |
|                      | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr.   | 10 Yr. |
| <b>Total Account</b> | 14.1%                   | 7.1%  | 24.6% | 1.9%    | 4.3%   |
| Benchmark*           | 12.9                    | 7.2   | 24.3  | 2.2     | 4.7    |

\* Russell 3000 since 10/1/03. 100% Wilshire 5000 Investable from July 1999 to September 2003.

|                      | I     | Period En | ding 3/31 | 1/2012  |        |
|----------------------|-------|-----------|-----------|---------|--------|
|                      |       |           | A         | nnualiz | ed     |
|                      | Qtr.  | 1 Yr.     | 3 Yr.     | 5 Yr.   | 10 Yr. |
| <b>Total Account</b> | 12.8% | 7.1%      | 24.3%     | 2.3%    | 4.8%   |
| Benchmark*           | 12.9  | 7.2       | 24.3      | 2.2     | 4.7    |

\* Russell 3000 since 10/1/03. Wilshire 5000 Investable from 7/1/00 to 9/30/03. Wilshire 5000 through 6/30/00.

|                      | I     | Period En | ding 3/3 | 1/2012  |        |
|----------------------|-------|-----------|----------|---------|--------|
|                      |       |           | A        | nnualiz | ed     |
|                      | Qtr.  | 1 Yr.     | 3 Yr.    | 5 Yr.   | 10 Yr. |
| <b>Total Account</b> | 11.3% | -7.2%     | 19.2%    | -1.3%   | 7.3%   |
| Benchmark*           | 11.2  | -7.2      | 19.1     | -1.5    | 7.3    |

\* The Int'l Equity Asset Class Target is MSCI ACWI Free ex U.S. (net) since 10/1/03. From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) + Emerging Markets Free (EMF) (net), and from 7/1/99 to 12/31/00 was MSCI EAFE Free (net) + EMF (gross). From 7/1/99 to 9/30/03, the weight of each index fluctuated with market cap.

# 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.

| MONEY I | 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   | 35.4%  |
| International Stocks | 15.0   | 14.3   |
| Bonds                | 45.0   | 45.0   |
| Cash                 | 5.0    | 5.3    |
|                      | 100.0% | 100.0% |

|                               | Period Ending 3/31/2012 |       |       |       |        |  |  |  |
|-------------------------------|-------------------------|-------|-------|-------|--------|--|--|--|
|                               | Annualized              |       |       |       |        |  |  |  |
|                               | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |  |  |  |
| <b>Total Account</b>          | 1.4%                    | 7.7%  | 10.4% | 6.3%  | 6.0%   |  |  |  |
| Barclays Capital<br>Aggregate | 0.3                     | 7.7   | 6.8   | 6.2   | 5.8    |  |  |  |

Period Ending 3/31/2012

3 Yr.

0.1

0.2%

Annualized

1.0

5 Yr. 10 Yr.

1.5% 2.1%

1.8

|                      | 1    | Period Er | ding 3/3 | 1/2012  |        |
|----------------------|------|-----------|----------|---------|--------|
|                      |      |           | A        | nnualiz | ed     |
|                      | Qtr. | 1 Yr.     | 3 Yr.    | 5 Yr.   | 10 Yr. |
| <b>Total Account</b> | 0.7% | 3.3%      | 3.9%     | 4.2%    | 4.4%   |
| Benchmark*           | 0.2  | 1.0       | 1.4      | 2.2     | 3.0    |

1 Yr.

0.0

0.2%

Otr.

0.0

0.1%

**Total Account** 

3 month T-Bills

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

|                      | Period Ending 3/31/2012 |       |       |       |        |  |  |  |
|----------------------|-------------------------|-------|-------|-------|--------|--|--|--|
|                      | Annualized              |       |       |       |        |  |  |  |
|                      | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |  |  |  |
| <b>Total Account</b> | 6.6%                    | 4.7%  | N/A   | N/A   | N/A    |  |  |  |
| Benchmark*           | 6.2                     | 5.3   | N/A   | 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.

3/31/2012

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

|   | Market Value<br>(in Millions) |
|---|-------------------------------|
| Vanguard Index Institutional Plus Shares (passive)                    | \$610                         |
| Janus Twenty (active)   | \$413                         |
| Vanguard Mid Cap Index Institutional Shares (passive)                 | \$235                         |
| T. Rowe Price Small-Cap Stock (active)                                | \$450                         |
| Fidelity Diversified International (active)                           | \$221                         |
| Vanguard Total International Stock Index Institutional Plus (passive) | \$101                         |
| Vanguard Balanced Index Institutional Shares (passive)                | \$497                         |
| Dodge & Cox Income Fund (active)                                      | \$175                         |
| Vanguard Total Bond Market Index Institutional Shares (passive)       | \$175                         |
| SIF Money Market Account  | \$70                          |
| SIF Fixed Interest Account (stable value)                             | \$1,279                       |
| State Street Global Advisors MN Target Retirement Funds               |                               |
| Income Fund   | \$9                           |
| 2015 Fund   | \$13                          |
| 2020 Fund   | \$14                          |
| 2025 Fund   | \$8                           |
| 2030 Fund   | \$6                           |
| 2035 Fund   | \$3                           |
| 2040 Fund   | \$2                           |
| 2045 Fund   | <\$1                          |
| 2050 Fund   | <\$1                          |
| 2055 Fund   | <\$1                          |
| 2060 Fund   | <\$1                          |

# **Investment Options**

# **DEFERRED COMPENSATION PLAN ACCOUNTS**

# LARGE CAP EQUITY

| <ul> <li>Vanguard Index Institutional Plus (passive)</li> <li>A passive domestic stock portfolio that tracks the</li> </ul>   |                                       | Period Ending 3/31/2<br>Annuali     |                                     |                                      |                                    |  |
|---|---------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|------------------------------------|--|
| • A passive domestic stock portiono that tracks the S&P 500.  | Fund<br>S&P 500                       | <b>Qtr.</b><br>12.6%<br>12.6        | 1 Yr.<br>8.5%<br>8.5                | <b>3 Yr.</b><br><b>23.5%</b><br>23.4 | <b>5 Yr.</b><br><b>2.1%</b><br>2.0 |  |
| <ul><li>Janus Twenty (active)</li><li>A concentrated fund of large cap stocks which is</li></ul>  |                                       | 1                                   | Period En                           | ding 3/31<br>Annua                   |                                    |  |
| expected to outperform the S&P 500, over time.  | Fund<br>S&P 500                       | <b>Qtr.</b><br><b>20.1%</b><br>12.6 | 1 Yr.<br>9.0%<br>8.5                | 3 Yr.                                | 5 Yr.<br>5.4%<br>2.0               |  |
| MID CAP EQUITY  |                                       |                                     |                                     |                                      |                                    |  |
| Vanguard Mid Cap Index (passive)  |                                       | I                                   | Period En                           |                                      |                                    |  |
| • A fund that passively invests in companies with medium market capitalizations that tracks the Morgan Stanley Capital International (MSCI) U.S. Midcap 450 index.  | <b>Fund</b><br>MSCI US<br>Mid-Cap 450 | <b>Qtr.</b><br><b>13.4%</b><br>13.4 | <b>1 Yr.</b><br><b>2.8%</b><br>2.8  | Annua<br>3 Yr.<br>28.9%<br>29.0      | 5 Yr.<br>3.0%<br>3.0               |  |
| SMALL CAP EQUITY  |                                       |                                     |                                     |                                      |                                    |  |
| T. Rowe Price Small Cap (active)  |                                       | I                                   | Period En                           | ding 3/31<br>Annua                   |                                    |  |
| • A fund that invests primarily in companies with small market capitalizations and is expected to outperform the Russell 2000.  | <b>Fund</b><br>Russell 2000           | <b>Qtr.</b><br>13.5%<br>12.4        | <b>1 Yr.</b><br><b>3.9%</b><br>-0.2 | <b>3 Yr.</b><br><b>32.0%</b><br>26.9 | 5 Yr.<br>5.8%<br>2.1               |  |
| INTERNATIONAL EQUITY  |                                       |                                     |                                     |                                      |                                    |  |
| Fidelity Diversified International (active)   |                                       | I                                   | Period En                           | ding 3/31<br>Annua                   |                                    |  |
| • A fund that invests primarily in stocks of companies<br>located outside the United States and is expected to<br>outperform the MSCI index of Europe, Australasia and<br>the Far East (EAFE), over time. | <b>Fund</b><br>MSCI EAFE              | <b>Qtr.</b><br>12.6%<br>10.9        | 1 Yr.<br>-5.9%<br>-5.8              | <b>3 Yr.</b><br><b>16.8%</b><br>17.1 | 5 Yr.<br>-2.8%<br>-3.5             |  |
| the rai East (EATE), over time.   |                                       |                                     |                                     |                                      |                                    |  |
| Vanguard Total International Stock Index (passive)  |                                       | I                                   | Period En                           | ding 3/31<br>Annua                   |                                    |  |

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

| Fund      | 12.6% | -5.9%   | 16.8%    | -2.8%  |
|-----------|-------|---------|----------|--------|
| MSCI EAFE | 10.9  | -5.8    | 17.1     | -3.5   |
|           | Pe    | riod En | ding 3/3 | 1/2012 |
|           |       |         | Annu     | alized |
|           | Qtr.  | 1 Yr.   | 3 Yr.    | 5 Yr.  |
| Fund      | 12.0% | N/A     | N/A      | N/A    |

N/A

N/A

N/A

ACWI ex US IMI 11.6

# DEFERRED COMPENSATION PLAN ACCOUNTS

# BALANCED

| <ul> <li>Vanguard Balanced Index (passive)</li> <li>A fund that passively invests in a mix of domestic stocks and bonds. The fund is expected to track a</li> </ul> |   | 1                                 | Period E             | nding 3/3<br>Annua                   |                                    |
|---|---|-----------------------------------|----------------------|--------------------------------------|------------------------------------|
| weighted benchmark of 60% MSCI US Broad Market<br>Index/40% Barclays Capital Aggregate.   | <b>Fund</b><br>Benchmark                | Qtr.<br>7.7%<br>7.8               | 1 Yr.<br>8.1%<br>7.9 | <b>3 Yr.</b><br><b>17.6%</b><br>17.6 | 5 Yr.                              |
| FIXED INCOME  |   |                                   |                      |                                      |                                    |
| <ul><li>Dodge &amp; Cox Income Fund (active)</li><li>A fund that invests primarily in investment grade</li></ul>  |   | Pe                                | riod End             | ing 3/31/2<br>Annua                  |                                    |
| securities in the U.S. bond market which is expected to<br>outperform the Barclays Capital Aggregate, over time.  | <b>Fund</b><br>Barclays<br>Capital Agg. | Qtr.<br>3.0%<br>0.3               | 1 Yr.<br>6.4%<br>7.7 | 3 Yr.<br>10.2%<br>6.8                | 5 Yr.<br>6.7%<br>6.2               |
| <ul> <li>Vanguard Total Bond Market Index (passive)</li> <li>A fund that passively invests in a broad, market-</li> </ul>   | Period Ending 3/31/2012<br>Annualized   |                                   |                      |                                      |                                    |
| weighted bond index that is expected to track the Barclays Capital Aggregate.   | <b>Fund</b><br>Barclays<br>Capital Agg. | <b>Qtr.</b><br><b>0.3%</b><br>0.3 | 1 Yr.<br>7.7%<br>7.7 | 3 Yr.<br>6.8%<br>6.8                 | <b>5 Yr.</b><br><b>6.3%</b><br>6.2 |
| Money Market Account<br>• A fund that invests in short-term debt instruments  |   | I                                 | Period E             | nding 3/3<br>Annua                   |                                    |
| which is expected to outperform the return on 3-month U.S. Treasury Bills.  | Fund<br>3-Mo. Treas.                    | <b>Qtr.</b><br>0.1%<br>0.0        | 1 Yr.<br>0.2%<br>0.0 | <b>3 Yr.</b><br><b>0.2%</b><br>0.1   |                                    |
| FIXED INTEREST ACCOUNT  |   |                                   |                      |                                      |                                    |
| • A portfolio composed of stable value instruments which are primarily investment contracts and security  |   | I                                 |                      | nding 3/3<br>Annua                   | lized                              |
| backed contracts. The account is expected to outperform the return of the 3 year Constant Maturity  | Fund                                    | Qtr.<br>0.7%                      | 1 Yr.<br>3.3%        | 3 Yr.<br>3.9%                        | 5 Yr.<br>4.2%                      |

# MN TARGET RETIREMENT ACCOUNTS

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

See 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.

|        | 3/31/2012 | 3/31/2012 |
|--------|-----------|-----------|
|        | Target    | Actual    |
| Stocks | 20.0%     | 26.6%     |
| Bonds  | 80.0      | 73.4      |
| Total  | 100.0%    | 100.0%    |

# **Investment Management**

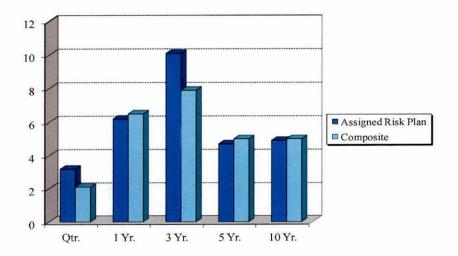
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

# **Performance Benchmarks**

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

# **Market Value**

On March 31, 2012 the market value of the Assigned Risk Plan was \$283 million.



# Period Ending 3/31/2012

|                    |      |       | Α     | ed    |        |
|--------------------|------|-------|-------|-------|--------|
|                    | Qtr. | 1 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| <b>Total Fund*</b> | 3.2% | 6.2%  | 10.1% | 4.7%  | 4.9%   |
| Composite          | 2.1  | 6.5   | 7.9   | 5.0   | 5.0    |
| Equity Segment*    | 14.4 | 5.7   | 20.8  | 2.7   | 3.7    |
| Benchmark          | 12.6 | 8.5   | 23.4  | 2.0   | 4.1    |
| Bond Segment*      | -0.3 | 5.4   | 7.6   | 5.0   | 4.8    |
| Benchmark          | -0.4 | 5.6   | 3.7   | 5.5   | 5.0    |

\* 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.

|        | 3/31/2012 | 3/31/2012 |
|--------|-----------|-----------|
|        | Target    | Actual    |
| Stocks | 50.0%     | 51.3%     |
| Bond   | 48.0      | 46.8      |
| Cash   | 2.0       | 1.9       |
| Total  | 100.0%    | 100.0%    |

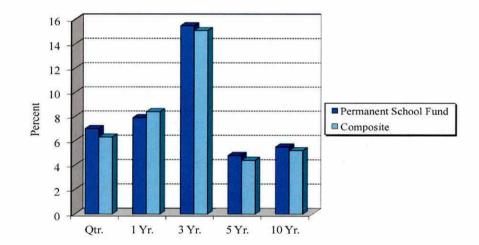
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

# **Investment Management**

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

## Market Value

On March 31, 2012 the market value of the Permanent School Fund was \$831 million.



|                       | Period Ending 3/31/2012 |       |       |         |        |  |  |
|-----------------------|-------------------------|-------|-------|---------|--------|--|--|
|                       |                         |       | Ar    | nualize | d      |  |  |
|                       | Qtr.                    | 1 Yr. | 3 Yr. | 5 Yr.   | 10 Yr. |  |  |
| Total Fund*           | 7.0%                    | 7.9%  | 15.5% | 4.8%    | 5.5%   |  |  |
| Composite             | 6.3                     | 8.4   | 15.1  | 4.4     | 5.2    |  |  |
| Equity Segment*       | 12.5                    | 8.6   | 23.4  | 2.1     | 4.2    |  |  |
| S&P 500               | 12.6                    | 8.5   | 23.4  | 2.0     | 4.1    |  |  |
| Bond Segment*         | 1.5                     | 6.3   | 7.6   | 6.7     | 6.3    |  |  |
| Barclays Capital Agg. | 0.3                     | 7.7   | 6.8   | 6.2     | 5.8    |  |  |

\* 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

|        | 3/31/2012 | 3/31/2012 |
|--------|-----------|-----------|
|        | Target    | Actual    |
| Stocks | 70.0%     | 72.1%     |
| Bonds  | 28.0      | 26.1      |
| Cash   | 2.0       | 1.8       |
| Total  | 100.0%    | 100.0%    |

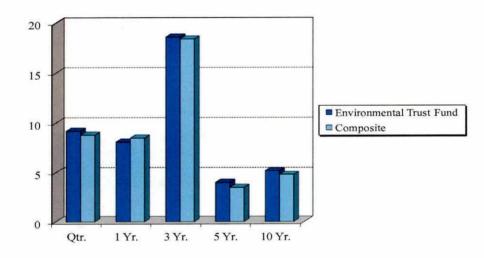
allocation changed from 50% stocks/50% fixed income to 70% stocks /30% fixed income.

## **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 March 31, 2012 the market value of the Environmental Trust Fund was \$620 million.



|  | Perio               | d Ending           |                      |                    |                    |  |
|--|---------------------|--------------------|----------------------|--------------------|--------------------|--|
|  |                     |                    | Annual               | ized               |                    |  |
|  | Qtr.                | 1 Yr.              | 3 Yr.                | 5 Yr.              | 10 Yr.             |  |
| <b>Total Fund*</b><br>Composite        | <b>9.2%</b><br>8.8  | <b>8.1%</b><br>8.5 | <b>18.6%</b><br>18.4 | <b>4.0%</b><br>3.5 | <b>5.2%</b><br>4.8 | * Actual returns are calculated net of fees. |
| <b>Equity Segment*</b><br>S&P 500      | <b>12.5</b><br>12.6 | <b>8.6</b><br>8.5  | <b>23.4</b> 23.4     | <b>2.1</b> 2.0     | <b>4.2</b><br>4.1  |  |
| Bond Segment*<br>Barclays Capital Agg. | <b>1.5</b><br>0.3   | <b>6.3</b><br>7.7  | 7 <b>.6</b><br>6.8   | <b>6.7</b><br>6.2  | <b>6.3</b> 5.8     |  |

# 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. The Pool has an average daily balance of about \$5.0 billion. 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 high level of current income.

#### 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 3/31/201 | 2     |         |        |
|------------------------|---------------------|------------|---------------|-------|---------|--------|
|                        | <b>Market Value</b> |            |               | Anr   | ualized |        |
|                        | (Millions)          | Qtr.       | 1 Yr.         | 3 Yr. | 5 Yr.   | 10 Yr. |
| Treasurer's Cash Pool* | \$4,466             | 0.3%       | 0.6%          | 1.3%  | 2.2%    | 2.5%   |
| Custom Benchmark**     |                     | 0.0        | 0.0           | 0.1   | 1.1     | 1.7    |
| 3 month T-Bills        |                     | 0.0        | 0.0           | 0.1   | 1.0     | 1.8    |

\* 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. From January 1997 to December 2002 the fund was measured against a blended benchmark consisting of the Barclays Capital 1-3 year Government Index and the iMoneyNet, All Taxable Money Fund Report Average. The proportion of each component of the blended benchmark is adjusted periodically as the asset allocation of the Cash Pool is modified.

Note: Effective March 6, 2012 the Trust Fund Cash Pool was dissolved. The Trust Fund Cash Pool which invested temporary cash balances of retirement related accounts was no longer needed with the adoption of daily transfers to the SBI's custodian bank.

# MINNESOTA STATE BOARD OF INVESTMENT Composition of State Investment Portfolios By Type of Investment Market Value March 31, 2012 (in Thousands)

|   |                                   | Cash & ST          | <b>Bonds Int</b> | <b>Bonds Ext</b>     | Stock Int | Stock Ext            | Ext Intl            | Alternative         | Total              |
|---|-----------------------------------|--------------------|------------------|----------------------|-----------|----------------------|---------------------|---------------------|--------------------|
| C | OMBINED RETIREMENT FUNDS          |                    |                  | 90                   |           |                      |                     |                     |                    |
|   | Teachers Retirement Fund          | 429,973<br>2.51%   | 0                | 3,655,230<br>21.29%  | 0         | 8,036,889<br>46.82%  | 2,495,118<br>14.54% | 2,547,727<br>14.84% | 17,164,937<br>100% |
|   | Public Employees Retirement Fund  | 369,083<br>2.67%   | 0                | 2,944,547<br>21.26%  | 0         | 6,474,284<br>46.74%  | 2,009,994<br>14.51% | 2,052,371<br>14.82% | 13,850,279<br>100% |
|   | State Employees Retirement Fund   | 236,832<br>2.55%   | 0                | 1,980,698<br>21.29%  | 0         | 4,355,033<br>46.80%  | 1,352,055<br>14.53% | 1,380,561<br>14.84% | 9,305,179<br>100%  |
|   | Public Employees Police & Fire    | 151,401<br>2.57%   | 0                | 1,257,857<br>21.28%  | . 0       | 2,765,697<br>46.79%  | 858,633<br>14.53%   | 876,736<br>14.83%   | 5,910,324<br>100%  |
|   | Highway Patrol Retirement Fund    | 14,401<br>2.54%    | 0                | 120,553<br>21.29%    | 0         | 265,064<br>46.80%    | 82,291<br>14.53%    | 84,026<br>14.84%    | 566,335<br>100%    |
|   | Judges Retirement Fund            | 4,358<br>2.94%     | 0                | 31,437<br>21.20%     | 0         | 69,121<br>46.61%     | 21,459<br>14.47%    | 21,912<br>14.78%    | 148,287<br>100%    |
|   | Correctional Employees Retirement | 18,647<br>2.79%    | 0                | 142,185<br>21.23%    | 0         | 312,627<br>46.69%    | 97,057<br>14.49%    | 99,103<br>14.80%    | 669,619<br>100%    |
|   | Public Employees Correctional     | 8,924<br>2.92%     | 0                | 64,833<br>21.21%     | 0         | 142,550<br>46.62%    | 44,256<br>14.47%    | 45,189<br>14.78%    | 305,752<br>100%    |
|   | Legislative Retirement Fund       | 358<br>2.27%       | 0                | 3,367<br>21.35%      | 0         | 7,403<br>46.93%      | 2,298<br>14.57%     | 2,347<br>14.88%     | 15,773<br>100%     |
|   | PERA Minneapolis Retirement       | 19,266<br>2.31%    | 0                | 177,907<br>21.34%    | 0         | 391,174<br>46.91%    | 121,443<br>14.57%   | 124,004<br>14.87%   | 833,794<br>100%    |
|   | PERA Virginia Fire                | 41<br>2.28%        | 0                | 383<br>21.32%        | 0         | 843<br>46.94%        | 262<br>14.59%       | 267<br>14.87%       | 1,796<br>100%      |
| T | OTAL COMBINED FUNDS               | 1,253,284<br>2.57% | 0                | 10,378,997<br>21.28% | 0         | 22,820,685<br>46.79% | 7,084,866<br>14.53% | 7,234,243<br>14.83% | 48,772,075<br>100% |

|   |                                | Cash & ST          | Bonds Int        | Bonds Ext            | Stock Int | Stock Ext            | Ext Intl            | Alternative         | Total              |
|---|--------------------------------|--------------------|------------------|----------------------|-----------|----------------------|---------------------|---------------------|--------------------|
| 1 | MINNESOTA SUPPLEMENTAL FUNDS:  |                    |                  |                      |           |                      |                     |                     |                    |
|   | Income Share Account           | 11,931<br>4.53%    | 90,123<br>34.25% | 0                    | 0         | 161,137<br>61.22%    | 0                   | 0                   | 263,191<br>100%    |
|   | Growth Share Account           | 0                  | 0                | 0                    | 0         | 137,549<br>100.00%   | 0                   | 0                   | 137,549<br>100%    |
|   | Money Market Account           | 211,329<br>100.00% | 0                | 0                    | 0         | 0                    | 0                   | 0                   | 211,329<br>100%    |
|   | Common Stock Index             | 0                  | 0                | 0                    | 0         | 171,831<br>100.00%   | 0                   | 0                   | 171,831<br>100%    |
|   | Bond Market Account            | 0                  | 0                | 127,541<br>100.00%   | 0         | 0                    | 0                   | 0                   | 127,541<br>100%    |
| , | International Share Account    | 0                  | 0                | 0                    | 0         | 0                    | 80,210<br>100.00%   | 0                   | 80,210<br>100%     |
| ) | Fixed Interest Account         | 0                  | 0                | 178,132<br>100.00%   | 0         | 0                    | 0                   | 0                   | 178,132<br>100%    |
|   | Volunteer Firefighters Account | 370<br>5.33%       | 0                | 3,120<br>44.98%      | 0         | 2,452<br>35.35%      | 995<br>14.34%       | 0                   | 6,937<br>100%      |
| 1 | FOTAL SUPPLEMENTAL FUNDS       | 223,630<br>19.00%  | 90,123<br>7.66%  | 308,793<br>26.24%    | 0         | 472,969<br>40.20%    | 81,205<br>6.90%     | 0                   | 1,176,720<br>100%  |
| N | MN DEFERRED COMP PLAN          | 75,501<br>1.76%    | 0                | 1,844,408<br>43.08%  | 0         | 2,033,744<br>47.51%  | 327,609<br>7.65%    | 0                   | 4,281,262<br>100%  |
| 1 | FOTAL RETIREMENT FUNDS         | 1,552,415<br>2.86% | 90,123<br>0.17%  | 12,532,198<br>23.11% | 0         | 25,327,398<br>46.70% | 7,493,680<br>13.82% | 7,234,243<br>13.34% | 54,230,057<br>100% |

|   | Cash & ST                       | Bonds Int          | Bonds Ext            | Stock Int           | Stock Ext            | Ext Intl            | Alternative         | Total              |
|---|---------------------------------|--------------------|----------------------|---------------------|----------------------|---------------------|---------------------|--------------------|
| ASSIGNED RISK PLAN                              | 4,172<br>1.48%                  | 0                  | 204,390<br>72.17%    | 0                   | 74,631<br>26.35%     | 0                   | 0                   | 283,193<br>100%    |
| ENVIRONMENTAL FUND                              | 10,977<br>1.77%                 | 161,988<br>26.14%  | 0                    | 446,828<br>72.09%   | 0                    | 0                   | 0                   | 619,793<br>100%    |
| PERMANENT SCHOOL FUND                           | 15,753<br>1.90%                 | 388,790<br>46.77%  | 0                    | 426,672<br>51.33%   | 0                    | 0                   | 0                   | 831,215<br>100%    |
| Miscellanous Trust Funds                        | 264<br>0.24%                    | 54,463<br>49.01%   | 0                    | 56,389<br>50.75%    | 0                    | 0                   | 0                   | 111,116<br>100%    |
| Other Post Employment Funds (OPE                | B's) 29,575<br>9.47%            | 66,170<br>21.19%   | 0                    | 216,500<br>69.34%   | 0                    | 0                   | 0                   | 312,245<br>100%    |
| $\stackrel{N}{\hookrightarrow}$ TREASURERS CASH | 4,466,012<br>100.00%            | 0                  | 0                    | 0                   | 0                    | 0                   | 0                   | 4,466,012<br>100%  |
| MISCELLANEOUS ACCOUNTS                          | 0                               | 274,578<br>100.00% | 0                    |                     | 0                    | 0                   | 0                   | 274,578<br>100%    |
| TOTAL CASH AND NON-RETIREM                      | <b>MENT</b> 4,526,753<br>65.62% | 945,989<br>13.71%  | 204,390<br>2.96%     | 1,146,389<br>16.62% | 74,631<br>1.08%      | 0                   | 0                   | 6,898,152<br>100%  |
| GRAND TOTAL                                     | 6,079,168<br>9.94%              | 1,036,112<br>1.69% | 12,736,588<br>20.84% | 1,146,389<br>1.88%  | 25,402,029<br>41.56% | 7,493,680<br>12.26% | 7,234,243<br>11.83% | 61,128,209<br>100% |

# TAB B

# EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: May 15, 2012

TO: Members, State Board of Investment

# FROM: Howard Bicker

## 1. Reports on Budget and Travel

A report on the SBI's administrative budget for the period ending April 30, 2012 is included as **Attachment A**.

A report on travel for the period from February 7, 2012 – May 5, 2012 is included as **Attachment B**.

# 2. Legislative Update

I will present a verbal update on any legislation activity of interest to the SBI.

## 3. Update on Sudan

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

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

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

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

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

Attachment C is a copy of the March 12, 2012 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.

## 4. Update on Iran

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

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

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

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

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

Attachment E is a copy of the March 12, 2012 letter sent to each international equity manager and domestic equity manager and fixed income manager containing the end of quarter restricted list and the list of companies to be divested.

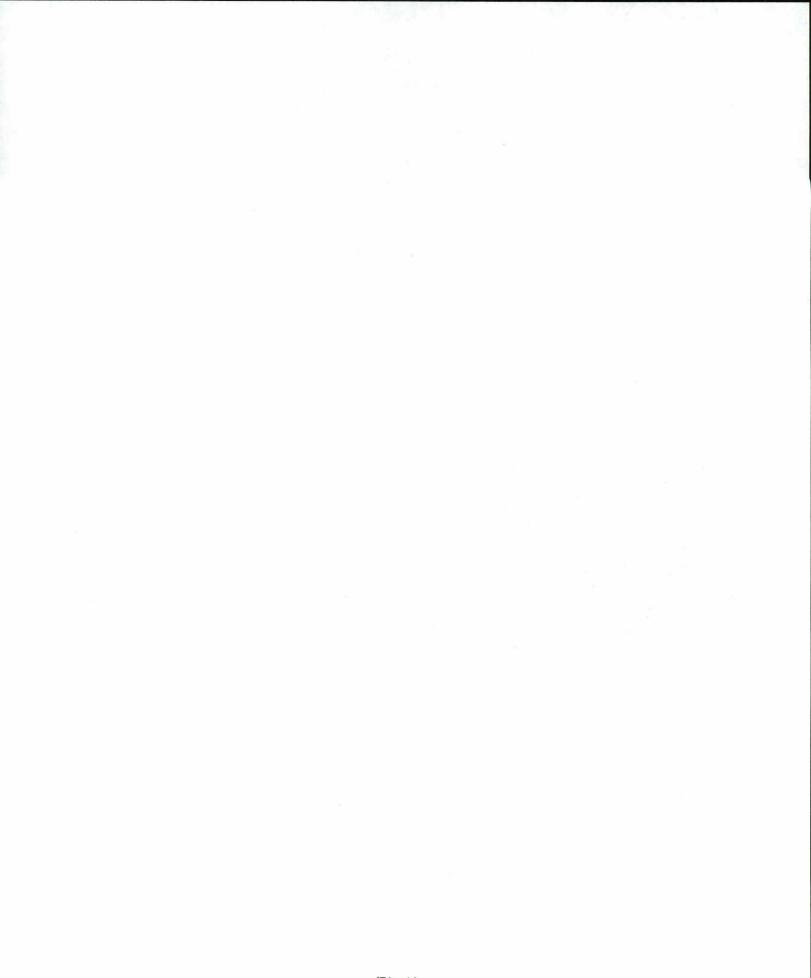
## 5. Litigation Update

SBI legal counsel will give the Board a verbal update on the status of the litigation at the Board meeting on June 6, 2012.

# ATTACHMENT A

# STATE BOARD OF INVESTMENT FISCAL YEAR 2012 ADMINISTRATIVE BUDGET REPORT FISCAL YEAR TO DATE THROUGH APRIL 30, 2012

|                                 | FISCAL YEAR<br>2012 | FISCAL YEAR<br>2012 |  |  |
|---------------------------------|---------------------|---------------------|--|--|
| ITEM                            | BUDGET              | 4/30/2012           |  |  |
| PERSONAL SERVICES               | 8                   | 2                   |  |  |
| FULL TIME EMPLOYEES             | \$ 2,837,000        | \$ 2,198,206        |  |  |
| PART TIME EMPLOYEES             | \$ 69,000           | \$ 53,152           |  |  |
| MISCELLANEOUS PAYROLL           | 600                 | 25,312              |  |  |
|                                 |                     |                     |  |  |
| SUBTOTAL                        | \$ 2,906,600        | \$ 2,276,670        |  |  |
| STATE OPERATIONS                |                     |                     |  |  |
| RENTS & LEASES                  | 200,000             | 172,123             |  |  |
| REPAIRS/ALTERATIONS/MAINTENANCE | 10,000              | 6,884               |  |  |
| PRINTING & BINDING              | 4,000               | 2,930               |  |  |
| PROFESSIONAL/TECHNICAL SERVICES | 0                   | 550                 |  |  |
| COMPUTER SYSTEMS SERVICES       | 18,000              | 14,154              |  |  |
| COMMUNICATIONS                  | 28,000              | 16,069              |  |  |
| TRAVEL, IN-STATE                | 900                 | 168                 |  |  |
| TRAVEL, OUT-STATE               | 38,000              | 44,217              |  |  |
| SUPPLIES                        | 30,000              | 18,693              |  |  |
| EQUIPMENT                       | 13,000              | 13,150              |  |  |
| EMPLOYEE DEVELOPMENT            | 5,000               | 4,264               |  |  |
| OTHER OPERATING COSTS           | 9,000               | 11,556              |  |  |
| SUBTOTAL                        | \$ 355,900          | \$ 304,758          |  |  |
| TOTAL ADMINISTRATIVE BUDGET     | \$ 3,262,500        | \$ 2,581,428        |  |  |



# ATTACHMENT B

# STATE BOARD OF INVESTMENT

# Travel Summary by Date SBI Travel February 7, 2012 – May 5, 2012

| Purpose   | Name(s)                    | Destination<br>and Date   | Total<br>Cost |
|---|----------------------------|---|---------------|
| <b>Conference:</b><br>Investment Education<br>Symposium<br>sponsored by: Opal Financial<br>Group  | H. Bicker                  | New Orleans, LA<br>2/15-2/17  | \$848.34      |
| Manager Monitoring<br>Domestic Equity Managers:<br>Hotchkis & Wiley;<br>Mellon Capital Mgmt.;<br>BlackRock; Zevenbergen<br>Manager Search<br>Domestic Equity Manager:<br>LA Capital | T. Brusehaver<br>P. Ammann | Los Angeles, CA<br>San Francisco, CA<br>Seattle, WA<br>3/5-3/8      | \$2,872.87    |
| <b>Conference:</b><br>Money Market Expo<br>Investors' Summit<br>sponsored by: iMoneyNet   | A. Griga                   | Orlando, FL<br>3/11-3/14  | \$1,410.37    |
| Manager Monitoring<br>Fixed Income Managers:<br>Dodge & Cox; Western<br>Asset Mgmt.; PIMCO  | M. Menssen<br>R. Hill      | San Francisco, CA<br>Pasadena, CA<br>Newport Beach, CA<br>3/12-3/14 | \$3,194.95    |
| <b>Conference:</b><br>Institutional Limited Partners<br>Association (ILPA)  | J. Griebenow<br>J. Kirby   | Atlanta, GA<br>3/27-3/29  | \$3,443.10    |
| Manager Monitoring<br>Alternative Investments<br>Manager:<br>First Reserve Corporation  | H. Bicker                  | Dallas, TX<br>3/28-3/30   | \$1,378.92    |

| Purpose   | Name(s)                     | Destination<br>and Date                     | Total<br>Cost |
|---|-----------------------------|---|---------------|
| Manager Monitoring<br>Alternative Investments<br>Manager:<br>Merit Energy Annual<br>Meeting   | J. Griebenow                | Dallas, TX<br>4/23-4/24                     | \$473.37      |
| <b>Conference:</b><br>National Association of State<br>Investment Professionals<br>(NASIP)  | M. Menssen<br>T. Brusehaver | Austin, TX<br>4/24-4/27                     | \$3,723.90    |
| Manager Monitoring<br>Alternative Investments<br>Managers:<br>Prudential Real Estate;<br>Morgan Stanley Prime<br>Property; Warburg Pincus | J. Kirby                    | Parsippany, NJ<br>New York, NY<br>4/25-4/27 | \$1,829.74    |

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## ATTACHMENT C

Letter to SBI International Equity Managers and Domestic Equity Managers

March 12, 2012

## **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. Please note that the attached List makes changes to the List of Restricted Sudan Stocks that was attached to the December 9, 2011 letter you received. <u>This new list is</u> effective March 15, 2012.

- The following companies have been removed from the restricted list:
  - Nuinsco Resources Limited (Canada)
  - Ranhill Berhad (Malaysia)

Attachment 2 is the List of Sudan Stocks Requiring Divestment.

• There were no changes to the divestment list.

If you own securities of companies on the List of Sudan Stocks Requiring Divestment in the SBI portfolio that your organization manages, then you must <u>divest</u> those holdings according to the schedules 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. Please note that the list of security identifiers may have information on companies not on the restricted list.

If you have questions any about this matter, please contact Brusehaver Tammy or Patricia Ammann. Domestic Equities: Stephanie Gleeson, International Equities or James E. Heidelberg, Public Programs.

Sincerely,

Teresa J. Richardson Assistant Executive Director

Enclosures

cc: James E. Heidelberg, Manager, Public Programs Tammy Brusehaver, Manager, Domestic Equities Patricia Ammann, Portfolio Manager, Domestic Equities Stephanie Gleeson, Manager, International Equities

# ATTACHMENT 1

| Restricted Sudan Stocks  |                          |
|--|--------------------------|
| Company Name   | <b>Country of Origin</b> |
| AviChina Industry & Technology Company Limited                   | China                    |
| China Gezhouba Group Company Limited                             | China                    |
| Daqing Huake Group Company Limited                               | China                    |
| Dongfeng Motor Group Company Limited                             | China                    |
| Hafei Aviation Industry Company                                  | China                    |
| Harbin Dongan Auto Engine Company                                | China                    |
| Jiangxi Hongdu Aviation AKA Hongdu Aviation                      | China                    |
| Jinan Diesel Company Limited                                     | China                    |
| PetroChina   | China                    |
| Sinopec Corporation AKA China Petroleum and Chemical Corporation | China                    |
| Sinopec Shanghai Petrochemical Company Limited                   | China                    |
| Sinopec Yizheng Chemical Fibre Company Limited                   | China                    |
| Wuhan Boiler Company.  | China                    |
| China North Industries Group Corporation AKA CNGC/Norinco        | China                    |
| Norinco International Cooperation Limited                        | China                    |
| Sichuan Nitrocell Company Limited                                | China                    |
| China North Optical-Electrical Technology Company Limited        | China                    |
| AKM Industrial Company Limited                                   | China                    |
| Sinopec Kanton Holdings Limited                                  | Hong Kong                |
| Kunlun Energy Company Limited                                    | Hong Kong                |
| Chennai Petroleum Corporation Ltd. AKA CPCL                      | India                    |
| Indian Oil Corporation Ltd. AKA IOCL                             | India                    |
| Lanka IOC Limited  | India                    |
| Mangalore Refinery and Petrochemical Limited                     | India                    |
| Mercator Lines   | India                    |
| Oil and Natural Gas Company AKA ONGC                             | India                    |
| Alstom Projects India Limited                                    | India                    |
| Oil India Limited  | India                    |
| Egypt Kuwaiti Holding Company                                    | Egypt                    |
| Kingdream PLC  | Egypt/China              |
| AREF Energy Holding Company                                      | Kuwait                   |
| ONA S.A.   | Morocco                  |
| Managem  | Morocco                  |
| Malaysia International Shipping Company AKA MISC Berhad          | Malaysia                 |
| Petronas Gas Berhad  | Malaysia                 |
| Petronas Dagangan Berhad   | Malaysia                 |
| Petronas Chemicals Group Berhad                                  | Malaysia                 |

# **ATTACHMENT 1**

| Restricted Sudan Stocks                           |                   |  |  |  |
|---|-------------------|--|--|--|
| Company Name                                      | Country of Origin |  |  |  |
| Scomi Group Berhad                                | Malaysia          |  |  |  |
| Scomi Engineering Berhad                          | Malaysia          |  |  |  |
| Electricity Generating PCL AKA EGCO               | Thailand          |  |  |  |
| Mercator Lines Singapore                          | Singapore         |  |  |  |
| Alstom  | France            |  |  |  |
| KEPCO Plant Service & Engineering Company Limited | South Korea       |  |  |  |
| LS Industrial Systems                             | South Korea       |  |  |  |

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

Source: Conflict Risk Network

SBI Effective Date:

March 15, 2012

| ATTACI | MENT 2 |
|--------|--------|
| ATTACI |        |

| Sudan Stocks Requiring Divestment                          |                   |                                   |                                    |  |  |  |  |  |  |  |
|--|-------------------|-----------------------------------|------------------------------------|--|--|--|--|--|--|--|
| Company Name   | Country of Origin | Divest 50 Percent<br>By this Date | Divest 100 Percent<br>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<br>ONGC                       | India             | April 30, 2008                    | October 31, 2008                   |  |  |  |  |  |  |  |
| Malaysia International Shipping<br>Company AKA MISC Berhad | Malaysia          | April 30, 2008                    | October 31, 2008                   |  |  |  |  |  |  |  |
| Alstom   | France            | April 30, 2008                    | October 31, 2008                   |  |  |  |  |  |  |  |
| Dongfeng Motor Group Company                               | <b>CI</b> !       |                                   |                                    |  |  |  |  |  |  |  |
| Limited  | China             | March 31, 2011                    | September 30, 2011                 |  |  |  |  |  |  |  |

Note: AKA means "Also Known As"

Source: Conflict Risk Network

SBI Effective Date:

March 15, 2012



**ATTACHMENT 3** 

#### Security Identifiers for "Scrutinized" Stocks

The following security identifiers correlate with the February 29, 2012 issue of the Sudan

#### ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

## STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

| Company  | Primary Company (Affiliate/Parent)   | Exchango   | Security Type  | e Security Name  | Ticker  | WPK Number   | SEDOL  | CUSIP Sicovam  | ISIN   | COMMON  | CINS      |
|--|--|--|--|--|---|--|--|--|--|---|-----------|
| ALSTOM (FRANCE)  | ALSTOM   | EN Paris (XPAR)  | Common Stock   | ALSTOM   | ALO FP  | A0F7BK   | BODJ8Q5 FR   |  | FR0010220475   | 022581074   | onto      |
| ALSTOM (FRANCE)  | ALSTOM   | OTC US (XOTC)  | Common Stock   | ALSTOM   | AOMFF US  | A0F7BK   | BOGLY93 US   |  | FR0010220475   | 022581074   | F0259M475 |
| ALSTOM (FRANCE)  | ALSTOM   | Frankfurt (XFRA)   | Common Stock   | ALSTOM   | AOMD GR   | A0F7BK   | B0G0412 DE   |  | FR0010220475   | 022581074   | P0209W475 |
| ALSTOM (FRANCE)  | ALSTOM   | Euro Comp (XLON)   | Common Stock   | ALSTOM   | ALO EU  | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| ALSTOM (FRANCE)  | ALSTOM   | Chi-X Alt TS (CHIX)  | Common Stock   | ALSTOM   | ALSP IX   | A0F7BK   | B0DJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro Comp (XLON)   | Common Stock   | ALSTOM   | ALOGBX EU   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALOGBX EO   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALOGBP EO   | A0F7BK   | BOYLTQ7 GB   |  |  |   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro Comp (XLON)   | Common Stock   | ALSTOM   | ALOUSD EU   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALOUSD EO   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Turquoise (TRQX)   | Common Stock   | ALSTOM   | ALO TQ  | A0F7BK   | BODJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Equiduct (XEQT)  | Common Stock   | ALSTOM   | ALO BQ  | AOF7BK   |  |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | BATS Europe (BATE)   | Common Stock   | ALSTOM   | ALO EB  |  | B0DJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   |   | A0F7BK   | B0DJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALO EO  | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro Comp (XLON)   | Common Stock   |  | ALOCHF EO   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   |  |  | ALSTOM   | ALOCHF EU   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALONOK EO   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro Comp (XLON)   | Common Stock   | ALSTOM   | ALONOK EU   | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro OTC (XLON)  | Common Stock   | ALSTOM   | ALOAUD EO   | A0F7BK   | B0YLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Euro Comp (XLON)   | Common Stock   | ALSTOM   | ALOAUD EU   | A0F7BK   | B0YLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   |  | Quote MTF (QMTF)   | Common Stock   | ALSTOM   | ALO QM  | A0F7BK   | BODJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | LSE EuropeQS (XLON)  | Common Stock   | ALSTOM   | ALO LI  | A0F7BK   | BOYLTQ7 GB   |  | FR0010220475   | 022581074   |           |
| LSTOM (FRANCE)   | ALSTOM   | Tradegate (XGAT)   | Common Stock   | ALSTOM   | AOMD TH   | A0F7BK   | 80G0412 DE   |  | FR0010220475   | 022581074   |           |
| LISTOM PROJECTS INDIA LTD (INDIA)  | ALSTOM   | EN Paris (XPAR)  | Common Stock   | ALSTOM   | ALO S1  | A0F7BK   | BODJ8Q5 FR   |  | FR0010220475   | 022581074   |           |
| REEVA TAD INDIA LTD  | ALSTOM   | Natl India (XNSE)  | Common Stock   | ALSTOM PROJECTS INDIA LTD  | ABBAP IN  | ADEAYM   | 6230834 IN   |  | INE878A01011   | 022001014   |           |
| WUHAN BOILER CO (CHINA)  | ALSTOM   | Nati India (XNSE)  | Common Slock   | AREVA T&D INDIA LTD  | ATOIN   | AURIUS7  | 61399990 (N  |  | INE206401026   |   |           |
| REF ENERGY HOLDING COMPANY (KUWAIT)  | ALSTOM   | Shenzhen (XSHE)  | Common Stock   | WUHAN BOILER CO-B  | 200770 CH   | 913669   | 6111928 CN   |  | CNE000000VM7   |   |           |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)  | AREF ENERGY HOLDING COMPANY  | Kuwait (XKUW)  | Common Stock   | AREF ENERGY HOLDING CO KSCC  | AREFENRGKK  | A0KD4C   | B138W99 KW   |  | KW0EQ0601801   |   |           |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)  | AVICHINA INDUSTRY & TECHNOLOGY LTD   | Hong Kong (XHKG)   | Common Stock   | AVICHINA INDUSTRY & TECH-H   | 2357 HK   | ADM4WY   | 6707899 HK   |  | CNE1000001Y8   |   |           |
| VICHINA INDUSTRY & TECHNOLOGY LID (CHINA)  |  |  |  |  |   | A0M4WY   |  |  | CNE1000001Y8   |   |           |
|  | AVICHINA INDUSTRY & TECHNOLOGY LTD   | Frankfurt (XFRA)   | Common Stock   | AVICHINA INDUSTRY & TECH-H   | AVT GR  | AUNIAVY  | B1BJK68 DE   |  |  |   |           |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)  | AVICHINA INDUSTRY & TECHNOLOGY LTD   | Frankfurt (XFRA)<br>OTC US (XOTC)  | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>AVICHINA INDUSTRY & TECH-H   | AVT GR<br>AVIJF US  | A0M4WY   | B1BJK68 DE<br>B01W4B3 US   |  |  |   | V04950100 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD   |  |  |  |   |  |  |  | CNE1000001Y8   |   | Y0485Q109 |
| AVICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>IARBIN DONGAN AUTO ENGINE CO (CHINA)   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD   | OTC US (XOTC)  | Common Stock   | AVICHINA INDUSTRY & TECH-H   | AVIJF US  | A0M4WY<br>A0M4ER   | B01W4B3 US<br>6306586 CN   |  | CNE1000001Y8<br>CNE0000015V6   |   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>IARBIN DONGAN AUTO ENGINE CO (CHINA)<br>IATERPILLAR INC   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC  | OTC US (XOTC)<br>Shanghai (XSHG)   | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO   | AVIJF US<br>600038 CH   | A0M4WY   | B01W4B3 US<br>6306586 CN<br>6128519 CN   | 005976   | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9   | 000096507   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>IARBIN DONGAN AUTO ENGINE CO (CHINA)<br>IATERPILLAR INC<br>ATERPILLAR INC   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)  | Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US  | A0M4WY<br>A0M4ER<br>A0M369<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US   |  | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015   | 009986537   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>IARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC  | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT1 GR   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520  | 919161   | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015   | 009986537   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>IARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC   | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT1 GR<br>CAT FP   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>950598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR  | 919161<br>005976   | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015<br>US1491231015   | 009986537<br>009986537  | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)  | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT 1 GR<br>CAT FP<br>CAT PE  | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>950598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778   | 919161<br>005976<br>919161   | CNE100000198<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015   | 009986537<br>009986537<br>009986537   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT I GR<br>CAT FP<br>CAT PE<br>CTA LN  | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>950598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB   | 919161<br>005976<br>919161<br>005976                               | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015   | 009986537<br>009986537<br>009986537<br>009986537  | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT I GR<br>CAT FP<br>CAT PE<br>CAT PE<br>CAT ES  | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>950598<br>850598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520 .<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE   | 919161<br>005976<br>919161<br>005976<br>005976                     | CNE100000198<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015   | 009986537<br>009986537<br>009986537<br>009986537<br>009986537   | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Intl (XLON)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT I GR<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT* MM   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE<br>2665979 MX   | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE1000001Y8<br>CNE0000015V6<br>CNE000000XJ9<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015   | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537  | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfur (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Inti (XLON)<br>Mexico (XMEX)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT IGR<br>CAT FP<br>CAT FP<br>CAT PE<br>CAT ES<br>CAT* MM<br>CATG IX   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE<br>2665979 MX<br>5626520 DE   | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100000198<br>CNE000000350<br>CNE00000039<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015                                  | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537                           | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>Prankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Intl (XLON)<br>Mexico (XIMEX)<br>Euro OTC (XLON)   | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT IGR<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT* MM<br>CATG IX<br>CAT GIX<br>CAT EO  | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE<br>2665979 MX<br>5626520 DE<br>0180162 GB                             | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100001198<br>CNE0000001506<br>CNE00000029<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015                                 | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537  | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>Prankfut (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Intl (XLON)<br>Mexico (XMEX)<br>Euro OTC (XLON)<br>Euro Comp (XLON)   | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT IGR<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT* MM<br>CATG IX<br>CAT EO<br>CAT EU   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598   | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>2665979 MX<br>5626520 DE<br>0180162 GB<br>0180162 GB                             | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100000198<br>CNE000000350<br>CNE00000039<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015                                  | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537                           | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>IAFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC   | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC<br>CATERPILLAR INC   | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Inti (XLON)<br>Mexico (XMEX)<br>Euro OTC (XLON)<br>Euro Comp (XLON)<br>Euro Comp (XLON) | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECHH<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC  | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT US<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT ES<br>CAT S<br>CAT EU<br>CAT EU<br>CAT EU<br>CAT EU   | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598                               | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE<br>2665979 MX<br>5626520 DE<br>0180162 GB<br>0180162 GB<br>0180162 GB | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100001198<br>CNE0000001506<br>CNE00000029<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015                                 | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537              | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC                    | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfur (XRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Intl (XLON)<br>Mexico (XMEX)<br>Euro OTC (XLON)<br>Euro Comp (XLON)<br>Euro Comp (XLON)   | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC                                       | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT GR<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT* MM<br>CATG IX<br>CAT G IX<br>CAT EO<br>CAT EU<br>CATGBX EU<br>CATGBX EU                          | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598 | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>2665979 MX<br>5626520 DE<br>0180162 GB<br>0180162 GB                             | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100000198<br>CNE0000001506<br>CNE000000000<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015                | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537              | Y0485Q109 |
| VICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>AFEI AVIATION INDUSTRY CO (CHINA)<br>ARBIN DONGAN AUTO ENGINE CO (CHINA)<br>ATERPILLAR INC<br>ATERPILLAR INC  | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Inti (XLON)<br>Mexico (XMEX)<br>Euro OTC (XLON)<br>Euro Comp (XLON)<br>Euro Comp (XLON) | Common Stock<br>Common Stock   | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT FP<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT MM<br>CATG IX<br>CAT G IX<br>CAT EO<br>CAT EU<br>CATGEX EU<br>CATGEX EU<br>CATGEX EU<br>CATGEX EU | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598 | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>7151600 BE<br>2665979 MX<br>5626520 DE<br>0180162 GB<br>0180162 GB<br>0180162 GB | 919161<br>005976<br>919161<br>005976<br>005976<br>005976           | CNE100000198<br>CNE000000550<br>CNE000000350<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015 | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537              | Y0485Q109 |
| AVICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)<br>HAFEI AVIATION INDUSTRY CO (CHINA)<br>HAFEI AVIATION INDUSTRY CO (CHINA)<br>CATERPILLAR INC<br>SATERPILLAR INC | AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>AVICHINA INDUSTRY & TECHNOLOGY LTD<br>CATERPILLAR INC<br>CATERPILLAR INC                    | OTC US (XOTC)<br>Shanghai (XSHG)<br>Shanghai (XSHG)<br>New York (XNYS)<br>Frankfur (XRA)<br>EN Paris (XPAR)<br>LIMA (XLIM)<br>London Intl (XLON)<br>Mexico (XMEX)<br>Euro OTC (XLON)<br>Euro Comp (XLON)<br>Euro Comp (XLON)   | Common Stock<br>Common Stock | AVICHINA INDUSTRY & TECH-H<br>HAFEI AVIATION INDUSTRY CO<br>HARBIN DONGAN AUTO ENGINE-A<br>CATERPILLAR INC<br>CATERPILLAR INC                                       | AVIJF US<br>600038 CH<br>600178 CH<br>CAT US<br>CAT US<br>CAT GR<br>CAT FP<br>CAT PE<br>CTA LN<br>CAT ES<br>CAT* MM<br>CATG IX<br>CAT G IX<br>CAT EO<br>CAT EU<br>CATGBX EU<br>CATGBX EU                          | A0M4WY<br>A0M4ER<br>A0M369<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598<br>850598 | B01W4B3 US<br>6306586 CN<br>6128519 CN<br>2180201 US<br>5626520<br>4180254 FR<br>2743778<br>0180162 GB<br>2665579 MX<br>5626520 DE<br>0180162 GB<br>0180162 GB<br>0180162 GB               | 919161<br>005976<br>919161<br>005976<br>005576<br>005576<br>919161 | CNE100000198<br>CNE000000550<br>CNE00000050<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015<br>US1491231015  | 009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537<br>009986537 | Y0486Q109 |

| CATERPILLAR INC  | CATERPILLAR INC   | EuroTLX (ETLX)      | Common Stock                   | CATERPILLAR INC  | CAT TE     | 850598  |            | 005976 | US1491231015                 | 009986537 |            |
|--|---|---------------------|--------------------------------|--|------------|---------|------------|--------|------------------------------|-----------|------------|
| CATERPILLAR INC  | CATERPILLAR INC   | Turquoise (TRQX)    | Common Stock                   | CATERPILLAR INC  | CAT TQ     | 850598  | 2180201 US | 005976 | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | NYSE ARCA Eu (XHFT) | Common Stock                   | CATERPILLAR INC  | CAT NR     | 850598  | 2180201 US | 005976 | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Tradegate (XGAT)    | Common Stock                   | CATERPILLAR INC  | CAT1 TH    | 850598  | 5626520 DE | 919161 | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Bolsa Colomb (XBOG) | Common Stock                   | CATERPILLAR INC  | CAT CB     | 850598  | B63T975 CO | 005976 | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Euro OTC (XLON)     | Common Stock                   | CATERPILLAR INC  | CATCHE EO  | 850598  | 5001070 00 | 003370 | US1491231015                 |           |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Euro Comp (XLON)    | Common Stock                   | CATERPILLAR INC  | CATCHF EU  | 850598  |            |        |                              | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | BATS Europe (BATE)  | Common Stock                   | CATERPILLAR INC  | CATEB      | 850598  | 2180201 US |        | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Buenos Floor (XBUE) | Receipt                        | CATERPILLAR-CED  | CAT AR     | 630396  |            | 005976 | US1491231015                 | 009986537 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Buenos Floor (XBUE) | Receipt                        | CATERPILLAR-CED  | CATD AR    |         | 2378277 AR |        | ARDEUT110079                 |           |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Buenos Floor (XBUE) | Receipt                        | CATERPILLAR-CED  | CATC AR    |         | 2378277 AR |        | ARDEUT110079                 |           |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Buenos Floor (XBUE) | Receipt                        | CATERPILLAR-CE B   |            |         | 2378277 AR |        | ARDEUT110079                 | 033876874 |            |
| CATERPILLAR INC  | CATERPILLAR INC   | Soma (BVMF)         | Receipt                        |  | CATB AR    |         | 2378277 AR |        | ARDEUT110079                 |           |            |
| CATERPILLAR INC  | CATERPILLAR INC   | SIX Swiss Ex (XSWX) | Receipt                        | CATERPILLAR-BDR  | CATP11B BZ |         | B463G79 BR |        | BRCATPBDR003                 | 1         |            |
| CATERPILLAR INC  | CATERPILLAR INC   | EN Brussels (XBRU)  | Receipt                        | CATERPILLAR INC  | CAT SW     | 850598  | 4516310 CH | 919161 | US1491231015                 | 009986537 |            |
| CHINA GEZHOUBA GROUP COMPANY LTD (CHINA)   | CHINA GEZHOUBA GROUP COMPANY LTD  | Shanghai (XSHG)     |                                | CATERPILLAR INC  | CATER BB   | A1JULH  | B752850 BE |        | BE0004610516                 | 002789370 |            |
|  | CHINA HYDRAULIC AND HYDROELECTRIC   | Sharighar (ASHG)    | Common Stock                   | CHINA GEZHOUBA GROUP CO LT-A                                   | 600068 CH  | A0M31Z  | 6377214 CN |        | CNE000000QF1                 |           |            |
| SINOHYDRO GROUP (CHINA)  | CONSTRUCTION GROUP (SINOHYDRO)  | Shanghai (XSHG)     | Common Stock                   | SINOHYDRO GROUP LTD-A  | 601669 CH  |         | 84TH690 CN |        |                              |           |            |
| DAQING HUAKE GROUP CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Shenzhen (XSHE)     | Common Stock                   | DAQING HUAKE GROUP CO-A  | 000985 CH  | A0M4C2  | 6277949 CN |        | CNE000001402                 |           |            |
| JINAN DIESEL ENGINE CO LTD (CHINA)   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Shenzhen (XSHE)     | Common Stock                   | JINAN DIESEL ENGINE CO-A                                       | 000617 CH  | AOM3ZT  | 6486109 CN |        | CNE000001402<br>CNE000000MS3 |           |            |
| KUNLUN ENERGY CO LTD   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Hong Kong (XHKG)    | Common Stock                   | KUNLUN ENERGY CO LTD   | 135 HK     | A1CV3E  | 6340078 HK | 952131 |                              | 060000000 |            |
| KUNLUN ENERGY CO LTD   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Frankfurt (XFRA)    | Common Stock                   | KUNLUN ENERGY CO LTD   | CTJ1 GR    | A1CV3E  | 5387753 DE |        | BMG5320C1082                 |           |            |
| KUNLUN ENERGY CO LTD   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | OTC Exchange (XOTC) | Common Stock                   | KUNLUN ENERGY CO LTD   | KUNUF US   | A1CV3E  | B01DDZ3 US | 952131 | BMG5320C1082                 |           |            |
| KUNLUN ENERGY CO LTD   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | OTC Exchange (OOTC) |                                | CNPC HONG KONG LTD-UNSP ADR                                    | KLYCY US   | ATOY DE |            | 952131 | BMG5320C1082                 | 050092003 |            |
| KUNLUN ENERGY CO LTD   | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Tradegate (XGAT)    | Common Stock                   | KUNLUN ENERGY CO LTD   | CTJ1 TH    | A101/20 | B3L2812 US |        | US50126A1016                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Hong Kong (XHKG)    | Common Stock                   | PETROCHINA CO LTD-H  | 857 HK     | A1CV3E  | 5387753 DE | 952131 | BMG5320C1082                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Frankfurt (XFRA)    | Common Stock                   | PETROCHINA CO LTD  |            | A0M4YQ  | 6226576 HK |        | CNE1000003w8                 | 011014674 |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | OTC US (XOTC)       | Common Stock                   | PETROCHINA CO LTD  | PC6 GR     | A0M4YQ  | 5939507 DE |        | CNE100003w8                  |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Shanghai (XSHG)     | Common Stock                   | PETROCHINA CO LTD  | PCCYF US   | A0M4YQ  | B01DNL9 US |        | CNE100003w8                  | 011014674 | Y6883Q104  |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | New York (XNYS)     | ADR                            | PETROCHINA CO LTD -ADR   | 601857 CH  | 0000    | B28SLD9 CN |        | CNE1000007Q1                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Frankfurt (XFRA)    | ADR                            |  | PTR US     | 936983  | 2568841 US |        | US71646E1001                 | 011511449 |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Buenos Floor (XBUE) |                                | PETROCHINA CO LTD -ADR   | PC6A GR    | 936983  | 4633327 DE |        | US71646E1001                 | 011511449 |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  |                     | Receipt                        | PETROCHINA CO LTD-CEDEAR                                       | PTR AR     |         | B1C5SR2 AR |        | ARDEUT113958                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Buenos Floor (XBUE) | Receipt                        | PETROCHINA CO LTD-CEDEAR BLK                                   | PTRB AR    |         |            |        | ARDEUT113958                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Buenos Floor (XBUE) | Receipt                        | PETROCHINA CO LTD-CEDEAR C/E                                   | PTRC AR    |         |            |        | ARDEUT113958                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Buenos Floor (XBUE) | Receipt                        | PETROCHINA CO LTD-CEDEAR \$                                    | PTRD AR    |         |            |        | ARDEUT113958                 |           |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Tradegate (XGAT)    | Common Stock                   | PETROCHINA CO LTD-H  | PC6 TH     | A0M4YQ  | 5939507 DE |        | CNE100003W8                  | 011014674 |            |
| PETROCHINA CO LTD (CHINA)  |   | Tradegate (XGAT)    | ADR                            | PETROCHINA CO LTD -ADR   | PC6A TH    | 936983  |            |        | US71646E1001                 | 011511449 |            |
| PETROCHINA CO LTD (CHINA)  | CHINA NATIONAL PETROLEUM CORP aka CNPC  | Singapore (XSES)    | ADR                            | PETROCHINA CO LTD -ADR   | PTR SP     | 936983  | B3KTK63    |        | US71646E1001                 | 011511449 |            |
|  | CHINA NATIONAL PETROLEUM CORP aka CNPC<br>CHINA NORTH INDUSTRIES GROUP  | Mexico (XMEX)       | ADR                            | PETROCHINA CO LTD -ADR   | PTRN MM    | 936983  | B569834 MX |        | US71646E1001                 | 011511449 |            |
| NORINCO INTERNATIONAL COOPERATION LTD.   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | NORINCO INTL COOPERATION -A                                    | 000065 CH  | A0M35W  | 6112125 CN |        | CNE000000VZ9                 |           |            |
| LIAONING HUAJIN TONGDA CHEMICALS CO. LTD   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | LIAONING HUAJIN TONGDA CHE - A                                 | 000059 CH  | A0M30T  | 6796143 CN |        | CNE00000NY9                  |           |            |
| LIAONING HUAJIN TONGDA CHEMICALS CO. LTD   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | LIAONING HUAJIN TONGDA CHE - A                                 | 000059 CS  | A0M30T  | 6796143 CN |        | CNE000000NY9                 |           |            |
| SICHUAN NITROCELL CO. LTD.   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | SICHUAN NITROCELL CO LTD-A                                     | 002246 CH  | AORPGJ  | B39G5K4 CN |        | CNE100000BW7                 |           |            |
| CHINA NORTH OPTICAL-ELECTRICAL TECHNOLOGY CO. LTD.   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | CHINA NORTH OPTICAL-ELECTR-A                                   | 600435 CH  | A0M4L5  | 6649946 CN |        | CNE000001F88                 |           |            |
| CHINA NORTH OPTICAL-ELECTRICAL TECHNOLOGY CO. LTD.   | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Shenzhen (XSHE)     | Common Stock                   | CHINA NORTH OPTICAL-ELECTR-A                                   | 600435 CG  | A0M4L5  | 6649946 CN |        | CNE000001F88                 |           |            |
| AKM INDUSTRIAL CO. LTD.  | CORPORATION (CNGC/NORINCO)<br>CHINA NORTH INDUSTRIES GROUP  | Hong Kong (XHKG)    | Common Stock                   | AKM INDUSTRIAL CO LTD  | 8298 HK    | A0D86T  | B02J0J3 HK |        | HK8298013897                 |           |            |
| AKM INDUSTRIAL CO. LTD.  | CORPORATION (CNGC/NORINCO)  | Berlin (XBER)       | Common Stock                   | AKM INDUSTRIAL CO LTD  | AIQ GR     | A0D86T  | B06L0H3 DE |        | HK8298013897                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | Hong Kong (XHKG)    | Common Stock                   | CHINA PETROLEUM & CHEMICAL-H                                   | 386 HK     | A0M4XN  | 6291819 HK |        |                              | 010150504 |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | Frankfurt (XFRA)    | Common Stock                   | CHINA PETROLEUM & CHEMICAL -H                                  | CHU GR     | A0M4XN  | 7027756 DE |        | CNE1000002Q2                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | OTC US (XOTC)       | Common Stock                   |  | SNPMF US   | A0M4XN  | B01XKR4 US |        | CNE1000002Q2                 |           | 1012010000 |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | Shanghai (XSHG)     | Common Stock                   | CHINA PETROLEUM & CHEMICAL-A                                   | 600028 CH  | A0M4G4  |            |        | CNE1000002Q2                 | 012150504 | Y15010104  |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | New York (XNYS)     | ADR                            | CHINA PETROLEUM & CHEM-ADR                                     | SNP US     |         | 6373728 CN |        | CNE1000002Q2                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | Munich (XMUN)       | ADR                            | CHINA PETROLEUM & CHEM-ADR                                     |            | 578971  | 2639189 US |        | US16941R1086                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | London Intl (XLON)  | ADR                            |  | CHUA GR    | 578971  | BORSW00 DE |        | US16941R1086                 | 011899374 |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   |                     |                                | CHINA PETROLEUM & CHEM-ADR                                     | SNP LI     |         | 2654375 GB |        | US16941R1086                 | 011899374 |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   | Buenos Floor (XBUE) | Receipt                        | CHINA PETROLEUM & CHEM-CEDEA                                   | SNP AR     |         | B1C5SX8    |        | ARDEUT114071                 |           |            |
|  | GROUP   | Buenos Floor (XBUE) | Receipt                        | CHINA PETROLEUM & CHEM-CEDBL                                   | SNPB AR    |         |            |        | ARDEUT114071                 |           |            |
|  |   | Buenos Floor (XBUE) | Receipt                        | CHINA PETROLEUM & CHEM-C C/E                                   | SNPC AR    |         |            |        | ARDEUT114071                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | where it and the example of a set of an and the set of |                     |                                |  |            |         |            |        |                              |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA) | GROUP   | Buenos Floor (XBUE) | Receipt                        | CHINA PETROLEUM & CHEM-CED \$                                  | SNPD AR    |         |            |        | ARDEUT114071                 |           |            |
| CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)   | GROUP   |                     | Receipt<br>Common Stock<br>ADR | CHINA PETROLEUM & CHEM-CED \$<br>CHINA PETROLEUM & CHEMICAL -H |            | A0M4XN  | 7027756 DE |        |                              | 012150504 |            |

| KINGDREAM PLC<br>SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP         GROUP   | Shenzhen (XSHE)<br>Hong Kong (XHKG)<br>Frankfurt (XFRA)<br>OTC US (OOTC)<br>Singapore (XSES)<br>Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)<br>Frankfurt (XFRA) | Common Stock<br>Common Stock<br>ADR<br>ADR<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR<br>Common Stock | KINGDREAM PUBLIC LIMITED - A<br>SINOPEC KANTONS HOLDINGS<br>SINOPEC KANTONS-INSPON ADR<br>SINOPEC SHANGHAI -SPONS ADR<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR<br>SINOPEC SHANGHAI-SPONS ADR | SPTJF US   | A0M37A<br>923923<br>923923<br>887169<br>A0M3RA<br>A0M4Y5<br>A0M4Y5<br>A0M4Y5 | 6136385 CN<br>6162692 HK<br>4601197 DE<br>B3KRT60 US<br>B3MNGN2<br>6802794 CN<br>5888632 DE<br>6797458 HK   |            |                   | CNE000000XK7<br>BMG8165U1009<br>BMG8165U1009<br>US82934W2070<br>US82935M1099<br>CNE000000BB2<br>CNE1000004C8  | 011563384<br>011563384<br>012248750 |                         |
|---|---|--|--|---|--|--|---|------------|-------------------|---|-------------------------------------|-------------------------|
| SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA) | GROUP         GROUP   | Frankfurt (XFRA)<br>OTC US (OOTC)<br>Singapore (XSES)<br>Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | Common Stock<br>ADR<br>ADR<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC KANTONS HOLDINGS<br>SINOPEC KANTONS HOLDINGS<br>SINOPEC KANTONS-UNSPON ADR<br>SINOPEC SHANGHAI -SPONS ADR<br>SINOPEC SHANGHAI PETROCHEM-<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR  | 934 HK<br>SAK GR<br>SPKOY US<br>SHI SP<br>600688 CH<br>SGJH GR<br>338 HK<br>SPTJF US | 923923<br>923923<br>887169<br>A0M3RA<br>A0M4Y5<br>A0M4Y5                     | 6162692 HK<br>4601197 DE<br>B3KRT60 US<br>B3MNGN2<br>6802794 CN<br>5888632 DE<br>6797458 HK   |            | 908303            | BMG8165U1009<br>BMG8165U1009<br>US82934W2070<br>US82935M1099<br>CNE000000BB2<br>CNE1000004C8  | 011563384<br>011563384<br>012248750 |                         |
| SINOPEC KANTON HOLDINGS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP & SINOPEC CORP (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP   | OTC US (OOTC)<br>Singapore (XSES)<br>Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | ADR<br>ADR<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC KANTONS HOLDINGS<br>SINOPEC KANTONS-UNSPON ADR<br>SINOPEC SHANGHAI -SPONS ADR<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H   | SAK GR<br>SPKOY US<br>SHI SP<br>600688 CH<br>SGJH GR<br>338 HK<br>SPTJF US           | 923923<br>887169<br>A0M3RA<br>A0M4Y5<br>A0M4Y5                               | 4601197 DE<br>B3KRT60 US<br>B3MNGN2<br>6802794 CN<br>5888632 DE<br>6797458 HK   |            | 908303            | BMG8165U1009<br>US82934W2070<br>US82935M1099<br>CNE000000BB2<br>CNE1000004C8  | 011563384<br>012248750              |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP & SINOPEC CORP (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP         GROUP   | OTC US (OOTC)<br>Singapore (XSES)<br>Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | ADR<br>ADR<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC KANTONS-UNSPON ADR<br>SINOPEC SHANGHAI -SPONS ADR<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR   | SPKOY US<br>SHI SP<br>600688 CH<br>SGJH GR<br>338 HK<br>SPTJF US                     | 887169<br>A0M3RA<br>A0M4Y5<br>A0M4Y5   | B3KRT60 US<br>B3MNGN2<br>6802794 CN<br>5888632 DE<br>6797458 HK   |            | 908303            | US82934W2070<br>US82935M1099<br>CNE000000BB2<br>CNE1000004C8  | 012248750                           |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP  | Singapore (XSES)<br>Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)   | ADR<br>Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR  | SINOPEC SHANGHAI -SPONS ADR<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR   | SHI SP<br>600688 CH<br>SGJH GR<br>338 HK<br>SPTJF US                                 | A0M3RA<br>A0M4Y5<br>A0M4Y5   | B3MNGN2<br>6802794 CN<br>5888632 DE<br>6797458 HK   |            | 908303            | US82935M1099<br>CNE000000BB2<br>CNE1000004C8  |                                     |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP         GROUP   | Shanghai (XSHG)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)   | Common Stock<br>Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR  | 600688 CH<br>SGJH GR<br>338 HK<br>SPTJF US   | A0M3RA<br>A0M4Y5<br>A0M4Y5   | 6802794 CN<br>5888632 DE<br>6797458 HK  |            | 908303            | CNE000000BB2<br>CNE1000004C8  |                                     |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP         GROUP   | Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | Common Stock<br>Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC SHANGHAI PETROCHEM<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR  | SGJH GR<br>338 HK<br>SPTJF US  | A0M4Y5<br>A0M4Y5   | 5888632 DE<br>6797458 HK  |            |                   | CNE1000004C8  | 005096162                           |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP         GROUP   | Hong Kong (XHKG)<br>OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | Common Stock<br>Common Stock<br>ADR<br>ADR   | SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR  | 338 HK<br>SPTJF US   | A0M4Y5   | 6797458 HK  |            |                   |   | 005096162                           |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP AKA SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP  | OTC US (XOTC)<br>New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | Common Stock<br>ADR<br>ADR   | SINOPEC SHANGHAI PETROCHEM-H<br>SINOPEC SHANGHAI-SPONS ADR  | SPTJF US   |  |   |            |                   |   |                                     |                         |
| SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP & SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP   | New York (XNYS)<br>Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)   | ADR<br>ADR   | SINOPEC SHANGHAI-SPONS ADR  |  |  |   |            | 900303            | CNE1000004C8  |                                     |                         |
| SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP sks SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP<br>GROUP  | Frankfurt (XFRA)<br>Hong Kong (XHKG)<br>OTC US (OOTC)  | ADR  |   | SHI US   |  | B01XTG6 US  |            |                   | CNE100004C8   |                                     | Y80373106               |
| SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP<br>GROUP<br>GROUP<br>GROUP  | Hong Kong (XHKG)<br>OTC US (OOTC)  |  |   | SHI GR   | 887169   | 2800059 US  |            | 908289            |   |                                     |                         |
| SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP<br>GROUP<br>GROUP<br>GROUP  | OTC US (OOTC)  |  | SINOPEC YIZHENG CHEMICAL-H  |  | 887169   | 5734638 DE  |            | 908289            |   | 012248750                           |                         |
| CHINA PETROLEUM & CHEMICAL CORP at a SINOPEC CORP (CHINA)<br>SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP<br>GROUP  |  | Common Stock   | SINOPEC YIZHENG CHEMICAL-H  | 1033 HK  | A0M4Y6   | 6984669 HK  |            | 917709            | CNE1000004D6  | 008069662                           |                         |
| SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED   | GROUP   |  | Common Stock   | SINOPEC YIZHENG CHEMICAL-H  | YZCFF US   | A0M4Y6   | B01XVL5 US  |            |                   | CNE1000004D6  | Non-second second second second     | Y9841W106               |
| DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  | GROUP   | Tradergate   | ADR  | CHINA PETROLEUM & CHEM-ADR  | YIZH GR  | A0M4Y6   | 4303675 DE  |            | 917709            | CNE1000004D6  | 008069662                           |                         |
| DONGFENG MOTOR GROUP COMPANY LIMITED<br>DONGFENG MOTOR GROUP COMPANY LIMITED  |   | Shanghai (XSHG)  | Common Stock   | SINOPEC YIZHENG CHEMICAL-H  | CHUA TH  | 578971   |   | 16941R108  |                   |   | 011899374                           |                         |
| DONGFENG MOTOR GROUP COMPANY LIMITED  | DONGFENG MOTOR GROUP COMPANY LIMITED  | Hong Kong (XHKG)   | Common Stock   |   | 600871 CH  | A0M3V6   | 6986740 CN  |            |                   | CNE000000HS3  |                                     |                         |
|   | DONGFENG MOTOR GROUP COMPANY LIMITED  |  |  | DONGFENG MOTOR GRP CO LTD-H   | 489 HK   | A0M4XY   | BOPH5N3 HK  |            |                   |   | 023857456                           |                         |
| DONGFENG MOTOR GROUP COMPANY LIMITED  | DONGFENG MOTOR GROUP COMPANY LIMITED  |  | Common Stock<br>Common Stock   | DONGFENG MOTOR GRP CO LTD-H   | DNFGF US   | A0M4XY   | B0XZY65 US  |            |                   | CNE100000312  | 023857456                           | Y21042109               |
|   | DONGFENG MOTOR GROUP COMPANY LIMITED  |  | Common Stock   | DONGFENG MOTOR GRP CO LTD-H   | D4D GR   | A0M4XY   | BOTBB66 DE  |            |                   |   | 023857456                           |                         |
| DONGFENG MOTOR GROUP COMPANY LIMITED  | DONGFENG MOTOR GROUP COMPANY LIMITED  | 1///15/15/07/16/07/16/07/10/16/14/1  | ADR  | DONGFENG MOTOR GRP CO LTD-H<br>DONGFENG MTR GRP-H-UNS ADR   | D4D TH   | A0M4XY   | B0TBB66 DE  |            |                   | CNE 100000312   | 023857456                           |                         |
| EGYPTIAN KUWAIT HOLDING CO (EGYPT)  | EGYPTIAN KUWAIT HOLDING CO (EGYPT)  | Cairo (XCAI)   | Common Stock   |   | DNFGY US   |  | B3SQPT4 US  |            |                   | US2577382037  |                                     |                         |
| EGYPTIAN KUWAIT HOLDING CO (EGYPT)  | EGYPTIAN KUWAIT HOLDING CO (EGYPT)  | Kuwait (XKUW)  | Common Stock   | EGYPTIAN KUWAITI HOLDING CO   | EKHO EY  | A0H1G7   | B0QMD00   |            |                   |   |                                     |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | Bangkok (XBKK)   | Common Stock   | EGYPTIAN KUWAITI HOLDING CO   | EKHOLDINKK   | A0H1G7   | B0S8H15 KW  |            | (Solidara Marcal) | EG69082C013   |                                     |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | Bangkok (XBKK)   | Common Stock   | ELECTRICITY GENERATING PCL<br>ELECTRICITY GEN PUB CO-FOR R  | EGCO TB  | 893182   | 6304632 TH  |            |                   |   | 006148590                           |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | Frankfurt (XFRA)   | Common Stock   |   | EGCO/F TB  | 893183   | 6304643 TH  |            | 930467            | TH0465010013  | 006149839                           |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | Bangkok (XBKK)   | Receipt  | ELECTRICITY GEN PUB CO-FOR R  | EGCF GR  | 893183   | 5336799 DE  |            | 930467            | TH0465010013  | 006149839                           |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | OTC US (XOTC)  | Receipt  | ELECTRICITY GENERA POL-NVDR   | EGCO-R TB  | 676043   | 6368553 TH  |            |                   | TH0465010R13  | 015662883                           |                         |
| ELECTRICITY GENERATING PCL, aka EGCO (THAILAND)   | ELECTRICITY GENERATING CO (EGCO)  | Munich (XMUN)  | Receipt  | ELECTRICITY GENERA PCL-NVDR<br>ELECTRICITY GENERA PCL-NVDR  | EYUUF US   | 676043   | B05PBX9 US  |            |                   |   | 015662883                           | Y22834124               |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Hong Kong (XHKG)   | Common Stock   | Glencore International PLC  | NVAE GR  | 676043   | B01LYC1 DE  |            |                   | Tarrender De De Centre de Carton de | 015662883                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | London Intl (XLON)   | Common Stock   | Glencore International PLC  | 805 HK   | A1JAGV   | B3NFYS8   |            |                   | JE00B4T3BW64  | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Stuttgart (XSTU)   | Common Stock   |   | GLEN LN  | A1JAGV   | B4T3BW6 GB  |            |                   | JE00B4T3BW64  | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | BATS Europe (BATE)   | Common Stock   | Glencore International PLC<br>Glencore International PLC  | BGC GR   | A1JAGV   | B55NST3 DE  |            |                   | JE00B4T3BW64  | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Tradegate (XGAT)   | Common Stock   | Contraction of the second s   | GLEN EB  | A1JAGV   | B4T3BW6 GB  |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Quote MTF (QMTF)   | Common Stock   | Glencore International PLC<br>Glencore International PLC  | 8GC TH   | A1JAGV   |   |            |                   | JE00B4T3BW64  | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Euro OTC (XLON)  | Common Stock   |   | GLEN QM  | A1JAGV   |   |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Euro Comp (XLON)   | Common Stock   | Giencore International PLC<br>Glencore International PLC  | GLEN EO  | A1JAGV   |   |            |                   | JE00B4T3BW64  | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Euro Comp (XLON)   | Common Stock   | Glencore International PLC  | GLEN EU  | A1JAGV   |   |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Turquoise (TRQX)   | Common Stock   | Glencore International PLC  | GLENEUR EU   | A1JAGV   |   |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Chi-X Alt TS (CHIX)  | Common Stock   | Glencore International PLC  | GLEN TO  | A1JAGV   | B4T3BW6 GB  |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | Equiduct (XEQT)  | Common Stock   | Glencore International PLC  | GLEN IX<br>GLEN BQ   | A1JAGV   | B4T3BW6 GB  |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | NYSE ARCA Eu (XHFT)  | Common Stock   | Giencore International PLC  |  | A1JAGV   |   |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | OTC US (OOTC)  | Common Stock   | Glencore International PLC  | GLEN NR  | A1JAGV   | B4T3BW6 GB  |            |                   |   | 063082236                           |                         |
| GLENCORE INTERNATIONAL PLC  | GLENCORE INTERNATIONAL PLC  | OTC US (OOTC)  | ADR  | Giencore International PLC  | GLCNF US<br>GLNCY US   | A1JAGV   | B4MSCG9 US  |            |                   |   | 063082236                           |                         |
| BIOPETROL INDUSTRIES AG   | GLENCORE INTERNATIONAL PLC  | Xetra (XETR)   | Common Stock   | Biopetrol Industries AG   |  | ADUILIOS   | B6QZ367 US  |            |                   | US3782731067  |                                     |                         |
| BIOPETROL INDUSTRIES AG   | GLENCORE INTERNATIONAL PLC  | OTC US (OOTC)  | Common Stock   | Biopetrol Industries AG   | B2I GR<br>BIOPF US   | A0HNQ5   | B0Q9VP2 DE  |            |                   |   | 023647729                           |                         |
| BIOPETROL INDUSTRIES AG   | GLENCORE INTERNATIONAL PLC  | Euro OTC (XLON)  | Common Stock   | Biopetrol Industries AG   | BIOPF US<br>B2I EO   | A0HNQ5   | B1FDC93 US  |            |                   |   | 023647729                           | H0978P112               |
| BIOPETROL INDUSTRIES AG   | GLENCORE INTERNATIONAL PLC  | Tradegate (XGAT)   | Common Stock   | Biopetrol Industries AG   | B2I EU<br>B2I TH   |  | BOOM (SS SS   |            |                   |   | 023647729                           |                         |
| CHEMOIL ENERGY LIMITED  | GLENCORE INTERNATIONAL PLC  | Singapore (XSES)   | Common Stock   | CHEMOIL ENERGY LTD  | CHEME SP   | A0HNQ5   | B0Q9VP2 DE  |            |                   |   | 023647729                           |                         |
| CHEMOIL ENERGY LIMITED  | GLENCORE INTERNATIONAL PLC  | Berlin (XBER)  | Common Stock   | CHEMOIL ENERGY LTD  | LHT GR   | A0LBTC<br>A0LBTC   | B1DL5V2 SG  |            |                   |   | 027111866                           |                         |
| CHEMOIL ENERGY LIMITED  | GLENCORE INTERNATIONAL PLC  | OTC US (OOTC)  | Common Stock   | CHEMOIL ENERGY LTD  | CLRGF US   | AOLBTC   | B1L6R79 DE<br>B1L97F6 US  |            |                   |   | 027111866                           |                         |
| CHEMOIL ENERGY LIMITED  | OLENOODE INTERNATION DATA   | OTC US (OOTC)  | ADR  |   | CLRGY US   | AULDIG   |   | 1620301400 |                   |   | 027111866                           | Y1306Z104               |
| CHENNAI PETROLEUM CORPORATION LIMITED (INDIA)   | INDIAN OIL CORP LTD aka IOCL  | Mumbai (XBOM)  | Common Stock   | CHENNAI PETROLEUM CORP LTD  | MRL IN   | A0B968   | 6121563 IN  | 16383N102  |                   | US16383N1028  |                                     |                         |
| INDIAN OIL CORP LTD (INDIA)   | INDIAN OIL CORP LTD aka IOCL  | Natl India (XNSE)  | Common Stock   | INDIAN OIL CORPORATION LTD  | IOCL IN  |  |   |            |                   | INE178A01016  |                                     |                         |
| LANKA IOC LTD (INDIA)   | INDIAN OIL CORP LTD aka IOCL  | Colombo (XCOL)   | Common Stock   | LANKA IOC LTD   | LIOC SL  | A0B9FM<br>A0D83L   | 6253767 IN  |            |                   | INE242A01010  |                                     |                         |
| JIANGXI HONGDU AVIATION INDUSTRY CO LTD (CHINA)   | read a second   | Shanghai (XSHG)  | Common Stock   | JIANGXI HONGDU AVIATION-A   | 600316 CH  | A0D83L   | B0591G4 LK<br>6304375 CN  |            |                   | LK0345N00005  |                                     |                         |
| JX HOLDINGS INC (JAPAN)   | and a same of an and a second s | Tokyo (XTKS)   | Common Stock   | JX HOLDINGS INC   | 5020 JP  | AUM4EK<br>A1CS9H   | THE REPORT OF THE PARTY OF THE |            |                   | CNE0000015N3  |                                     |                         |
| JX HOLDINGS INC (JAPAN)   |   | Stuttgart (XSTU)   |  | JX HOLDINGS INC   | JHJ GR   | A1CS9H   | B627LW9 JP  |            |                   |   | 049326777                           |                         |
| JX HOLDINGS INC (JAPAN)   |   | OTC US (OOTC)  | ADR  | JX HOLDINGS INC - UNSPON ADR  | JXHLY US   | A1CS9H<br>A1CVU3   | B55WTCO DE  |            |                   |   | 049326777                           |                         |
| JX HOLDINGS INC (JAPAN)   | and the second se | OTC US (OOTC)  |  | JX HOLDINGS INC   | JXHGF US   | A1CV03   | B588TZ8 US  |            |                   | US4662951023  |                                     | harring and a second of |
| NIPPO CORP (JAPAN)  |   |  | Common Stock   | NIPPO CORP  | 1881 JP  | 857846   | 86R59M4 US  |            |                   |   | 049326777                           | J29699105               |
| KEPCO PLANT SERVICE & ENGINEERING CO LTD (SOUTH KOREA)  | KEPCO PLANT SERVICE & ENGINEERING CO., LTD  | and the second   | Common Stock   |   | 051600 KS  | A0Q15P   | 6640789 JP  |            |                   |   | 001227858                           |                         |
| KEPCO PLANT SERVICE & ENGINEERING CO LTD (SOUTH KOREA)  | KEPCO PLANT SERVICE & ENGINEERING CO., LTD  | and the second   |  |   | 051600 KP  | HUW IDP  | B29ZGV2 KR  |            | 1                 | KR7051600005  |                                     |                         |

| The second s |   |   |                         |                              |            |                  |  |           |             |              |           |                |
|--|---|---|-------------------------|------------------------------|------------|------------------|--|-----------|-------------|--------------|-----------|----------------|
| LS INDUSTRIAL SYSTEMS CO., LTD (SOUTH KOREA)   | LS INDUSTRIAL SYSTEMS CO., LTD              | Korea (XKRX)  | Common Stock            | LS INDUSTRIAL SYSTEMS        | 010120 KS  | 895497           | 6378217 KR   |           |             | KR7010120004 |           |                |
| MANAGEM (MOROCCO)  | MANAGEM                                     | Casablanca (XCAS)   | Common Stock            | MANAGEM                      | MNG MC     | 165414           | 6287454 MA   |           |             | MA0000011058 |           |                |
| MANAGEM (MOROCCO)  | MANAGEM                                     | Casablanca (XCAS)   | Common Stock            | MANAGEM                      | MNG21 MC   | 100111           | B6Q8FB5 MA   |           |             | MA0000011058 |           |                |
| SOCIETE METALLURGIQUE D'IMITER (MOROCCO)   | MANAGEM                                     | Casablanca (XCAS)   | Common Stock            | SOCIETE METALLURGI D'IMITER  | SMI MC     | 256307           | 6007759 MA   |           |             |              |           |                |
| MERCATOR LTD (INDIA)   | MERCATOR                                    | Natl India (XNSE)   | Common Stock            | MERCATOR LINES LIMITED       | MRLN IN    | AOLGOH           | B05H3T5 IN   |           |             | MA0000010068 |           |                |
| MERCATOR LINES SINGAPORE (SINGAPORE)   | MERCATOR                                    | Berlin (XBER)   | Common Stock            | MERCATOR LINES SINGAPORE LTD | 3KD GR     | A0M91H           | BOSHS15 IN<br>B2NBMJ6 DE   |           |             | INE934801028 |           |                |
| MERCATOR LINES SINGAPORE (SINGAPORE)   | MERCATOR                                    | Singapore (XSES)  | Common Stock            | MERCATOR LINES SINGAPORE LTD | MRLN SP    | A0M91H           | and the second sec |           |             | SG1W39939069 | 033670079 |                |
| NUINSCO RESOURCES LIMITED (CANADA)   | NUINSCO RESOURCES LTD                       | Toronto (XTSE)  | Common Stock            | NUINSCO RESOURCES LTD        | NWI CN     | AOMKNE           | B29Y4W6 SG<br>2651257 CA   |           | 7.44.54 A.4 | SG1W39939069 | 033670079 |                |
| NUINSCO RESOURCES LIMITED (CANADA)   | NUINSCO RESOURCES LTD                       | OTC US (OOTC)   | Common Stock            | NUINSCO RESOURCES LTD        | NWIFF US   | AOMKNE           |  |           | 900548      | CA6709024021 | 028633327 |                |
| NUINSCO RESOURCES LIMITED (CANADA)   | NUINSCO RESOURCES LTD                       | Frankfurt (XFRA)  | Common Stock            | NUINSCO RESOURCES LTD        | NJX GR     | AOMKNE           | B1QSFH6 US<br>B1YVMS7 DE   |           | 900548      | CA6709024021 | 028633327 |                |
| MANGALORE REFINERY & PETROCHEMICALS LIMITED (INDIA)  | OIL & NATURAL GAS CORP                      | Mumbai (XBOM)   | Common Stock            | MANGALORE REFINERY & PETRO   | MRPL IN    | AUNANW           |  |           | 900548      |              | 028633327 |                |
| OIL & NATURAL GAS CORP LTD (INDIA)   | OIL & NATURAL GAS CORP                      | Mumbai (XBOM)   | Common Stock            | OIL & NATURAL GAS CORP LTD   | ONGC IN    | AUNANW<br>A1H6P4 | 6121530 IN   |           |             | INE103A01014 |           |                |
| OIL INDIA LTD (INDIA)  | OIL INDIA LTD                               | Natl India (XNSE)   | Common Stock            | OIL INDIA LTD                | OINL IN    | A0X9PF           | 6139362 IN   |           |             | INE213A01029 |           |                |
| KLCC PROPERTY HOLDINGS BHD (MALAYSIA)  | PETROLIAM NASIONAL BERHAD aka PETRONAS      |   | Common Stock            | KLCC PROPERTY HOLDINGS BHD   | KPYHF US   | AUX9PF           | B409HQ9 IN<br>B08HSK8 US   |           |             | INE274J01014 |           | V08-2302828-10 |
| KLCC PROPERTY HOLDINGS BHD (MALAYSIA)  | PETROLIAM NASIONAL BERHAD aka PETRONAS      |   | Common Stock            | KLCC PROPERTY HOLDINGS BHD   | KLCC MK    | 10.0550000000    | 120100000000000000000000000000000000000  |           |             | MYL508900007 |           | Y4804V104      |
| MALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD (MALA   | YSI/ PETROLIAM NASIONAL BERHAD aka PETRONAS | Kuala Lumpur (XKLS)   | Common Stock            | MISC BHD                     |            | A0DJ6E           | B02FW17  |           |             | MYL508900007 |           | 5089           |
| PETRONAS DAGANGAN BHD (MALAYSIA)   | PETROLIAM NASIONAL BERHAD aka PETRONAS      | the second | Common Stock            | PETRONAS DAGANGAN BHD        | MISC MK    | 880504           | 6557997 MY   |           | 905279      | MYL3816OO005 |           | 3816           |
| PETRONAS CHEMICALS GROUP BHD (MALAYSIA)  | PETROLIAM NASIONAL BERHAD aka PETRONAS      |   | Common Stock            | PETRONAS CHEMICALS GROUP BHD | PETD MK    | 895131           | 6695938 MY   |           |             | MYL568100001 | 005378044 | 5681           |
| PETRONAS GAS BHD (MALAYSIA)  | PETROLIAM NASIONAL BERHAD aka PETRONAS      |   | Common Stock            | PETRONAS GAS BHD             |            | A1C891           | B5KQGT3  |           |             | MYL518300008 |           | 5183           |
| PETRONAS GAS BHD (MALAYSIA)  | PETROLIAM NASIONAL BERHAD aka PETRONAS      |   | Common Stock            | PETRONAS GAS BERHAD          | PTG MK     | 896633           | 6703972 MY   |           |             | MYL603300004 | 007076959 | 6033           |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)  | Common Stock            | PTT PCL                      | PTR GR     | 896633           | 5330694 DE   |           |             | MYL603300004 | 007076959 |                |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   | Common Stock            | PTT PCL                      | PTT TB     | 983094           | 6420389 TH   |           |             | TH0646010007 | 015040319 |                |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   |                         | 20 X.00 X.00                 | PETTF      | 983094           | B05PCH0 US   |           |             | TH0646010007 | 015040319 | Y6883U105      |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)  | Common Stock            | PTT PCL-FOREIGN              | PETFF US   | 811962           | B1G40G8 US   |           |             | TH0646010015 | 013973369 | Y6883U113      |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | Frankfurt (XFRA)  |                         | PTT PCL/FOREIGN              | PTT/F TB   | 811962           | 6420390 TH   |           |             | TH0646010015 | 013973369 |                |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)  | Common Stock<br>Receipt | PTT PCL/FOREIGN              | PTOF GR    | 811962           | B1BDGH3 DE   |           |             | TH0646010015 | 013973369 |                |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   |                         | PTT PCL-NVDR                 | PTT-R TB   | 754704           | 6420408 TH   |           |             | TH0646010R18 | 016320307 |                |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | Frankfurt (XFRA)  | Receipt<br>Receipt      | PTT PCL-NVDR                 | PUTRF US   | 754704           | 80305R8 US   |           |             | TH0646010R18 | 016320307 | Y6883U121      |
| PTT PCL (THAILAND)   | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   | ADR                     | PTT PCL-NVDR                 | NVA3 GR    | 754704           | B01LYK9 DE   |           |             | TH0646010R18 | 016320307 |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)  | - 100 m                 | PTT PCL-UNSP ADR             | PUTRY US   |                  | B6Z7G76 US   | 69367C105 |             | US69367C1053 |           |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | and the second  | Common Stock            | PTT EXPLOR & PROD PUBLIC CO  | PTTEP TB   | A0JKZ6           | B1359K1 TH   |           | 907061      | TH0355A10Z04 | 025513029 |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)<br>Frankfurt (XFRA)  | Common Stock            | PTT EXPLORATION & PROD-FOR   | PTTEP/F TB | AOJKZV           | B1359JO TH   |           | 904717      | TH0355A10Z12 | 025257804 |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   | Common Stock            | PTT EXPLORATION & PROD-FOR   | PTTG GR    | AOJKZV           | B13B738 DE   |           | 904717      | TH0355A10Z12 | 025257804 |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | OTC US (OOTC)   | Common Stock            | PTT EXPLORATION & PROD-FOR   | PTXLF US   | AOJKZV           | B13JK44 US   |           | 904717      | TH0355A10Z12 | 025257804 | Y7145P165      |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | and the second  | ADR                     | PTT EXPLORATION & PR-SP ADR  | PEXNY US   | AORGRM           | 2408806 US   |           |             | US69364V1061 |           |                |
| PTT EXPLORATION & PRODUCTION PCL (THAILAND)  | PTT PUBLIC COMPANY LTD                      | Bangkok (XBKK)<br>Frankfurt (XFRA)  | Receipt                 | PTT EXPLOR & PROD PCL-NVDR   | PTTEP-R TB | 676051           | B1359L2 TH   |           |             | TH0355010R16 | 016049000 |                |
| RANHILL BERHAD (MALAYSIA)  | RANHILL BERHAD                              |   | Receipt                 | PTT EXPLOR & PROD PCL-NVDR   | NVAL GR    | 676051           | B13BP45 DE   |           |             | TH0355010R16 | 016049000 |                |
| RELIANCE INDUSTRIES LTD (INDIA)  | RELIANCE INDUSTRIES LTD                     | Kuala Lumpur (XKLS)   | Common Stock            | RANHILL BHD                  | RANH MK    | A0B9G6           | 6328717 MY   |           |             | MYL503000001 |           | 5030           |
| RELIANCE INDUSTRIES LTD (INDIA)  | RELIANCE INDUSTRIES LTD                     | Natl India (XNSE)   | Common Stock            | RELIANCE INDUSTRIES LTD      | RIL IN     | 946078           | 6099626 IN   |           | 964067      | INE002A01018 |           |                |
| SCOMI ENGINEERING BERHAD (MALAYSIA)  | SCOMI GROUP BERHAD                          | SIGMA   | GDR                     | RELIANCE INDUSTRIES LTD      | RIGD S1    | 884241           | B16CYP9 GB   | 759470107 | 964066      | US7594701077 | 010146160 |                |
| SCOMI GROUP BERHAD (MALAYSIA)  | SCOMI GROUP BERHAD                          | Kuala Lumpur (XKLS)   | Common Stock            | SCOMI ENGINEERING BHD        | SEB MK     | 903056           | 6098452 MY   |           |             | MYL736600007 |           | 7366           |
| and a particular stray   | COOM ONOUP BERNAD                           | Kuala Lumpur (XKLS)   | Common Stock            | SCOMI GROUP BHD              | SGB MK     | 120745           | BOOPKJ3 MY   |           |             | MYL715800008 |           | 7158           |

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| Conflict Risk Network List of "S | crutinized" Companies in Suda | n, formerly "Highest Offenders | s" Companies |
|----------------------------------|-------------------------------|--------------------------------|--------------|
|                                  | List Effective Through May    | 31, 2012                       |              |

\*

| Company Name   | Country of Origin |
|--|-------------------|
| China National Petroleum Corporation AKA CNPC                    | China             |
| inan Diesel Co. Ltd.   | China             |
| aqing Huake Group Co. Ltd.                                       | China             |
| etroChina  | China             |
| etronas Gas Berhad   | Malaysia          |
| etronas Dagangan   | Malaysia          |
| alaysia International Shipping Company AKA MISC Berhad           | Malaysia          |
| etronas Chemicals Group Berhad                                   | Malaysia          |
| I and Natural Gas Company, AKA ONGC                              | India             |
| angalore Refinery and Petrochemicals Ltd.                        | India             |
| nopec Group AKA China Petrochemical Corporation                  | China             |
| ngdream PLC  | China             |
| nopec Corporation AKA China Petroleum and Chemical Corporation   | China             |
| nopec Shanghai Petrochemical Co. Ltd.                            | China             |
| nopec Kanton Holdings  | China             |
| nopec Yizheng Chemical Fibre Company, Ltd.                       | China             |
| REF Energy Holding Company                                       | Kuwait            |
| gypt Kuwaiti Holding Company                                     | Egypt             |
| hina North Industries Corporation AKA Norinco                    | China             |
| prince International Cooperation Ltd.                            | China             |
| chuan Nitrocell Company Limited                                  | China             |
| ina North Optical-Electrical Technology Company Limited          | China             |
|  | China             |
| KM Industrial Company Limited                                    | China             |
| iChina Industry & Technology Company, Ltd.                       |                   |
| fei Aviation Industry  | China             |
| ingxi Hongdu Aviation AKA Hongdu Aviation                        | China             |
| irbin Dongan Auto Engine Co.                                     | China             |
| ina Hydraulic and Hydroelectric Construction Group AKA Sinohydro | China             |
| ercator Limited (formerly Mercator Lines)                        | India             |
| ercator Lines Singapore  | Singapore         |
| ngfeng Motor Group Company Limited                               | China             |
| lian Oil Corporation Ltd. AKA IOCL                               | India             |
| nka IOC Limited  | India             |
| ennai Petroleum Corporation Limited AKA CPCL                     | India             |
| India Limited  | India             |
| omi Group Berhad   | Malaysia          |
| omi Engineering Berhad   | Malaysia          |
| tom  | France            |
| tom Projects India Ltd   | India             |
| han Boiler Company   | France            |
| ctricity Generating Company Limited AKA EGCO                     | Thailand          |
| IA S.A.  | Morocco           |
| nagem  | Morocco           |
| nlun Energy Company, Limited                                     | Hong Kong         |
| ina Gezhouba Group Company Limited                               | China             |
| PCO Plant Service & Engineering Company Limited                  | South Korea       |
| Industrial Systems   | South Korea       |
| aterpillar Inc.  | US                |

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

## Genocide Intervention Network List of Companies in Sudan for "Substantial Action or Business Operations" formerly "Ongoing Engagement" List Effective Through May 31, 2012

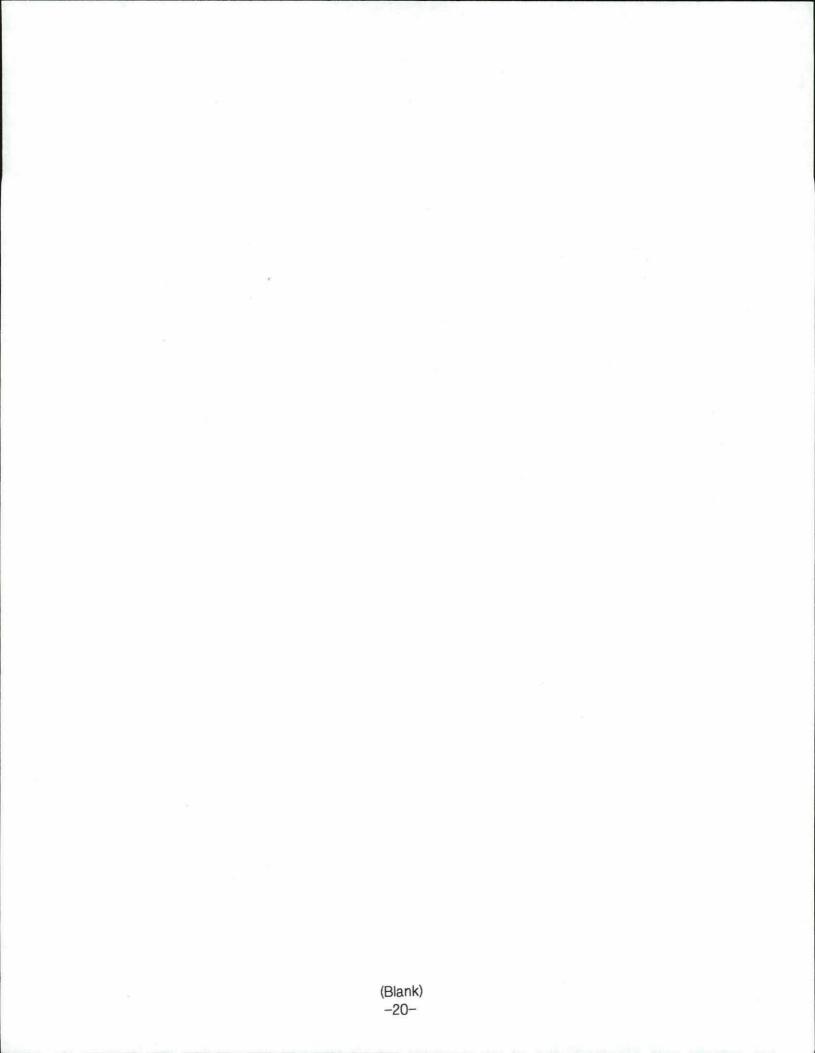
| Company Name  | Country of Origin |
|---|-------------------|
| Shanghai Electric Group Company, Ltd  | China             |
| Harbin Electric Company Limited (formerly Harbin Power Equipment Company Limited) | China             |
| China Poly Group Corporation  | China             |
| Bharat Electronics Limited  | India             |
| Bharat Heavy Electricals  | India             |
| Citadel Capital   | Egypt             |
| Lundin International SA   | France            |
| Saras S.p.A.  | Italy             |
| Lundin Petroleum AB   | Sweden            |
| Andritz VA Tech Hydro   | Austria           |
| Man SE  | Germany           |
| GAZ Group   | Russia            |
| Yaroclavsky Diesel Equipment Plant Oao  | Russia            |
| Kamaz   | Russia            |

## Conflict Risk Network List of Companies in Sudan with No Publicly Traded Equity or Relevant only to CRN Formerly No Publicly Traded Equity List Effective Through May 31, 2012

| Africa Energy<br>Al-Qahtani & Sons Group of Companies<br>Ansan Wikfs/Shaher Trading Company | Nigeria<br>Saudi Arabia |
|---|-------------------------|
| Ansan Wikfs/Shaher Trading Company  | Soudi Arabia            |
|   | Saudi Alabia            |
| ABS Engineering Company   | Yemen                   |
| APS Engineering Company   | Italy                   |
| Arcadia Petroleum   | UK                      |
| Ascom Group SA  | Moldova                 |
| China International Water & Electric Corp AKA CWE   | China                   |
| China Machinery Engineering Company (CMEC)  | China                   |
| China National United Oil Company   | China                   |
| China Petroleum Engineering Company AKA CPEC  | China                   |
| Coyne et Bellier  | France                  |
| Daedong Industrial machinery Company Limited  | South Korea             |
| Dindir Petroleum International/Edgo Group   | Jordan                  |
| Express Petroleum and Gas Company   | Nigeria                 |
| GIAD Industrial City  | Sudan                   |
| Harbin Power Engineering AKA HPE  | China                   |
| Hi Tech Petroleum Group Co. Ltd.  | Sudan                   |
| HTC Yemen International Limited   | Yemen                   |
| JX Nippon Oil & Energy Corporation  | Japan                   |
| Kuwait Foreign Petroleum Exploration Company AKA Kufpec                                     | Kuwait                  |
| Lahmeyer International  | Germany                 |
| Mott MacDonald  | UK                      |
| Petrolin  | Gabon                   |
| Petroneeds Service International Company  | Sudan                   |
| PT Pertamina Persero AKA Pertamina  | Indonesia               |
| Ranhill Berhad  | Malaysia                |
| Shandong Electric Power Construction Corporation AKA Shandong Electric Power Group          | China                   |
| Snowy Mountain Engineering Corporation  | Australia               |
| Star Petroleum  | Spain                   |
| Sudan Petroleum Company AKA Sudapet   | Sudan                   |
| Tamoil  | Libya                   |
| Trafigura Beheer  | Netherlands             |
| UAE for Gold Minerals and Investment Company Limited  | Canada                  |
| Vitol Group   | Switzerland             |
| Zaver Petroleum Corporation Ltd.  | Pakistan                |

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

December 6, 2011



Letter to SBI International Equity Managers and Domestic Equity Managers

March 12, 2012

## **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. Securities of these companies **may not be purchased** for the SBI portfolio that your organization manages. If you own securities of companies on the Restricted List <u>and</u> the companies are <u>not</u> on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the December 9, 2011 letter you received. This new list is effective March 15, 2012.

- The following company has been removed from the restricted list:
  - KBR, Inc. United States

Attachment 2 is the List of Iran Companies Requiring Divestment. There are no changes.

If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your company manages, then you must divest those holdings according to the schedule provided in the Attachment:

- At least 50 percent of a company's holdings must be sold by the date indicated, and
- At least 100 percent of a company's holdings must be sold by the date indicated.

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

If you have any questions about this matter, please contact Tammy Brusehaver or Patricia Ammann, Domestic Equity; Stephanie Gleeson, Manager, International Equity or James E. Heidelberg, Manager, Public Programs.

Sincerely,

Teresa J. Richardson Assistant Executive Director

Enclosures

cc: James E. Heidelberg, Manager, Public Programs Tammy Brusehaver, Manager, Domestic Equity Patricia Ammann, Portfolio Manager, Domestic Equity Stephanie Gleeson, Manager, International Equity

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

| COMPANY_NAME                               | COUNTRY        |
|--|----------------|
| Bharat Petroleum Corporation Ltd.          | India          |
| China Petroleum & Chemical Corp            | China          |
| Daelim Industrial                          | Korea South    |
| Gail (India) Ltd.                          | India          |
| Gazprom                                    | Russia         |
| GS Engineering & Construction Corp         | Korea South    |
| GS Holdings                                | Korea South    |
| Gubre Fabrikalari T.A.S.                   | Turkey         |
| Ina-Industrija Nafte DD                    | Croatia        |
| Indian Oil Corporation Ltd.                | India          |
| L G International                          | Korea South    |
| Liquefied Natural Gas Ltd                  | Australia      |
| Maire Tecnimont S.p.A.                     | Italy          |
| Mitsui & Co. Ltd                           | Japan          |
| Mitsui Engineering & Shipbuilding Co. Ltd. | Japan          |
| MOL Magyar Olaj-es Gazipari Nyrt           | Hungary        |
| Nagarjuna Fertilizers & Chemicals Ltd.     | India          |
| Oil & Natural Gas Corporation Ltd.         | India          |
| PetroChina Co. Ltd.                        | China          |
| Petrofac                                   | United Kingdom |
| Punj Lloyd Ltd.                            | India          |
| Saipem Spa                                 | Italy          |
| Sasol Ltd                                  | South Africa   |
| Technip                                    | France         |
| Tecnicas Reunidas                          | Spain          |
| Toyo Engineering Corporation               | Japan          |
| Toyota Tsusho Corporation                  | Japan          |
|  |                |

Effective Date: March 15, 2012

# **ATTACHMENT 2**

| Company Name | Country of<br>Origin | Divest 50 Percent<br>By this Date | Divest 100 Percent<br>By this Date |
|--------------|----------------------|-----------------------------------|------------------------------------|
| Gazprom Oao  | Russia               | July 31, 2010                     | January 31, 2011                   |
| Sasol Ltd    | South Africa         | July 31, 2010                     | January 31, 2011                   |

# LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Effective Date: March 15, 2012

|   | COMPANY_NAME                       | SEDOL   | ISIN         | SYMBOL  | CUSIP     | CUSIP_2   | CUSIP_3   | COUNTRY     |
|---|------------------------------------|---------|--------------|---------|-----------|-----------|-----------|-------------|
|   | Bharat Petroleum Corporation Ltd.  | 6099723 | INE029A01011 | 500547  |           |           | -         | India       |
|   | China Petroleum & Chemical Corp    | BORSW00 | US16941R1086 | 386     | 16941R108 |           |           | China       |
|   | China Petroleum & Chemical Corp    | 2654375 | US16941R1086 | 386     | 16941R108 |           |           | China       |
|   | China Petroleum & Chemical Corp    | 2639189 | 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 |           |           |           | Korea South |
|   | Daelim Industrial                  | B1T52M8 | KR7000211003 | A000210 |           |           |           | Korea South |
|   | Daelim Industrial                  | 6249584 | KR7000210005 | A000210 |           |           |           | Korea South |
|   | Gail (India) Ltd.                  | B2NTDN1 | US36268T2069 | 532155  | 36268T206 |           |           | India       |
| , | Gail (India) Ltd.                  | B033102 | US36268T2069 | 532155  | 36268T206 |           |           | India       |
|   | Gail (India) Ltd.                  | 3235520 | US36268T2069 | 532155  | 36268T206 |           |           | India       |
|   | Gail (India) Ltd.                  | B1HJOL7 | US36268T2069 | 532155  | 36268T206 |           |           | India       |
|   | Gail (India) Ltd.                  | 2498517 | US36268T1079 | 532155  | 36268T206 |           |           | India       |
|   | Gail (India) Ltd.                  | 3235490 | US36268T1079 | 532155  | 36268T206 |           |           | India       |
|   | Gail (India) Ltd.                  | 6133405 | INE129A01019 | 532155  | 36268T206 |           |           | India       |
|   | Gazprom                            | B0338T0 | US3682873068 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 5385003 | US3682873068 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 5140989 | US3682872078 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 5259528 | US3682872078 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 2016629 | US3682872078 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 2398899 | US3682871088 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 3313181 | US3682871088 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | 4364928 | RU0007661625 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | Gazprom                            | B2NH841 | ARDEUT114261 | GAZP    | 368287108 | 368287306 | 368287207 | Russia      |
|   | GS Engineering & Construction Corp | 6537096 | KR7006360002 | A006360 |           |           |           | Korea South |
|   | GS Engineering & Construction Corp | B06ZHC9 | KR7006360002 | A006360 |           |           |           | Korea South |
|   | GS Holdings                        | B02FVX2 | KR7078931003 | A078930 | Y2901P103 |           |           | Korea South |
|   | GS Holdings                        | B01RJV3 | KR7078930005 | A078930 | Y2901P103 |           |           | Korea South |
|   | Gubre Fabrikalari T.A.S.           | B188YV1 | TRAGUBRF91E2 | GUBRF   |           |           |           | Turkey      |
|   |                                    |         |              |         |           |           |           |             |

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| COMPANY_NAME                               | SEDOL          | ISIN         | SYMBOL  | CUSIP     | CUSIP_2   | CUSIP_3 | COUNTRY     |
|--|----------------|--------------|---------|-----------|-----------|---------|-------------|
| Gubre Fabrikalari T.A.S.                   | B03MTC7        | TRAGUBRF91E2 | GUBRF   |           |           |         | Turkey      |
| Ina-Industrija Nafte DD                    | B1L1YV7        | US45325E2019 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| Ina-Industrija Nafte DD                    | B1HJKC8        | US45325E2019 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| Ina-Industrija Nafte DD                    | B1L56D5        | US45325E2019 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| Ina-Industrija Nafte DD                    | B1L5RN2        | US45325E1029 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| Ina-Industrija Nafte DD                    | B1HJKF1        | US45325E1029 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| Ina-Industrija Nafte DD                    | B1JMYF6        | HRINAORA0007 | INA-R-A | 45325E102 | 45325E201 |         | Croatia     |
| 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                  | B2RHN19        | AU000000LNG0 | LNG     | Q5570T107 |           |         | Australia   |
| Liquefied Natural Gas Ltd                  | B05KKL5        | AU000000LNG0 | LNG     | Q5570T107 |           |         | Australia   |
| Liquefied Natural Gas Ltd                  | B02L5H2        | AU000000LNG0 | LNG     | Q5570T107 |           |         | Australia   |
| Maire Tecnimont S.p.A.                     | B298VS3        | IT0004251689 | MT      |           |           |         | Italy       |
| Maire Tecnimont S.p.A.                     | B2N7CX8        | IT0004251689 | MT      |           |           |         | Italy       |
| Maire Tecnimont S.p.A.                     | B29M561        | IT0004251689 | MT      |           |           |         | Italy       |
| Mitsui & Co. Ltd                           | 4597058        | XS0029348686 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | B1HHX89        | US6068272029 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | 2597061        | US6068272029 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | B03KWZ5        | JP3893600001 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | 4594071        | JP3893600001 | 8031    | 606827202 |           |         | Japan ·     |
| Mitsui & Co. Ltd                           | 5736463        | JP3893600001 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | <b>BOZGPXO</b> | JP3893600001 | 8031    | 606827202 |           |         | Japan       |
| Mitsui & Co. Ltd                           | 6597302        | JP3893600001 | 8031    | 606827202 |           |         | Japan       |
| Mitsui Engineering & Shipbuilding Co. Ltd. | 6597380        | JP3891600003 | 7003    | J44776128 |           |         | Japan       |
| Mitsui Engineering & Shipbuilding Co. Ltd. | 5822351        | JP3891600003 | 7003    | J44776128 |           |         | Japan       |
| MOL Magyar Olaj-es Gazipari Nyrt           | 5981616        | US6084642023 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | B0337L5        | US6084642023 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | 0531522        | US6084642023 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | B11JTL6        | US6084642023 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | 4743549        | US6084642023 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | 2587017        | US6084641033 | MOL     | 608464202 | 608464103 |         | Hungary     |
| MOL Magyar Olaj-es Gazipari Nyrt           | 5357950        | HU0000068952 | MOL     | 608464202 | 608464103 |         | Hungary     |
|  |                |              |         |           |           |         |             |

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| COMPANY_NAME                           | SEDOL   | ISIN         | SYMBOL | CUSIP     | CUSIP_2   | CUSIP_3 | COUNTRY        |
|--|---------|--------------|--------|-----------|-----------|---------|----------------|
| MOL Magyar Olaj-es Gazipari Nyrt       | 5076880 | HU0000068952 | MOL    | 608464202 | 608464103 | _       | Hungary        |
| MOL Magyar Olaj-es Gazipari Nyrt       | B01YTX6 | HU0000068952 | MOL    | 608464202 | 608464103 |         | Hungary        |
| MOL Magyar Olaj-es Gazipari Nyrt       | B0590W3 | HU0000068952 | MOL    | 608464202 | 608464103 |         | Hungary        |
| MOL Magyar Olaj-es Gazipari Nyrt       | 4742494 | HU0000068952 | MOL    | 608464202 | 608464103 |         | Hungary        |
| MOL Magyar Olaj-es Gazipari Nyrt       | B28K243 | HU0000068952 | MOL    | 608464202 | 608464103 |         | Hungary        |
| Nagarjuna Fertilizers & Chemicals Ltd. | 6628644 | INE580A01013 | 500075 |           |           |         | India          |
| Oil & Natural Gas Corporation Ltd.     | 6139362 | INE213A01011 | 500312 | Y64606117 |           |         | India          |
| PetroChina Co. Ltd.                    | 4633327 | US71646E1001 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | 2568841 | US71646E1001 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | B28SLD9 | CNE1000007Q1 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | B01DNL9 | CNE1000003W8 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | B17H0R7 | CNE100003W8  | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | 5939507 | CNE1000003W8 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | 6226576 | CNE1000003W8 | 857    | 71646E100 |           |         | China          |
| PetroChina Co. Ltd.                    | B1C5SR2 | ARDEUT113958 | 857    | 71646E100 |           |         | China          |
| Petrofac                               | B0H2K53 | GB00B0H2K534 | PFC    | G7052T101 |           |         | United Kingdom |
| Petrofac                               | B11B6G6 | GB00B0H2K534 | PFC    | G7052T101 |           |         | United Kingdom |
| Petrofac                               | BOLWHB4 | GB00B0H2K534 | PFC    | G7052T101 |           |         | United Kingdom |
| Punj Lloyd Ltd.                        | B1VJSG4 | INE701B01021 | 532693 |           |           |         | India          |
| Saipem Spa                             | 2209076 | US79376W1099 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | 4768779 | IT0000068533 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | B28LP70 | IT0000068533 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | B02ZP63 | IT0000068533 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | B020R51 | IT0000068525 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | 4769103 | IT0000068525 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | 4765996 | IT0000068525 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | B28LP69 | IT0000068525 | SPM    | 79376W208 |           |         | Italy          |
| Saipem Spa                             | 4768768 | IT0000068525 | SPM    | 79376W208 |           |         | Italy          |
| Sasol Ltd                              | B03NQB8 | ZAE000006896 | SAOA   | 803866300 | 803866102 |         | South Africa   |
| Sasol Ltd                              | 5734304 | ZAE000006896 | SAOA   | 803866300 | 803866102 |         | South Africa   |
| Sasol Ltd                              | 6777450 | ZAE000006896 | SAOA   | 803866300 | 803866102 |         | South Africa   |
| Sasol Ltd                              | 2777294 | US8038663006 | SAOA   | 803866300 | 803866102 |         | South Africa   |
| Sasol Ltd                              | 4776910 | US8038663006 | SAOA   | 803866300 | 803866102 |         | South Africa   |
|  |         |              |        |           |           |         |                |

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| COMPANY_NAME                 | SEDOL   | ISIN         | SYMBOL | CUSIP     | CUSIP_2   | CUSIP_3 | COUNTRY |
|------------------------------|---------|--------------|--------|-----------|-----------|---------|---------|
| Technip                      | 2811620 | US8785462099 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | 2878658 | US8785461000 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | B2NG4D9 | FR0010565044 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | B1MD4Y5 | FR0010412353 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | BOWC5Z3 | FR0010273250 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | B05K6W8 | FR0010150342 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | 7328482 | FR0000206039 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | B28MSJ6 | FR0000131708 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | 4122018 | FR0000131708 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | 4874160 | FR0000131708 | TEC    | 878546209 | F90676101 |         | France  |
| Technip                      | B06PC80 | FR0000131708 | TEC    | 878546209 | F90676101 |         | France  |
| Tecnicas Reunidas            | B16FTB9 | ES0178165017 | T5R    | E9055J108 | 87875V100 |         | Spain   |
| Tecnicas Reunidas            | B28MSQ3 | ES0178165017 | T5R    | E9055J108 | 87875V100 |         | Spain   |
| Tecnicas Reunidas            | B17MPB1 | ES0178165017 | T5R    | E9055J108 | 87875V100 |         | Spain   |
| Tecnicas Reunidas            | B1BL633 | ES0178165017 | T5R    | E9055J108 | 87875V100 |         | Spain   |
| Toyo Engineering Corporation | 6899718 | JP3607800004 | 6330   | J91343103 |           |         | Japan   |
| Toyo Engineering Corporation | B02MHK2 | JP3607800004 | 6330   | J91343103 |           |         | Japan   |
| Toyota Tsusho Corporation    | 6900580 | JP3635000007 | 8015   | J92719111 |           |         | Japan   |
|                              |         |              |        |           |           |         |         |

Effective Date: March 15, 2012

Letter to SBI Fixed Income Managers

March 12, 2012

## **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. Securities of these companies may not be purchased for the SBI portfolio that your organization manages. If you own securities of companies on the Restricted List <u>and</u> the companies are <u>not</u> on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the December 9, 2011 letter you received. This new list is effective March 15, 2012.

- The following company has been removed from the restricted list:
  - KBR, Inc. United States

Attachment 2 is the List of Iran Companies Requiring Divestment. There are no changes.

If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your company manages, then you must divest those holdings according to the schedule provided in the Attachment:

- At least 50 percent of a company's holdings must be sold by the date indicated, and
- At least 100 percent of a company's holdings must be sold by the date indicated.

If you have any questions about this matter, please contact Ryan Hill, Portfolio Manager, Long-Term Debt or James E. Heidelberg, Manager, Public Programs.

Sincerely,

Teresa J. Richardson Assistant Executive Director

Enclosures

cc.: James E. Heidelberg, Manager, Public Programs Steve Kuettel, Manager, Short-Term Debt Michael J. Menssen, Manager, Long-Term Debt

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

| COUNTRY        |
|----------------|
| India          |
| China          |
| Korea South    |
| India          |
| Russia         |
| Korea South    |
| Korea South    |
| Turkey         |
| Croatia        |
| India          |
| Korea South    |
| Australia      |
| Italy          |
| Japan          |
| Japan          |
| Hungary        |
| India          |
| India          |
| China          |
| United Kingdom |
| India          |
| Italy          |
| South Africa   |
| France         |
| Spain          |
| Japan          |
| Japan          |
|                |

Effective Date: March 15, 2012

## **ATTACHMENT 2**

| Company Name | Country of<br>Origin | Divest 50 Percent<br>By this Date | Divest 100 Percent<br>By this Date |  |  |
|--------------|----------------------|-----------------------------------|------------------------------------|--|--|
| Gazprom Oao  | Russia               | July 31, 2010                     | January 31, 2011                   |  |  |
| Sasol Ltd    | South Africa         | July 31, 2010                     | January 31, 2011                   |  |  |

# LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Effective Date: March 15, 2012

# TAB C

#### SBI ADMINISTRATIVE COMMITTEE REPORT

DATE: May 15, 2012

TO: Members, State Board of Investment

#### FROM: SBI Administrative Committee

The Administrative Committee met on May 3, 2012 to consider the following agenda items:

- Review of Executive Director's Proposed Workplan for FY13
- Review of Budget Plan for FY12, FY13, and FY14
- Review of Continuing Fiduciary Education Plan
- Review of Executive Director's Evaluation Process
- Update of Disaster Recovery Plan

#### Action is required by the SBI on the first four items.

#### 1. Review of Executive Director's Proposed Workplan for FY13.

The Executive Director's Proposed Workplan for FY13 was presented. As in previous workplans, the FY13 plan follows the same category order found in the Executive Director's position description. The plan is a compilation of on-going responsibilities as well as the new initiatives the Executive Director will undertake during the next fiscal year.

A summary of the proposed plan is shown in **Attachment A** on **page 5** of this Tab. Supporting information was sent to each Board member in May 2012 as part of the FY13 Management and Budget Plan document.

#### **RECOMMENDATION:**

The Committee recommends that the SBI approve the FY13 Executive Director's Workplan. Further, the Committee recommends that the workplan serve as the basis for the Executive Director's performance evaluation for FY13.

#### 2. Administrative Budget Plan.

The SBI's Administrative budget is set annually by the Board with direct charge back to entities that invest with the SBI. The general fund appropriation for the management of general fund assets is appropriated by the Legislature.

An overview of the budget is **Attachment B** on **page 9** of this tab. Supporting information was sent to each Board member in May 2012 as part of the FY13 Management and Budget Plan.

#### **RECOMMENDATION:**

The Committee recommends that the SBI approve the FY12, FY13, and FY14 Administrative Budget Plan, as presented to the Committee, and that the Executive Director have the flexibility to reallocate funds between budget categories if the Executive Director deems necessary.

#### 3. Review of Continuing Fiduciary Education Plan.

*Minnesota Statutes* Chapter, 356A requires each public pension plan to establish a continuing education plan for its fiduciaries. The plan approved by the Committee is in **Attachment C** on **page 13** of this Tab. Please note that the travel allocation policy for Board members and their designees is included in the plan.

#### **RECOMMENDATION:**

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

#### 4. Review of Executive Director's Evaluation Process.

The Committee discussed the process that will be used by the Board to evaluate the Executive Director for FY12. The Committee members agreed that the performance reviews should be completed prior to the September 2012 meeting of the SBI and should follow the process used in the past.

#### **RECOMMENDATION:**

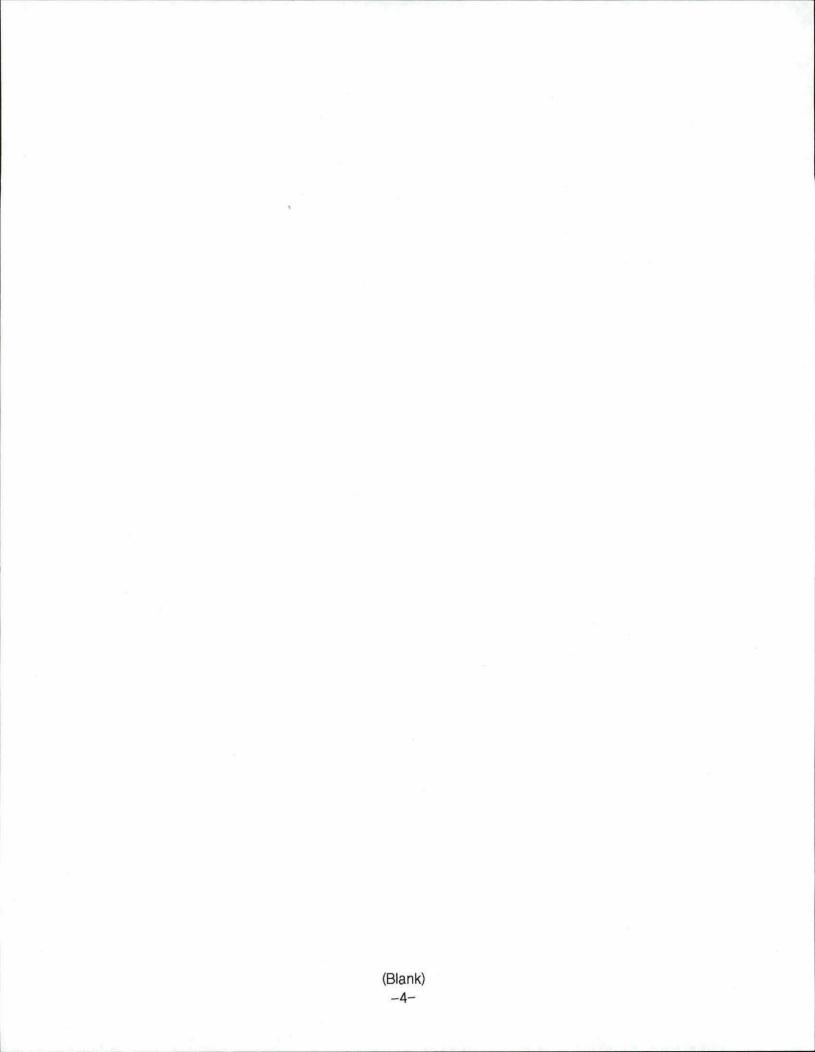
The Committee recommends that the SBI adopt the following process for the Executive Director's FY12 performance evaluation:

• The evaluation will be completed prior to the September 2012 meeting of the SBI and will be based on the results of the Executive Director's workplan for FY12.

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

#### 5. Update of Disaster Recovery Plan.

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



# ATTACHMENT A

# STATE BOARD OF INVESTMENT Executive Director's Proposed Workplan

# **FY13**

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

| A. | DI | EVELOPMENT OF INVESTMENT POLICIES  | Projected<br>Time Frame |
|----|----|--|-------------------------|
|    | 1. | Municipal Bond Pool  | Jun – Oct               |
|    | 2. | Derivatives in Fixed Income Program  | Jul – Jun               |
| B. |    | IPLEMENTATION OF INVESTMENT POLICIES<br>PROVED BY THE SBI  |                         |
|    | 1. | Meet or Exceed the Performance Objectives  | Ongoing                 |
|    | 2. | Conduct Investment Manager Compliance<br>Review of Guidelines and Contracts                              | Ongoing                 |
|    | 3. | Investments with New/Existing Alternative<br>Asset Managers  | Ongoing                 |
|    | 4. | Manager Search Process   | Ongoing                 |
|    | 5. | Implement State Law Concerning Iran  | Ongoing                 |
|    | 6. | Implement State Law Concerning Sudan   | Ongoing                 |
|    | 7. | Investment Commitment Modeling   | Ongoing                 |
|    | 8. | Conduct a Review of Open-ended Real Estate<br>Fund Investments in the Alternative Investments<br>Program | Jul – Jun               |

| C. |    | EVIEW AND CONTROL OF INVESTMENT<br>DLICIES  | Projected<br>Time Frame |
|----|----|---|-------------------------|
|    | 1. | Monitor and Evaluate Investment Manager<br>Performance  | Ongoing                 |
|    | 2. | Manager Guidelines  | Ongoing                 |
|    | 3. | Provide Staff Support to Proxy Committee<br>for Proxy Voting and Shareholder Initiatives  | Jul – Jun               |
|    | 4. | Monitor Implementation of Northern Ireland<br>Mandate   | Oct – Mar               |
|    | 5. | Provide Staff Support for Corporate Actions<br>and Miscellaneous Legal Issues   | Jul – Jun               |
|    | 6. | Assess Impact of Pending SEC Rule 2a7<br>Amendments   | Jul – Jun               |
|    | 7. | Review Transferring Investment Authority<br>of Emerging Markets Equity Investments from<br>Separate Accounts to Comingled Funds | Jul – Sep               |
|    | 8. | Research the Growth and Use of Exchange<br>Traded Funds (ETF's)   | Jul – Jun               |
| D. | AD | MINISTRATION AND MANAGEMENT   |                         |
|    | 1. | Coordinate Financial Audit by Legislative Auditor   | Jul – Dec               |
|    | 2. | Prepare 2013 Legislative Package  | Jul – May               |
|    | 3. | RFP for Custodial Services  | Mar – Jun               |
|    | 4. | RFP for Trading and Internal Control Services   | Mar – Jun               |
|    | 5. | Internal Cash Management RFP for Major Revenue<br>Banking Services and Custodial Services                                       | Jul – Jan               |
|    | 6. | Prepare FY13 Management and Budget Plan   | Jul – Jun               |
|    | 7. | Annual Update of Disaster Recovery/Pandemic Plan  | Apr – Jun               |
|    | 8. | Internal Control and Evaluation   | Mar – Dec               |

| E. | C  | OMMUNICATION AND REPORTING   | Projected<br>Time Frame |
|----|----|--|-------------------------|
|    | 1. | Prepare reports on investment results  | Qtly                    |
|    | 2. | Prepare Status Reports   | As requested            |
|    | 3. | Meet with SBI and IAC  | Qtly                    |
|    | 4. | Meet with Board's designees  | Qtly                    |
|    | 5. | Prepare FY 2012 Annual Report  | Jul – Jan               |
|    | 6. | Prepare Annual SIF Investment Options<br>Prospectus and Information Booklet for the<br>Voluntary Statewide Volunteer Firefighter<br>Plan (VSVFP) | May – Sep               |
|    | 7. | Review and Revise Procedures for Transferring<br>Assets of Local Fire Plans Joining Voluntary<br>Statewide Volunteer Firefighter Plan            | Jul – Oct               |
|    | 8. | Coordinate Public Pension Plan Performance<br>Reporting Disclosure   | Ongoing                 |
|    | 9. | Conduct Manager Roundtables  | Periodic                |

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# ATTACHMENT B

# Minnesota State Board of Investment 2012 Budget Amendment May 22, 2012

| Original 2012 Approved Budget: | \$3,262,500 |
|--------------------------------|-------------|
| Requested Budget Increase:     | 40,000      |
| Amended Budget 2012:           | \$3,302,500 |

Background:

• Other Benefit payments (severance) for staff departures \$40,000.

#### Administrative Budget Fiscal Year 2013 & 2014 Budget Plan Overview

The Fiscal Year 2013/2014 budget request is based on budget procedures instituted by Department of Minnesota Management and Budget.

New statutory authority was passed during the 2006 legislative session to establish a fixed amount from the General Fund and to have the balance of the MSBI's budget billed to organizations that use the MSBI's services. This authority was used to generate the fiscal year 2012 budget and also is the basis for the 2013 & 2014 budget projections.

|   | Amended<br>FY2012<br>Budget | FY2012<br>Projected    | FY2013<br>Request      | FY2014<br>Request      |
|---|-----------------------------|------------------------|------------------------|------------------------|
| Personnel Services<br>Operating Expense | \$2,939,600<br>362,900      | \$2,937,600<br>361,000 | \$3,038,500<br>362,900 | \$3,056,000<br>362,900 |
| Total                                   | \$3,302,500                 | \$3,298,600            | \$3,401,400            | \$3,418,900            |

**Personnel Services:** 

89% of the budget

Salaries, retirement, insurance, FICA, severance

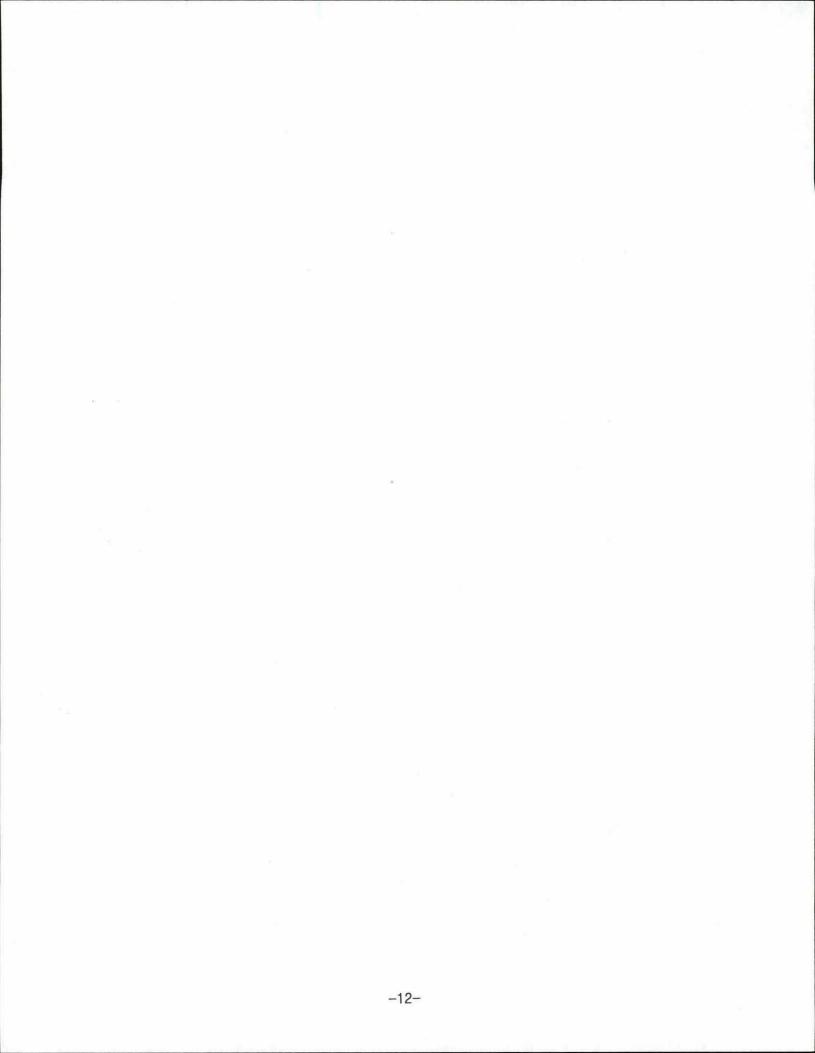
**Operating Expenses:** 

# 11% of the budget

Rents, leases, printing, data processing Communications, travel, employee development, misc. fees Office equipment, furnishings, supplies

# STATE BOARD OF INVESTMENT FISCAL YEARS 2013 AND 2014 BUDGET PLAN MSBI OPERATING FUND SUMMARY

| DECORDINA                              |    | 12 AMENDED |      | FY2012    |    | FY2013    | FY2014 |           |  |
|--|----|------------|------|-----------|----|-----------|--------|-----------|--|
| DESCRIPTION                            |    | BUDGET     | PR   | PROJECTED |    | PROPOSED  |        | ROPOSED   |  |
| PERSONAL SERVICES                      |    |            | 1.00 |           |    |           |        |           |  |
| FULL TIME EMPLOYEES                    | \$ | 2,815,000  | \$   | 2,813,000 | \$ | 2,964,500 | \$     | 2,981,000 |  |
| PART TIME EMPLOYEES                    |    | 69,000     |      | 69,000    |    | 69,000    |        | 70,000    |  |
| OTHER BENEFITS                         | _  | 55,600     |      | 55,600    |    | 5,000     |        | 5,000     |  |
| SUBTOTAL                               | \$ | 2,939,600  | \$   | 2,937,600 | \$ | 3,038,500 | \$     | 3,056,000 |  |
| STATE OPERATIONS                       |    |            |      |           |    |           |        |           |  |
| RENTS & LEASES                         |    | 200,000    |      | 207,800   |    | 200,000   |        | 200,000   |  |
| PRINTING & BINDING                     |    | 4,000      |      | 3,900     |    | 4,000     |        | 4,000     |  |
| PROFESSIONAL/TECHNICAL SERVICES        |    | -          |      | 800       |    | -         |        | -         |  |
| COMPUTER SYSTEMS SERVICES              |    | 18,000     |      | 14,900    |    | 23,000    |        | 23,000    |  |
| COMMUNICATIONS                         |    | 28,000     |      | 21,000    |    | 26,000    |        | 26,000    |  |
| TRAVEL, IN-STATE                       |    | 900        |      | 200       |    | 900       |        | 900       |  |
| TRAVEL, OUT-STATE                      |    | 46,000     |      | 47,000    |    | 42,000    |        | 42,000    |  |
| EMPLOYEE DEVELOPMENT                   |    | 5,000      |      | 4,100     |    | 5,000     |        | 5,000     |  |
| SUPPLIES                               |    | 30,000     |      | 25,900    |    | 28,000    |        | 28,000    |  |
| <b>REPAIRS/ALTERATIONS/MAINTENANCE</b> |    | 10,000     |      | 8,900     |    | 10,000    |        | 10,000    |  |
| OTHER OPERATING COSTS                  |    | 9,000      |      | 14,500    |    | 12,000    |        | 12,000    |  |
| EQUIPMENT                              |    | 12,000     |      | 12,000    |    | 12,000    |        | 12,000    |  |
|  |    | 12,000     |      | 12,000    |    | 12,000    |        | 12,000    |  |
| SUBTOTAL                               | \$ | 362,900    | \$   | 361,000   | \$ | 362,900   | \$     | 362,900   |  |
| TOTAL MSBI OPERATING FUND              | \$ | 3,302,500  | \$   | 3,298,600 | \$ | 3,401,400 | \$     | 3,418,900 |  |
| PERCENT INCREASE (DECREASE) OVER PR    |    |            |      | 2.99%     |    | 0.5%      |        |           |  |



#### ATTACHMENT C

#### **CONTINUING FIDUCIARY EDUCATION PLAN**

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

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

#### 1. Briefing for New Board/IAC Members

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

#### 2. Development and Review of Investment Policies

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

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

#### 3. Input from Board's Consultants

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

#### 4. Manager Round Tables

The SBI intends to convene small groups of its external money managers to discuss issues related to investment management and the financial markets. These round table discussions will be held periodically throughout the year and will be open to Board members and their designees, IAC members and other interested parties. It is anticipated that 1-2 round tables will be held each year.

#### 5. Travel Allocation

The SBI allocates \$4,000 annually to each Board member (or their designee) for costs associated with attendance at investment-related seminars and conferences. This allocation is used at the discretion of each Board member.

Date Adopted: May, 2010

#### **2008 Minnesota Statutes**

#### 356A.13. CONTINUING FIDUCIARY EDUCATION.

Subdivision 1. **Obligation of fiduciaries**. A fiduciary of a covered pension plan shall make reasonable effort to obtain knowledge and skills sufficient to enable the fiduciary to perform fiduciary activities adequately. At a minimum, a fiduciary of a covered pension plan shall comply with the program established in accordance with subdivision 2.

Subd. 2. **Continuing fiduciary education program**. The governing boards covered pension plans shall each develop and periodically revise a program for the continuing education of any of their board members and any of their chief administrative officers who are not reasonably considered to be experts with respect to their activities as fiduciaries. The program must be designed to provide those persons with knowledge and skills sufficient to enable them to perform their fiduciary activities adequately.

# TAB D



# STATE BOARD OF INVESTMENT

Domestic Equity Manager Evaluation Reports

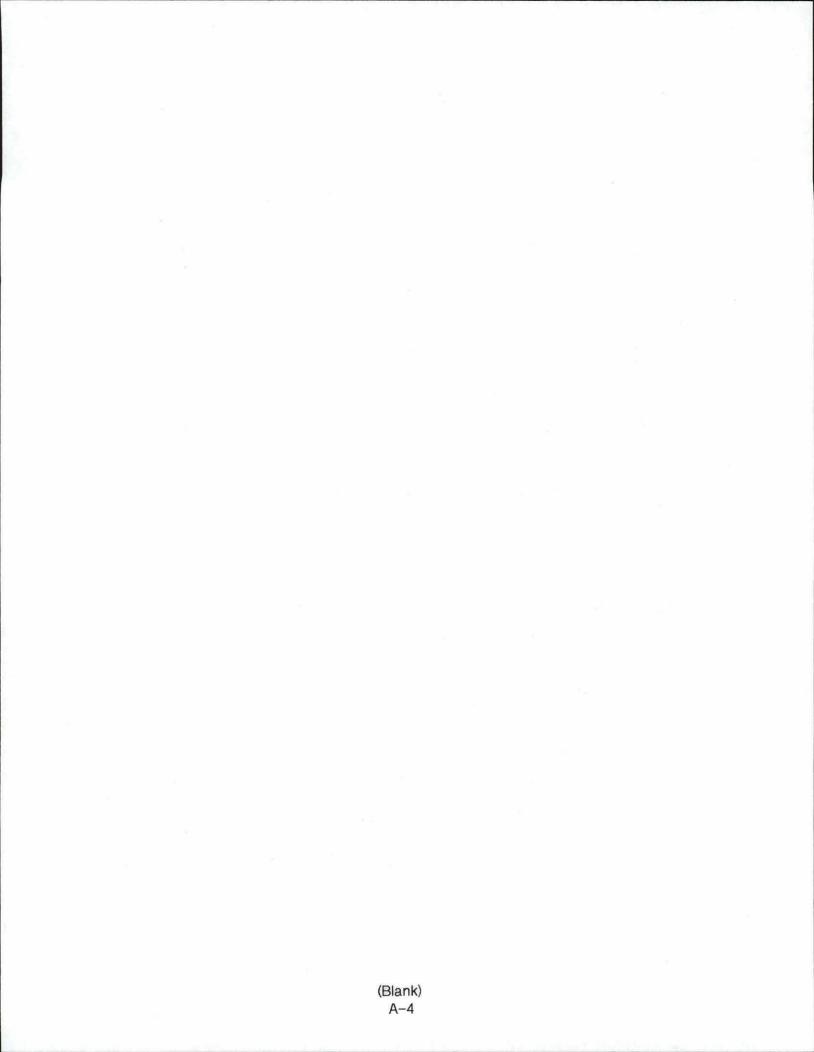
First Quarter, 2012

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# **Domestic Equity**

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#### COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS Periods Ending March, 2012

|                               | Quarter |      | 1 Y    | ear  | 3 Ye   | ars  | 5 Years |      |  |
|-------------------------------|---------|------|--------|------|--------|------|---------|------|--|
|                               | Actual  | Bmk  | Actual | Bmk  | Actual | Bmk  | Actual  | Bmk  |  |
|                               | %       | %    | %      | %    | %      | %    | %       | %    |  |
| Russell 1000 Core Aggregate   | 15.5    | 12.9 | 5.4    | 7.9  | 20.8   | 24.0 | -0.3    | 2.2  |  |
| Russell 1000 Growth Aggregate | 17.9    | 14.7 | 9.2    | 11.0 | 27.6   | 25.3 | 5.6     | 5.1  |  |
| Russell 1000 Value Aggregate  | 12.8    | 11.1 | 3.1    | 4.8  | 22.5   | 22.8 | -0.1    | -0.8 |  |
| Russell 2000 Growth Aggregate | 13.9    | 13.3 | -3.3   | 0.7  | 26.2   | 28.4 | 2.8     | 4.2  |  |
| Russell 2000 Value Aggregate  | 14.1    | 11.6 | 0.9    | -1.1 | 32.6   | 25.4 | 1.1     | 0.0  |  |
| Active Manager Aggregate      | 15.0    | 12.8 | 3.9    | 5.6  | 25.1   | 24.6 | 2.0     | 2.1  |  |
| Semi-Passive Aggregate        | 13.5    | 12.9 | 9.4    | 7.9  | 24.4   | 24.0 | 1.9     | 2.2  |  |
| Passive Manager (BlackRock)   | 12.9    | 12.9 | 7.2    | 7.2  | 24.3   | 24.3 | 2.3     | 2.2  |  |
| Total Aggregate               | 13.6    | 12.9 | 7.1    | 7.2  | 24.6   | 24.3 | 2.1     | 2.2  |  |
| Russell 3000 Index            |         | 12.9 |        | 7.2  |        | 24.3 |         | 2.2  |  |

|                               | 2011        |          | 2010        |          | 200         | 9        | 200         | 8        | 2007        |          |
|-------------------------------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|
|                               | Actual<br>% | Bmk<br>% |
| Russell 1000 Core Aggregate   | -3.5        | 1.5      | 13.3        | 16.1     | 27.6        | 28.4     | -39.6       | -37.6    | 2.4         | 5.8      |
| Russell 1000 Growth Aggregate | -0.4        | 2.6      | 19.3        | 16.7     | 44.5        | 37.2     | -42.7       | -38.4    | 14.9        | 11.8     |
| Russell 1000 Value Aggregate  | -2.1        | 0.4      | 15.0        | 15.5     | 23.8        | 19.7     | -38.0       | -36.8    | 3.6         | -0.2     |
| Russell 2000 Growth Aggregate | -5.6        | -2.9     | 29.1        | 29.1     | 33.6        | 34.5     | -46.8       | -38.5    | 21.6        | 7.0      |
| Russell 2000 Value Aggregate  | -4.5        | -5.5     | 30.5        | 24.5     | 36.3        | 20.6     | -36.1       | -28.9    | -13.4       | -9.8     |
| Active Manager Aggregate      | -2.7        | 0.0      | 19.7        | 18.7     | 32.3        | 27.9     | -40.5       | -36.9    | 6.3         | 4.2      |
| Semi-Passive Aggregate        | 2.2         | 1.5      | 15.2        | 16.1     | 28.5        | 28.4     | -37.2       | -37.6    | 3.2         | 5.8      |
| Passive Manager (BlackRock)   | 0.8         | 1.0      | 17.2        | 16.9     | 28.2        | 28.3     | -37.1       | -37.3    | 5.1         | 5.1      |
| Total Aggregate               | 0.4         | 1.0      | 17.1        | 16.9     | 29.6        | 28.3     | -38.1       | -37.3    | 4.9         | 5.1      |
| Russell 3000 Index            |             | 1.0      |             | 16.9     |             | 28.3     |             | -37.3    |             | 5.1      |

#### COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC EQUITY MANAGERS Periods Ending March, 2012 Performance versus Russell Style Benchmarks for All Periods

|                            |            |      |        |      |                |      | Since   |      |               |     |               |       |
|----------------------------|------------|------|--------|------|----------------|------|---------|------|---------------|-----|---------------|-------|
|                            | Quarter    |      | 1 }    | ear  | <b>3</b> Years |      | 5 Years |      | Inception (1) |     | Market        |       |
|                            | Actual Bmk |      | Actual | Bmk  | Actual         | Bmk  | Actual  | Bmk  | Actual        | Bmk | Value         | Pool  |
|                            | %          | %    | %      | %    | %              | %    | %       | %    | %             | %   | (in millions) | %     |
| LARGE CAP                  |            |      |        |      |                |      |         |      |               |     |               |       |
| Russell 1000 Core          |            |      |        |      |                |      |         |      |               |     |               |       |
| New Amsterdam Partners     | 13.8       | 12.9 | 3.2    | 7.9  | 18.4           | 24.0 | 1.0     | 2.2  | 10.0          | 9.3 | \$412.3       | 1.8%  |
| UBS Global                 | 17.2       | 12.9 | 7.8    | 7.9  | 25.4           | 24.0 | 0.7     | 2.2  | 8.5           | 8.5 | \$404.1       | 1.7%  |
| Aggregate                  | 15.5       | 12.9 | 5.4    | 7.9  | 20.8           | 24.0 | -0.3    | 2.2  |               |     | \$816.4       | 3.5%  |
| Russell 1000 Growth        |            |      |        |      |                |      |         |      |               |     |               |       |
| INTECH                     | 15.8       | 14.7 | 8.8    | 11.0 | 24.9           | 25.3 | 3.1     | 5.1  | 4.4           | 5.7 | \$381.8       | 1.6%  |
| Jacobs Levy                | 14.3       | 14.7 | 11.2   | 11.0 | 28.5           | 25.3 | 3.7     | 5.1  | 4.1           | 5.7 | \$354.1       | 1.5%  |
| Knelman Asset Mgmt.        | 18.8       | 14.7 | 9.0    | 11.0 | 23.1           | 25.3 | 4.1     | 5.1  | 5.2           | 5.7 | \$72.5        | 0.3%  |
| Sands Capital              | 24.5       | 14.7 | 22.2   | 11.0 | 38.4           | 25.3 | 10.7    | 5.1  | 8.4           | 5.7 | \$356.1       | 1.5%  |
| Winslow-Large Cap          | 17.5       | 14.7 | 9.2    | 11.0 | 24.8           | 25.3 | 7.2     | 5.1  | 7.7           | 5.7 | \$161.1       | 0.7%  |
| Zevenbergen Capital        | 17.6       | 14.7 | -3.0   | 11.0 | 27.9           | 25.3 | 6.6     | 5.1  | 9.3           | 8.0 | \$351.3       | 1.5%  |
| Aggregate                  | 17.9       | 14.7 | 9.2    | 11.0 | 27.6           | 25.3 | 5.6     | 5.1  |               |     | \$1,676.8     | 7.2%  |
| Russell 1000 Value         |            |      |        |      |                |      |         |      |               |     |               |       |
| Barrow, Hanley             | 10.8       | 11.1 | 5.2    | 4.8  | 21.7           | 22.8 | 0.0     | -0.8 | 5.1           | 4.7 | \$481.1       | 2.1%  |
| Earnest Partners           | 12.2       | 11.1 | 2.1    | 4.8  | 22.6           | 22.8 | 1.1     | -0.8 | 4.5           | 4.7 | \$200.9       | 0.9%  |
| LSV Asset Mgmt.            | 13.4       | 11.1 | 3.7    | 4.8  | 23.8           | 22.8 | -0.9    | -0.8 | 5.5           | 4.7 | \$451.6       | 1.9%  |
| Systematic Financial Mgmt. | 15.2       | 11.1 | -0.2   | 4.8  | 21.4           | 22.8 | -0.7    | -0.8 | 4.8           | 4.7 | \$326.1       | 1.4%  |
| Aggregate                  | 12.8       | 11.1 | 3.1    | 4.8  | 22.5           | 22.8 | -0.1    | -0.8 |               |     | \$1,459.7     | 6.3%  |
| SMALL CAP                  |            |      |        |      |                |      |         |      |               |     |               |       |
| Russell 2000 Growth        |            |      |        |      |                |      |         |      |               |     |               |       |
| McKinley Capital           | 14.9       | 13.3 | -0.8   | 0.7  | 22.9           | 28.4 | -0.5    | 4.2  | 3.2           | 6.6 | \$233.3       | 1.0%  |
| Next Century Growth        | 14.6       | 13.3 | -4.4   | 0.7  | 27.5           | 28.4 | 4.6     | 4.2  | 1.5           | 1.7 | \$294.2       | 1.3%  |
| Turner Investment Partners | 12.4       | 13.3 | -4.1   | 0.7  | 27.6           | 28.4 | 3.9     | 4.2  | 6.6           | 6.6 | \$294.3       | 1.3%  |
| Aggregate                  | 13.9       | 13.3 | -3.3   | 0.7  | 26.2           | 28.4 | 2.8     | 4.2  |               |     | \$821.8       | 3.5%  |
| Russell 2000 Value         |            |      |        |      |                |      |         |      |               |     |               |       |
| Goldman Sachs              | 11.6       | 11.6 | 4.8    | -1.1 | 28.1           | 25.4 | 4.5     | 0.0  | 7.9           | 5.9 | \$175.4       | 0.8%  |
| Hotchkis & Wiley           | 15.3       | 11.6 | -4.5   | -1.1 | 40.9           | 25.4 | 1.1     | 0.0  | 5.6           | 5.9 | \$147.1       | 0.6%  |
| Martingale Asset Mgmt.     | 12.9       | 11.6 | -0.5   | -1.1 | 26.6           | 25.4 | -2.2    | 0.0  | 4.4           | 5.9 | \$133.7       | 0.6%  |
| Peregrine Capital          | 16.0       | 11.6 | 2.5    | -1.1 | 36.2           | 25.4 | 1.2     | 0.0  | 10.1          | 9.0 | \$241.7       | 1.0%  |
| Aggregate                  | 14.1       | 11.6 | 0.9    | -1.1 | 32.6           | 25.4 | 1.1     | 0.0  |               |     | \$697.8       | 3.0%  |
| Active Mgr. Aggregate (2)  | 15.0       | 12.8 | 3.9    | 5.6  | 25.1           | 24.6 | 2.0     | 2.1  |               |     | \$5,472.5     | 23.5% |

(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 March, 2012 Versus Manager Benchmarks

|                                   | Qua    | irter | 1 Y    | ear  | 3 Y    | ears | 5 Y    | ears |        | nce<br>tion (1) | Market        |        |
|-----------------------------------|--------|-------|--------|------|--------|------|--------|------|--------|-----------------|---------------|--------|
|                                   | Actual | Bmk   | Actual | Bmk  | Actual | Bmk  | Actual | Bmk  | Actual | Bmk             | Value         | Pool   |
|                                   | %      | %     | %      | %    | %      | %    | %      | %    | %      | %               | (in millions) | %      |
| SEMI-PASSIVE MANAGE               | RS (2) |       |        |      |        |      |        |      |        |                 |               |        |
| BlackRock Institutional           | 15.0   | 12.9  | 10.9   | 7.9  | 24.0   | 24.0 | 1.6    | 2.2  | 8.5    | 8.2             | \$2,461.5     | 10.6%  |
| INTECH                            | 11.8   | 12.9  | 7.9    | 7.9  |        |      |        |      | 12.2   | 12.2            | \$1,756.7     | 7.5%   |
| JP Morgan                         | 13.0   | 12.9  | 7.8    | 7.9  | 25.0   | 24.0 | 2.8    | 2.2  | 8.4    | 8.2             | \$2,906.8     | 12.5%  |
| Mellon Capital                    | 14.1   | 12.9  | 11.4   | 7.9  | 24.5   | 24.0 | 1.4    | 2.2  | 7.8    | 8.2             | \$1,846.0     | 7.9%   |
| Semi-Passive Aggregate<br>(R1000) | 13.5   | 12.9  | 9.4    | 7.9  | 24.4   | 24.0 | 1.9    | 2.2  |        |                 | \$8,971.0     | 38.5%  |
| PASSIVE MANAGER (R30              | 00)    |       |        |      |        |      |        |      |        |                 |               |        |
| BlackRock Institutional           | 12.9   | 12.9  | 7.2    | 7.2  | 24.3   | 24.3 | 2.3    | 2.2  | 7.8    | 7.7             | \$8,850.0     | 38.0%  |
|                                   |        |       |        |      |        |      |        |      | Since  | 1/1/84          |               |        |
| Total Aggregate (3)               | 13.6   | 12.9  | 7.1    | 7.2  | 24.6   | 24.3 | 2.1    | 2.2  | 9.9    | 10.1            | \$23,293.7    | 100.0% |
| Russell 3000                      |        | 12.9  |        | 7.2  |        | 24.3 |        | 2.2  |        | 10.4            |               |        |
| Russell 1000                      |        | 12.9  |        | 7.9  |        | 24.0 |        | 2.2  |        | 10.6            |               |        |
| Russell 2000                      |        | 12.4  |        | -0.2 |        | 26.9 |        | 2.1  |        | 9.0             |               |        |

(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

|                            | 2011   |      | 2010   |      | 2009   |      | 2008   |       | 2007   |      |
|----------------------------|--------|------|--------|------|--------|------|--------|-------|--------|------|
|                            | Actual | Bmk  | Actual | Bmk  | Actual | Bmk  | Actual | Bmk   | Actual | Bmk  |
|                            | %      | %    | %      | %    | %      | %    | %      | %     | %      | %    |
| LARGE CAP                  |        |      |        |      |        |      |        |       |        |      |
| Russell 1000 Core          |        |      |        |      |        |      |        |       |        |      |
| New Amsterdam Partners     | -3.0   | 1.5  | 16.2   | 16.1 | 24.8   | 28.4 | -36.7  | -37.6 | 5.0    | 5.8  |
| UBS Global                 | -4.1   | 1.5  | 10.3   | 16.1 | 41.3   | 28.4 | -41.3  | -37.6 | 0.8    | 5.8  |
| Aggregate                  | -3.5   | 1.5  | 13.3   | 16.1 | 27.6   | 28.4 | -39.6  | -37.6 | 2.4    | 5.8  |
| Russell 1000 Growth        |        |      |        |      |        |      |        |       |        |      |
| INTECH                     | 0.1    | 2.6  | 19.5   | 16.7 | 34.0   | 37.2 | -42.8  | -38.4 | 11.4   | 11.8 |
| Jacobs Levy                | 6.6    | 2.6  | 19.5   | 16.7 | 37.1   | 37.2 | -44.9  | -38.4 | 8.4    | 11.8 |
| Knelman Asset Mgmt.        | -3.3   | 2.6  | 18.1   | 16.7 | 31.1   | 37.2 | -39.9  | -38.4 | 18.0   | 11.8 |
| Sands Capital              | 2.7    | 2.6  | 26.8   | 16.7 | 71.6   | 37.2 | -48.6  | -38.4 | 19.5   | 11.8 |
| Winslow-Large Cap          | 0.1    | 2.6  | 16.8   | 16.7 | 40.9   | 37.2 | -39.1  | -38.4 | 22.0   | 11.8 |
| Zevenbergen Capital        | -9.8   | 2.6  | 22.9   | 16.7 | 57.4   | 37.2 | -43.2  | -38.4 | 24.0   | 11.8 |
| Aggregate                  | -0.4   | 2.6  | 19.3   | 16.7 | 44.5   | 37.2 | -42.7  | -38.4 | 14.9   | 11.8 |
| Russell 1000 Value         |        |      |        |      |        |      |        |       |        |      |
| Barrow, Hanley             | 1.7    | 0.4  | 10.4   | 15.5 | 23.2   | 19.7 | -35.2  | -36.8 | 2.6    | -0.2 |
| Earnest Partners           | -4.7   | 0.4  | 18.5   | 15.5 | 31.6   | 19.7 | -39.8  | -36.8 | 6.5    | -0.2 |
| LSV Asset Mgmt.            | -0.8   | 0.4  | 14.0   | 15.5 | 24.0   | 19.7 | -39.3  | -36.8 | 1.3    | -0.2 |
| Systematic Financial Mgmt. | -7.4   | 0.4  | 18.1   | 15.5 | 23.2   | 19.7 | -40.6  | -36.8 | 8.3    | -0.2 |
| Aggregate                  | -2.1   | 0.4  | 15.0   | 15.5 | 23.8   | 19.7 | -38.0  | -36.8 | 3.6    | -0.2 |
| SMALL CAP                  |        |      |        |      |        | ÷.   |        |       |        |      |
| Russell 2000 Growth        |        |      |        |      |        |      |        |       |        |      |
| McKinley Capital           | -7.9   | -2.9 | 28.5   | 29.1 | 28.0   | 34.5 | -49.1  | -38.5 | 16.2   | 7.0  |
| Next Century Growth        | -4.5   | -2.9 | 29.6   | 29.1 | 35.0   | 34.5 | -49.3  | -38.5 | 34.2   | 7.0  |
| Turner Investment Partners | -4.8   | -2.9 | 29.0   | 29.1 | 36.9   | 34.5 | -41.9  | -38.5 | 14.8   | 7.0  |
| Aggregate                  | -5.6   | -2.9 | 29.1   | 29.1 | 33.6   | 34.5 | -46.8  | -38.5 | 21.6   | 7.0  |
| Russell 2000 Value         |        |      |        |      |        |      |        |       |        |      |
| Goldman Sachs              | 1.3    | -5.5 | 27.0   | 24.5 | 27.8   | 20.6 | -26.8  | -28.9 | -5.0   | -9.8 |
| Hotchkis & Wiley           | -10.8  | -5.5 | 43.4   | 24.5 | 62.5   | 20.6 | -44.1  | -28.9 | -18.8  | -9.8 |
| Martingale Asset Mgmt.     | -5.2   | -5.5 | 27.4   | 24.5 | 19.4   | 20.6 | -33.8  | -28.9 | -16.8  | -9.8 |
| Peregrine Capital          | -4.1   | -5.5 | 27.3   | 24.5 | 45.8   | 20.6 | -39.4  | -28.9 | -13.4  | -9.8 |
| Aggregate                  | -4.5   | -5.5 | 30.5   | 24.5 | 36.3   | 20.6 | -36.1  | -28.9 | -13.4  | -9.8 |
| Active Mgr. Aggregate (1)  | -2.7   | 0.0  | 19.7   | 18.7 | 32.3   | 27.9 | -40.5  | -36.9 | 6.3    | 4.2  |

(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     | 2011 |        | 2010 |        | 2009 |        | 2008  |        | 2007 |  |
|-----------------------------------|--------|------|--------|------|--------|------|--------|-------|--------|------|--|
|                                   | Actual | Bmk  | Actual | Bmk  | Actual | Bmk  | Actual | Bmk   | Actual | Bmk  |  |
|                                   | %      | %    | %      | %    | %      | %    | %      | %     | %      | %    |  |
| SEMI-PASSIVE MANAGER              | s      |      |        |      |        |      |        |       |        |      |  |
| BlackRock Institutional           | 1.6    | 1.5  | 14.0   | 16.1 | 27.6   | 28.4 | -37.1  | -37.6 | 2.2    | 5.8  |  |
| INTECH                            | 2.9    | 1.5  |        |      |        |      |        |       |        |      |  |
| JP Morgan                         | 1.1    | 1.5  | 16.8   | 16.1 | 32.1   | 28.4 | -37.1  | -37.6 | 5.1    | 5.8  |  |
| Mellon Capital                    | 4.6    | 1.5  | 13.7   | 16.1 | 25.6   | 28.4 | -37.6  | -37.6 | 2.5    | 5.8  |  |
| Semi-Passive Aggregate<br>(R1000) | 2.2    | 1.5  | 15.2   | 16.1 | 28.5   | 28.4 | -37.2  | -37.6 | 3.2    | 5.8  |  |
| PASSIVE MANAGER (R300             | 0)     |      |        |      |        |      |        |       |        |      |  |
| BlackRock Institutional           | 0.8    | 1.0  | 17.2   | 16.9 | 28.2   | 28.3 | -37.1  | -37.3 | 5.1    | 5.1  |  |
|                                   |        |      |        |      |        |      |        |       |        |      |  |
| Total Aggregate                   | 0.4    | 1.0  | 17.1   | 16.9 | 29.6   | 28.3 | -38.1  | -37.3 | 4.9    | 5.1  |  |
| Russell 3000                      |        | 1.0  |        | 16.9 |        | 28.3 |        | -37.3 |        | 5.1  |  |
| Russell 1000                      |        | 1.5  |        | 16.1 |        | 28.4 |        | -37.6 |        | 5.8  |  |
| Russell 2000                      |        | -4.2 |        | 26.9 |        | 27.2 |        | -33.8 |        | -1.6 |  |

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.



Large Cap Core (R1000)

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# Large Cap Core (R1000)

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#### NEW AMSTERDAM PARTNERS Periods Ending March, 2012

#### Portfolio Manager: Michelle Clayman

#### Assets Under Management: \$412,298,152

**Staff Comments** 

New Amsterdam outperformed the benchmark for the quarter and underperformed for the year. For the

quarter, stock selection in the Health Care sector

was strong. For the year, stock selection was a drag

on performance, particularly in the Utilities, Energy,

Recommendation

Consumer Staples and Technology sectors.

#### **Investment Philosophy**

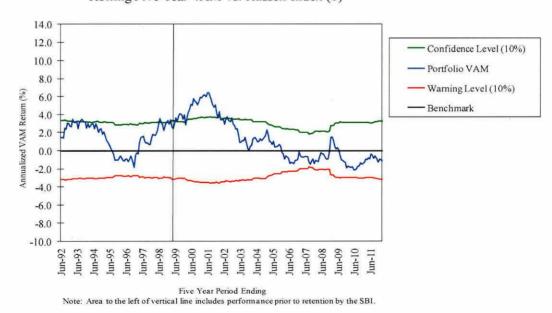
New Amsterdam Partners believes that investment results are evaluated by actual return, and therefore, investment opportunities should be evaluated by expected return. They believe that all valid techniques depend on forecasts of the amounts and timing of future cash flows. Thus, the firm focuses on forecasted earnings growth, yield, price-to-book ratio, and forecasted return on equity. They believe that the disciplined application of their valuation techniques, in conjunction with sound financial analysis of companies, is the key to understanding and maximizing investment returns.

#### **Quantitative Evaluation**

| Actual | Russell Index                     |
|--------|-----------------------------------|
| 13.8%  | 12.9%                             |
| 3.2    | 7.9                               |
| 10.8   | 12.2                              |
| 18.4   | 24.0                              |
| 3.4    | 4.2                               |
| 1.0    | 2.2                               |
| 10.0   | 9.3                               |
|        |                                   |
|        | 3.2<br>10.8<br>18.4<br>3.4<br>1.0 |

No action required.

(1) New Amsterdam Partners' published benchmark is the Russell 1000 Core beginning 10/1/03. Prior to that date it was the Russell Midcap index.



#### NEW AMSTERDAM PARTNERS Rolling Five Year VAM vs. Russell Index (1)

# A-14

#### UBS GLOBAL ASSET MANAGEMENT, INC. Periods Ending March, 2012

#### Portfolio Manager: John Leonard

#### Investment Philosophy

UBS uses a relative value approach to equity investing. They believe that the market price will ultimately reflect the present value of the cash flows the security will generate for the investor. They focus on a bottom-up stock selection process to provide insight into finding opportunistic investments. UBS uses a proprietary discounted free cash flow model as the primary analytical tool for estimating the intrinsic value of a company.

#### **Quantitative Evaluation**

|                 | Actual | (R1000 Core) |
|-----------------|--------|--------------|
| Last Quarter    | 17.2%  | 12.9%        |
| Last 1 year     | 7.8    | 7.9          |
| Last 2 years    | 8.5    | 12.2         |
| Last 3 years    | 25.4   | 24.0         |
| Last 4 years    | 3.7    | 4.2          |
| Last 5 years    | 0.7    | 2.2          |
| Since Inception | 8.5    | 8.5          |
| (7/93)          |        |              |

No action required.

UBS GLOBAL ASSET MANAGEMENT, INC. Rolling Five Year VAM vs. Russell 1000 Core



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

# Assets Under Management: \$404,073,151

#### **Staff Comments**

UBS outperformed the benchmark for the quarter and trailed for the year. Stock selection in the Technology and Financial Services sectors benefited the quarterly return. For the year, stock selection in the Energy and Consumer Discretionary sectors detracted from performance.

#### Recommendation

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Large Cap Growth (R1000 Growth)

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## Large Cap Growth (R1000 Growth)

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## INTECH INVESTMENT MANAGEMENT LLC Periods Ending March, 2012

### Portfolio Manager: Adrian Banner

## Assets Under Management: \$381,806,564

## **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    | 15.8%  | 14.7%        |
| Last 1 year     | 8.8    | 11.0         |
| Last 2 years    | 14.9   | 14.6         |
| Last 3 years    | 24.9   | 25.3         |
| Last 4 years    | 5.1    | 6.6          |
| Last 5 years    | 3.1    | 5.1          |
| Since Inception | 4.4    | 5.7          |
| (1/05)          |        |              |

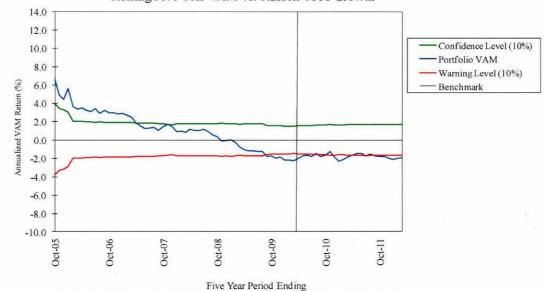
### Staff Comments

No comment at this time.

## Recommendation

No action required.

### INTECH INVESTMENT MANAGEMENT LLC Rolling Five Year VAM vs. Russell 1000 Growth



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

## JACOBS LEVY EQUITY MANAGEMENT Periods Ending March, 2012

## 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.

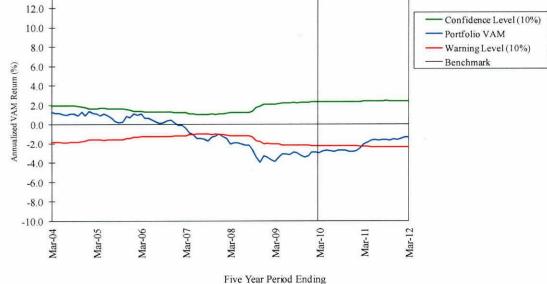
## **Quantitative Evaluation**

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|                 | Actual | R1000 Growth |
|-----------------|--------|--------------|
| Last Quarter    | 14.3%  | 14.7%        |
| Last 1 year     | 11.2   | 11.0         |
| Last 2 years    | 17.1   | 14.6         |
| Last 3 years    | 28.5   | 25.3         |
| Last 4 years    | 6.4    | 6.6          |
| Last 5 years    | 3.7    | 5.1          |
| Since Inception | 4.1    | 5.7          |
| (1/05)          |        |              |

No action required.

## JACOBS LEVY EQUITY MANAGEMENT Rolling Five Year VAM vs. Russell 1000 Growth





Assets Under Management: \$354,104,982

## **Staff Comments**

No comment at this time.

Recommendation

## **KNELMAN ASSET MANAGEMENT, LLC** Periods Ending March, 2012

## Portfolio Manager: Kip Knelman

## Assets Under Management: \$72,454,574

## **Investment Philosophy**

The strategy invests in companies exhibiting substantial growth opportunities, strong business models, solid management teams, and the probability for positive earnings surprises. The approach emphasizes earnings growth as the fundamental driver of stock prices over time. The process combines quantitative, qualitative and valuation criteria. The quantitative component addresses fundamentals and is focused on operating trends. Qualitative analysis involves confirmation of company fundamentals through discussions with company contacts and related parties. Valuation models focus on relative rankings of the fundamentals within the industry, the market overall and the company itself.

## **Quantitative Evaluation**

## Staff Comments

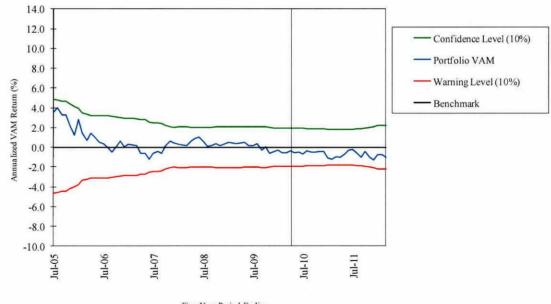
Knelman outperformed for the guarter and trailed the one-year benchmark. Quarterly performance was helped by strong stock selection, particularly in the Consumer Discretionary, Consumer Staples and Technology sectors. The one-year performance was hurt by stock selection in the Energy, Producer Durables and Financial Services sectors.

## Recommendation

|                        | Actual | R1000 Growth |
|------------------------|--------|--------------|
| Last Quarter           | 18.8%  | 14.7%        |
| Last 1 year            | 9.0    | 11.0         |
| Last 2 years           | 14.3   | 14.6         |
| Last 3 years           | 23.1   | 25.3         |
| Last 4 years           | 5.0    | 6.6          |
| Last 5 years           | 4.1    | 5.1          |
| Since Inception (1/05) | 5.2    | 5.7          |

No action required.

### KNELMAN ASSET MANAGEMENT, LLC. Rolling Five Year VAM vs. Russell 1000 Growth



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

## SANDS CAPITAL MANAGEMENT LLC Periods Ending March, 2012

Stock

## Portfolio Manager: Frank Sands, Jr.

## Assets Under Management: \$356,098,267

selection in Health Care, Consumer

**Staff Comments** 

Sands outperformed for the quarter and the year.

Discretionary and Technology sectors helped the

quarterly performance. For the year, stock selection

in the Health Care, Producer Durables, and Financial

Recommendation

Services sectors drove the outperformance.

## **Investment Philosophy**

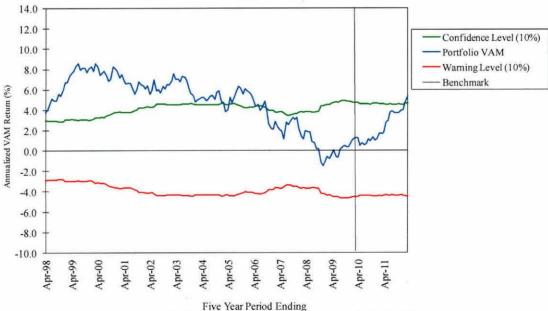
The manager invests in high-quality, seasoned and growing businesses. Bottom-up, company-focused, long-term oriented research is the cornerstone of the investment process. The strategy focuses on six (6) key investment criteria: 1) sustainable above average earnings growth; 2) leadership position in 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    | 24.5%  | 14.7%        |
| Last 1 year     | 22.2   | 11.0         |
| Last 2 years    | 25.2   | 14.6         |
| Last 3 years    | 38.4   | 25.3         |
| Last 4 years    | 13.9   | 6.6          |
| Last 5 years    | 10.7   | 5.1          |
| Since Inception | 8.4    | 5.7          |
| (1/05)          |        |              |

No action required.

## SANDS CAPITAL MANAGEMENT, LLC Rolling Five Year VAM vs. Russell 1000 Growth



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

## WINSLOW CAPITAL MANAGEMENT, INC. Periods Ending March, 2012

## Portfolio Manager: Bart Wear and Justin Kelly

## Assets Under Management: \$161,077,024

## **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**

|                 | Actual | R1000 Growth |
|-----------------|--------|--------------|
| Last Quarter    | 17.5%  | 14.7%        |
| Last 1 year     | 9.2    | 11.0         |
| Last 2 years    | 15.2   | 14.6         |
| Last 3 years    | 24.8   | 25.3         |
| Last 4 years    | 7.2    | 6.6          |
| Last 5 years    | 7.2    | 5.1          |
| Since Inception | 7.7    | 5.7          |
| (1/05)          | ×      |              |

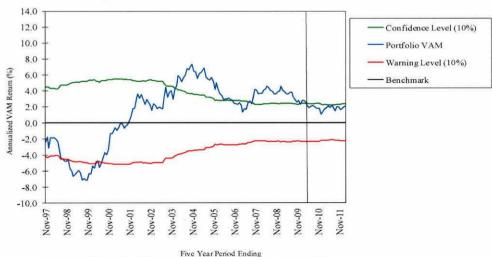
Staff Comments

No comment at this time.

Recommendation

No action required.

WINSLOW CAPITAL MANAGEMENT, INC. Rolling Five Year VAM vs. Russell 1000 Growth



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

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    | 17.6%  | 14.7%        |
| Last 1 year     | -3.0   | 11.0         |
| Last 2 years    | 11.9   | 14.6         |
| Last 3 years    | 27.9   | 25.3         |
| Last 4 years    | 8.7    | 6.6          |
| Last 5 years    | 6.6    | 5.1          |
| Since Inception | 9.3    | 8.0          |
| (4/94)          |        |              |

## **Staff Comments**

Zevenbergen outperformed the benchmark for the quarter and lagged for the year. Stock selection in Consumer Discretionary and Energy sectors, along with names outside the benchmark, helped returns exceed the benchmark. For the year, stock selection accounted for the weak relative performance. Positions in the Technology, Consumer Discretionary, and Financial Services sectors were responsible for the majority of the relative underperformance.

## Recommendation

No action required.

## ZEVENBERGEN CAPITAL INVESTMENTS LLC Rolling Five Year VAM vs. Russell 1000 Growth



## Assets Under Management: \$351,287,512

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Large Cap Value (R1000 Value)

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## Large Cap Value (R1000 Value)

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## BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC Periods Ending March, 2012

## Portfolio Manager: Tim Culler

## Assets Under Management: \$481,062,404

## **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 This strategy is implemented by constructing risks. portfolios of individual stocks 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    | 10.8%  | 11.1%       |
| Last 1 year     | 5.2    | 4.8         |
| Last 2 years    | 8.5    | 9.8         |
| Last 3 years    | 21.7   | 22.8        |
| Last 4 years    | 3.0    | 1.6         |
| Last 5 years    | 0.0    | -0.8        |
| Since Inception | 5.1    | 4.7         |
| (4/04)          |        |             |

## Staff Comments

No comment at this time.

Recommendation

No action required.

### BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC Rolling Five Year VAM vs. Russell 1000 Value



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

## EARNEST PARTNERS, LLC Periods Ending March, 2012

## Portfolio Manager: Paul Viera

## Assets Under Management: \$200,889,777

## **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 macroeconomic measures. Extensive research is 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    | 12.2%  | 11.1%       |
| Last 1 year     | 2.1    | 4.8         |
| Last 2 years    | 8.4    | 9.8         |
| Last 3 years    | 22.6   | 22.8        |
| Last 4 years    | 3.1    | 1.6         |
| Last 5 years    | 1.1    | -0.8        |
| Since Inception | 4.5    | 4.7         |
| (7/00)          |        |             |

## **Staff Comments**

No comment at this time.

## Recommendation

No action required.



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

EARNEST PARTNERS

## LSV ASSET MANAGEMENT Periods Ending March, 2012

## Portfolio Manager: Josef Lakonishok

## Assets Under Management: \$451,632,021

**Staff Comments** 

## **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**

|                 | Actual | R1000 Value |
|-----------------|--------|-------------|
| Last Quarter    | 13.4%  | 11.1%       |
| Last 1 year     | 3.7    | 4.8         |
| Last 2 years    | 9.6    | 9.8         |
| Last 3 years    | 23.8   | 22.8        |
| Last 4 years    | 1.7    | 1.6         |
| Last 5 years    | -0.9   | -0.8        |
| Since Inception | 5.5    | 4.7         |
| (4/04)          |        |             |

No action required.

- Confidence Level (10%) Portfolio VAM Warning Level (10%) Benchmark

-4.0 -6.0 -8.0 -10.0 Nov-10 00-voN 66-70N Nov-00 10-vov Nov-02 Nov-03 Nov-04 Nov-05 Vov-07 Nov-08 11-vov Nov-98 Nov-06

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

No comment at this time.

## Recommendation

A-32



## SYSTEMATIC FINANCIAL MANAGEMENT, L.P. Periods Ending March, 2012

## Portfolio Manager: Kevin McCreesh

## Assets Under Management: \$326,094,525

## **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    | 15.2%  | 11.1%       |
| Last 1 year     | -0.2   | 4.8         |
| Last 2 years    | 8.2    | 9.8         |
| Last 3 years    | 21.4   | 22.8        |
| Last 4 years    | 1.1    | 1.6         |
| Last 5 years    | -0.7   | -0.8        |
| Since Inception | 4.8    | 4.7         |
| (4/04)          |        |             |

No action required.

14.0 12.0 Confidence Level (10%) 10.0 Portfolio VAM Warning Level (10%) 8.0 Benchmark 6.0 unualized VAM Return (%) 4.0 2.0 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 Jul-10 lul-02 ul-06 Tul-07 Jul-08 90-Inf H-lul 10-In lul-03 lul-04 Jul-05

SYSTEMATIC FINANCIAL MANAGEMENT, LP Rolling Five Year VAM vs. Russell 1000 Value

## **Staff Comments**

Systematic outperformed the benchmark for the quarter and underperformed for the year. Stock selection in Consumer Discretionary and an underweight to Utilities helped the quarterly return. For the year, stock selection in Materials & Processing, Technology, and Energy was the largest detractor to performance.

## Recommendation

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

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# Small Cap Growth (R2000 Growth)

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## Small Cap Growth (R2000 Growth)

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| Turner Investment Partners         | A-40 |

## MCKINLEY CAPITAL MANAGEMENT Periods Ending March, 2012

## Portfolio Manager: Robert A. Gillam

## Assets Under Management: \$233,265,759

**Staff Comments** 

No comment at this time.

## **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.

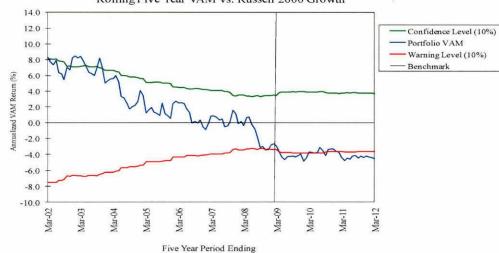
The primary model includes a linear regression model to identify common stocks that are inefficiently priced relative to the market while adjusting each security for standard deviation. The ratio of alpha to standard deviation is the primary screening value and is used to filter out all but the top 10% of stocks in our initial universe. The remaining candidates are tested for 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    | 14.9%  | 13.3%        |
| Last 1 year     | -0.8   | 0.7          |
| Last 2 years    | 12.7   | 14.9         |
| Last 3 years    | 22.9   | 28.4         |
| Last 4 years    | 1.5    | 7.7          |
| Last 5 years    | -0.5   | 4.2          |
| Since Inception | 3.2    | 6.6          |
| (1/04)          |        |              |

Recommendation

No action required.



### MCKINLEY CAPITAL MANAGEMENT Rolling Five Year VAM vs. Russell 2000 Growth

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

## NEXT CENTURY GROWTH INVESTORS, LLC Periods Ending March, 2012

## Portfolio Manager: Thomas Press and Don Longlet

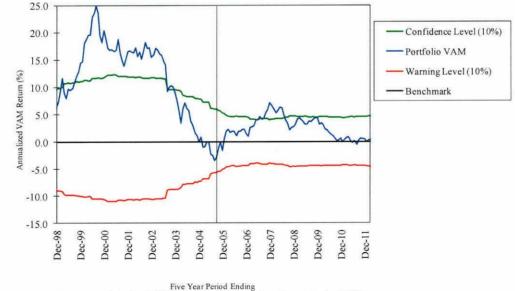
## **Investment Philosophy**

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 cvcle. 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                                |
|--------|---|
| 14.6%  | 13.3%                                       |
| -4.4   | 0.7   |
| 14.9   | 14.9  |
| 27.5   | 28.4  |
| 4.8    | 7.7   |
| 4.6    | 4.2   |
| 1.5    | 1.7   |
|        |   |
|        | 14.6%<br>-4.4<br>14.9<br>27.5<br>4.8<br>4.6 |

## NEXT CENTURY GROWTH INVESTORS, LLC Rolling Five Year VAM vs. Russell 2000 Growth



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

## Assets Under Management: \$294,220,043

## **Staff Comments**

No comment at this time.

## Recommendation

No action required.

## TURNER INVESTMENT PARTNERS Periods Ending March, 2012

## Portfolio Manager: William McVail

## Assets Under Management: \$294,303,544

## **Investment Philosophy**

The team's investment philosophy is based on the belief that earnings expectations drive stock prices. The team adds value primarily through stock selection and pursues a bottom-up strategy. Ideal candidates for investment are growth companies that have above average earnings prospects, reasonable valuations, favorable trading volume, and price patterns. Each security is subjected to three separate evaluation criteria: fundamental analysis (80%), quantitative screening (10%), and technical analysis (10%).

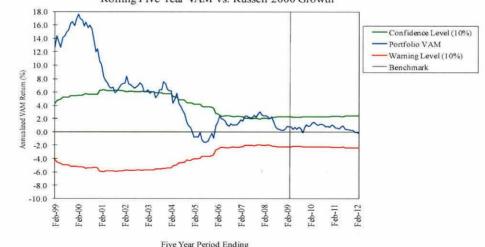
Proprietary computer models enable the team to assess the universe based on multiple earnings growth and valuation factors. The factors are specific to each economic sector. Fundamental analysis is the heart of the stock selection process and helps the team determine if a company will exceed, meet or fall short of consensus earnings expectations. Technical analysis is used to evaluate trends in trading volume and price patterns for individual stocks as the team searches for attractive entry and exit points.

## **Quantitative Evaluation**

|                 | Actual | R2000 Growth |
|-----------------|--------|--------------|
| Last Quarter    | 12.4%  | 13.3%        |
| Last 1 year     | -4.1   | 0.7          |
| Last 2 years    | 12.7   | 14.9         |
| Last 3 years    | 27.6   | 28.4         |
| Last 4 years    | 6.5    | 7.7          |
| Last 5 years    | 3.9    | 4.2          |
| Since Inception | 6.6    | 6.6          |
| (1/04)          |        |              |

Recommendation

No action required.



TURNER INVESTMENT PARTNERS, INC. Rolling Five Year VAM vs. Russell 2000 Growth

## Staff Comments

No comment at this time.

## -----

Small Cap Value (R2000 Value)

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## Small Cap Value (R2000 Value)

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## GOLDMAN SACHS ASSET MANAGEMENT Periods Ending March, 2012

### Portfolio Manager: Sally Pope-Davis and Rob Crystal

## Assets Under Management: \$175,373,906

Staff Comments

No comment at this time.

### **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    | 11.6%  | 11.6%       |
| Last 1 year     | 4.8    | -1.1        |
| Last 2 years    | 14.5   | 9.2         |
| Last 3 years    | 28.1   | 25.4        |
| Last 4 years    | 8.5    | 4.7         |
| Last 5 years    | 4.5    | 0.0         |
| Since Inception | 7.9    | 5.9         |
| (1/04)          |        |             |

Recommendation

No action required.

14.0 12.0 Confidence Level (10%) 10.0 Portfolio VAM 8.0 Warning Level (10%) Benchmark (%) 6.0 Annualized VAM Return 4.0 20 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 Jun-07 Jun-10 Jun-05 Jun-08 Jun-06 90-un II-un

GOLDMAN SACHS ASSET MANAGEMENT, L.P. Rolling Five Year VAM vs. Russell 2000 Value

## Portfolio Manager: Jim Miles and David Green

## **Investment Philosophy**

The firm seeks to exploit mis-priced 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    | 15.3%  | 11.6%       |
| Last 1 year     | -4.5   | -1.1        |
| Last 2 years    | 12.8   | 9.2         |
| Last 3 years    | 40.9   | 25.4        |
| Last 4 years    | 8.6    | 4.7         |
| Last 5 years    | 1.1    | 0.0         |
| Since Inception | 5.6    | 5.9         |
| (1/04)          |        |             |

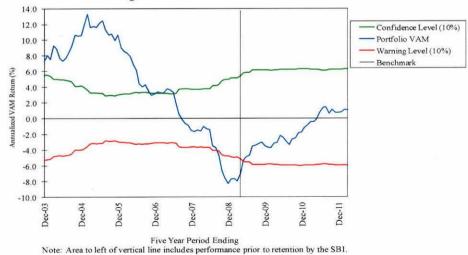
## **Staff Comments**

Hotchkis & Wiley outperformed the benchmark for the quarter and underperformed for the year. Stock selection in the Energy and Financial Services sectors helped the quarterly performance. For the year, an overweight allocation and weak stock selection in the Producer Durables sector, along with stock selection in Consumer Discretionary, were the primary detractors to performance.

## Recommendation

No action required.

HOTCHKIS & WILEY CAPITAL MANAGEMENT Rolling Five Year VAM vs. Russell 2000 Value



Assets Under Management: \$147,050,284

## MARTINGALE ASSET MANAGEMENT Periods Ending March, 2012

## Portfolio Manager: William Jacques

## Assets Under Management: \$133,726,046

**Staff Comments** 

No comment at this time.

## **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.

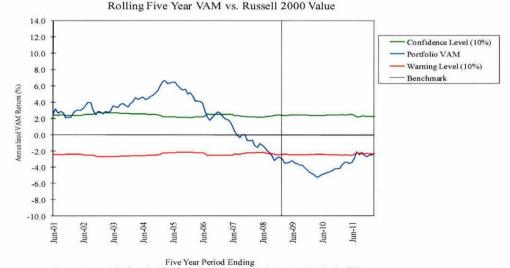
The average holding period of a stock is typically one year. Every holding is approached as an investment in the business, with the intention of holding it until either objectives are reached, or it becomes apparent that there are better opportunities in other stocks.

## **Quantitative Evaluation**

|                 | Actual | R2000 Value |
|-----------------|--------|-------------|
| Last Quarter    | 12.9%  | 11.6%       |
| Last 1 year     | -0.5   | -1.1        |
| Last 2 years    | 12.1   | 9.2         |
| Last 3 years    | 26.6   | 25.4        |
| Last 4 years    | 3.6    | 4.7         |
| Last 5 years    | -2.2   | 0.0         |
| Since Inception | 4.4    | 5.9         |
| (1/04)          |        |             |

Recommendation

No action required.



MARTINGALE ASSET MANAGEMENT, L.P.

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

## PEREGRINE CAPITAL MANAGEMENT Periods Ending March, 2012

## 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    | 16.0%  | 11.6%       |
| Last 1 year     | 2.5    | -1.1        |
| Last 2 years    | 13.6   | 9.2         |
| Last 3 years    | 36.2   | 25.4        |
| Last 4 years    | 8.1    | 4.7         |
| Last 5 years    | 1.2    | 0.0         |
| Since Inception | 10.1   | 9.0         |
| (7/00)          |        |             |

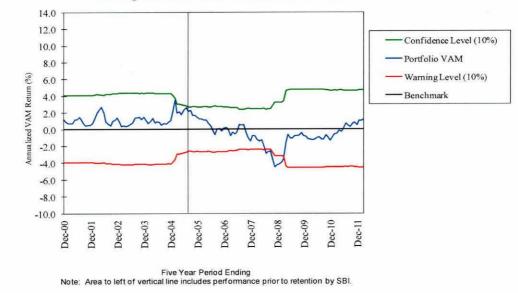
## Staff Comments

Peregrine outperformed for the quarter and for the year. Stock selection in the Technology, Consumer Discretionary and Energy sectors helped both periods.

## Recommendation

No action required.

### PEREGRINE CAPITAL MANAGEMENT Rolling Five Year VAM vs. Russell 2000 Value



## Assets Under Management: \$241,685,904

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**Semi-Passive and Passive** 

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## Semi-Passive and Passive

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## Passive

| BlackRock Institutional | Trust Co., N.A. | (Russell 3000) | A-56 |
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## BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2012

## Portfolio Manager: Raffaele Savi

## Assets Under Management: \$2,461,490,480

**Staff Comments** 

BlackRock outperformed for the quarter and for the

year. Strong stock selection across most sectors helped

## Investment Philosophy - Semi-Passive Style

The Core Alpha Model desegregates 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    | 15.0%  | 12.9%      |
| Last 1 year     | 10.9   | 7.9        |
| Last 2 years    | 12.5   | 12.2       |
| Last 3 years    | 24.0   | 24.0       |
| Last 4 years    | 4.2    | 4.2        |
| Last 5 years    | 1.6    | 2.2        |
| Since Inception | 8.5    | 8.2        |
| (1/95)          |        |            |

## Recommendation

No action required.

performance in both periods.

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



### BLACKROCK INSTITUTIONAL TRUST CO.- SEMI-PASSIVE Rolling Five Year VAM vs. Manager Benchmark

## INTECH INVESTMENT MANAGEMENT LLC Periods Ending March, 2012

## Portfolio Manager: Adrian Banner

## 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    | 11.8%  | 12.9%        |
| Last 1 year     | 7.9    | 7.9          |
| Last 2 years    | 12.2   | 12.2         |
| Last 3 years    | N/A    | N/A          |
| Last 4 years    | N/A    | N/A          |
| Last 5 years    | N/A    | N/A          |
| Since Inception |        |              |
| (4/10)          | 12.2   | 12.2         |

## Assets Under Management: \$1,756,716,530

## **Staff Comments**

INTECH lagged the quarterly benchmark and matched for the year. For the quarter, INTECH was negatively impacted by sector weights.

## Recommendation

No action required.

VAM Graph will be drawn for period ending 6/30/12.

## J.P. MORGAN INVESTMENT MANAGEMENT, INC. Periods Ending March, 2012

## Portfolio Manager: Ralph Zingone and Scott Blasdell Assets Under Management: \$2,906,831,570

### **Staff Comments**

Investment Philosophy - Semi-Passive Style

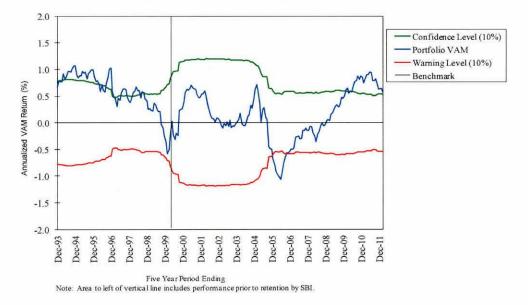
J.P. Morgan believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast the earnings and dividends for the 650 stock universe and enter them into a stock valuation 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**

|                 | Actual | Manager<br>Benchmark* |
|-----------------|--------|-----------------------|
| Last Quarter    | 13.0%  | 12.9%                 |
| Last 1 year     | 7.8    | 7.9                   |
| Last 2 years    | 12.1   | 12.2                  |
| Last 3 years    | 25.0   | 24.0                  |
| Last 4 years    | 5.1    | 4.2                   |
| Last 5 years    | 2.8    | 2.2                   |
| Since Inception | 8.4    | 8.2                   |
| (1/95)          |        |                       |

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

JP MORGAN - SEMI-PASSIVE Rolling Five Year VAM vs. Manager Benchmark



## A-54

## Starr Comme

No comment at this time.

## Recommendation

No action required.

#### MELLON CAPITAL MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Warren Chiang

#### Assets Under Management: \$1,845,980,228

#### 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<br>Benchmark* |
|-----------------|--------|-----------------------|
| Last Quarter    | 14.1%  | 12.9%                 |
| Last 1 year     | 11.4   | 7.9                   |
| Last 2 years    | 13.2   | 12.2                  |
| Last 3 years    | 24.5   | 24.0                  |
| Last 4 years    | 4.0    | 4.2                   |
| Last 5 years    | 1.4    | 2.2                   |
| Since Inception | 7.8    | 8.2                   |
| (1/95)          |        |                       |

No action required.

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



#### MELLON CAPITAL MANAGEMENT- SEMI-PASSIVE Rolling Five Year VAM vs. Manager Benchmark

Staff Comments

No comment at this time.

### Recommendation

#### BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2012

#### Portfolio Manager: Amy Schioldager

#### 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**

|                 |        | Manager    |
|-----------------|--------|------------|
|                 | Actual | Benchmark* |
| Last Quarter    | 12.9%  | 12.9%      |
| Last 1 year     | 7.2    | 7.2        |
| Last 2 years    | 12.2   | 12.2       |
| Last 3 years    | 24.3   | 24.3       |
| Last 4 years    | 4.4    | 4.3        |
| Last 5 years    | 2.3    | 2.2        |
| Since Inception | 7.8    | 7.7        |
| (7/95)          |        |            |

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

0.8 Confidence Level (10%) 0.6 Portfolio VAM Warning Level (10%) 0.4 Benchmark Annua lized VAM Return (%) 0.2 0.0 -0.2 -0.4 -0.6 -0.8 Jun-00 Jun-02 Jun-06 90-unf Jun-10 Jun-05 Jun-08 Jun-11 Jun-01 Jun-03 Jun-04 Jun-07 Five Year Period Ending

#### BLACKROCK INSTITUTIONAL TRUST CO.- PASSIVE Rolling Five Year VAM vs. Manager Benchmark

#### Recommendation

No action required.

Assets Under Management: \$8,849,959,113

#### Staff Comments

### No comment at this time.



# **STATE BOARD OF INVESTMENT**

Bond Manager Evaluation Reports

First Quarter, 2012

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# **Bond Managers**

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#### COMBINED RETIREMENT FUNDS BOND MANAGERS Periods Ending March, 2012

|                               |             |          |             |          |             |          |             |          | Sind        | ce (1)   |                        |           |
|-------------------------------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|------------------------|-----------|
|                               | Qua         | rter     | 1 Ye        | ar       | 3 Y         | ears     | 5 Y         | ears     | Ince        | ption    | Market                 |           |
|                               | Actual<br>% | Bmk<br>% | Value<br>(in millions) | Pool<br>% |
| Active Managers               |             |          |             |          |             |          |             |          |             |          |                        |           |
| Aberdeen                      | 1.8         | 0.3      | 8.5         | 7.7      | 12.6        | 6.8      | 5.0         | 6.2      | 6.2         | 6.4      | \$814.9                | 7.8%      |
| Columbia (RiverSource)        | 1.5         | 0.3      | 8.8         | 7.7      | 9.7         | 6.8      | 6.2         | 6.2      | 6.1         | 6.2      | \$927.1                | 8.8%      |
| Dodge & Cox                   | 3.0         | 0.3      | 6.8         | 7.7      | 10.9        | 6.8      | 7.1         | 6.2      | 7.3         | 6.4      | \$1,093.0              | 10.4%     |
| PIMCO                         | 2.4         | 0.3      | 5.6         | 7.7      | 11.3        | 6.8      |             |          | 9.9         | 7.2      | \$1,192.1              | 11.3%     |
| Western                       | 1.6         | 0.3      | 7.9         | 7.7      | 11.7        | 6.8      | 6.5         | 6.2      | 9.5         | 8.4      | \$1,235.0              | 11.8%     |
| Active Mgr. Aggregate         | 2.1         | 0.3      | 7.4         | 7.7      | 11.3        | 6.8      | 6.1         | 6.2      |             |          | \$5,262.2              | 50.1%     |
| Semi-Passive Managers         |             |          |             |          |             |          |             |          |             |          |                        |           |
| BlackRock                     | 0.5         | 0.3      | 8.0         | 7.7      | 8.1         | 6.8      | 5.7         | 6.2      | 6.3         | 6.3      | \$1,669.2              | 15.9%     |
| Goldman                       | 0.6         | 0.3      | 8.3         | 7.7      | 9.3         | 6.8      | 6.5         | 6.2      | 6.5         | 6.2      | \$1,793.0              | 17.1%     |
| Neuberger                     | 0.9         | 0.3      | 8.0         | 7.7      | 10.6        | 6.8      | 6.8         | 6.2      | 7.5         | 7.3      | \$1,785.2              | 17.0%     |
| Semi-Passive Mgr. Aggregate   | 0.7         | 0.3      | 8.1         | 7.7      | 9.3         | 6.8      | 6.4         | 6.2      |             |          | \$5,247.4              | 49.9%     |
|                               |             |          |             |          |             |          |             |          | Since       | 7/1/84   |                        |           |
| Historical Aggregate (2)      | 1.4         | 0.3      | 7.7         | 7.7      | 10.3        | 6.8      | 6.3         | 6.2      | 8.5         | 8.4      | \$10,509.5             | 100.0%    |
| Barclays Capital Aggregate (3 | )           | 0.3      |             | 7.7      |             | 6.8      |             | 6.2      |             | 8.4      |                        |           |

(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 Solomon BIG.

#### COMBINED RETIREMENT FUNDS BOND MANAGERS Calendar Year Returns

|                             | 201         | 1        | 201         | 10       | 200         | 19       | 200         | 8        | 200         | )7       |  |
|-----------------------------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|--|
|                             | Actual<br>% | Bmk<br>% |  |
| Active Managers             |             |          |             |          |             |          |             |          |             |          |  |
| Aberdeen                    | 8.0         | 7.8      | 10.7        | 6.5      | 18.4        | 5.9      | -14.7       | 5.2      | 5.6         | 7.0      |  |
| Columbia (RiverSource)      | 8.1         | 7.8      | 8.1         | 6.5      | 14.0        | 5.9      | -4.9        | 5.2      | 6.6         | 7.0      |  |
| Dodge & Cox                 | 5.0         | 7.8      | 7.8         | 6.5      | 16.5        | 5.9      | 0.1         | 5.2      | 5.3         | 7.0      |  |
| PIMCO                       | 4.5         | 7.8      | 12.1        | 6.5      | 15.5        | 5.9      |             |          |             |          |  |
| Western                     | 7.1         | 7.8      | 10.9        | 6.5      | 17.5        | 5.9      | -6.8        | 5.2      | 5.4         | 7.0      |  |
| Active Mgr. Aggregate       | 6.4         | 7.8      | 10.0        | 6.5      | 16.5        | 5.9      | -7.3        | 5.2      | 5.8         | 7.0      |  |
| Semi-Passive Managers       |             |          |             |          |             |          |             |          |             |          |  |
| BlackRock                   | 8.0         | 7.8      | 6.5         | 6.5      | 9.6         | 5.9      | -1.1        | 5.2      | 6.8         | 7.0      |  |
| Goldman                     | 8.3         | 7.8      | 8.0         | 6.5      | 12.0        | 5.9      | -1.2        | 5.2      | 7.0         | 7.0      |  |
| Neuberger                   | 7.6         | 7.8      | 9.1         | 6.5      | 14.3        | 5.9      | -1.9        | 5.2      | 6.3         | 7.0      |  |
| Semi-Passive Mgr. Aggregate | 8.0         | 7.8      | 7.9         | 6.5      | 12.0        | 5.9      | -1.4        | 5.2      | 6.7         | 7.0      |  |
| Historical Aggregate        | 7.2         | 7.8      | 9.0         | 6.5      | 14.3        | 5.9      | -4.2        | 5.2      | 6.3         | 7.0      |  |
| Barclays Capital Aggregate  |             | 7.8      |             | 6.5      |             | 5.9      |             | 5.2      |             | 7.0      |  |

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

#### ABERDEEN ASSET MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Neil Moriarty

#### **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**

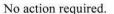
#### Assets Under Management: \$814,941,019

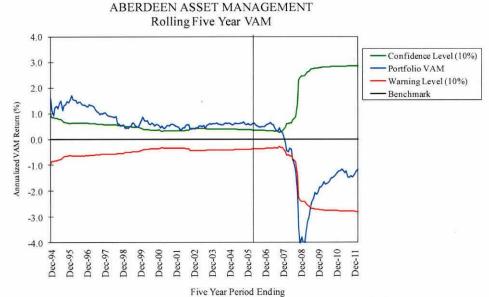
#### **Staff Comments**

Aberdeen outperformed the benchmark by 151 bps for the quarter and 74 bps over the last 12 months. Quarterly and one-year performance was driven by security selection within the taxable municipal sector and overweight positions in CMBS and ABS. Exposure to non-Agency MBS and Agency MBS were detractors from performance for the year.

#### Recommendations

| Actual | Benchmark                                |
|--------|--|
| 1.8%   | 0.3%                                     |
| 8.5    | 7.7                                      |
| 8.4    | 6.4                                      |
| 12.6   | 6.8                                      |
| 5.6    | 5.9                                      |
| 5.0    | 6.2                                      |
| 6.2    | 6.4                                      |
|        |  |
|        | 1.8%<br>8.5<br>8.4<br>12.6<br>5.6<br>5.0 |





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

#### COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC (Formerly RiverSource Investments) Periods Ending March, 2012

#### Portfolio Manager: Colin Lundgren

#### Investment Philosophy

American Columbia (formerly 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 Duration and maturity structure are selection. 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 return. In-depth fundamental research and credit 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    | 1.5%   | 0.3%      |
| Last 1 year     | 8.8    | 7.7       |
| Last 2 years    | 7.7    | 6.4       |
| Last 3 years    | 9.7    | 6.8       |
| Last 4 years    | 6.5    | 5.9       |
| Last 5 years    | 6.2    | 6.2       |
| Since Inception | 6.1    | 6.2       |
| (7/93)          |        |           |

#### Assets Under Management: \$927,071,633

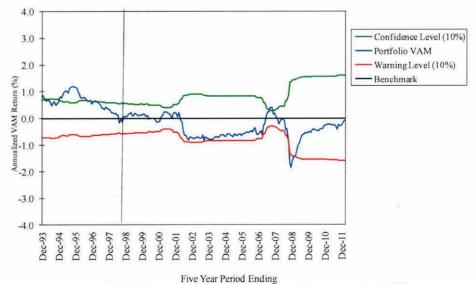
#### **Staff Comments**

Columbia outperformed the benchmark by 118 bps for the quarter and 104 bps over the last 12 months. Overweight positions in CMBS and investment grade corporate bonds contributed to performance for the quarter. Security selection within the MBS and investment grade corporate sectors added to performance over the full year period. Interest rate decisions detracted from performance for the year.

#### Recommendations

No action required.

#### COLUMBIA MANAGEMENT - FIXED INCOME Rolling Five Year VAM



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

#### DODGE & COX INVESTMENT MANAGERS Periods Ending March, 2012

#### Portfolio Manager: Dana Emery

#### Assets Under Management: \$1,093,033,524

#### **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**

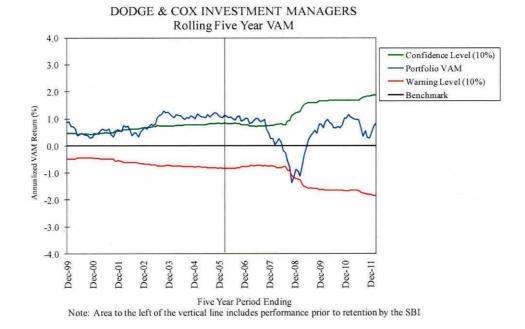
|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 3.0%   | 0.3%      |
| Last 1 year     | 6.8    | 7.7       |
| Last 2 years    | 6.7    | 6.4       |
| Last 3 years    | 10.9   | 6.8       |
| Last 4 years    | 7.8    | 5.9       |
| Last 5 years    | 7.1    | 6.2       |
| Since Inception | 7.3    | 6.4       |
| (2/00)          |        |           |

#### Staff Comments

Dodge & Cox outperformed the benchmark by 274 bps for the quarter and underperformed the benchmark by 92 bps over the last 12 months. Overweight exposure to investment grade corporate bonds, particularly financials, and an underweight position in Treasuries contributed to quarterly returns. Security selection within the taxable municipal sector added to performance for the quarter and year. A shorter relative duration position, an overweight to investment grade corporate securities, and an underweight to U.S. Treasury securities detracted from one-year performance.

#### Recommendations

No action required.



#### PACIFIC INVESTMENT MANAGEMENT CO. LLC (PIMCO) Periods Ending March, 2012

#### 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.

#### Assets Under Management: \$1,192,064,861

#### **Staff Comments**

PIMCO outperformed the benchmark by 214 bps for the quarter and underperformed the benchmark by 210 bps over the last 12 months. Overweight positions in Agency MBS, CMBS, and the financials sub-sector of the investment grade corporate sector added to performance for the quarter while a slight overweight to U.S. duration and underweight to corporate bonds detracted from quarterly performance. An underweight position in U.S. Treasuries detracted from performance for the year.

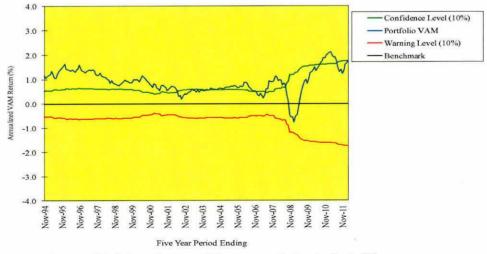
#### Quantitative Evaluation

|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 2.4%   | 0.3%      |
| Last 1 year     | 5.6    | 7.7       |
| Last 2 years    | 7.6    | 6.4       |
| Last 3 years    | 11.3   | 6.8       |
| Last 4 years    | N/A    | N/A       |
| Last 5 years    | N/A    | N/A       |
| Since Inception | 9.9    | 7.2       |
| (9/08)          |        |           |

#### Recommendations

No action required.

PACIFIC INVESTMENT MANAGEMENT CO. Rolling Five Year VAM



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

#### Portfolio Manager: Steve Walsh

#### Assets Under Management: \$1,235,041,148

#### **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 Long-term value investing is reduce volatility. 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**

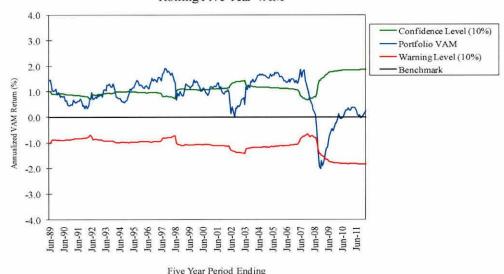
|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 1.6%   | 0.3%      |
| Last 1 year     | 7.9    | 7.7       |
| Last 2 years    | 8.2    | 6.4       |
| Last 3 years    | 11.7   | 6.8       |
| Last 4 years    | 7.2    | 5.9       |
| Last 5 years    | 6.5    | 6.2       |
| Since Inception | 9.5    | 8.4       |
| (7/84)          |        |           |

#### **Staff Comments**

Western outperformed the benchmark by 130 bps for the quarter and 24 bps over the last 12 months. An overweight to investment grade corporate bonds, particularly financials, and exposure to non-Agency MBS, high-yield corporate bonds, and TIPS were the largest positive contributors to performance for the quarter. Exposure to high-yield corporate bonds and security selection within the Agency MBS sector added to performance for the year. A bias toward longer-dated securities detracted from quarterly performance, while an overweight position in investment grade corporate bonds negatively impacted one-year performance.

#### Recommendations

No action required.



#### WESTERN ASSET MANAGEMENT Rolling Five Year VAM

#### BLACKROCK, INC. Periods Ending March, 2012

#### Portfolio Manager: Brian Weinstein

#### Assets Under Management: \$1,669,228,261

#### **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**

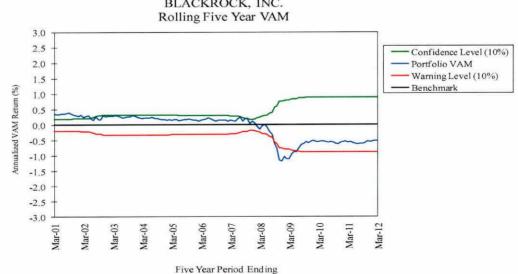
|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 0.5%   | 0.3%      |
| Last 1 year     | 8.0    | 7.7       |
| Last 2 years    | 6.6    | 6.4       |
| Last 3 years    | 8.1    | 6.8       |
| Last 4 years    | 5.5    | 5.9       |
| Last 5 years    | 5.7    | 6.2       |
| Since Inception | 6.3    | 6.3       |
| (4/96)          |        |           |

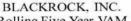
#### **Staff Comments**

Blackrock outperformed the benchmark by 21 bps for the quarter and 28 bps over the last 12 months. An overweight position in CMBS, an allocation to TIPS, and security selection within the investment grade corporate sector contributed to positive quarterly performance. Positive contributors to oneyear performance included an overweight position in ABS, vield curve positioning, and security selection within the investment grade corporate and ABS sectors. An underweight position to investment grade corporate bonds negatively impacted quarterly performance, as the sector outperformed U.S. Treasuries.

#### Recommendation

No action required.





#### GOLDMAN SACHS ASSET MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Jonathon Beinner

#### Assets Under Management: \$1,792,955,323

#### **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 Goldman combines long-term also implemented. 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.

#### **Ouantitative Evaluation**

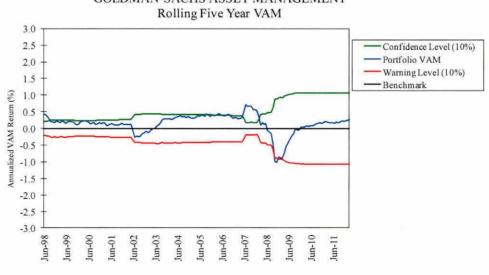
|                        | Actual | Benchmark |
|------------------------|--------|-----------|
| Last Quarter           | 0.6%   | 0.3%      |
| Last 1 year            | 8.3    | 7.7       |
| Last 2 years           | 7.2    | 6.4       |
| Last 3 years           | 9.3    | 6.8       |
| Last 4 years           | 6.8    | 5.9       |
| Last 5 years           | 6.5    | 6.2       |
| Since Inception (7/93) | 6.5    | 6.2       |

#### Staff Comments

Goldman Sachs outperformed the benchmark by 30 bps for the quarter and 54 bps over the last 12 months. Ouarterly performance was driven by an overweight to non-Agency MBS and security selection within the investment grade corporate and Agency MBS sectors. Security selection within Agency and non-Agency MBS and CMBS were the largest positive contributors to one-year performance, while an overweight position in non-Agency MBS was the largest detractor.

#### Recommendations

No action required.



### GOLDMAN SACHS ASSET MANAGEMENT

Five Year Period Ending

#### NEUBERGER INVESTMENT MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Andrew Johnson

#### 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 Setting target active risk of seeking value-added. exposures that must fall within pre-established maximums controls risk. To control credit 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    | 0.9%   | 0.3%      |
| Last 1 year     | 8.0    | 7.7       |
| Last 2 years    | 7.3    | 6.4       |
| Last 3 years    | 10.6   | 6.8       |
| Last 4 years    | 7.3    | 5.9       |
| Last 5 years    | 6.8    | 6.2       |
| Since Inception | 7.5    | 7.3       |
| (7/88)          |        |           |

Assets Under Management: \$1,785,207,386

#### **Staff Comments**

Neuberger Berman outperformed the benchmark by 63 bps for the quarter and 27 bps over the last 12 months. Quarterly results were driven by security selection within the investment grade corporate bond sector and overweight positions in the CMBS, corporate, and Agency MBS sectors. One-year performance was driven by overweight positions in CMBS and Agency MBS. An overweight position in investment grade corporate bonds detracted from one-year performance.

#### Recommendations

No action required.

3.0 25 Confidence Level (10%) 2.0 Portfolio VAM Warning Level (10%) 1.5 Benchmark 1.0 Annualized VAM Return (%) 0.5 0.0 -0.5 -1.0 -1.5 -2.0 -2.5 -3.0 Jun-02 Jun-03 Jun-04 Jun-05 Jun-08 Jun-09 Jun-10 Jun-93 Jun-96 79-nul Jun-98 99-ml Jun-00 Jun-01 Jun-06 Jun-07 Jun-94 26-un

#### NEUBERGER INVESTMENT MANAGEMENT Rolling Five Year VAM

Five Year Period Ending

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# STATE BOARD OF INVESTMENT

International Manager Evaluation Reports

First Quarter, 2012

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# **International Managers**

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| State Street Global Advisors – Passive Developed Marl                         | kets A-89 |

#### COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Periods Ending March, 2012

| £1                             |             |           |             |      |        |          |              |              | Since      | e (1)      |                    |        |
|--------------------------------|-------------|-----------|-------------|------|--------|----------|--------------|--------------|------------|------------|--------------------|--------|
|                                | -           | arter     |             | ear  | 3 Y    |          |              | ears         | Incep      |            | Market             |        |
|                                | Actual<br>% | Bmk<br>%  | Actual<br>% |      | Actual | Bmk<br>% | Actual       |              | Actual     |            | Value              | Pool   |
| Active Developed Markets (2)   | 70          | 70        | 70          | %    | %      | 70       | %            | %            | %          | %          | (in millions)      | %      |
| Acadian                        | 10.8        | 10.4      | -6.3        | -6.6 | 10.2   | 17.6     | 57           | 2.0          | 2.1        | 1.0        | <b>*</b> 275.2     | 2.007  |
| Columbia (RiverSource)         | 13.2        | 10.4      | -0.5        | -6.6 | 18.2   | 17.6     | -5.7<br>-1.0 | -2.9<br>-2.9 | 3.1<br>0.6 | 4.0<br>2.0 | \$275.2<br>\$274.6 | 3.8%   |
| Invesco                        | 7.4         | 10.4      | -4.0        | -6.6 | 14.5   |          | -3.5         | -2.9         | 3.1        | 2.0        | \$274.6            | 3.8%   |
| J.P. Morgan                    | 11.3        | 10.4      | -4.5        | -6.6 | 18.9   | 17.6     |              | -2.9         |            |            | \$220.2            | 3.1%   |
| Marathon                       | 11.5        | 10.4      | -4.5        | -6.6 | 19.9   | 17.6     | -1.6         | -2.9<br>-2.9 | 4.2        | 4.0        | \$240.8            | 3.4%   |
| McKinley                       |             | 10.4      | -2.4        | -6.6 |        | 17.6     | 0.3          |              | 8.2        | 4.8        | \$554.0            | 7.7%   |
|                                | 11.9        | 10.4      |             |      | 14.0   |          | -5.4         | -2.9         | 2.5        | 4.0        | \$226.4            | 3.2%   |
| Pyramis (Fidelity)             |             |           | -4.5        | -6.6 | 18.9   | 17.6     | -0.5         | -2.9         | 5.5        | 4.0        | \$266.9            | 3.7%   |
| Aggregate                      | 11.1        | 10.4      | -5.0        | -6.6 | 18.1   | 17.6     | -2.1         | -2.9         |            |            | \$2,058.2          | 28.7%  |
| Active Emerging Markets (3)    |             |           |             |      |        |          |              |              |            |            |                    |        |
| Capital International          | 13.0        | 14.1      | -14.0       | -8.8 | 21.6   | 25.1     | 4.7          | 4.8          | 11.2       | 12.4       | \$737.5            | 10.3%  |
| Morgan Stanley                 | 13.2        | 14.1      | -5.9        | -8.8 | 25.0   | 25.1     | 3.7          | 4.8          | 12.3       | 12.4       | \$743.8            | 10.4%  |
| Aggregate                      | 13.1        | 14.1      | -10.5       | -8.8 | 23.0   | 25.1     | 3.5          | 4.8          |            |            | \$1,481.3          | 20.7%  |
|                                |             |           |             |      |        |          |              |              |            |            |                    |        |
| Semi-Passive Developed Marke   |             |           |             |      |        |          |              |              |            |            |                    |        |
| AQR                            | 10.7        | 10.4      | -8.4        | -6.6 |        | 17.6     | -3.0         | -2.9         | 3.9        | 4.0        | \$258.4            | 3.6%   |
| Pyramis (Fidelity)             | 11.5        | 10.4      | -6.3        | -6.6 | 17.6   | 17.6     | -2.2         | -2.9         | 4.8        | 4.0        | \$395.5            | 5.5%   |
| State Street                   | 11.0        | 10.4      | -10.6       | -6.6 | 16.5   | 17.6     | -4.6         | -2.9         | 2.8        | 4.0        | \$240.3            | 3.4%   |
| Aggregate                      | 11.1        | 10.4      | -8.1        | -6.6 | 17.6   | 17.6     | -3.2         | -2.9         |            |            | \$894.3            | 12.5%  |
| Passive Emerging & Developed   | Market      | s (2) (3) | )           |      |        |          |              |              |            |            |                    |        |
| State Street (Emerging Mkts.)  | 13.5        | 14.1      |             |      |        |          |              |              | 13.5       | 14.1       | \$164.0            | 2.3%   |
| State Street (Developed Mkts.) | 10.4        | 10.4      | -6.3        | -6.6 | 18.2   | 17.6     | -2.5         | -2.9         | 6.2        | 5.9        | \$2,568.3          | 35.8%  |
|                                |             |           |             |      |        |          |              |              | Sinc       | e 10/1/92  |                    |        |
| Equity Only (4) (6)            | 11.3        | 11.2      | -7.2        | -7.2 | 19.2   | 19.1     | -1.4         | -1.5         | 6.8        | 6.3        | \$7,166.1          | 100.0% |
| Total Program (5) (6)          | 11.3        | 11.2      | -7.2        | -7.2 | 19.2   | 19.1     | -1.4         | -1.5         | 6.9        | 6.3        | \$7,166.1          | 100.0% |
|                                |             |           |             |      |        |          |              |              |            |            |                    |        |
| SBI Int'l Equity Target (6)    |             | 11.2      |             | -7.2 |        | 19.1     |              | -1.5         |            | 6.3        |                    |        |
| MSCI ACWI Free ex. U.S. (7)    |             | 11.2      |             | -7.2 |        | 19.1     |              | -1.6         |            | 6.6        |                    |        |
| MSCI World ex U.S. (net)       |             | 10.4      |             | -6.6 |        | 17.6     |              | -2.9         |            | 6.0        |                    |        |
| MSCI EAFE Free (net)           |             | 10.9      |             | -5.8 |        | 17.1     |              | -3.5         |            | 5.7        |                    |        |
| MSCI Emerging Markets Free (8) |             | 14.1      |             | -8.8 |        | 25.1     |              | 4.7          |            | 9.0        |                    |        |

(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 Free ex U.S. (net) thereafter.

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

#### COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Calendar Year Returns

|                               | 20      | 11    | 20     | 10                  | 20     | 09   | 20     | 08    | 20     | 07   |
|-------------------------------|---------|-------|--------|---------------------|--------|------|--------|-------|--------|------|
|                               | Actual  |       | Actual | 1010 (0.0 m (0.0 m) | Actual |      | Actual |       | Actual |      |
|                               | %       | %     | %      | %                   | %      | %    | %      | %     | %      | %    |
| Active Developed Markets (1)  |         |       |        | 2.2                 |        |      | 02.0   | 22/22 | 22.2   |      |
| Acadian                       |         | -12.2 | 13.9   | 8.9                 | 28.8   | 33.7 |        | -43.5 | 10.0   | 12.6 |
| Columbia (RiverSource)        | -12.1   | -12.2 | 15.2   | 8.9                 | 29.3   | 33.7 |        | -43.5 | 12.4   | 12.6 |
| Invesco                       |         | -12.2 | 5.8    | 8.9                 | 32.0   | 33.7 |        | -43.5 | 8.4    | 12.6 |
| J.P. Morgan                   |         | -12.2 | 7.6    | 8.9                 | 37.5   | 33.7 |        | -43.5 | 8.8    | 12.6 |
| Marathon                      |         | -12.2 | 14.4   | 8.9                 | 29.8   | 33.7 |        | -43.5 | 15.4   | 12.6 |
| McKinley                      |         | -12.2 | 11.8   | 8.9                 | 24.1   | 33.7 |        | -43.5 | 20.4   | 12.6 |
| Pyramis (Fidelity)            | -11.9   | -12.2 | 11.7   | 8.9                 | 35.1   | 33.7 | -42.9  | -43.5 | 17.7   | 12.6 |
| Aggregate                     | -11.7   | -12.2 | 11.9   | 8.9                 | 31.9   | 33.7 | -42.8  | -43.5 | 13.0   | 12.6 |
| Active Emerging Markets (2)   |         |       |        |                     |        |      |        |       |        |      |
| Capital International         | -22.8   | -18.4 | 16.1   | 18.9                | 83.1   | 78.5 | -48.9  | -53.2 | 38.4   | 39.9 |
| Morgan Stanley                | -17.8   | -18.4 | 18.4   | 18.9                | 71.7   | 78.5 | -54.5  | -53.2 | 43.0   | 39.9 |
| Aggregate                     | -20.6   | -18.4 | 17.1   | 18.9                | 77.3   | 78.5 | -53.0  | -53.2 | 40.0   | 39.9 |
| Semi-Passive Developed Mark   | ets (1) |       |        |                     |        |      |        |       |        |      |
| AQR                           | -13.9   | -12.2 | 11.4   | 8.9                 | 36.0   | 33.7 | -44.0  | -43.5 | 9.0    | 12.6 |
| Pyramis (Fidelity)            | -12.6   | -12.2 | 11.5   | 8.9                 | 30.2   | 33.7 | -44.0  | -43.5 | 18.2   | 12.6 |
| State Street                  | -15.6   | -12.2 | 8.7    | 8.9                 | 34.9   | 33.7 | -45.3  | -43.5 | 9.1    | 12.6 |
| Aggregate                     | -13.8   | -12.2 | 10.6   | 8.9                 | 33.6   | 33.7 | -44.4  | -43.5 | 12.1   | 12.6 |
| Passive Developed Markets (1) |         |       |        |                     |        |      |        |       |        |      |
| State Street                  | -11.9   | -12.2 | 9.9    | 8.9                 | 34.0   | 33.7 | -43.4  | -43.5 | 12.9   | 12.6 |
| Equity Only (4) (5)           | -14.2   | 12 7  | 12.3   | 11.2                | 41.2   | 41.5 | -45.3  | 15 5  | 17.1   | 16.9 |
| Total Program (5)             | -14.2   |       | 12.3   | 11.2                | 41.2   | 41.5 | -45.3  |       | 17.1   | 16.9 |
| Total Program (5)             | -14.2   | -13.7 | 12.5   | 11.2                | 41.2   | 41.5 | -40.0  | -43.3 | 17.1   | 10.9 |
| SBI Int'l Equity Target (5)   |         | -13.7 |        | 11.2                |        | 41.5 |        | -45.5 |        | 16.9 |
| MSCI ACWI Free ex. U.S. (net) |         | -13.7 |        | 11.2                |        | 41.5 |        | -45.5 |        | 16.7 |
| MSCI World ex U.S. (net)      |         | -12.2 |        | 8.9                 |        | 33.7 |        | -43.6 |        | 12.4 |
| MSCI EAFE Free (net)          |         | -12.1 |        | 7.7                 |        | 31.8 |        | -43.4 |        | 11.2 |
| MSCI Emerging Markets Free (n | et)     | -18.4 |        | 18.9                |        | 78.5 |        | -53.3 |        | 39.4 |

(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 Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was MSCI Emerging Markets Free (net).

(3) Manager terminated effective 12/12/11. A transition manager managed the portfolio through 12/27/11. On 12/28/11 SSgA began managing the account as a MSCI Emerging Markets index passive portfolio.

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

(5) 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 March, 2012

#### Portfolio Manager: John Chisholm

#### Assets Under Management: \$275,241,834

#### **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    | 10.8%  | 10.4%     |
| Last 1 year     | -6.3   | -6.6      |
| Last 2 years    | 3.7    | 2.1       |
| Last 3 years    | 18.2   | 17.6      |
| Last 4 years    | -6.1   | -3.3      |
| Last 5 years    | -5.7   | -2.9      |
| Since Inception | 3.1    | 4.0       |
| (7/05)          |        |           |

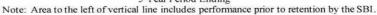
#### **Staff Comments**

No comment at this time.

#### Recommendations

No action required.





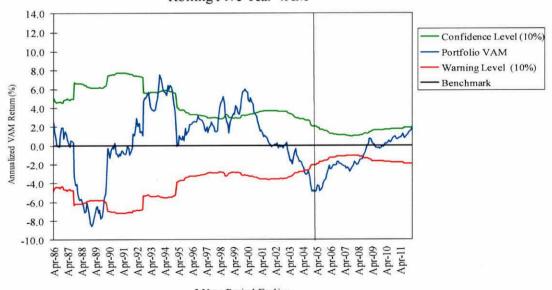
#### COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC (Formerly RiverSource Investments) Periods Ending March, 2012

| Portfolio Manager: Esther Perkins   | Assets Under Management: \$274  |
|---|---|
| <b>Investment Philosophy</b>  | Staff Comments  |
| RiverSource's philosophy focuses on key forces of<br>change in markets and the companies that will benefit.<br>The firm believes that in a global marketplace, where<br>sustainable competitive advantage is rare, their research<br>should focus on the dynamics of change. A good<br>understanding of the likely impact of these changes at a<br>company level, complemented with an appreciation of<br>the ability of management to exploit these changes,<br>creates significant opportunities to pick winners and<br>avoid losers. | Stock selection overall added value du<br>quarter and the year, particularly in the in-<br>information technology and consumer disc<br>sectors. |
| Quantitative Evaluation   | Recommendations   |
| Actual Benchmark  | No action required.   |

#### Last Quarter 13.2% 10.4%

| Last 1 year     | -4.0 | -6.6 |
|-----------------|------|------|
| Last 2 years    | 6.0  | 2.1  |
| Last 3 years    | 18.4 | 17.6 |
| Last 4 years    | -0.8 | -3.3 |
| Last 5 years    | -1.0 | -2.9 |
| Since Inception | 0.6  | 2.0  |
| (3/00)          |      |      |

#### COLUMBIA MANAGEMENT INVESTMENT ADVISERS Rolling Five Year VAM



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

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Assets Under Management: \$274,612,198

#### INVESCO GLOBAL ASSET MANAGMENT Periods Ending March, 2012

#### W. Lindsay Davidson **Portfolio Manager:**

#### **Investment Philosophy**

INVESCO believes they can add value by identifying and investing in companies whose share price does not reflect the proven and sustainable growth of the company's earnings and assets. They also believe that a systematic process that identifies mis-valued companies, combined with a consistently applied portfolio design process, can control the predictability and consistency of returns. Portfolios are constructed on a bottom-up basis; they select individual companies rather than countries, themes, or industry groups. This is the first of four cornerstones of their investment approach. Secondly, they conduct financial analysis on a broad universe of non-U.S. companies whose key financial data is adjusted to be comparable across borders and currencies. Third, Invesco believes that using local professionals enhances fundamental investment company research. Finally, they manage risk and assure broad diversification relative to clients' benchmarks through a statistics-based portfolio construction approach rather than resorting to country or industry constraints.

#### **Ouantitative Evaluation**

|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 7.4%   | 10.4%     |
| Last 1 year     | -8.9   | -6.6      |
| Last 2 years    | -1.4   | 2.1       |
| Last 3 years    | 14.5   | 17.6      |
| Last 4 years    | -2.8   | -3.3      |
| Last 5 years    | -3.5   | -2.9      |
| Since Inception | 3.1    | 2.0       |
| (3/00)          |        |           |

14.0 12.0

10.0

8.0

6.0 4.0 Assets Under Management: \$220,185,809

#### **Staff Comments**

Negative stock selection in the industrials, consumer discretionary, and information technology sectors contributed significantly to the portfolio's underperformance during the quarter and the year.

#### Recommendations

No action required.

Rolling Five Year VAM Confidence Level (10%) Portfolio VAM Warning Level (10%) Benchmark

Annualized VAM Retum (%) 2.0 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 Sep-05 Sep-06 Aar-12 Mar-03 Mar-05 Mar-06 Sep-02 ep-03 Aar-04 Sep-04 far-02 Sep-98 Sep-0 Aar-0 Sep-0 ep-60-5 Year Period Ending Note: Area to the left of vertical line includes performance prior to retention by the SBI.

INVESCO GLOBAL ASSET MANAGEMENT

#### J.P. MORGAN INVESTMENT MANAGEMENT INC. Periods Ending March, 2012

#### Portfolio Manager: James Fisher

#### Assets Under Management: \$240,834,950

#### **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    | 11.3%  | 10.4%     |
| Last 1 year     | -4.5   | -6.6      |
| Last 2 years    | 3.5    | 2.1       |
| Last 3 years    | 18.9   | 17.6      |
| Last 4 years    | -1.2   | -3.3      |
| Last 5 years    | -1.6   | -2.9      |
| Since Inception | 4.2    | 4.0       |
| (7/05)          |        |           |

**Staff Comments** 

Positive stock selection in the consumer discretionary sector as well as an underweight to and positive stock selection in the utilities sector contributed to the portfolio's outperformance during the quarter and the year.

#### Recommendations

No action required.



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

#### MARATHON ASSET MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: William Arah

#### 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    | 11.4%  | 10.4%     |  |  |
| Last 1 year     | -2.4   | -6.6      |  |  |
| Last 2 years    | 5.3    | 2.1       |  |  |
| Last 3 years    | 19.9   | 17.6      |  |  |
| Last 4 years    | 0.1    | -3.3      |  |  |
| Last 5 years    | 0.3    | -2.9      |  |  |
| Since Inception | 8.2    | 4.8       |  |  |
| (11/93)         |        |           |  |  |

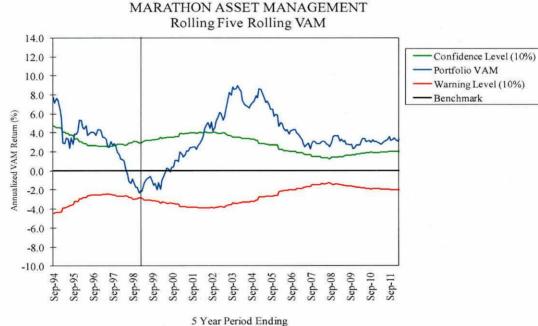
Assets Under Management: \$553,984,308

#### **Staff Comments**

Positive stock selection in the energy, materials and healthcare sectors contributed to the portfolio's outperformance during the quarter and the year.

#### Recommendations

No action required.



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

#### MCKINLEY CAPITAL MANAGEMENT, INC. Periods Ending March, 2012

#### Portfolio Manager: Robert A. Gillam

#### Assets Under Management: \$226,432,675

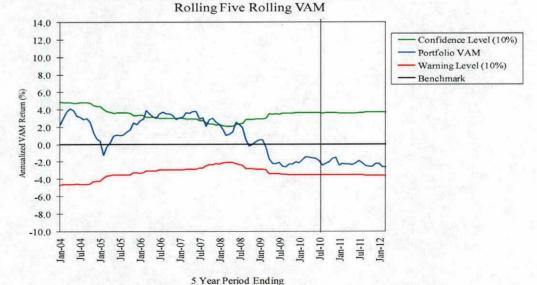
#### **Investment Philosophy**

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. Thev 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    | 10.9%  | 10.4%     |
| Last 1 year     | -7.8   | -6.6      |
| Last 2 years    | 1.7    | 2.1       |
| Last 3 years    | 14.0   | 17.6      |
| Last 4 years    | -6.8   | -3.3      |
| Last 5 years    | -5.4   | -2.9      |
| Since Inception | 2.5    | 4.0       |
| (7/05)          |        |           |

# 4.0 McKINLEY CAPITAL MANAGEMENT, INC.



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

Recommendations

No comment at this time.

No action required.

#### PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Active) (Formerly Fidelity Management Trust Company) Periods Ending March, 2012

| Portfolio Manager: N | Michael | Strong |
|----------------------|---------|--------|
|----------------------|---------|--------|

#### **Investment Philosophy**

International Growth is a core, growth-oriented 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, and Boston construct regional subportfolios, 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** Andreal

Denshansal

#### Assets Under Management: \$266,866,203

#### **Staff Comments**

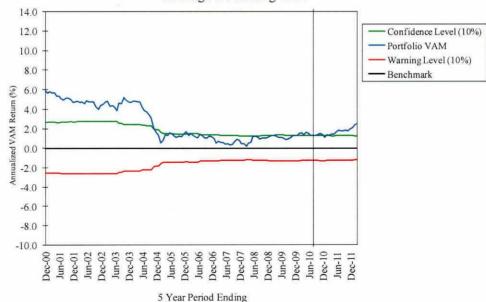
Stock selection overall added value in recent time periods, particularly in the industrials, information technology and telecommunications sectors.

Recommendations

|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 11.9%  | 10.4%     |
| Last 1 year     | -4.5   | -6.6      |
| Last 2 years    | 4.1    | 2.1       |
| Last 3 years    | 18.9   | 17.6      |
| Last 4 years    | -1.5   | -3.3      |
| Last 5 years    | -0.5   | -2.9      |
| Since Inception | 5.5    | 4.0       |
| (7/05)          |        |           |
|                 |        |           |

No action required.





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

#### CAPITAL INTERNATIONAL, INC. Periods Ending March, 2012

#### Portfolio Manager: Victor Kohn

#### Assets Under Management: \$737,491,262

#### **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    | 13.0%  | 14.1%     |
| Last 1 year     | -14.0  | -8.8      |
| Last 2 years    | -0.1   | 3.9       |
| Last 3 years    | 21.6   | 25.1      |
| Last 4 years    | 0.6    | 0.9       |
| Last 5 years    | 4.7    | 4.8       |
| Since Inception | 11.2   | 12.4      |
| (3/01)          |        |           |

No action required.

| Rolling Five Year VAM   |   |
|---|---|
| 14.0<br>12.0<br>10.0<br>8.0<br>6.0<br>4.0<br>2.0<br>0.0<br>-2.0<br>-4.0<br>-6.0<br>-8.0 | Confidence Level (10%)<br>Portfolio VAM<br>Warning Level (10%)<br>Benchmark |
| 0.011 000 000 000 000 000 000 000 000 00  |   |

CAPITAL INTERNATIONAL, INC.

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

#### **Staff Comments**

Stock selection in South Africa and in the materials and industrials sectors contributed negatively to performance during both the quarter and the year.

Recommendations

### A-83

#### MORGAN STANLEY INVESTMENT MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Ruchir Sharma

#### Assets Under Management: \$743,806,168

#### **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. While having added value over the year, stock selection in Brazil and Korea and an overweight position in the consumer staples sector detracted from the portfolio's quarterly returns.

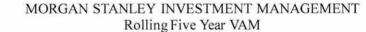
**Staff Comments** 

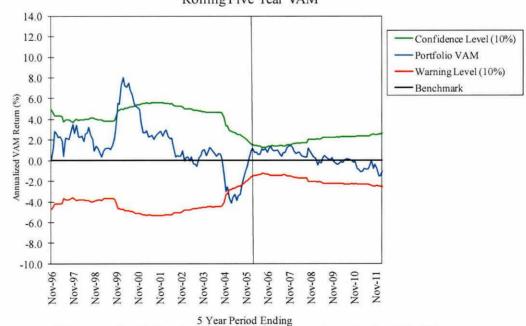
#### Quantitative Evaluation

|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 13.2%  | 14.1%     |
| Last 1 year     | -5.9   | -8.8      |
| Last 2 years    | 4.6    | 3.9       |
| Last 3 years    | 25.0   | 25.1      |
| Last 4 years    | 0.4    | 0.9       |
| Last 5 years    | 3.7    | 4.8       |
| Since Inception | 12.3   | 12.4      |
| (3/01)          |        |           |

## Recommendations

No action required.





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

#### AQR CAPITAL MANAGEMENT, LLC Periods Ending March, 2012

#### Portfolio Manager: Cliff Asness

#### Assets Under Management: \$258,439,311

#### **Investment Philosophy**

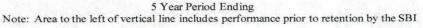
AQR employs a disciplined quantitative approach emphasizing both top-down country/currency allocation and bottom-up security selection decisions to generate excess returns. AQR's investment philosophy is based on the fundamental concepts of value and momentum. AQR's international equity product incorporates 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                                    |
|--------|--|
| 10.7%  | 10.4%  |
| -8.4   | -6.6   |
| 2.2    | 2,1  |
| 18.5   | 17.6   |
| -2.7   | -3.3   |
| -3.0   | -2.9   |
| 3.9    | 4.0  |
|        | 10.7%<br>-8.4<br>2.2<br>18.5<br>-2.7<br>-3.0 |

#### AQR CAPITAL MANAGEMENT, LLC Rolling Five Rolling VAM





Staff Comments

No comment at this time.

#### Recommendations

No action required.

#### PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Semi-Passive) (Formerly Fidelity Management Trust Company) Periods Ending March, 2012

| Portfolio Manager: 0 | Cesar Hernandez |
|----------------------|-----------------|
|----------------------|-----------------|

#### **Investment Philosophy**

Select International 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 combination of proprietary and third-party a optimization models to monitor and control risk within each regional module. Resulting portfolios typically contain between 275-325 holdings.

#### **Quantitative Evaluation**

|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 11.5%  | 10.4%     |
| Last 1 year     | -6.3   | -6.6      |
| Last 2 years    | 3.7    | 2.1       |
| Last 3 years    | 17.6   | 17.6      |
| Last 4 years    | -3.5   | -3.3      |
| Last 5 years    | -2.2   | -2.9      |
| Since Inception | 4.8    | 4.0       |
| (7/05)          |        |           |

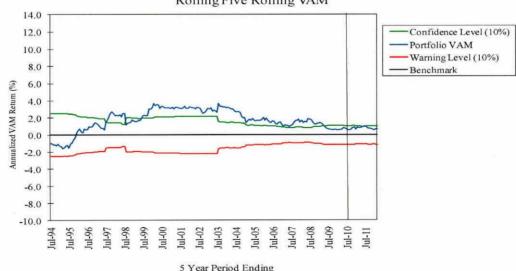
#### Assets Under Management: \$395,539,429

#### **Staff Comments**

Stock selection overall added value in recent time periods, particularly in the materials and telecommunications sectors.

#### Recommendations

No action required.



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

PYRAMIS GLOBAL ADVISORS TRUST Co. - SELECT INTL Rolling Five Rolling VAM

#### STATE STREET GLOBAL ADVISORS (Semi-Passive) Periods Ending March, 2012

#### Portfolio Manager: Didier Rosenfeld

#### Assets Under Management: \$240,330,752

#### **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 for through disciplined risk-control techniques. Country and regional allocations are a result of the security selection process but are managed to remain with +/-5% of the benchmarks allocation. Sector and industry allocations are managed to be within +/- 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**

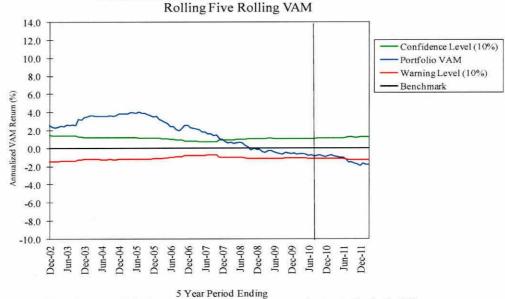
|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 11.0%  | 10.4%     |
| Last 1 year     | -10.6  | -6.6      |
| Last 2 years    | 0.1    | 2.1       |
| Last 3 years    | 16.5   | 17.6      |
| Last 4 years    | -4.6   | -3.3      |
| Last 5 years    | -4.6   | -2.9      |
| Since Inception | 2.8    | 4.0       |
| (7/05)          |        |           |

#### **Staff Comments**

No comment at this time.

Recommendations

No action required.



STATE STREET GLOBAL ADVISORS - ALPHA

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

#### STATE STREET GLOBAL ADVISORS (Passive Emerging Markets) Periods Ending March, 2012

#### 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    | 13.5%  | 14.1%     |
| Last 1 year     | N/A    | N/A       |
| Last 2 years    | N/A    | N/A       |
| Last 3 years    | N/A    | N/A       |
| Last 4 years    | N/A    | N/A       |
| Last 5 years    | N/A    | N/A       |
| Since Inception | 13.5   | 14.1      |
| (12/11)         |        |           |

#### Assets Under Management: \$164,031,721

#### **Staff Comments**

SSgA began managing the passive emerging markets equity portfolio at the end of 2011, following the termination of AllianceBernstein. The portfolio realized negative tracking error relative to the index during the first quarter primarily due to underweights to restricted securities (Iran and Sudan restrictions) and subsequent overweights that resulted from holding higher-than-benchmark-weights in other names.

#### Recommendation

No action required.

VAM Graph will be drawn for period ending 3/31/14.

#### STATE STREET GLOBAL ADVISORS (Passive Developed Markets) Periods Ending March, 2012

#### Portfolio Manager: Lynn Blake

#### Assets Under Management: \$2,568,276,291

#### **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    | 10.4%  | 10.4%     |
| Last 1 year     | -6.3   | -6.6      |
| Last 2 years    | 2.7    | 2.1       |
| Last 3 years    | 18.2   | 17.6      |
| Last 4 years    | -2.9   | -3.3      |
| Last 5 years    | -2.5   | -2.9      |
| Since Inception | 6.2    | 5.9       |
| (10/92)         |        |           |

#### Staff Comments

The portfolio's positive tracking error is within expectation over all time periods.

#### Recommendation

No action required.



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# STATE BOARD OF INVESTMENT

Non-Retirement Manager Evaluation Reports

First Quarter, 2012

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## **Non-Retirement Managers**

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#### NON - RETIREMENT MANAGERS Periods Ending March, 2012

|  |                    |                   |                      |                |                     |                 | Since (1)           |                 |                         |                |                                  |  |  |
|--|--------------------|-------------------|----------------------|----------------|---------------------|-----------------|---------------------|-----------------|-------------------------|----------------|----------------------------------|--|--|
|  | Qu:<br>Actual<br>% | arter<br>Bmk<br>% | 1 Ye:<br>Actual<br>% | ar<br>Bmk<br>% | 3 Ye<br>Actual<br>% | ars<br>Bmk<br>% | 5 Ye<br>Actual<br>% | ars<br>Bmk<br>% | Inceptio<br>Actual<br>% | on<br>Bmk<br>% | Market<br>Value<br>(in millions) |  |  |
| GE Asset Management<br>(S&P 500 Index)                                       | 14.4               | 12.6              | 5.7                  | 8.5            | 20.8                | 23.4            | 2.7                 | 2.0             | 9.2                     | 8.7            | \$75.2                           |  |  |
| RBC Global Asset Management (2)<br>(Barclays Capital Intermediate Gove       | -0.3<br>rnment)    | -0.4              | 5.4                  | 5.6            | 7.6                 | 3.7             | 5.0                 | 5.5             | 6.0                     | 6.2            | \$207.9                          |  |  |
| Galliard Capital Management<br>(3 yr. Constant Maturity Treasury<br>+ 45 bp) | 0.7                | 0.2               | 3.3                  | 1.0            | 3.9                 | 1.4             | 4.2                 | 2.2             | 5.3                     | 4.2            | \$1,456.8                        |  |  |
| Internal Stock Pool<br>(S&P 500 Index)                                       | 12.5               | 12.6              | 8.6                  | 8.5            | 23.4                | 23.4            | 2.1                 | 2.0             | 8.4                     | 8.3            | \$1,144.9                        |  |  |
| Internal Bond Pool - Income Share<br>(Barclays Capital Aggregate) (3)        | 1.7                | 0.3               | 6.3                  | 7.7            | 8.2                 | 6.8             | 6.5                 | 6.2             | 7.6                     | 7.2            | \$90.1                           |  |  |
| Internal Bond Pool - Trust<br>(Barclays Capital Aggregate)                   | 1.5                | 0.3               | 6.3                  | 7.7            | 7.6                 | 6.8             | 6.6                 | 6.2             | 7.1                     | 6.6            | \$669.1                          |  |  |

(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.

(3) Prior to July 1994, the benchmark was the Solomon BIG.

#### NON - RETIREMENT MANAGERS Calendar Year Returns

|  | 20            | 2011 2010 |             | 200      | 09          | 200      | 8           | 2007     |             |          |
|--|---------------|-----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|
|  | Actual<br>%   | Bmk<br>%  | Actual<br>% | Bmk<br>% | Actual<br>% | Bmk<br>% | Actual<br>% | Bmk<br>% | Actual<br>% | Bmk<br>% |
| GE Asset Management<br>(S&P 500 Index)                                       | -2.2          | 2.1       | 10.7        | 15.1     | 32.3        | 26.5     | -35.6       | -37.0    | 8.5         | 5.5      |
| RBC Global Asset Management (1)<br>(Barclays Capital intermediate Govern     | 7.1<br>nment) | 6.2       | 8.4         | 5.0      | 8.3         | 0.9      | -2.4        | 9.5      | 5.8         | 7.9      |
| Galliard Capital Management<br>(3 yr. Constant Maturity Treasury<br>+ 45 bp) | 3.4           | 1.2       | 4.1         | 1.5      | 4.7         | 1.9      | 4.7         | 2.6      | 4.8         | 4.7      |
| Internal Stock Pool<br>(S&P 500 Index)                                       | 2.2           | 2.1       | 15.1        | 15.1     | 26.3        | 26.5     | -36.7       | -37.0    | 5.5         | 5.5      |
| Internal Bond Pool - Income Share<br>(Barclays Capital Aggregate)            | 5.3           | 7.8       | 7.0         | 6.5      | 12.9        | 5.9      | 1.3         | 5.2      | 6.4         | 7.0      |
| Internal Bond Pool - Trust<br>(Barclays Capital Aggregate)                   | 5.6           | 7.8       | 6.3         | 6.5      | 12.2        | 5.9      | 2.6         | 5.2      | 7.1         | 7.0      |

 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

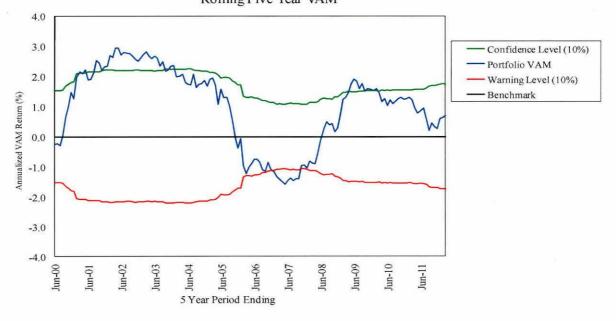
GE's Multi-Style Equity program attempts to outperform the S&P 500 consistently while controlling overall portfolio risk through a multiple manager approach. A value portfolio, a growth portfolio and a research portfolio are combined to create a well diversified equity portfolio while maintaining low 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    | 14.4%  | 12.6%     |
| Last 1 year     | 5.7    | 8.5       |
| Last 2 years    | 8.6    | 12.0      |
| Last 3 years    | 20.8   | 23.4      |
| Last 4 years    | 3.8    | 3.9       |
| Last 5 years    | 2.7    | 2.0       |
| Since Inception | 9.2    | 8.7       |
| (1/95)          |        |           |

No action required.

GE ASSET MANAGEMENT Rolling Five Year VAM



#### Assets Under Management: \$75,246,885

#### **Staff Comments**

Recommendation

No comment at this time.

#### RBC GLOBAL ASSET MANAGEMENT (U.S.) - Assigned Risk Plan Periods Ending March, 2012

Portfolio Manager: John Huber

#### Investment Philosophy Assigned Risk Plan

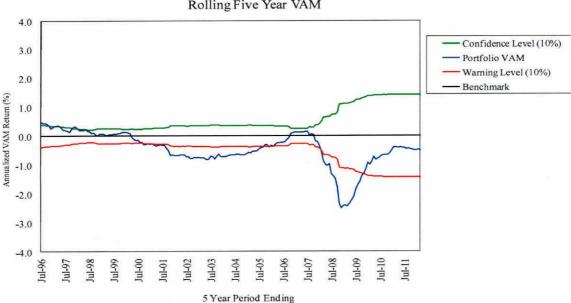
RBC uses a top-down approach to fixed income investing. Their objective is to obtain superior long-term investment returns over a pre-determined benchmark that reflects the quality constraints and risk tolerance of the Assigned Risk Plan. Due to the specific liability requirement of the plan, return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

#### **Quantitative Evaluation**

|                 | Actual | Benchmark* |
|-----------------|--------|------------|
| Last Quarter    | -0.3%  | -0.4%      |
| Last 1 year     | 5.4    | 5.6        |
| Last 2 years    | 6.1    | 4.8        |
| Last 3 years    | 7.6    | 3.7        |
| Last 4 years    | 5.1    | 4.4        |
| Last 5 years    | 5.0    | 5.5        |
| Since Inception | 6.0    | 6.2        |
| (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 Rolling Five Year VAM

#### Assets Under Management: \$207,946,174

#### Staff Comments

No comment at this time.

#### Recommendation

#### GALLIARD CAPITAL MANAGEMENT Periods Ending March, 2012

#### Portfolio Manager: Karl Tourville

#### Assets Under Management: \$1,456,778,994

#### **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 instruments diversified among traditional investment contracts and alternative 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**

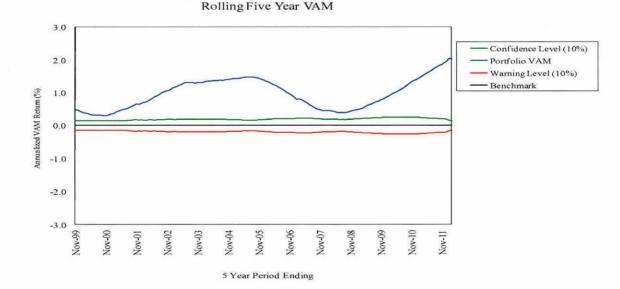
|                 | Actual | Benchmark |
|-----------------|--------|-----------|
| Last Quarter    | 0.7%   | 0.2%      |
| Last 1 year     | 3.3    | 1.0       |
| Last 2 years    | 3.6    | 1.2       |
| Last 3 years    | 3.9    | 1.4       |
| Last 4 years    | 4.1    | 1.7       |
| Last 5 years    | 4.2    | 2.2       |
| Since Inception | 5.3    | 4.2       |
| (11/94)         |        |           |

#### **Staff Comments**

No comment at this time.

#### Recommendation

No action required.



Galliard Capital Management

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    | 12.5%  | 12.6%     |
| Last 1 year     | 8.6    | 8.5       |
| Last 2 years    | 12.1   | 12.0      |
| Last 3 years    | 23.4   | 23.4      |
| Last 4 years    | 4.0    | 3.9       |
| Last 5 years    | 2.1    | 2.0       |
| Since Inception | 8.4    | 8.3       |
| (7/93)          |        |           |

No action required.

Trust/Non-Retirement Assets Rolling Five Year VAM 1.0 - Confidence Level (10%) Portfolio VAM Warning Level (10%) 0.5 Benchmark Annualized VAM Return (%) 0.0 -0.5 -1.0 86-Iul Jul-10 Jul-11 Jul-00 Jul-05 Jul-06 Jul-07 Jul-08 90-lul 99-lul Jul-02 Jul-03 Jul-04 Jul-01

INTERNAL STOCK POOL



#### **Staff Comments**

Assets Under Management: \$1,144,860,153

No comment at this time.

#### Recommendation

#### Portfolio Manager: Mike Menssen

#### Investment Philosophy Income Share Account

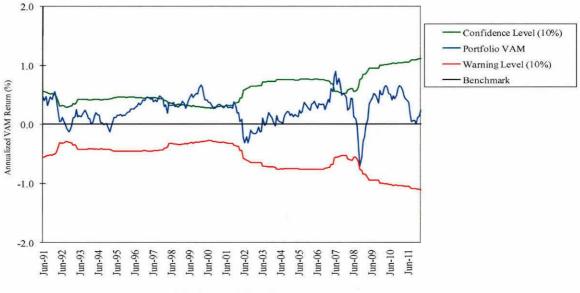
The investment approach emphasizes sector and security selection. The approach utilizes sector trading and relative spread analysis of both sectors and individual issues. The portfolio weightings in mortgage and corporate securities are consistently equal to or greater than the market weightings. The 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    | 1.7%   | 0.3%      |
| Last 1 year     | 6.3    | 7.7       |
| Last 2 years    | 5.9 .  | 6.4       |
| Last 3 years    | 8.2    | 6.8       |
| Last 4 years    | 6.8    | 5.9       |
| Last 5 years    | 6.5    | 6.2       |
| Since Inception | 7.6    | 7.2       |
| (7/86)          |        |           |

No action required.

INTERNAL BOND POOL - INCOME SHARE ACCOUNT Rolling Five Year VAM



Five Year Period Ending

#### Assets Under Management: \$90,122,870

#### **Staff Comments**

Recommendation

No comment at this time.

Portfolio Manager: Mike Menssen

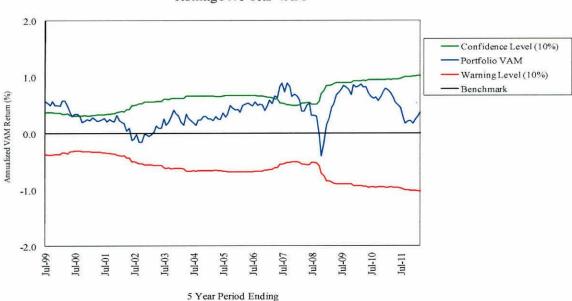
#### **Investment Philosophy Environmental Trust Fund Permanent School Trust Fund**

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    | 1.5%   | 0.3%      |
| Last 1 year     | 6.3    | 7.7       |
| Last 2 years    | 5.8    | 6.4       |
| Last 3 years    | 7.6    | 6.8       |
| Last 4 years    | 6.7    | 5.9       |
| Last 5 years    | 6.6    | 6.2       |
| Since Inception | 7.1    | 6.6       |
| (7/94)*         |        |           |

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



#### INTERNAL BOND POOL - TRUST/NON-RETIREMENT ASSETS Rolling Five Year VAM

**Staff Comments** 

No comment at this time.

Recommendation

No action required.

A-101

Assets Under Management: \$669,058,377

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# STATE BOARD OF INVESTMENT

Deferred Compensation Plan Evaluation Reports

First Quarter, 2012

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## **Deferred Compensation Plan**

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#### MN STATE 457 DEFERRED COMPENSATION PLAN FUND OPTIONS (1) Periods Ending March, 2012

|   | Qu           | Quarter 1 Year |        | 3 Years 5 Y |        |      | Since (2)<br>5 Years Retention |      |        | State's<br>Participation |                 |
|---|--------------|----------------|--------|-------------|--------|------|--------------------------------|------|--------|--------------------------|-----------------|
| 457 Mutual Funds  | Actual       | Bmk            | Actual | Bmk         | Actual | Bmk  | Actual                         | Bmk  | by S   | BI                       | In Fund         |
|   | %            | %              | %      | %           | %      | %    | %                              | %    | %      | %                        | (\$ millions)   |
| Large Cap Equity:   |              |                |        |             |        |      |                                |      |        |                          |                 |
| Janus Twenty  | 20.1         | 12.6           | 9.0    | 8.5         | 19.0   | 23.4 | 5.4                            | 2.0  | 2.0    | 2.0                      | \$412.7         |
| (S&P 500)   |              |                |        |             |        |      |                                |      | -      |                          |                 |
| Vanguard Institutional Index Plus<br>(S&P 500)  | 12.6         | 12.6           | 8.5    | 8.5         | 23.5   | 23.4 | 2.1                            | 2.0  | 2.1    | 2.0                      | \$610.3         |
| Mid Cap Equity:   |              |                |        |             |        |      |                                |      |        |                          |                 |
| Vanguard Mid-Cap Index  | 13.4         | 13.4           | 2.8    | 2.8         | 28.9   | 29.0 | 3.0                            | 3.0  | 8.1    | 8.1                      | \$235.4         |
| (MSCI US Mid-Cap 450)   |              |                |        |             |        |      |                                |      | 1.5005 |                          |                 |
| Small Cap Equity:   |              |                |        |             |        |      |                                |      |        |                          |                 |
| T. Rowe Price Small-Cap Stock   | 13.5         | 12.4           | 3.9    | -0.2        | 32.0   | 26.9 | 5.8                            | 2.1  | 9.3    | 6.2                      | \$450.0         |
| (Russell 2000)  |              |                |        |             |        |      |                                |      |        |                          | 100000000000000 |
| Balanced:   |              |                |        |             |        |      |                                |      |        |                          |                 |
| Vanguard Balanced Index Inst. Fund<br>(60% MSCI US Broad Market,<br>40% Barclays Capital Agg) | 7.7          | 7.8            | 8.1    | 7.9         | 17.6   | 17.6 | 4.6                            | 4.4  | 6.3    | 6.2                      | \$496.8         |
| Bond:   |              |                |        |             |        |      |                                |      |        |                          |                 |
| Dodge & Cox Income Fund<br>(Barclays Capital Aggregate)                                       | 3.0          | 0.3            | 6.4    | 7.7         | 10.2   | 6.8  | 6.7                            | 6.2  | 6.6    | 6.2                      | \$175.1         |
| Vanguard Total Bond Market Index Inst.  | 0.3          | 0.3            | 7.7    | 7.7         | 6.8    | 6.8  | 6.3                            | 6.2  | 5.4    | 5.4                      | \$174.6         |
| (Barclays Capital Aggregate)  | ALE ( S. H.) |                |        |             | 0.0    | 0.0  | 0.5                            | 0.2  | 5.1    | 5.4                      | \$174.0         |
| International:  |              |                |        |             |        |      |                                |      |        |                          |                 |
| Fidelity Diversified International  | 12.6         | 10.9           | -5.9   | -5.8        | 16.8   | 17.1 | -2.8                           | -3.5 | 6.2    | 2.9                      | \$220.5         |
| (MSCI EAFE-Free)  |              |                |        |             |        |      |                                |      |        |                          |                 |
| Vanguard Total International Stock Index<br>(ACWI ex US IMI) (3)                              | 12.0         | 11.6           | -7.1   | -7.3        | 18.7   | 18.7 | -2.0                           | -2.0 | -7.7   | -7.6                     | \$100.6         |

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 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 March, 2012

|                              |               |             |               |      |                |      |                |          |                  | Retention | State                    |
|------------------------------|---------------|-------------|---------------|------|----------------|------|----------------|----------|------------------|-----------|--------------------------|
| SSgA Target Retirement Funds | Qua<br>Actual | rter<br>Bmk | 1 Y<br>Actual |      | 3 Ye<br>Actual |      | 5 Ye<br>Actual |          | by the<br>Actual |           | Participation<br>in Fund |
| Soga Target Retirement Funds | %             | %           | %             | %    | %              | %    | %              | ыпк<br>% | Actual<br>%      | ыпк<br>%  | (\$ millions)            |
| Income Fund                  | 4.9           | 5.0         | 6.9           | 7.1  | 12.3           | 12.6 | 4.9            | 4.9      | 5.4              | 5.5       | \$9.2                    |
| 2015 Fund                    | 5.2           | 5.3         | 9.3           | 9.5  | 15.6           | 15.5 | 5.1            | 4.8      | 7.6              | 7.7       | \$13.0                   |
| 2020 Fund                    | 6.0           | 6.1         | 10.1          | 10.2 | 18.2           | 18.2 | 4.7            | 4.5      | 8.7              | 8.8       | \$13.6                   |
| 2025 Fund                    | 7.4           | 7.5         | 9.4           | 9.5  | 19.7           | 19.6 | 4.4            | 4.1      | 8.4              | 8.5       | \$8.1                    |
| 2030 Fund                    | 8.1           | 8.2         | 8.8           | 8.9  | 20.8           | 20.8 | 3.9            | 3.7      | 8.0              | 8.2       | \$5.9                    |
| 2035 Fund                    | 8.9           | 9.0         | 7.8           | 8.0  | 21.7           | 21.7 | 3.5            | 3.2      | 7.2              | 7.4       | \$3.1                    |
| 2040 Fund                    | 9.8           | 9.9         | 6.2           | 6.4  | 22.2           | 22.3 | 2.8            | 2.7      | 5.8              | 6.0       | \$2.0                    |
| 2045 Fund                    | 10.5          | 10.6        | 5.2           | 5.3  | 22.2           | 22.2 | 2.8            | 2.7      | 4.9              | 5.1       | \$0.9                    |
| 2050 Fund                    | 10.5          | 10.6        | 5.2           | 5.3  | 22.1           | 22.2 | 2.8            | 2.7      | 4.9              | 5.1       | \$0.4                    |
| 2055 Fund                    | 10.5          | 10.6        | 5.2           | 5.3  | 22.1           | 22.2 |                |          | 4.9              | 5.1       | \$0.3                    |
| 2060 Fund                    | 10.5          | 10.6        |               |      |                |      |                |          | 4.9              | 5.1       | \$0.2                    |

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.

|   | Qua    | rter | 1 Y    | ear  | 3 Ye   | ars  | 5 Ye   | ars |      |      |
|---|--------|------|--------|------|--------|------|--------|-----|------|------|
| SSgA Index Funds  | Actual | Bmk  | Actual | Bmk  | Actual | Bmk  | Actual | Bmk |      |      |
|   | %      | %    | %      | %    | %      | %    | %      | %   |      |      |
| S&P 500 Index Fund<br>(S&P 500)   | 12.6   | 12.6 | 8.5    | 8.5  | 23.4   | 23.4 | 2.1    | 2.0 | 8.4  | 8.4  |
| S&P Mid Cap Index Fund<br>(S&P 400)   | 13.5   | 13.5 | 2.0    | 2.0  | 28.5   | 28.5 | 4.8    | 4.8 | 2.8  | 2.7  |
| Russell Small Cap Index Fund<br>(Russell 2000)                                  | 12.4   | 12.4 | -0.2   | -0.2 | 26.7   | 26.9 | 2.1    | 2.1 | 1.4  | 1.4  |
| Global All Cap Equity ex US Index Fund<br>(MSCI ACWI ex U.S. IMI)               | 11.5   | 11.6 | -7.1   | -7.3 |        |      |        |     | -7.5 | -7.6 |
| Global Real Estate Securities Index Fund<br>(FTSE EPRA/NAREIT Dev Liquid)       | 12.8   | 12.7 | 3.8    | 3.0  |        |      |        |     | 0.7  | 0.1  |
| Long Government Bond Index Fund<br>(Barclays Capital Long Government)           | -5.6   | -5.6 | 23.0   | 23.0 | 7.4    | 7.4  | 9.3    | 9.3 | 19.1 | 19.1 |
| Bond Index Fund<br>(Barclays Capital Aggregate)                                 | 0.3    | 0.3  | 7.7    | 7.7  | 7.0    | 6.8  | 6.4    | 6.2 | 5.3  | 5.3  |
| Inflation Protection Bond Index Fund<br>(Barclays Capital U.S. TIPS)            | 0.8    | 0.9  | 12.1   | 12.2 | 8.7    | 8.7  | 7.5    | 7.6 | 8.2  | 8.2  |
| High Yield Bond Index Fund<br>(Barclays Capital U.S. High Yield Very Liquid     | 5.1    | 5.2  | 7.0    | 7.3  |        |      |        |     | 6.2  | 6.4  |
| U.S. Short-Term Govt/Credit Index Fund<br>(Barclays Capital 1-3 Yr Govt/Credit) | 3.0    | 0.4  | 4.4    | 1.8  |        |      |        |     | 3.6  | 0.9  |

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

|   | 20     | 11    | 20     | 10   | 200    | 09   | 200    | )8    | 200    | 07   |
|---|--------|-------|--------|------|--------|------|--------|-------|--------|------|
| 457 Mutual Funds  | Actual | Bmk   | Actual | Bmk  | Actual | Bmk  | Actual | Bmk   | Actual | Bmk  |
|   | %      | %     | %      | %    | %      | %    | %      | %     | %      | %    |
| Large Cap Equity:   |        |       |        |      |        |      |        |       |        |      |
| Janus Twenty  | -8.2   | 2.1   | 7.0    | 15.1 | 43.3   | 26.5 | -42.0  | -37.0 | 35.9   | 5.5  |
| (S&P 500)   |        |       |        |      |        |      |        |       |        |      |
| Vanguard Institutional Index Plus<br>(S&P 500)  | 2.1    | 2.1   | 15.1   | 15.1 | 26.7   | 26.5 | -36.9  | -37.0 | 5.5    | 5.5  |
| Mid Cap Equity:   |        |       |        |      |        |      |        |       |        |      |
| Vanguard Mid-Cap Index  | -2.0   | -1.9  | 25.7   | 25.7 | 40.5   | 40.5 | -41.8  | -41.8 | 6.2    | 6.2  |
| (MSCI US Mid-Cap 450)   |        |       |        |      |        |      |        |       |        |      |
| Small Cap Equity:   |        |       |        |      |        |      |        |       |        |      |
| T. Rowe Price Small-Cap Stock   | -0.1   | -4.2  | 32.5   | 26.9 | 38.5   | 27.2 | -33.4  | -33.8 | -1.7   | -1.6 |
| (Russell 2000)  |        |       |        |      |        |      |        |       |        |      |
| Balanced:   |        |       |        |      |        |      |        |       |        |      |
| Vanguard Balanced Index Inst. Fund<br>(60% MSCI US Broad Market,<br>40% Barclays Capital Agg) | 4.3    | 4.1   | 13.3   | 13.5 | 20.2   | 19.7 | -22.1  | -22.4 | 6.3    | 6.3  |
| Bond:   |        |       |        |      |        |      |        |       |        |      |
| Dodge & Cox Income Fund   | 4.8    | 7.8   | 7.2    | 6.5  | 16.1   | 5.9  | -0.3   | 5.2   | 4.7    | 7.0  |
| (Barclays Capital Aggregate)  |        |       |        |      |        |      | 8      |       |        |      |
| Vanguard Total Bond Market Index Inst.  | 7.7    | 7.8   | 6.6    | 6.5  | 6.1    | 5.9  | 5.2    | 5.2   | 7.0    | 7.0  |
| (Barclays Capital Aggregate)  |        |       |        |      |        |      |        |       |        |      |
| International:  |        |       |        |      |        |      |        |       |        |      |
| Fidelity Diversified International  | -13.8  | -12.1 | 9.7    | 7.7  | 31.8   | 31.8 | -45.2  | -43.4 | 16.0   | 11.2 |
| (MSCI EAFE-Free)  |        |       |        |      |        |      |        |       |        |      |
| Vanguard Total International Stock Index<br>(ACWI ex US IMI) (2)                              | -14.6  | -14.3 | 11.1   | 10.7 | 36.7   | 40.4 | -44.1  | -45.5 | 15.5   | 15.9 |

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 are reported under the Deferred Compensation Plan accounts within Tab A.
- (2) Benchmark is the 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

|                              | 201             | 1        | 201      | 10        | 20        | 09        | 200        | )8         | 200      | 07       |  |
|------------------------------|-----------------|----------|----------|-----------|-----------|-----------|------------|------------|----------|----------|--|
| SSgA Target Retirement Funds | Actual          | Bmk      | Actual   | Bmk       | Actual    | Bmk       | Actual     | Bmk        | Actual   | Bmk      |  |
| Income Fund                  | <b>%</b><br>4.6 | %<br>4.8 | %<br>9.6 | %<br>10.1 | %<br>14.8 | %<br>15.0 | %<br>-12.9 | %<br>-13.2 | %<br>6.4 | %<br>6.7 |  |
| 2015 Fund                    | 6.9             | 7.1      | 12.1     | 12.5      | 15.3      | 14.4      | -16.7      | -17.6      | 6.9      | 7.2      |  |
| 2020 Fund                    | 7.3             | 7.4      | 13.6     | 13.9      | 18.3      | 17.5      | -22.2      | -23.1      | 7.2      | 7.4      |  |
| 2025 Fund                    | 5.9             | 6.0      | 14.6     | 14.7      | 20.3      | 19.6      | -25.2      | -26.1      | 7.6      | 7.7      |  |
| 2030 Fund                    | 4.9             | 5.0      | 15.1     | 15.3      | 21.9      | 21.4      | -28.1      | -29.0      | 7.7      | 7.8      |  |
| 2035 Fund                    | 3.5             | 3.6      | 15.7     | 15.8      | 24.3      | 23.9      | -30.9      | -31.6      | 7.8      | 7.9      |  |
| 2040 Fund                    | 1.5             | 1.6      | 15.9     | 16.1      | 26.7      | 26.5      | -33.6      | -34.1      | 7.8      | 7.9      |  |
| 2045 Fund                    | 0.0             | 0.1      | 16.2     | 16.2      | 27.2      | 27.0      | -33.7      | -34.1      | 8.1      | 8.2      |  |
| 2050 Fund                    | 0.1             | 0.1      | 16.1     | 16.2      | 27.2      | 27.0      | -33.5      | -34.1      | 8.5      | 8.5      |  |
| 2055 Fund                    | 0.1             | 0.1      | 16.1     | 16.2      | 27.2      | 27.0      | -33.5      | -34.1      |          |          |  |
| 2060 Fund                    |                 |          |          |           |           |           |            |            |          |          |  |

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.

|  | 201    | 11   | 20     | 10   | 20     | 09    | 200    | )8    | 200    | 07   |  |
|--|--------|------|--------|------|--------|-------|--------|-------|--------|------|--|
| SSgA Index Funds   | Actual | Bmk  | Actual | Bmk  | Actual | Bmk   | Actual | Bmk   | Actual | Bmk  |  |
|  | %      | %    | %      | %    | %      | %     | %      | %     | %      | %    |  |
| S&P 500 Index Fund   | 2.1    | 2.1  | 15.1   | 15.1 | 26.7   | 26.5  | -36.9  | -37.0 | 5.5    | 5.5  |  |
| (S&P 500)  |        |      |        |      |        |       |        |       |        |      |  |
| S&P Mid Cap Index Fund   | -1.7   | -1.7 | 26.6   | 26.6 | 37.3   | 37.4  | -36.1  | -36.2 | 8.0    | 8.0  |  |
| (S&P 400)  |        |      |        |      |        |       |        |       |        |      |  |
| Russell Small Cap Index Fund<br>(Russell 2000)                                       | -4.1   | -4.2 | 26.7   | 26.9 | 26.8   | 27.2  | -33.6  | -33.8 | -1.7   | -1.6 |  |
| Global All Cap Equity ex U.S. Index Fund<br>(MSCI ACWI ex U.S. IMI)                  |        |      |        |      |        |       |        |       |        |      |  |
| Global Real Estate Securities Index Fund   | -5.4   | -5.8 | 19.1   | 18.4 |        |       |        |       |        |      |  |
| (FTSE EPRA/NAREIT Dev Liquid)  | 20.2   | 20.1 | 0.5    | 0.4  | 10.0   | 12.0  | 22.6   | 22.7  | 0.7    | 0.0  |  |
| Long Government Bond Index Fund<br>(Barclays Capital Long Government)                | 29.2   | 29.1 | 9.5    | 9.4  | -12.2  | -12.2 | 22.6   | 22.7  | 9.6    | 9.6  |  |
| Bond Index Fund<br>(Barclays Capital Aggregate)                                      | 7.8    | 7.8  | 6.6    | 6.5  | 6.4    | 5.9   | 5.6    | 5.2   | 7.0    | 7.0  |  |
| Inflation Protection Bond Index Fund<br>(Barclays Capital U.S. TIPS)                 | 13.5   | 13.6 | 6.2    | 6.3  | 11.3   | 11.4  | -2.4   | -2.4  | 11.6   | 11.6 |  |
| High Yield Bond Index Fund<br>(Barclays Capital U.S. High Yield Very Liquid)         | 5.7    | 6.1  | 12.5   | 15.1 |        |       |        |       |        |      |  |
| U.S. Short-Term Govt/Credit Bond Index Fund<br>(Barclays Capital 1-3 Yr Govt/Credit) | 1.5    | 1.6  | 2.4    | 2.8  |        |       |        |       |        |      |  |
|  |        |      |        |      |        |       |        |       |        |      |  |

Numbers in blue include returnsprior 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 March, 2012

| Portfolio Manager: Ron Sachs   | State's Participation in Fund:<br>Total Assets in Fund: | \$412,670,561<br>\$8,700,000,000 |
|--|---|----------------------------------|
| Investment Philosophy<br>Janus Twenty  | Staff Comments  |                                  |
| The investment objective of this fund is long-term<br>growth of capital from increases in the market value of<br>the stocks it owns. The fund will concentrate its<br>investments in a core position of between twenty to<br>thirty common stocks. This non-diversified fund seeks<br>to invest in companies that the portfolio manager<br>believes have strong current financial positions and<br>offer growth potential. | No comment at this time.                                |                                  |
| Quantitative Evaluation  | Recommendation  |                                  |

#### ve Evaluation

#### Benchmark\* Actual Last Quarter 20.1% 12.6% Last 1 year 9.0 8.5 12.0 Last 2 years 6.6 Last 3 years 19.0 23.4 3.9 Last 4 years 1.1 2.0 Last 5 years 5.4 Since Retention 2.0 2.0 by SBI (7/99)

No action required.

\*Benchmark is the S&P 500.



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

#### **MN STATE 457 DEFERRED COMPENSATION PLAN** EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS Periods Ending March, 2012

| Portfolio Manager: Mike Buek  | State's Participation in Fund:<br>Total Assets in Fund: | \$610,304,895<br>\$43,246,000,000 |
|---|---|-----------------------------------|
| Investment Philosophy<br>Vanguard Institutional Index   | Staff Comments  |                                   |
| This fund attempts to provide investment results, before<br>fund expenses, that parallel the performance of the<br>Standard & Poor's 500 Index. The fund invests in all<br>500 stocks listed in the S&P 500 index in approximately<br>the same proportions as they are represented in the | No comment at this time.                                |                                   |

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.

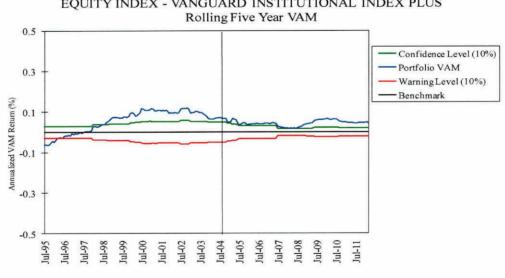
#### **Quantitative Evaluation**

## Recommendation

|                 | Actual | Benchmark* |
|-----------------|--------|------------|
| Last Quarter    | 12.6%  | 12.6%      |
| Last 1 year     | 8.5    | 8.5        |
| Last 2 years    | 12.0   | 12.0       |
| Last 3 years    | 23.5   | 23.4       |
| Last 4 years    | 3.9    | 3.9        |
| Last 5 years    | 2.1    | 2.0        |
| Since Retention | 2.1    | 2.0        |
| by SBI (7/99)   |        |            |

No action required.

\*Benchmark is the S&P 500.



EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS

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 March, 2012

| State's Participation in Fund: | \$235,369,532   |
|--------------------------------|-----------------|
| <b>Total Assets in Fund:</b>   | \$6,869,000,000 |

#### **Investment Philosophy** Vanguard Mid-Cap Index

Portfolio Manager: Donald Butler

The fund employs a "passive management"- or indexinginvestment approach designed to track the performance of the MSCI US Mid Cap 450 Index, a broadly diversified index of stocks of medium-size U.S. companies. The fund attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting within the index.

#### **Quantitative Evaluation**

|                 | Actual | Benchmark* |
|-----------------|--------|------------|
| Last Quarter    | 13.4%  | 13.4%      |
| Last 1 year     | 2.8    | 2.8        |
| Last 2 years    | 13.4   | 13.4       |
| Last 3 years    | 28.9   | 29.0       |
| Last 4 years    | 6.3    | 6.3        |
| Last 5 years    | 3.0    | 3.0        |
| Since Retention | 8.1    | 8.1        |
| by SBI (1/04)   |        |            |

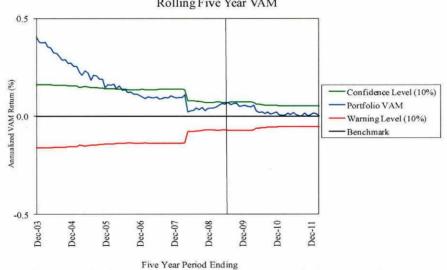
\*Benchmark is the MSCI US Mid Cap 450.

#### **Staff Comments**

No comment at this time.

Recommendation

No action required.



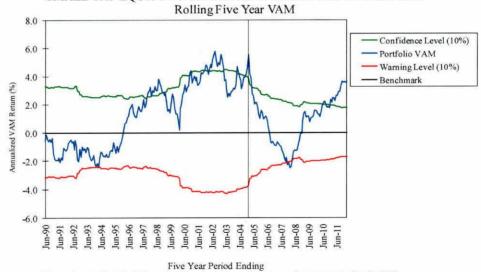
#### MID CAP EQUITY - VANGUARD MID-CAP INDEX Rolling Five Year VAM

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 March, 2012

| Portfolio Manager:   | Gregory A.   | McCrickard   | State's Participation in Fund:<br>Total Assets in Fund: | \$450,018,400<br>\$7,132,670,000 |  |  |  |  |
|--|--|--|---|----------------------------------|--|--|--|--|
| Investment Philosophy<br>T. Rowe Price Small Cap Equity Fund   |  |  | Staff Comments  |                                  |  |  |  |  |
| The strategy of this fund is to invest primarily in stocks<br>of small to medium-sized companies that are believed to<br>offer either superior earnings growth or appear<br>undervalued. The fund normally invests at least 80% of<br>assets in equities of small companies in the Russell 2000<br>or S&P Small-Cap 600. The manager does not favor<br>making big bets on any particular sector or any<br>particular stock. The fund's combination of growth and<br>value stocks offers investors relatively more stable<br>performance compared to other small cap stock funds. |  |  | No comment at this time.                                |                                  |  |  |  |  |
| Quanti   | itative Evalu  | ation  | Recommendation  |                                  |  |  |  |  |
| Last Quarter<br>Last 1 year<br>Last 2 years<br>Last 3 years<br>Last 4 years<br>Last 5 years<br>Since Retention<br>by SBI (7/99)  | Actual<br>13.5%<br>3.9<br>17.1<br>32.0<br>11.7<br>5.8<br>9.3 | Benchmark*<br>12.4%<br>-0.2<br>12.1<br>26.9<br>6.3<br>2.1<br>6.2 | No action required.                                     |                                  |  |  |  |  |

\*Benchmark is the Russell 2000.



## SMALL CAP EQUITY - T. ROWE PRICE SMALL CAP STOCK FUND Rolling Five Year VAM

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 March, 2012

| Portfolio Manager: Michael Perre   | State's Participation in Fund: \$496,<br>Total Assets in Fund: \$4,883, |  |  |
|--|---|--|--|
| Investment Philosophy<br>Vanguard Balanced Index Fund  | Staff Comments  |  |  |
| The fund's assets are divided between stocks and bonds,<br>with an average of 60% of its assets in stocks and 40%<br>in bonds. The fund's stock segment attempts to track<br>the performance of the MSCI US Broad Market Index,<br>an unmanaged index representing the overall U.S.<br>equity market. The fund's bond segment attempts to<br>track the performance of the Barclays Capital Aggregate<br>Bond Index, an unmanaged index that covers virtually<br>all taxable fixed-income securities. | No comment at this time.  |  |  |
| Quantitative Evaluation  | Recommendation  |  |  |

|                 | Actual | Benchmark* |
|-----------------|--------|------------|
| Last Quarter    | 7.7%   | 7.8%       |
| Last 1 year     | 8.1    | 7.9        |
| Last 2 years    | 10.4   | 10.4       |
| Last 3 years    | 17.6   | 17.6       |
| Last 4 years    | 5.8    | 5.6        |
| Last 5 years    | 4.6    | 4.4        |
| Since Retention | 6.3    | 6.2        |
| by SBI (12/03)  |        |            |

No action required.

\*Benchmark is 60% MSCI US Broad Market, 40% Barclays Capital Aggregate. Equity benchmark was Wilshire 5000 prior to April 1, 2005.



BALANCED - VANGUARD BALANCED INDEX Rolling Five Year VAM

A-114

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 March, 2012

| State's Participation in Fund: | \$175,050,730    |
|--------------------------------|------------------|
| <b>Total Assets in Fund:</b>   | \$25,143,799,487 |

**Staff Comments** 

No comment 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

3.0%

6.4

6.3

10.2

7.4

6.7

6.6

#### Recommendation

Benchmark\* No action required. 0.3% 7.7

\*Benchmark is the Barclays Capital Aggregate.

Last Quarter

Last 1 year

Last 2 years

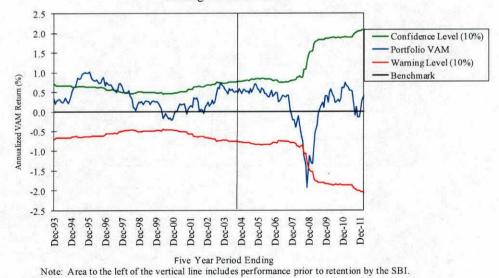
Last 3 years

Last 4 years

Last 5 years

Since Retention

By SBI (7/99)



#### BOND - DODGE & COX INCOME FUND Rolling Five Year VAM

6.4

6.8

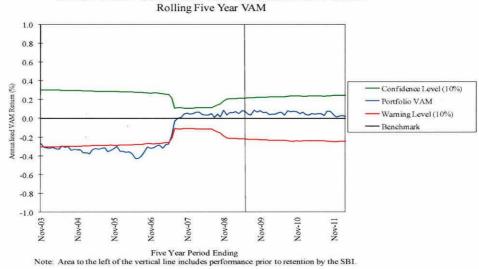
5.9

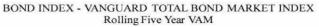
6.2

6.2

#### MN STATE 457 DEFERRED COMPENSATION PLAN BOND - VANGUARD TOTAL BOND MARKET INDEX INSTITUTIONAL Periods Ending March, 2012

| Portfolio Manager: Kenneth  | olpert   | State's Participation in Fund<br>Total Assets in Fund: | d: \$174,551,589<br>\$22,945,000,000 |  |  |  |
|---|--|--|--------------------------------------|--|--|--|
| Investment Philoso<br>Vanguard Total Bond Ma<br>Institutional   |  | Staff Comments<br>No comment at this time.             |                                      |  |  |  |
| The fund attempts to track the p<br>Barclays Capital Aggregate Bond<br>widely recognized measure of the<br>bond market. The index consists of<br>U.S. Treasury, federal agency, mo<br>investment-grade corporate securitie<br>practical or cost-effective to own e<br>index, the fund invests in a large sa<br>key characteristics of the index (su<br>weightings, coupon interest rates,<br>maturity). To boost returns, the fi<br>percentage than the index in shor<br>grade corporate bonds and a lower<br>term Treasury securities. | Index, which is a<br>entire taxable U.S.<br>of more than 7,800<br>ortgage-backed, and<br>es. Because it is not<br>very security in the<br>mpling that matches<br>ch as market-sector<br>credit quality, and<br>und holds a higher<br>t-term, investment- |  |                                      |  |  |  |
| Quantitative Eva  | luation  | Recommendation   | ı –                                  |  |  |  |
| ActualLast Quarter0.3%Last 1 year7.7Last 2 years6.4Last 3 years6.8Last 4 years5.9Last 5 years6.3Since Retention5.4  | Benchmark*<br>0.3%<br>7.7<br>6.4<br>6.8<br>5.9<br>6.2<br>5.4   | No action required.                                    |                                      |  |  |  |
| by SBI (12/03)  | 5.4  |  |                                      |  |  |  |
| *Benchmark is the Barclays Capital  | Aggregate.   |  |                                      |  |  |  |





#### MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL – FIDELITY DIVERSIFIED INTERNATIONAL Periods Ending March, 2012

| Portfolio Manager: William Bower                            | State's Participation in Fund:<br>Total Assets in Fund: | \$220,506,684<br>\$14,895,340,000 |
|---|---|-----------------------------------|
| Investment Philosophy<br>Fidelity Diversified International | Staff Comments  |                                   |

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 fund utilizes a rigorous computer-aided quantitative analysis supplemented by relevant economic and regulatory factors. The manager rarely invests in currency to protect the account from exchange fluctuations.

#### **Quantitative Evaluation**

|                 | Actual | Benchmark* |
|-----------------|--------|------------|
| Last Quarter    | 12.6%  | 10.9%      |
| Last 1 year     | -5.9   | -5.8       |
| Last 2 years    | 2.9    | 2.0        |
| Last 3 years    | 16.8   | 17.1       |
| Last 4 years    | -4.0   | -3.7       |
| Last 5 years    | -2.8   | -3.5       |
| Since Retention | 6.2    | 2.9        |
| By SBI (7/99)   |        |            |

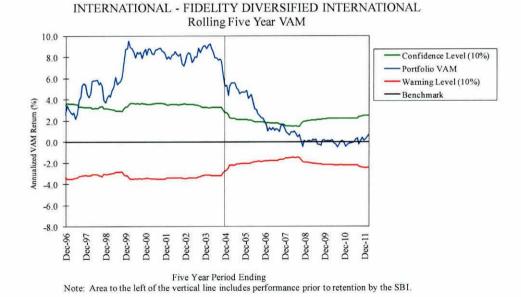
\*Benchmark is the MSCI EAFE-Free.

#### Starr Commente

No comment at this time.

Recommendation

No action required.



#### MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL – VANGUARD TOTAL INTERNATIONAL STOCK INDEX Periods Ending March, 2012

| D  |   |   | State's Participation in Fund: | Contraction of the second s |
|--|---|---|--------------------------------|---|
| Portfolio Manager  | : Michael Pe  | rre   | Total Assets in Fund:          | \$10,912,000,000  |
| Invest<br>Vanguard Tota  | tment Philosoj<br>I Internationa  | the second second second  | Staff Comments                 |   |
| The fund seeks to tra<br>All Country World ex-<br>index designed to ma-<br>in developed and e<br>United States. The fu-<br>mid, and large cap co-<br>index. The fund as<br>region's weighting in | USA Investable<br>easure equity m<br>emerging market<br>and assets are inv<br>mmon stocks ind<br>sets are allocat | e Market Index, an<br>arket performance<br>ets, excluding the<br>vested in the small,<br>cluded in the target | No comment at this time.       |   |
| Qua  | ntitative Evalı   | lation  | Recommendation                 |   |
|  | Actual  | Benchmark*  | No action required.            |   |
| Last Quarter   | 12.0%   | 11.6%   | E.                             |   |
| Last 1 year  | -7.1  | -7.3  |                                |   |
| Last 2 years   | 2.3   | 2.3   |                                |   |
| Last 3 years   | 18.7  | 18.7  |                                |   |

Numbers in blue include returns prior to retention by SBI.

-2.8

-2.0

-7.7

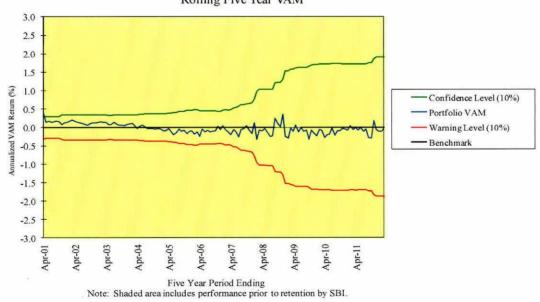
Last 4 years

Last 5 years

Since Retention

by SBI (7/11)

\* Benchmark is the 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 VAM

-2.8

-2.0

-7.6

#### MN STATE 457 DEFERRED COMPENSATION PLAN TARGET RETIREMENT FUNDS – STATE STREET GLOBAL ADVISORS (SSgA) Periods Ending March, 2012

| Portfoli   | io Mana   | ger: Vai   | rious Ind   | ex Fun   | d Manag   | ers                       |                                       | Participa<br>ssets in I |                       | Fund:                 | \$56,7<br>\$818,5    |                |
|--|---|--|---|--|---|---------------------------|---------------------------------------|-------------------------|-----------------------|-----------------------|----------------------|----------------|
|  |   | vestment<br>get Retire   |   |  |   |                           |                                       | Stat                    | ff Comm               | ents                  |                      |                |
| allocation<br>with lon<br>return on<br>nflation<br>volatility<br>results in<br>shorter<br>objective<br>and an in | n mix is<br>ger time<br>bjectives<br>, the ab<br>/, and a ro<br>n larger s'<br>time hor<br>es that re | tant factor<br>the time ho<br>horizons a<br>which re<br>bility to the<br>educed need<br>tarting equizons are<br>effect a low<br>need for re<br>ations.   | orizon of or<br>re assigned<br>flect the<br>take on<br>d for regu-<br>ity allocat<br>assigned<br>wer tolera | each fun<br>ed initia<br>need to<br>more s<br>ilar inco<br>ions. F<br>risk an<br>nce for | d. Funds<br>l risk and<br>o outpace<br>short-term<br>me. This<br>unds with<br>nd return<br>volatility | Nc                        | commen                                | t at this tir           | ne.<br>ommenda        | ation                 |                      |                |
| The broa   | ad equity/<br>rn objecti  | fixed allocation fixed allocation for each of the formation of the fixed states and the fixed states are stated as the fixed states are stated as the fixed states are stated as the fixed states are states are states as the fixed states are states as the fixed states are s | h fund. I   | n detern   |   | No                        | action re                             |                         |                       |                       |                      |                |
|  |   | rizon of e<br>risk/return  | 15  |  | translates  |                           |                                       |                         |                       |                       |                      |                |
| imp  |   | t capital m<br>le forward  |   |  |   |                           |                                       |                         |                       |                       |                      |                |
| each   | n portfoli  | lifferentiate<br>o so as te<br>an particip   | o offer d   |  |   |                           |                                       |                         |                       |                       |                      |                |
|  |   | Tar  | geted As  | set Allo   | ocations:   | Rebala                    | nced Qu                               | arterly                 |                       |                       |                      |                |
| Fund   | Total<br>Equity   | Total<br>Fixed<br>Income   | US<br>1-3 Yr<br>Gov't<br>Credit   | US<br>TIPS   | US<br>Agg -<br>Bonds  | US High<br>Yield<br>Bonds | US<br>Long-<br>Term<br>Gov't<br>Bonds | Large<br>US<br>Stocks   | Mid-<br>Cap<br>Stocks | Small<br>US<br>Stocks | Non-<br>US<br>Stocks | Globa<br>REITS |
| 2060   | 90.0  | 10.0   | 0.0   | 0.0  | 0.0   | 0.0                       | 10.0                                  | 45.0                    | 10.0                  | 10.0                  | 25.0                 | 0.0            |
| 2055   | 90.0  | 10.0   | 0.0   | 0.0  | 0.0   | 0.0                       | 10.0                                  | 45.0                    | 10.0                  | 10.0                  | 25.0                 | 0.0            |
| 2050   | 90.0  | 10.0   | 0.0   | 0.0  | 0.0   | 0.0                       | 10.0                                  | 45.0                    | 10.0                  | 10.0                  | 25.0                 | 0.0            |

Note: Totals may not add due to rounding.

10.0

14.0

19.0

26.0

33.5

45.0

57.5

65.0

0.0

0.0

0.0

0.0

0.0

0.0

7.5

20.0

0.0

0.0

0.0

2.0

4.5

7.0

17.5

20.0

0.0

0.0

0.0

2.0

4.5

13.0

17.5

20.0

0.0

0.0

0.0

2.0

4.5

5.0

5.0

5.0

10.0

14.0

19.0

20.0

20.0

20.0

10.0

0.0

45.0

45.0

45.0

43.0

39.7

33.1

26.8

21.8

10.0

9.0

7.8

6.9

6.1

4.5

2.8

2.5

10.0

9.0

7.8

6.1

4.3

3.0

1.9

1.7

25.0

23.0

20.5

18.0

15.5

11.0

6.0

4.0

0.0

0.0

0.0

0.0

1.0

3.5

5.0

5.0

90.0

86.0

81.0

74.0

66.5

55.0

42.5

35.0

2045

2040

2035

2030

2025

2020

2015

Income

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# TAB E

DATE: May 15, 2012

÷

TO: Members, Investment Advisory Council

FROM: John Griebenow J.J. Kirby

Staff has reviewed the following information agenda items:

1. Review of current strategy.

#### **INFORMATION ITEM:**

#### 1) Review of Current Strategy.

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

- a. The real estate investment strategy is to establish and maintain a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main component of this portfolio consists of investments in diversified Real Estate Investment Trusts (REITs), open-end commingled funds 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.

-2-

## ATTACHMENT A

-

#### Minnesota State Board of Investment Pooled Alternative Investments

Combined Funds March 31, 2012

Combined Funds Market Value

\$48,772,074,040

Amount Available for Investment

\$2,562,528,204

| ······            | Current Level    | Target Level     | Difference      |
|-------------------|------------------|------------------|-----------------|
| Market Value (MV) | \$7,191,886,604  | \$9,754,414,808  | \$2,562,528,204 |
| MV +Unfunded      | \$10,529,204,630 | \$14,631,622,212 | \$4,102,417,582 |

|                |                 | Unfunded        |                  |  |
|----------------|-----------------|-----------------|------------------|--|
| Asset Class    | Market Value    | Commitment      | Total            |  |
| Private Equity | \$4,109,958,885 | \$1,589,922,317 | \$5,699,881,202  |  |
| Real Estate    | \$1,152,962,664 | \$295,977,124   | \$1,448,939,788  |  |
| Resource       | \$918,284,917   | \$683,886,958   | \$1,602,171,875  |  |
| Yield-Oriented | \$1,010,680,138 | \$767,531,627   | \$1,778,211,765  |  |
| Total          | \$7,191,886,604 | \$3,337,318,026 | \$10,529,204,630 |  |



#### ATTACHMENT B Minnesota State Board of Investment - Alternative Investments -

As of March 31, 2012

| Investment  | Total<br>Commitment        | Funded<br>Commitment                    | Market<br>Value                         | Distributions           | Unfunded<br>Commitment   | IRR<br>%     | MOIC**       | Period<br>Years |
|---|----------------------------|---|---|-------------------------|--------------------------|--------------|--------------|-----------------|
| I. REAL ESTATE  |                            |   |   |                         |                          |              |              |                 |
| Blackstone  | 100 000 000                | 06 510 524                              | 105 725 720                             | 27 020 062              | 4 (02 9(0                | 7.51         | 1 20         | 5.00            |
| Blackstone Real Estate Partners V<br>Blackstone Real Estate Partners VI | 100,000,000 100,000,000    | 96,510,534<br>92,463,658                | 105,725,720<br>110,981,931              | 27,029,063<br>6,354,078 | 4,693,860<br>9,794,440   | 7.51<br>6.83 | 1.38<br>1.27 | 5.92<br>5.00    |
| Blackstone Real Estate Partners VII                                     | 100,000,000                | 20,599,489                              | 20,490,213                              | 109,276                 | 79,400,511               | -3.34        | 1.00         | 0.43            |
| Colony Capital  |                            |   |   |                         |                          |              |              |                 |
| Colony Investors II   | 80,000,000                 | 78,482,328                              | 2,600                                   | 90,022,404              | 1,517,672                | 4.68         |              | 17.00           |
| Colony Investors III<br>CSFB/ DLJ                                       | 100,000,000                | 100,000,000                             | 4,344,900                               | 167,834,385             | 0                        | 14.60        | 1.72         | 14.25           |
| CSFB/ DL5<br>CSFB Strategic Partners III RE.                            | 25,000,000                 | 25,166,647                              | 12,638,811                              | 568,588                 | 398,070                  | -15.42       | 0.52         | 6.75            |
| CS Strategic Partners IV RE.  | 50,000,000                 | 47,547,631                              | 32,299,638                              | 4,345,414               | 3,040,582                |              | 0.77         | 3.79            |
| Silverpeak Real Estate Partners   |                            |   |   |                         |                          |              |              |                 |
| Silverpeak Legacy Pension Partners II                                   | 75,000,000                 | 70,753,841                              | 35,972,105                              | 31,758,951              | 9,857,501                | -1.23        | 0.96         | 6.75            |
| Silverpeak Legacy Pension Partners III<br>Prime Property Fund           | 150,000,000<br>40,000,000  | 66,143,137<br>40,000,000                | 30,473,334<br>252,134,023               | 0                       | 83,274,488<br>0          | -20.67       | 0.46 6.30    | 3.86<br>30.47   |
| PRISA Real Estate Fund  | 9,111,000                  | 9,111,000                               | 9,192,297                               | 86,001                  | 0                        | 1.84         | 1.02         | 0.25            |
| T.A. Associates Realty  | 5,111,000                  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 00,001                  |                          | 1.01         | 1102         | 0.20            |
| Realty Associates Fund V  | 50,000,000                 | 50,000,000                              | 297,295                                 | 90,653,530              | 0                        | 10.20        | 1.82         | 12.85           |
| Realty Associates Fund VI   | 50,000,000                 | 50,000,000                              | 27,581,204                              | 55,099,055              | 0                        | 11.39        |              | 9.76            |
| Realty Associates Fund VII  | 75,000,000                 | 75,000,000                              | 52,074,608                              | 21,189,954              | 0                        | -0.53        | 0.98         | 7.37            |
| Realty Associates Fund VIII   | 100,000,000                | 100,000,000                             | 68,619,300                              | 4,861,979               | 0                        | -7.41        | 0.73         | 5.75            |
| Realty Associates Fund IX   | 100,000,000                | 96,000,000<br>0                         | 100,837,728                             | 7,890,388               | 4,000,000 100,000,000    | 9.35<br>N/A  | 1.13<br>N/A  | 3.60<br>0.08    |
| Realty Associates Fund X<br>UBS- Trumbull Property Fund                 | 42,376,529                 | 42,376,529                              | 289,296,957                             | 0                       | 100,000,000              | 7.07         | 6.83         |                 |
| ontrollere i conservatione de la conservation en la conservatione       |                            | 177.084 (177.988 (179.98                |   | 507,803,066             |                          | 10000        | 1.57         |                 |
| Real Estate Total   | 1,346,487,529              | 1,060,154,794                           | 1,152,962,664                           | 507,805,000             | 295,977,124              |              | 1.57         |                 |
| II. RESOURCE  | 20.000.000                 | 20 000 000                              | 4 000 040                               | 56 264 622              | 0                        | 12.21        | 2.01         | 25.25           |
| Apache Corp III   | 30,000,000                 | 30,000,000                              | 4,086,840                               | 56,264,633              | 0                        | 12.21        | 2.01         | 23.23           |
| EnCap Energy<br>EnCap Energy Capital Fund VII                           | 100,000,000                | 78,237,935                              | 73,030,815                              | 42,842,295              | 22,314,808               | 21.85        | 1.48         | 4.75            |
| EnCap Energy Capital Fund VIII  | 100,000,000                | 24,825,346                              | 25,641,206                              | 23,155                  | 75,174,654               | 7.36         |              | 1.50            |
| Energy & Minerals Group   |                            | A 22                                    |   |                         |                          |              |              |                 |
| NGP Midstream & Resources   | 100,000,000                | 91,062,949                              | 66,636,044                              | 64,239,065              | 9,248,074                |              | 1.44         | 5.00            |
| The Energy & Minerals Group Fund II                                     | 100,000,000                | 3,230,363                               | 3,230,363                               | 0                       | 96,769,637               | -1.18        | 1.00         | 0.52            |
| Energy Capital Partners II-A<br>First Reserve                           | 100,000,000                | 45,057,438                              | 51,829,817                              | 5,080,856               | 58,883,095               | 23.03        | 1.26         | 1.70            |
| First Reserve Fund X  | 100,000,000                | 100,000,000                             | 50,711,368                              | 134,222,597             | 0                        | 32.80        | 1.85         | 7.41            |
| First Reserve Fund XI   | 150,000,000                | 141,518,715                             | 114,996,881                             | 41,957,303              | 8,481,285                | 3.34         | 1.11         | 5.27            |
| First Reserve Fund XII  | 150,000,000                | 108,815,226                             | 103,329,527                             | 6,942,147               | 41,184,774               | 0.68         | 1.01         | 3.42            |
| NGP   |                            |   |   |                         |                          | 14.01        |              |                 |
| Natural Gas Partners IX   | 150,000,000                | 117,850,862                             | 145,541,215                             | 12,116,957<br>0         | 29,488,947               | 16.21 0.00   | 1.34 1.00    | 4.44<br>N/A     |
| NGP Natural Resources X   | 150,000,000                | 5,828,163                               | 5,828,163                               | 0                       | 144,171,837              | 0.00         | 1.00         | IN/A            |
| Sheridan<br>Sheridan Production Partners I                              | 100,000,000                | 100,002,260                             | 119,595,994                             | 29,000,000              | 0                        | 15.93        | 1.49         | 5.00            |
| Sheridan Production Partners I  | 100,000,000                | 13,250,000                              | 11,007,000                              | 0                       | 86,750,000               | -20.84       | 0.83         | 1.50            |
| EIG Global Energy Partners  |                            |   |   |                         |                          |              |              |                 |
| TCW Energy Partners XIV   | 100,000,000                | 97,693,590                              | 80,396,170                              | 48,922,934              | 16,919,846               |              | 1.32         | 4.95            |
| Energy Partners XV  | 150,000,000                | 55,500,000                              | 62,423,514                              | 0                       | 94,500,000               | 20.44        | 1.12         | 1.82            |
| Resource Total  | 1,680,000,000              | 1,012,872,846                           | 918,284,917                             | 441,611,943             | 683,886,958              |              | 1.34         |                 |
| III. YIELD-ORIENTED   |                            |   |   |                         |                          |              |              |                 |
| Audax Mezzanine Fund III  | 100,000,000                | 18,959,076                              | 18,390,910                              | 569,779                 | 81,040,924               | 0.01         | 1.00         | 1.99            |
| Citicorp Mezzanine III  | 100,000,000                | 88,029,296                              | 432,086                                 | 132,324,719             | 0                        | 15.61        | 1.51         | 12.41           |
| DLJ Investment Partners<br>DLJ Investment Partners II                   | 27,375,168                 | 23,164,217                              | 543,117                                 | 34,655,236              | 4,955,172                | 10.52        | 1.52         | 12.25           |
| DLJ Investment Partners II<br>DLJ Investment Partners III               | 100,000,000                | 47,015,541                              | 19,463,641                              | 27,751,979              | 54,983,748               | -3.82        | 1.00         | 5.77            |
| Gold Hill Venture Lending   |                            |   |   |                         |                          |              |              |                 |
| Gold Hill Venture Lending   | 40,000,000                 | 40,000,000                              | 12,143,080                              | 41,989,773              | 0                        | 7.66         | 1.35         | 7.51            |
| Gold Hill 2008  | 25,852,584                 | 20,940,593                              | 23,313,372                              | 2,638,806               | 4,911,991                | 12.66        | 1.24         | 3.75            |
| GS Mezzanine Partners   | 100 000 000                | 100,000,000                             | 3,780,968                               | 128,064,866             | 0                        | 7.07         | 1.32         | 12.08           |
| GS Mezzanine Partners II<br>GS Mezzanine Partners III                   | 100,000,000 75,000,000     | 75,000,000                              | 17,926,550                              | 79,484,867              | 0                        | 7.77         | 1.30         | 8.72            |
| GS Mezzanine Partners 2006 Institutional                                | 100,000,000                | 74,999,888                              | 44,203,318                              | 46,285,208              | 25,000,112               | 1.04         | 1.21         | 5.98            |
| GS Mezzanine Partners V   | 150,000,000                | 58,465,770                              | 49,163,973                              | 29,217,542              | 82,518,217               | 8.53         | 1.34         | 4.44            |
| Merit Capital Partners  |                            |   |   | 100 000 000             |                          | 16.00        | 1.00         | 10.05           |
| William Blair Mezzan. Cap. Fd. III                                      | 60,000,000                 | 57,633,241                              | 5,915,591                               | 102,802,072             | 2,366,759                |              | 1.89<br>1.34 | 12.25<br>7.29   |
| Merit Mezzanine Fund IV   | 75,000,000<br>75,000,000   | 69,807,692<br>24,734,694                | 36,627,966<br>22,220,833                | 56,924,377<br>0         | 5,192,308<br>50,265,306  | 8.15         | 0.90         | 2.28            |
| Merit Mezzanine Fund V<br>Merit Energy Partners                         | 75,000,000                 | 24,754,094                              | 22,220,033                              | 0                       | 50,205,500               | 11.59        | 0.90         | 2.20            |
| Merit Energy Partners B   | 24,000,000                 | 24,000,000                              | 61,662,885                              | 116,304,315             | 0                        | 24.77        | 7.42         | 15.75           |
| Merit Energy Partners C   | 50,000,000                 | 50,000,000                              | 154,778,622                             | 260,968,067             | 0                        | 31.13        | 8.31         | 13.42           |
| Merit Energy Partners D   | 88,000,000                 | 70,938,303                              | 113,288,287                             | 186,995,827             | 0                        | 23.40        | 4.23         | 10.85           |
| Merit Energy Partners E   | 100,000,000                | 39,983,197                              | 59,990,157                              | 40,326,332              | 42 158 204               | 17.14        | 2.51         | 7.46            |
| Merit Energy Partners F   | 100,000,000<br>100,000,000 | 57,841,607<br>18,848,793                | 59,587,711<br>18,678,946                | 12,807,125<br>182,279   | 42,158,394<br>81,151,207 | 7.60<br>0.13 | 1.25         | 6.02<br>1.16    |
| Merit Energy Partners H   | 100,000,000                | 10,040,793                              | 10,070,940                              | 102,279                 | 01,151,207               | 0.15         | 1.00         | 1.10            |

### Minnesota State Board of Investment - Alternative Investments -

As of March 31, 2012

| Investment  | Total<br>Commitment      | Funded<br>Commitment     | Market<br>Value          | Distributions            | Unfunded<br>Commitment   | IRR<br>%       | MOIC**       | Period<br>Years |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------|--------------|-----------------|
| Prudential Capital Partners   |                          |                          |                          |                          |                          |                |              |                 |
| Prudential Capital Partners I   | 100,000,000              | 97,244,439               | 33,312,755               | 112,945,166              | 7,498,997                |                | 1.50         | 10.95           |
| Prudential Capital Partners II<br>Prudential Capital Partners III       | 100,000,000 100,000,000  | 93,307,126               | 46,316,377               | 85,628,630               | 7,094,842                | 9.76           |              | 6.75            |
| Prudential Capital Partners IV  | 100,000,000              | 82,836,514<br>0          | 84,865,300<br>0          | 10,967,555<br>0          | 20,069,953 100,000,000   | 10.97<br>N/A   |              |                 |
| Summit Partners   | 100,000,000              | U                        | U                        | 0                        | 100,000,000              | NA             | IN/A         | 0.20            |
| Summit Subordinated Debt Fund I   | 20,000,000               | 18,000,000               | 79,905                   | 31,406,578               | 2,000,000                | 30.54          | 1.75         | 18.00           |
| Summit Subordinated Debt Fund II  | 45,000,000               | 40,500,000               | 2,570,241                | 86,849,598               | 4,500,000                |                |              |                 |
| Summit Subordinated Debt Fund III                                       | 45,000,000               | 42,690,965               | 20,724,300               | 32,867,580               | 2,850,000                | 8.84           | 1.26         |                 |
| Summit Subordinated Debt Fund IV<br>TCW/Crescent Mezzanine Partners III | 50,000,000<br>75,000,000 | 26,750,000               | 30,182,250               | 1,974,506                | 23,250,000               | 17.87          | 1.20         |                 |
| Windjammer Capital Investors  | 73,000,000               | 68,868,042               | 6,715,235                | 152,168,789              | 29,701,079               | 36.02          | 2.31         | 11.00           |
| Windjammer Mezzanine & Equity Fund II                                   | 66,708,861               | 52,064,413               | 9,630,600                | 65,388,707               | 14,391,081               | 7.98           | 1.44         | 12.00           |
| Windjammer Senior Equity Fund III                                       | 75,000,000               | 55,959,872               | 54,171,160               | 37,905,919               | 21,631,538               | 18.10          |              |                 |
| Windjammer Senior Equity Fund IV  | 100,000,000              | 0                        | 0                        | 0                        | 100,000,000              | N/A            | N/A          | 0.10            |
| Yield-Oriented Total  | 2,366,936,613            | 1,538,583,280            | 1,010,680,138            | 1,918,396,196            | 767,531,627              |                | 1.90         |                 |
| IV. PRIVATE EQUITY  |                          |                          |                          |                          |                          |                |              |                 |
| Adams Street Partners<br>Adams Street VPAF Fund I                       | 2 800 000                | 2 800 000                | 12 205                   | 0 440 205                | 0                        | 12.00          | 3.50         | 22.00           |
| Adams Street VPAF Fund I<br>Adams Street VPAF Fund II                   | 3,800,000<br>20,000,000  | 3,800,000<br>20,000,000  | 42,305<br>49,455         | 9,440,295<br>37,988,511  | 0                        | 13.22<br>24.09 | 2.50<br>1.90 | 23.89<br>21.34  |
| Advent International GPE VI-A   | 50,000,000               | 36,625,000               | 39,272,218               | 2,100,000                | 13,375,000               | 7.29           | 1.13         | 4.00            |
| Affinity Ventures   |                          | 20,020,000               | 57,272,210               | 2,100,000                | 10,070,000               | 1.29           | 1.15         | 4.00            |
| Affinity Ventures IV  | 4,000,000                | 4,000,000                | 2,588,045                | 1,423,858                | 0                        | 0.10           | 1.00         | 7.75            |
| Affinity Ventures V   | 5,000,000                | 3,550,000                | 3,074,663                | 814,728                  | 1,450,000                | 4.51           | 1.10         | 3.74            |
| Bane Fund   | 46 000 000               | 46 000 000               | 22 (02 025               | 010 70 7                 |                          | 11.00          |              |                 |
| Banc Fund VII<br>Banc Fund VIII   | 45,000,000               | 45,000,000               | 23,607,855               | 812,725                  |                          | -11.50         | 0.54         | 7.00            |
| Blackstone  | 98,250,000               | 41,265,000               | 41,841,142               | 0                        | 56,985,000               | 0.88           | 1.01         | 3.93            |
| Blackstone Capital Partners IV  | 70,000,000               | 71,100,328               | 49,632,535               | 122,415,936              | 3,170,980                | 38.71          | 2.42         | 9.72            |
| Blackstone Capital Partners V   | 140,000,000              | 128,773,195              | 121,848,298              | 12,741,212               | 13,149,510               | 0.45           | 1.05         | 6.16            |
| Blackstone Capital Partners VI  | 100,000,000              | 11,844,346               | 11,252,804               | 0                        | 88,155,654               | -32.68         | 0.95         | 3.68            |
| BLUM Capital Partners   |                          |                          |                          |                          |                          |                |              |                 |
| Blum Strategic Partners I   | 50,000,000               | 49,158,307               | 309,000                  | 99,450,576               | 2,009,928                |                | 2.03         | 13.27           |
| Blum Strategic Partners II<br>Blum Strategic Partners III               | 50,000,000<br>75,000,000 | 40,185,889<br>74,806,485 | 7,037,342<br>19,994,422  | 80,886,033<br>54,876,520 | 2,127,584 193,515        | 22.36          | 2.19         | 10.70<br>6.83   |
| Blum Strategic Partners IV  | 150,000,000              | 153,163,538              | 86,472,635               | 31,336,439               | 9,263,781                | -8.56          | 0.77         | 4.36            |
| Carval Investors  |                          | 100,100,000              | 00,112,000               | 51,550,157               | 3,203,701                | 0.00           | 0            | 1.50            |
| CVI Global Value Fund   | 200,000,000              | 190,000,000              | 194,700,058              | 51,363,754               | 10,000,000               | 6.71           | 1.30         | 5.22            |
| CarVal Credit Value Fund I  | 100,000,000              | 95,000,000               | 101,739,775              | 63,000                   | 5,000,000                | 8.77           | 1.07         | 1.50            |
| Chicago Growth Partners (William Blair)                                 | 50 000 000               | 10 1 50 000              | 0.007.007                |                          |                          |                |              |                 |
| William Blair Capital Partners VII<br>Chicago Growth Partners I         | 50,000,000<br>50,000,000 | 48,150,000<br>50,791,998 | 8,386,371<br>32,387,351  | 63,343,842<br>30,540,179 | 1,650,000<br>1,950,000   | 9.55<br>6.73   | 1.49<br>1.24 | 11.06           |
| Chicago Growth Partners II  | 60,000,000               | 34,112,261               | 31,481,024               | 11,973,833               | 25,635,739               | 12.52          | 1.24         | 6.68<br>4.05    |
| Coral Partners  | 00,000,000               | 54,112,201               | 51,401,024               | 11,775,055               | 20,000,100               | 12.02          | 1.27         | 4.05            |
| Coral Partners IV   | 15,078,665               | 15,078,665               | 672,463                  | 13,538,879               | 0                        | -1.45          | 0.94         | 17.69           |
| Coral Partners V  | 15,000,000               | 15,000,000               | 1,067,099                | 8,125,294                | 0                        | -5.73          | 0.61         | 13.79           |
| Court Square Capital  | 100 000 000              |                          |                          |                          |                          |                |              | 0.000           |
| Court Square Capital Partners   | 100,000,000              | 80,223,910               | 23,155,070               | 153,076,138              | 10,576,235               |                | 2.20         | 10.30           |
| Court Square Capital Partners II  | 175,000,000              | 133,179,802              | 152,399,966              | 11,195,735               | 43,460,404               | 7.66           | 1.23         | 5.57            |
| Crescendo<br>Crescendo III  | 25,000,000               | 25,000,000               | 758,812                  | 10,804,457               | 0                        | -13.21         | 0.46         | 13.40           |
| Crescendo IV  | 101,500,000              | 101,500,000              | 23,705,353               | 20,124,650               | 0<br>0                   | -9.05          | 0.40         | 12.06           |
| CSFB/ DLJ   | ,,                       |                          |                          |                          |                          | 2,002          | 0.15         |                 |
| <b>DLJ Merchant Banking Partners III</b>                                | 125,000,000              | 121,435,226              | 26,433,207               | 243,916,307              | 3,564,774                |                | 2.23         | 11.50           |
| DLJ Strategic Partners.   | 100,000,000              | 94,677,908               | 9,000,961                | 162,919,099              | 3,772,092                |                | 1.82         | 11.20           |
| CSFB Strategic Partners II-B.   | 100,000,000              | 83,764,787               | 11,506,437               | 147,637,152              | 10,435,213               |                | 1.90         | 8.70            |
| CSFB Strategic Partners III VC.   | 25,000,000               | 23,492,488               | 14,727,613               | 13,964,621               | 1,507,512                | 5.63           | 1.22         | 6.83            |
| CSFB Strategic Partners III-B<br>CS Strategic Partners IV-B             | 100,000,000              | 76,342,785<br>80,280,343 | 75,914,604<br>83,080,753 | 24,911,284<br>29,632,224 | 16,815,119<br>19,719,657 | 6.31           | 1.32<br>1.40 | 6.83<br>4.01    |
| CS Strategic Partners IV-D  | 40,500,000               | 36,339,353               | 39,275,593               | 8,266,413                | 3,995,753                |                | 1.40         | 3.79            |
| CS Strategic Partners V   | 100,000,000              | 8,716,215                | 13,289,273               | 0                        | 91,283,785               |                | 1.52         | 0.62            |
| CVC European Equity Partners V  | 133,169,978              | 87,115,455               | 93,617,837               | 11,337,943               | 27,286,578               | 7.82           | 1.20         | 4.01            |
| Diamond Castle Partners IV  | 100,000,000              | 88,059,040               | 86,595,103               | 23,449,033               | 11,981,445               | 6.13           | 1.25         | 5.56            |
| DSV Partners IV   | 10,000,000               | 10,000,000               | 32,113                   | 39,196,082               |                          | 10.61          | 3.92         | 26.97           |
| EBF and Associates<br>Merced Partners II                                | 75,000,000               | 63,768,881               | 20,426,345               | 100,001,458              | 0                        | 25 62          | 1.00         | 5.00            |
| Merced Partners II<br>Merced Partners III                               | 100,000,000              | 70,000,000               | 69,697,950               | 100,001,458              | 30,000,000               | 25.62<br>-0.40 | 1.89<br>1.00 | 5.00<br>1.90    |
| Elevation Partners  | 75,000,000               | 68,168,928               | 57,366,636               | 36,623,438               |                          | 10.06          | 1.38         | 6.87            |
| Fox Paine Capital Fund II   | 50,000,000               | 45,685,414               | 43,159,160               | 46,170,294               | 12,567,424               |                | 1.96         | 11.75           |
| GHJM Marathon Fund  |                          |                          |                          | 12 G                     |                          |                |              |                 |
| GHJM Marathon Fund IV   | 40,000,000               | 39,051,000               | 506,518                  | 57,012,488               | 949,000                  | 8.36           | 1.47         | 12.96           |
| GHJM Marathon Fund V  | 50,000,000               | 49,041,460               | 54,739,050               | 30,194,717               | 1,035,251                | 13.31          | 1.73         | 7.50            |
| <i>TrailHead Fund</i><br>Golder,Thoma, Cressey, Rauner                  | 20,000,000               | 600,000                  | 600,000                  | 0                        | 19,400,000               | 0.00           | 1.00         | 0.10            |
| Golder, Thoma, Cressey & Rauner Fund IV                                 | 20,000,000               | 20,000,000               | 77,624                   | 42,300,018               | 0                        | 25.06          | 2.12         | 18.16           |
| Golder, Thoma, Cressey & Rauner Fund V                                  | 30,000,000               | 30,000,000               | 719,011                  | 53,955,241               |                          | 10.99          | 1.82         | 15.75           |
|   |                          | 0                        |                          | A CONTRACT AND A         |                          |                |              |                 |

## Minnesota State Board of Investment - Alternative Investments -

As of March 31, 2012

| Investment  | Total<br>Commitment        | Funded<br>Commitment       | Market<br>Value                         | Distributions              | Unfunded<br>Commitment | IRR<br>%       | MOIC**            | Period<br>Years |
|---|----------------------------|----------------------------|---|----------------------------|------------------------|----------------|-------------------|-----------------|
| GS Capital Partners   |                            |                            |   |                            | Community              |                | more              | rears           |
| GS Capital Partners 2000  | 50,000,000                 | 50,000,000                 |   | 97,216,786                 |                        | 22.47          |                   | 11.58           |
| GS Capital Partners V   | 100,000,000                | 66,390,364                 |   | 82,778,595                 | 26,041,099             |                |                   |                 |
| GS Capital Partners VI<br>GTCR Golder Rauner                            | 100,000,000                | 63,033,118                 | 48,857,308                              | 11,577,721                 | 29,133,876             | -3.07          | 0.96              | 5.16            |
| GTCR VI   | 90,000,000                 | 90,000,000                 | 810,305                                 | 77,813,800                 | 0                      | 1 20           | 0.07              | 12 75           |
| GTCR VII  | 175,000,000                | 159,249,989                | 747,361                                 | 387,322,726                | 0<br>15,750,001        |                | 100 TO 100 TO 100 |                 |
| GTCR IX   | 75,000,000                 | 68,002,159                 | 62,924,987                              | 11,044,356                 | 6,997,841              | 3.58           |                   |                 |
| GTCR X  | 100,000,000                | 27,698,605                 | 26,348,963                              | 0                          | 72,301,395             |                |                   |                 |
| Hellman & Friedman  |                            |                            |   |                            | 12,001,000             | 1.07           | 0.70              | 1.51            |
| Hellman & Friedman Capital Partners IV                                  | 150,000,000                | 133,967,494                | 229,494                                 | 383,769,706                | 15,365,585             | 34.67          | 2.87              | 12.25           |
| Hellman & Friedman Capital Partners V                                   | 160,000,000                | 144,929,257                | 123,704,664                             | 234,292,422                | 17,103,765             |                | 2.47              | 7.33            |
| Hellman & Friedman Capital Partners VI                                  | 175,000,000                | 167,020,318                | 133,846,440                             | 61,818,061                 | 9,102,301              |                |                   | 5.00            |
| Hellman & Friedman Capital Partners VII                                 | 50,000,000                 | 10,525,772                 | 9,715,614                               | 0                          | 39,474,228             | -10.46         | 0.92              | 2.95            |
| Kohlberg Kravis Roberts   | 145 272 (52                | 146 272 (62                | 77.001                                  | 200 046 165                | 0                      | 0.70           |                   |                 |
| KKR 1987 Fund<br>KKR 1993 Fund  | 145,373,652<br>150,000,000 | 145,373,652<br>150,000,000 | 77,221<br>139,975                       | 398,846,165<br>309,264,018 | 0                      |                | 2.74              | 24.35           |
| KKR 1996 Fund   | 200,000,000                | 199,902,841                | 2,271,371                               | 372,364,247                | 0                      | 16.75<br>13.17 | 2.06<br>1.87      | 18.28<br>15.58  |
| KKR Millennium Fund   | 200,000,000                | 200,000,000                | 138,117,796                             | 221,671,299                | 0                      |                | 1.87              | 9.31            |
| KKR 2006 Fund   | 200,000,000                | 199,026,411                | 173,775,115                             | 56,900,019                 | 14,277,787             | 3.48           |                   | 5.51            |
| Green Equity Investors VI   | 200,000,000                | 0                          | 0                                       | 0                          | 200,000,000            | N/A            | N/A               | 0.04            |
| Lexington Capital Partners  |                            |                            |   | 25.0                       | ,,                     | A.194.4.       | 1.0.1             | 0.01            |
| Lexington Capital Partners VI-B   | 100,000,000                | 99,448,180                 | 69,808,052                              | 43,102,194                 | 551,820                | 4.41           | 1.14              | 6.26            |
| Lexington Capital Partners VII  | 200,000,000                | 82,711,713                 | 85,634,848                              | 14,133,054                 | 117,288,287            | 23.64          | 1.21              | 2.80            |
| RWI Ventures  |                            |                            |   | 8. (B)                     | 1 T                    |                |                   |                 |
| RWI Ventures I  | 7,603,265                  | 7,603,265                  | 590,111                                 | 5,974,262                  | 0                      |                | 0.86              | 5.75            |
| RWI Group III   | 616,430                    | 616,430                    | 34,868                                  | 526,806                    | 0                      | -3.31          | 0.91              | 5.75            |
| Sightline Healthcare  | 10.000.000                 |                            |   |                            |                        | -              |                   |                 |
| Sightline Healthcare Fund II  | 10,000,000                 | 10,000,000                 | 307,221                                 | 5,635,402                  | 0                      | -7.13          | 0.59              | 15.08           |
| Sightline Healthcare Fund III   | 20,000,000                 | 20,000,000                 | 2,223,198                               | 5,465,766                  |                        | -11.29         | 0.38              | 13.19           |
| Sightline Healthcare Fund IV<br>Silver Lake Partners                    | 7,700,000                  | 7,598,598                  | 1,711,116                               | 4,621,834                  | 155,075                | -5.38          | 0.83              | 8.51            |
| Silver Lake Partners II   | 100,000,000                | 88,839,084                 | 57,620,537                              | 75,962,515                 | 12,156,784             | 9.44           | 1.50              | 7.75            |
| Silver Lake Partners III  | 100,000,000                | 64,581,338                 | 54,306,671                              | 41,456,038                 | 36,154,089             | 18.40          | 1.30              | 5.00            |
| Split Rock Partners   | 100,000,000                | 01,001,000                 | 54,500,071                              | 41,450,050                 | 50,154,005             | 10.40          | 1.40              | 5.00            |
| Split Rock Partners   | 50,000,000                 | 42,454,544                 | 31,002,992                              | 555,384                    | 7,545,456              | -7.96          | 0.74              | 6.92            |
| Split Rock Partners II  | 60,000,000                 | 20,860,000                 | 16,498,112                              | 475,376                    | 38,440,000             |                | 0.81              | 3.92            |
| Summit Partners   |                            |                            |   |                            |                        |                |                   |                 |
| Summit Ventures V   | 25,000,000                 | 24,125,000                 | 245,636                                 | 32,936,046                 | 875,000                | 8.04           | 1.38              | 14.00           |
| Summit Partners Growth Equity Fund VIII                                 | 100,000,000                | 0                          | 0                                       | 0                          | 100,000,000            | N/A            | N/A               | 0.91            |
| T. Rowe Price   | 35,181,333                 | 35,181,333                 | 16,621,895                              | 14,261,639                 | 0                      | -8.26          | 0.88              | 7.12            |
| Thoma Cressey<br>Thoma Cressey Fund VI                                  | 35,000,000                 | 33,915,000                 | 4,297,857                               | 29,371,225                 | 1,085,000              | -0.09          | 0.99              | 12 (1           |
| Thoma Cressey Fund VII  | 50,000,000                 | 50,000,000                 | 18,594,942                              | 75,110,517                 | 1,085,000              | 22.91          | 1.87              | 13.61<br>11.60  |
| Thoma Cressey Fund VIII   | 70,000,000                 | 68,932,574                 | 74,781,476                              | 56,926,700                 | 770,000                | 14.59          | 1.91              | 5.92            |
| Thomas, McNerney & Partners   | , 0,000,000                | 00,000,011                 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 00,020,000                 | 110,000                | 1 1.57         | 1.71              | 5.52            |
| Thomas, McNerney & Partners I   | 30,000,000                 | 28,350,000                 | 13,273,872                              | 10,504,694                 | 1,650,000              | -4.53          | 0.84              | 9.40            |
| Thomas, McNerney & Partners II  | 50,000,000                 | 39,375,000                 | 32,102,330                              | 5,132,263                  | 10,625,000             | -2.25          | 0.95              | 5.75            |
| Varde Fund  |                            |                            |   |                            |                        |                |                   |                 |
| Varde Fund IX   | 100,000,000                | 100,000,000                | 148,718,100                             | 0                          | 0                      | 12.10          | 1.49              | 3.77            |
| Varde Fund X  | 150,000,000                | 127,500,000                | 134,527,800                             | 0                          | 22,500,000             | 4.74           | 1.06              | 1.94            |
| Vestar Capital Partners   |                            |                            |   |                            |                        |                |                   |                 |
| Vestar Capital Partners IV  | 55,000,000                 | 52,731,036                 | 18,794,776                              | 74,452,603                 | 777,403                |                |                   | 12.29           |
| Vestar Capital Partners V   | 75,000,000                 | 73,586,279                 | 57,124,417                              | 22,488,956                 | 1,738,950              | 2.26           | 1.08              | 6.28            |
| Vestar Capital Partners VI<br>Washing Binaus                            | 100,000,000                | 0                          | 0                                       | 0                          | 100,000,000            | N/A            | N/A               | 0.52            |
| Warburg Pincus<br>Warburg Pincus Equity Partners                        | 100,000,000                | 100,000,000                | 4,902,546                               | 155,167,955                | 0                      | 9.88           | 1.60              | 12 76           |
| Warburg Pincus Private Equity VIII                                      | 100,000,000                | 100,000,000                | 92,289,354                              | 126,480,852                | 0                      | 16.07          | 1.60<br>2.19      | 13.76<br>9.96   |
| Warburg Pincus Private Equity IX  | 100,000,000                | 100,000,000                | 95,425,601                              | 51,686,202                 | 0                      | 8.69           | 1.47              | 6.68            |
| Warburg Pincus Private Equity X   | 150,000,000                | 141,660,914                | 141,524,508                             | 8,622,147                  | 8,400,000              | 2.67           | 1.47              | 4.44            |
| Wayzata   |                            |                            |   | .,,,                       | 2, 20,000              | 2.07           |                   |                 |
| Wayzata Opportunities Fund  | 100,000,000                | 93,180,000                 | 119,841,746                             | 41,939,109                 | 6,820,000              | 10.46          | 1.74              | 6.28            |
| Wayzata Opportunities Fund II   | 150,000,000                | 84,000,000                 | 161,607,096                             | 429,900                    | 66,000,000             | 15.03          | 1.93              | 4.44            |
| Welsh, Carson, Anderson & Stowe   |                            |                            |   |                            |                        |                |                   |                 |
| Welsh, Carson, Anderson & Stowe VIII                                    | 100,000,000                | 100,000,000                | 1,153,210                               | 127,849,708                | 0                      | 3.12           | 1.29              | 13.69           |
| Welsh, Carson, Anderson & Stowe IX                                      | 125,000,000                | 122,500,000                | 38,002,236                              | 161,169,232                | 2,500,000              | 11.51          | 1.63              | 11.76           |
| Welsh, Carson, Anderson & Stowe X<br>Welsh, Carson, Anderson & Stowe XI | 100,000,000                | 96,578,466                 | 88,875,215                              | 17,966,260                 | 4,000,000              | 2.35           | 1.11              | 6.29            |
| Welsh, Carson, Anderson & Stowe XI                                      | 100,000,000                | 51,042,019                 | 54,409,822                              | 0                          | 48,957,981             | 4.60           | 1.07              | 3.69            |
| Private Equity Total  | 8,122,773,323              | 6,510,338,761              | 4,109,958,885                           | 5,817,008,968              | 1,589,922,317          |                | 1.52              |                 |
| Alternatives Total  | 13,516,197,465             | 10,121,949,681             | 7,191,886,604                           | 8,684,820,173              | 3,337,318,025          |                | 1.57              |                 |

\* 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

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# TAB

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DATE: May 15, 2012

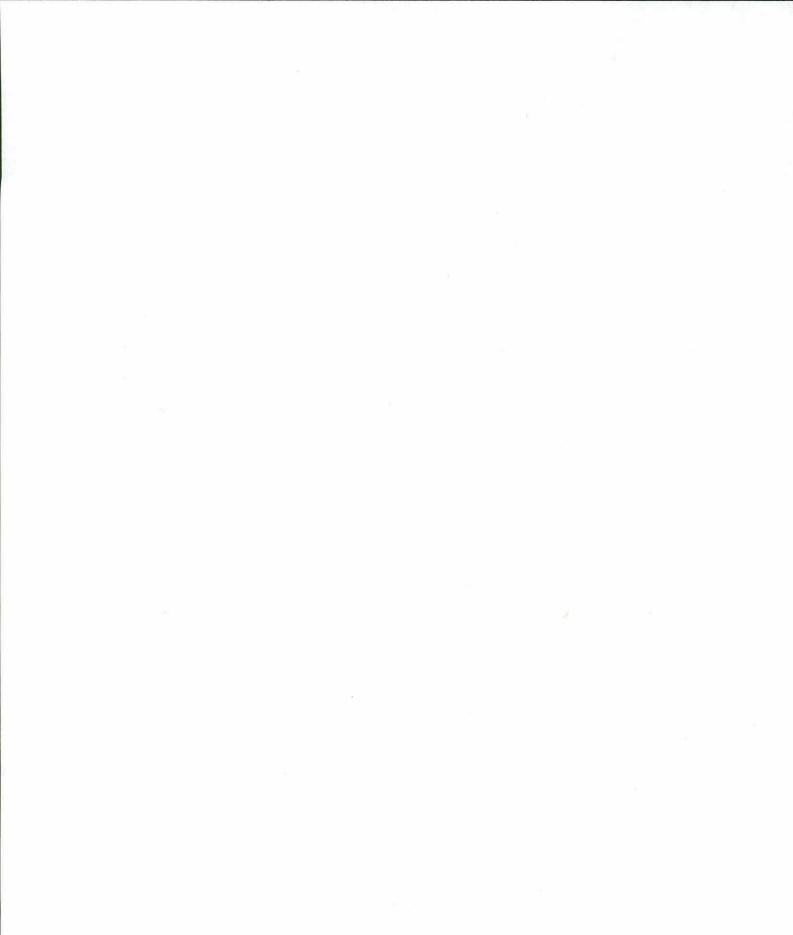
TO: Members, Investment Advisory Council

FROM: Mike Menssen, Manager, Long-Term Debt Ryan Hill, Portfolio Manager, Long-Term Debt

# SUBJECT: Fixed Income Asset Class Target

The asset class target for the MSBI Fixed Income Program is the Barclays Capital U.S. Aggregate Bond Index, which is a broad U.S. bond index. As part of the MSBI Fiscal Year 2012 Executive Director's Work Plan, staff evaluated the current fixed income asset class target and various alternative fixed income indices to determine which index is best suited to reflect the Fixed Income Program's objectives going forward. Staff's findings and recommendations are presented in the enclosed paper.

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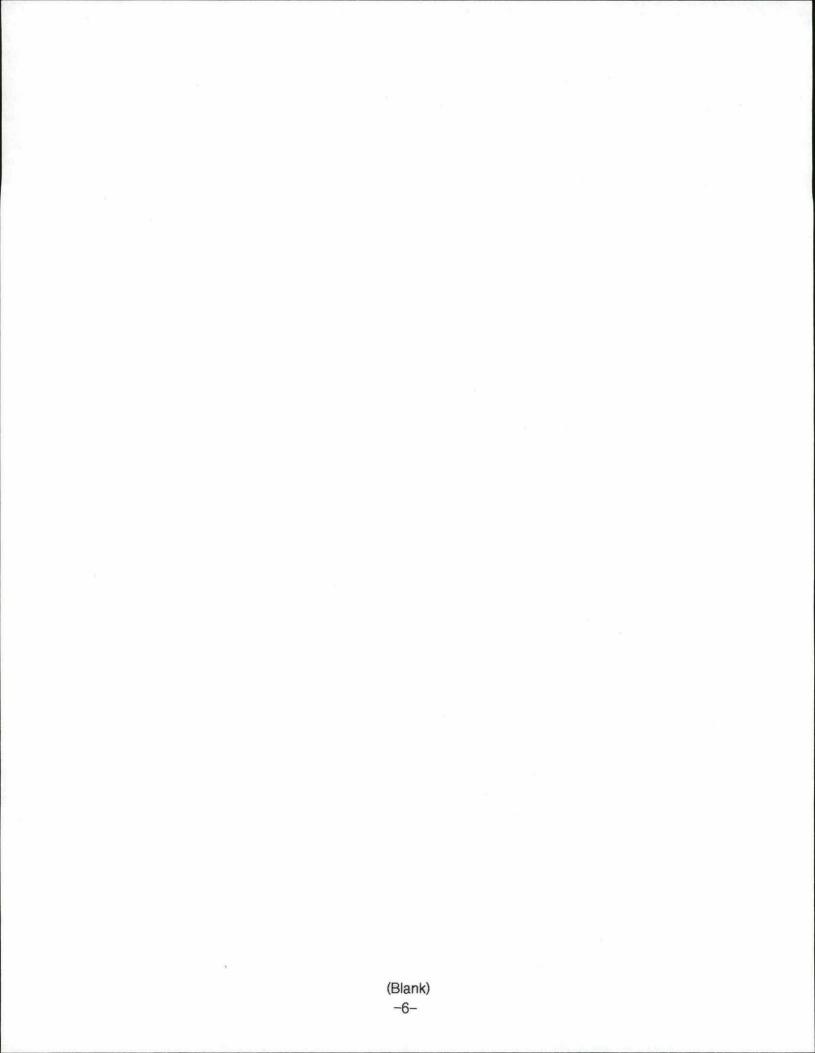
# Fixed Income Asset Class Target

Minnesota State Board of Investment May 2012



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### **Executive Summary**

The asset class target for the MSBI Fixed Income Program is the Barclays Capital U.S. Aggregate Bond Index ("Barclays Agg"). The asset class target history of the Fixed Income Program is provided in Appendix A. Given the increase in market volatility in recent years; the relatively large exposure to equity asset classes in the total MSBI portfolio; and the changing composition of the Barclays Agg, staff conducted an analysis to determine whether the Barclays Agg or an alternative fixed income index is best suited to reflect the Fixed Income Program's objectives going forward. As part of the analysis, staff reviewed various fixed income asset class targets (i.e. "indices" or "benchmarks") relative to the Fixed Income Program's stated objectives. To determine whether the current fixed income benchmark is best positioned to meet the Program objectives relative to alternative fixed income indices; staff analyzed the following data during periods of varying equity market returns:

(1) historical portfolio return and risk, including the current fixed income portfolio and prospective portfolios using substitute benchmarks (diversification);

(2) historical return correlations between the fixed income indices reviewed and the total MSBI portfolio and each individual asset class within the MSBI portfolio (diversification);

(3) probability of a 5% loss in the current total MSBI portfolio and in the MSBI portfolio with an alternative fixed income benchmark (diversification); and

(4) excess returns generated by the current Fixed Income Program (returns).

Staff concludes the current benchmark, the Barclays Capital U.S. Aggregate Bond Index, most accurately reflects the MSBI's objectives for the Fixed Income Program. Consequently, staff believes that no modifications to the Fixed Income Program are necessary at this time. The basis for staff's recommendation is discussed in subsequent sections.

Staff utilized historical return and standard deviation information for the actual MSBI portfolio and fixed income benchmarks under review. Results were based on returns during the time period covering July 1988 to March 2012 to determine model portfolio returns, risk, loss probabilities, and correlations with the individual domestic equity, international equity, and alternatives asset classes. (The SBI introduced the semi-passive strategy into the fixed income portfolio in July 1988.) Model portfolios utilized in this analysis are further described below. Staff used the policy weights assigned to each asset class over the July 1988 through March 2012 time period. The policy weights and timeframes are shown in Tables 1 through 4 below.

# Table 1 – MSBI Portfolio, July 1988 – September 1992

| Asset                     | t Class              |     | Weight |
|---------------------------|----------------------|-----|--------|
| MSBI Equity               |                      |     | 75%    |
|                           | Domestic Equity      | 60% |        |
|                           | International Equity | 0%  |        |
|                           | Alternatives         | 15% |        |
| Active Fixed Income       |                      |     | 12.5%  |
| Semi-Passive Fixed Income |                      |     | 12.5%  |
|                           |                      |     | 100%   |

# Table 2 – MSBI Portfolio, October 1992 – March 1996

| Asset                     | Class                |     | Weight |
|---------------------------|----------------------|-----|--------|
| MSBI Equity               |                      |     | 75%    |
|                           | Domestic Equity      | 50% |        |
|                           | International Equity | 10% |        |
|                           | Alternatives         | 15% |        |
| Active Fixed Income       |                      |     | 12.5%  |
| Semi-Passive Fixed Income |                      |     | 12.5%  |
|                           |                      |     | 100%   |

# Table 3 – MSBI Portfolio, April 1996 – June 2008

| Asset                     | t Class              |     | Weight |
|---------------------------|----------------------|-----|--------|
| MSBI Equity               |                      |     | 75%    |
|                           | Domestic Equity      | 45% |        |
|                           | International Equity | 15% |        |
|                           | Alternatives         | 15% |        |
| Active Fixed Income       |                      |     | 12.5%  |
| Semi-Passive Fixed Income |                      |     | 12.5%  |
|                           |                      |     | 100%   |

# Table 4 – MSBI Portfolio, July 2008 – Present

| Asset                     | t Class              |     | Weight |
|---------------------------|----------------------|-----|--------|
| MSBI Equity               |                      |     | 80%    |
|                           | Domestic Equity      | 45% |        |
|                           | International Equity | 15% |        |
|                           | Alternatives         | 20% |        |
| Active Fixed Income       |                      |     | 10%    |
| Semi-Passive Fixed Income |                      |     | 10%    |
|                           |                      |     | 100%   |

Fixed Income Asset Class Target - May 2012

# **Fixed Income Program Objectives**

The Fixed Income Program's primary objectives are to provide diversification to MSBI's equity (i.e. domestic, international, and alternative investments) exposure; realize appropriate risk-adjusted returns over the long-term; and serve as a deflation hedge.

# Fixed Income Asset Class Target

The asset class target for the MSBI Fixed Income Program should meet the following criteria:

- Represent a broad range of investment opportunities available to institutional investors in the fixed income marketplace.
- Reflect the constraints an institutional investor experiences in the marketplace.
- Embody the fixed income program's return objectives and risk tolerance.
- Provide a passive representation of the investment process or style of the fixed income manager(s).
- Be unambiguous and transparent regarding inclusion criteria and methodology for security-weighting.
- Provide a measurable performance standard which can be used to evaluate both the investment results and risk characteristics of the program.
- Be investable by allowing investors to replicate the benchmark using constituent securities that are liquid, suffer a low level of turnover, and benefit from low transaction costs.

# **Fixed Income Asset Class Targets and Characteristics**

As part of the analysis, staff reviewed several fixed income asset class targets. Each of the benchmarks has varying attributes, such as sector weightings, average maturity, and interest rate and spread risks. A list of those indices, including the general characteristics of each, is as follows:

- Barclays Capital U.S. Aggregate: A benchmark that measures the investment grade, USD-denominated, fixed-rate taxable bond market, including Treasuries, government-related, and corporate securities, mortgage-backed securities ("MBS"), asset-backed securities ("ABS"), and commercial mortgage-backed securities ("CMBS").
- **Barclays Capital U.S. Long Credit:** A benchmark that measures the investment grade, USD-denominated corporate bond market and a non-corporate component that includes foreign agencies, sovereigns, supranationals, and local authorities. The benchmark is limited to securities with maturities of ten years or greater.
- Barclays Capital U.S. Corporate Investment Grade: A benchmark that measures the investment grade, fixed-rate, taxable corporate bond market, including USD-denominated securities publicly issued by U.S. industrial, utility, and financial issuers that meet specified maturity, liquidity, and quality requirements.
- Bank of America Merrill Lynch 3-Month T-Bill: A benchmark that measures the Treasury bond market, limited to maturities of 90 days or less.
- **Barclays Capital U.S. Long Government:** A benchmark that measures the Treasury, agency, and quasi-federal corporate bond market, limited to maturities of ten years or greater.
- **Barclays Capital U.S. Intermediate Government:** A benchmark that measures the Treasury, agency, and quasi-federal corporate bond market, limited to maturities of 1-10 years.

- **Barclays Capital Global Aggregate:** A benchmark that measures the global investment grade fixed-rate debt market, including Treasuries, government-related, corporate securities, MBS, ABS, and CMBS.
- Barclays Capital U.S. Long Government / Credit: A benchmark that measures the investment grade, USD-denominated Treasury, government-related and corporate bond market, limited to maturities of ten years or greater.

The above indices meet each of the criteria for an acceptable fixed income asset class target. The next step in the analysis was to determine whether and to what extent these indices could meet the objectives of the MSBI Fixed Income Program.

# Model Portfolio Return and Risk

The model portfolios used in the analysis are comprised of the policy weights assigned to each asset class in the MSBI portfolio during the time period of July 1988 through March 2012, using a fixed income index as a proxy for the fixed income allocation. Staff divided the historical sample period into three periods: low equity markets, mid equity markets, and high equity markets. Periods of low equity markets are defined as the months during which the investment return of MSBI's domestic equity program benchmark was negative. Periods of mid equity markets are defined as the months during which the investment return of greater, but less than three percent. Periods of high equity markets are defined as the months during which the investment return of MSBI's domestic equity program benchmark was equal to zero or greater, but less than three percent. Periods of high equity markets are defined as the months during which the investment return of MSBI's domestic equity program benchmark was equal to zero or greater. Table 5 provides the average annualized return and standard deviations of each model portfolio during the review period.

|                          | 1975                    | ow Equity Mid Equ<br>(n = 104) (n = 95 |                         |              |                         |              | Full Sample<br>(n = 285) |              |
|--------------------------|-------------------------|--|-------------------------|--------------|-------------------------|--------------|--------------------------|--------------|
|                          | Avg.<br>Ann.<br>Returns | Std.<br>Dev.                           | Avg.<br>Ann.<br>Returns | Std.<br>Dev. | Avg.<br>Ann.<br>Returns | Std.<br>Dev. | Avg.<br>Ann.<br>Returns  | Std.<br>Dev. |
| U.S. Aggregate           | -20.49%                 | 5.94%                                  | 16.84%                  | 3.20%        | 49.84%                  | 5.65%        | 9.75%                    | 10.03%       |
| U.S. Long Gov't          | -19.55%                 | 6.11%                                  | 17.16%                  | 3.58%        | 49.74%                  | 5.82%        | 10.29%                   | 10.04%       |
| U.S. Interm. Gov't       | -20.17%                 | 5.81%                                  | 16.46%                  | 3.17%        | 48.80%                  | 5.53%        | 9.55%                    | 9.82%        |
| U.S. Long<br>Gov/Credit  | -20.44%                 | 6.25%                                  | 17.46%                  | 3.55%        | 51.00%                  | 5.98%        | 10.24%                   | 10.33%       |
| U.S. Long Credit         | -21.37%                 | 6.45%                                  | 17.81%                  | 3.55%        | 52.31%                  | 6.26%        | 10.18%                   | 10.68%       |
| U.S. Corp. Inv.<br>Grade | -21.10%                 | 6.19%                                  | 17.22%                  | 3.25%        | 51.21%                  | 5.99%        | 9.89%                    | 10.37%       |
| Global Agg.              | -21.20%                 | 6.26%                                  | 16.46%                  | 3.65%        | 50.49%                  | 6.33%        | 9.68%                    | 10.40%       |
| BofA 3Mo. T-Bill         | -20.72%                 | 5.85%                                  | 16.12%                  | 3.17%        | 47.81%                  | 5.54%        | 8.95%                    | 9.82%        |

Staff observed that standard deviation is generally lower for all indices in which exposure to treasury and other government-related securities exists. Moreover, average annual returns for indices carrying exposure to treasury and government-related securities outperform indices with spread exposure during low equity periods

Fixed Income Asset Class Target - May 2012

and underperform during mid and high equity periods. Over the full sample period, long duration indices outperformed shorter duration indices to some degree. However this took place during a time period that experienced an unprecedented secular decline in interest rates.

# **Return Correlations**

To observe whether the fixed income portfolio provided diversification to the MSBI's equity portfolios, staff measured historical correlations of investment returns between each fixed income benchmark and the equity portfolios. Tables 6 through 9 illustrate the correlation of investment returns between each fixed income benchmark analyzed and the MSBI Domestic Equity, International Equity, Alternatives, and Total Equity Programs during each return period and during the full review period (July 1988 – March 2012).

# Table 6 – Low Equity

|                       | Domestic Equity | International<br>Equity | Alternatives | MSBI Total<br>Equity |
|-----------------------|-----------------|-------------------------|--------------|----------------------|
| U.S. Aggregate        | 0.03            | 0.14                    | 0.05         | 0.07                 |
| U.S. Long Gov't       | -0.09           | -0.05                   | 0.07         | -0.06                |
| U.S. Interm. Gov't    | -0.18           | -0.09                   | 0.04         | -0.14                |
| U.S. Long Gov/Credit  | 0.07            | 0.17                    | 0.06         | 0.11                 |
| U.S. Long Credit      | 0.28            | 0.41                    | 0.02         | 0.32                 |
| U.S. Corp. Inv. Grade | 0.25            | 0.41                    | -0.02        | 0.29                 |
| Global Agg.           | 0.13            | 0.35                    | 0.12         | 0.21                 |
| BofA 3Mo. T-Bill      | 0.12            | 0.07                    | 0.10         | 0.15                 |

# Table 7 – Mid Equity

|                       | Domestic Equity | International<br>Equity | Alternatives | MSBI Total<br>Equity |
|-----------------------|-----------------|-------------------------|--------------|----------------------|
| U.S. Aggregate        | -0.10           | -0.02                   | -0.10        | -0.14                |
| U.S. Long Gov't       | -0.14           | -0.06                   | -0.11        | -0.18                |
| U.S. Interm. Gov't    | -0.10           | -0.02                   | -0.06        | -0.12                |
| U.S. Long Gov/Credit  | -0.11           | -0.04                   | -0.16        | -0.19                |
| U.S. Long Credit      | -0.08           | -0.02                   | -0.20        | -0.18                |
| U.S. Corp. Inv. Grade | -0.08           | -0.01                   | -0.15        | -0.16                |
| Global Agg.           | 0.04            | 0.32                    | -0.07        | 0.09                 |
| BofA 3Mo. T-Bill      | 0.10            | 0.02                    | 0.07         | 0.08                 |

# Table 8 – High Equity

|                       | Domestic Equity | International<br>Equity | Alternatives | MSBI Total<br>Equity |
|-----------------------|-----------------|-------------------------|--------------|----------------------|
| U.S. Aggregate        | 0.02            | -0.28                   | 0.00         | -0.10                |
| U.S. Long Gov't       | -0.11           | -0.40                   | 0.06         | -0.22                |
| U.S. Interm. Gov't    | -0.02           | -0.39                   | -0.01        | -0.17                |
| U.S. Long Gov/Credit  | -0.03           | -0.25                   | 0.04         | -0.11                |
| U.S. Long Credit      | 0.07            | -0.01                   | 0.01         | 0.04                 |
| U.S. Corp. Inv. Grade | 0.11            | 0.01                    | -0.02        | 0.06                 |
| Global Agg.           | 0.22            | 0.27                    | -0.19        | 0.20                 |
| BofA 3Mo. T-Bill      | -0.06           | -0.47                   | 0.10         | -0.15                |

# Table 9 – Full Sample

|                       | Domestic Equity | International<br>Equity | Alternatives | MSBI Total<br>Equity |
|-----------------------|-----------------|-------------------------|--------------|----------------------|
| U.S. Aggregate        | 0.12            | 0.03                    | -0.03        | 0.11                 |
| U.S. Long Gov't       | -0.07           | -0.18                   | 0.00         | -0.08                |
| U.S. Interm. Gov't    | -0.08           | -0.18                   | -0.02        | -0.09                |
| U.S. Long Gov/Credit  | 0.10            | 0.04                    | -0.04        | 0.09                 |
| U.S. Long Credit      | 0.28            | 0.27                    | -0.08        | 0.28                 |
| U.S. Corp. Inv. Grade | 0.31            | 0.30                    | -0.08        | 0.30                 |
| Global Agg.           | 0.17            | 0.31                    | -0.05        | 0.20                 |
| BofA 3-Mo. T-Bill     | 0.03            | -0.06                   | 0.09         | 0.03                 |

Staff observed that negative correlation with equity asset classes generally exists only with the U.S. Long Government and U.S. Intermediate Government indices. Over the full sample period, the U.S. Aggregate, 3-Month T-Bill, and U.S. Long Government/Credit indices exhibit weak correlation with equity asset classes, whereas fixed income indices with high credit and international exposure showed somewhat stronger correlation. Overall, the correlation of the current asset class target is not materially different from the alternative fixed income benchmarks.

# **Loss Probabilities**

To observe whether the fixed income portfolio realizes appropriate risk-adjusted returns over the long-term, staff examined the probability of loss in the actual MSBI total portfolio and each of the model portfolios during the full review period. The analysis included each one-year period of twelve continuous months. The probability of loss is calculated by dividing the number of one-year periods in which the portfolio fell below the 5% threshold level by the total number of periods reviewed. Probability of loss at the end of the time horizon measures only the likelihood that an investment will depreciate to a particular level from inception to the end of the horizon. Probability of loss within the time horizon measures the likelihood that an investment will depreciate to a particular level from inception to the end of

probability of a 5% loss for the MSBI portfolio and each model portfolio during a one-year time horizon. Table 11 provides the probability of a 5% loss for the MSBI portfolio and each model portfolio during a one-year time horizon during a turbulent period. For purposes of this analysis, turbulent periods comprise the 20% most volatile months based on the current MSBI total portfolio over the July 1988 to March 2012 time period.

|                   | MSBI<br>Actual<br>Total<br>Portfolio | U.S.<br>Agg | U.S.<br>Long<br>Gov't | U.S.<br>Interm.<br>Gov't | U.S. Long<br>Gov/Credit | U.S.<br>Long<br>Credit | U.S.<br>Corp.<br>Inv.<br>Grade | Global<br>Agg | BofA 3-<br>Mo. T-<br>Bill |
|-------------------|--------------------------------------|-------------|-----------------------|--------------------------|-------------------------|------------------------|--------------------------------|---------------|---------------------------|
| End of<br>Horizon | 13.1%                                | 12.8%       | 13.1%                 | 12.8%                    | 13.1%                   | 12.8%                  | 13.5%                          | 13.1%         | 13.5%                     |
| Within<br>Horizon | 23.0%                                | 22.6%       | 21.9%                 | 22.6%                    | 21.9%                   | 23.0%                  | 23.4%                          | 21.5%         | 22.6%                     |

Table 10 – Probability of a 5% Loss, 1-Year Time Horizon

Table 11 – Probability of a 5% Loss, 1-Year Time Horizon, Turbulent Period

|                   | MSBI<br>Actual<br>Total<br>Portfolio | U.S.<br>Agg | U.S.<br>Long<br>Gov't | U.S.<br>Interm.<br>Gov't | U.S. Long<br>Gov/Credit | U.S.<br>Long<br>Credit | U.S.<br>Corp.<br>Inv.<br>Grade | Global<br>Agg | BofA 3-<br>Mo. T-<br>Bill |
|-------------------|--------------------------------------|-------------|-----------------------|--------------------------|-------------------------|------------------------|--------------------------------|---------------|---------------------------|
| End of<br>Horizon | 45.7%                                | 45.7%       | 45.7%                 | 43.5%                    | 45.7%                   | 45.7%                  | 45.7%                          | 41.3%         | 45.7%                     |
| Within<br>Horizon | 50.0%                                | 50.0%       | 47.8%                 | 50.0%                    | 47.8%                   | 50.0%                  | 50.0%                          | 50.0%         | 50.0%                     |

Staff concludes that the current Fixed Income Program benchmark is generally equal or superior to other potential fixed income indices in both sample types.

# **Excess Returns of the MSBI Fixed Income Portfolio**

To observe whether the fixed income portfolio realizes appropriate risk-adjusted returns over the long-term, staff examined the excess returns of the fixed income portfolio during the review period. Table 12 provides the annualized excess return, or alpha, standard deviation, batting average, and win/loss ratio during the review period for the MSBI fixed income portfolio. Batting average is calculated by dividing the number of months with positive excess return by the total number of months in the review period. The win/loss ratio is calculated by dividing the average amount of positive excess returns by the average amount of negative excess returns.

|   | Low Equity | Mid Equity | <b>High Equity</b> | Full Sample |  |
|---|------------|------------|--------------------|-------------|--|
| Annualized Excess<br>Return               | -1.60%     | 0.73%      | 1.99%              | 0.25%       |  |
| Standard<br>Deviation of<br>Excess Return | 1.59%      | 0.57%      | 1.06%              | 1.25%       |  |
| Batting Average                           | 39.42%     | 72.63%     | 73.26%             | 60.70%      |  |
| Win/Loss Ratio                            | 0.45       | 1.06       | 2.88               | 0.80        |  |
| Avg. Annualized<br>Return                 | 3.80%      | 7.65%      | 12.32%             | 7.60%       |  |
| Standard<br>Deviation                     | 4.28%      | 3.81%      | 4.13%              | 4.20%       |  |

Table 12 – Excess Returns, Fixed Income Portfolio

The MSBI's Fixed Income Program generates excess returns over the long term. However, because the majority of the active bets are made in the credit portion of the portfolio, the correlation of the excess returns to the economic cycle is very high. Negative alpha was realized during the low equity period only, and both batting average and the win/loss ratio were quite low during this period. The fixed income portfolio experienced positive alpha and a high batting average during the mid and high equity periods. As evidenced by the win/loss ratio, positive excess returns were larger than negative excess returns during the high equity periods and about equal during the mid equity periods.

# Summary and Recommendation

Staff concludes the current benchmark, the Barclays Capital U.S. Aggregate Bond Index, most accurately reflects the MSBI's objectives for the Fixed Income Program. Consequently, staff believes that no modifications to the Fixed Income Program asset class target are necessary at this time.

The Barclays Agg consists of approximately 7,800 constituent securities and represents a broad range of investment opportunities available to institutional investors in the fixed income marketplace. The index is measurable, has clear inclusion criteria and methodology for security-weighting, is investable, and is representative of the MSBI's asset allocation strategy and risk tolerance.

The Fixed Income Program acts primarily as diversification to the total MSBI equity exposure, which is 80% of the total portfolio on a target basis. Historical correlation of returns between the Barclays Agg and the MSBI equity portfolios over the full sample period is modestly positive, but is only slightly better or worse than various alternative fixed income benchmarks. With an historical correlation of 0.11, the Barclays Agg has exhibited weak correlation with MSBI's equity portfolio and therefore offers diversification to MSBI's total equity portfolio.

In addition to providing diversification, the Fixed Income Program attempts to realize an appropriate riskadjusted rate of return over the long-term. Despite having significant exposure to spread sectors, the average annualized returns and standard deviation of the Barclays Agg compare favorably to other benchmarks. Furthermore, staff believes the diversification of sectors<sup>1</sup> within the Barclays Agg provides opportunities to add alpha to the fixed income portfolio over time, and such opportunities may be limited in benchmarks and portfolios that are proxied to an index that is more concentrated in only certain parts of the fixed income market. Some long duration benchmarks provided somewhat better absolute returns (approximately 40-50 basis points); however these returns occurred during a time of prolonged secular declines in interest rates that benefited a long duration benchmark over a medium duration benchmark such as the Barclays Aggregate.

This paper is intended to analyze and review published fixed income benchmarks and their use within the SBI total portfolio. Analysis of the use of TIPS, gold, emerging market debt, high-yield debt, distressed debt, or other alternative fixed income assets could be issues that the IAC and SBI staff may review in the future.

<sup>&</sup>lt;sup>1</sup> As of 12/31/2011, the sectors and float-adjusted weights of the Barclays Capital U.S. Aggregate Bond Index are U.S. Treasury (37.4%), Government-Related (11.0%), Investment Grade Corporates (21.2%), U.S. Mortgage-Backed Securities (27.9%), Asset-Backed Securities (0.2%), and Commercial Mortgage-Backed Securities (2.2%).

Fixed Income Asset Class Target - May 2012

# Appendix A

# **Fixed Income Program Asset Class Target History**

7/1/1984 - 6/30/1994

7/1/1994 - Present

Solomon Brothers Broad Investment Grade Index

Barclays Capital U.S. Aggregate Bond Index<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> From 7/1/1994 – 9/18/2008, index was the Lehman Brothers Aggregate Bond Index. Barclays Capital purchased the Lehman Brothers family of indices after Lehman Brothers filed for bankruptcy protection in September 2008.

Fixed Income Asset Class Target - May 2012

# TAB G

DATE: May 15, 2012

# TO: Members, Investment Advisory Council

FROM: Stephanie Gleeson, Manager, International Equities

SUBJECT: Issues related to the management of emerging markets equity using separate accounts.

# Background

The Minnesota State Board of Investment (SBI) uses separate accounts for the publicly traded asset classes of the Combined Funds. A separate account allows the SBI to control the investment guidelines by which the manager invests the account, to negotiate favorable fees to administer various investment restrictions (as mandated by the Board or by law), and to segregate and control securities lending. When the SBI invested in emerging markets in 1995, it did so via separate accounts with external investment managers.

Equity markets outside of the United States follow different procedures in their tax and legal treatment of foreign investors. In a separate account, the State is the registered foreign investor in each market that requires documentation. As a result, the SBI is required to comply with all local registration, legal and tax requirements which, in the emerging markets in particular, have become increasingly complicated.

# **Issue: India Tax Filings**

The SBI is required to file annually a tax return in India which it must review and sign. To meet this requirement, the SBI must retain an accounting firm in India to complete and file the return. The negotiations for renewal of this contract have become increasingly difficult, and the SBI does not have leverage to negotiate reasonable terms. The accounting firm has significantly limited the scope of their liability and has sought, unsuccessfully so far, not to be held responsible for the completeness and accuracy of their work product.

# Background on the Indian tax issue.

Despite being qualified as a tax exempt (non-ERISA) defined benefit plan in the U.S., the SBI's Indian equity assets are subject to local capital gains taxes. At this time, India is the only major foreign market which imposes capital gains taxes on qualified U.S. tax-exempt plans. In 2010 the Indian government proposed significant increases to their capital gains tax rates in draft legislation of a new Direct Tax Code (DTC) intended to replace India's existing Direct Law Laws. Public comments regarding these proposals were solicited, and SBI staff submitted a response to the Indian authorities. See attached **Exhibit A**.

Staff investigated whether the SBI should dispute the basis for paying capital gains taxes in the Indian market. The United States addresses tax rates and jurisdiction on specified types of income (including capital gains and income tax on dividend income) arising in a country to a tax resident of another country in bilateral Double Taxation Avoidance Agreements (DTAA's). The U.S. has entered into treaties with many, but not all, foreign countries. Article 13 (Gains) of the U.S.-India DTAA provides that each country may tax capital gains (associated with the sale of shares) in accordance with the provisions of its own domestic law rather than in accordance with the laws of the country of residence of the shareholder (the model, or pro-forma, treaty language). This provision means that gains realized by U.S.-residents on the sale of shares in India will be taxed in accordance with Indian law. Article 26 (Non-Discrimination) of the Treaty provides that "nationals" of each country shall not be subjected in the other country to any taxation which is more burdensome than the taxation to which nationals of that other country in the same circumstance are subjected. India does not assess capital gains taxes on its own government pension funds. Finally, Article 27 (Mutual Agreement Procedure) of the Treaty provides that where "a person" considers that the actions of either country results in taxation not in accordance with the provisions of the treaty, "he" may present "his" case to the competent authority of the country of which he is a resident. The Internal Revenue Service is the competent authority in the U.S.

Resolving tax disputes by filing a grievance with the U.S. competent authority (IRS) typically takes many years and would not allow a timely resolution to the issue of India's discriminatory tax practices. Alternatively, seeking remedy in local Indian courts is an expensive, time consuming and, in the vast majority of cases, unsuccessful endeavor. Local Indian courts, in actions related to tax discrimination, have commonly held that the Indian and non-Indian entities are not "in the same circumstance", typically on the basis of a variety of very inconsequential differences, and therefore cannot claim treaty non-discrimination benefits. In addition, if a case is successful in local court, it is typically "reversed" by the Indian Parliament via the subsequent passage of a law which is made retroactive to 1961, the date of India's Income-tax Act. Therefore, SBI staff concluded that the most productive option would be to urge the U.S. authorities to update the language of the U.S.-India DTAA to provide a specific exemption from capital gains taxes for U.S.-based public pension funds. Exemption language is currently included in the DTAA's that the United States has entered into with other countries. Renegotiating a treaty is a time consuming process and is a long term not an immediate solution. However, it offers the possibility of absolute clarity on this tax issue (to the extent that clarity on tax issues is ever possible in India). A number of other large U.S. public pension funds signed on to the SBI's letters to the U.S. Treasury and the U.S. Congressional Committee on Joint Taxation. See attached Exhibits B & C. In the final version of the DTC legislation presented to the Indian Parliament, there were no changes to the rates of capital gains taxes which still stand. effectively, at 15% for short term capital gains and 0% for long term capital gains. However, U.S. pension funds remain subject to future rate changes in law or in annual budget announcements.

# Issue: Taiwan Tax Filing Agent

The SBI is encountering significant difficulties in entering into a contract with a local tax filing agent in Taiwan. They are demanding total indemnification (which the SBI cannot give) and other terms to which the SBI cannot legally agree.

# Background on the Taiwan Tax Filing Agent Requirement

In Taiwan, income tax is withheld at source on dividend income. Investors are permitted to withdraw all "net remitted-in principal", which is total contributions minus total redemptions, from the market prior to appointing a local Tax Filing Agent (TFA). To repatriate realized earnings over and above the "net remitted-in principal", the investor is required to appoint a TFA to perform an audit of all of the client's transactions to ensure that the correct amount of taxes have been withheld. This requirement means that the SBI must engage a local Taiwanese accounting firm to perform an audit before the SBI can repatriate any amounts other than the net value of its contributions into that market. A foreign investor may wait until its first repatriation of earnings to make the TFA appointment. The SBI has reached the point at which it needs to appoint a TFA in Taiwan.

# Issue: Tax on Dividends

Many foreign markets in which the SBI invests withhold income tax on distributed dividends. Certain markets refund all or a portion of those retained income taxes based on provisions agreed to in the U.S.'s DTAA's with each individual market. The SBI's custodian files for these tax refunds in the various markets. The processes for applying for withheld income recently changed in Indonesia, the Philippines, and Switzerland. Staff is often required to review and assist in completing the relevant paperwork. While Staff is prepared to continue to assist in this process, considerable staff time is allocated to accomplish this task.

# Issue: Ongoing Changes in Emerging Market Countries

As discussed, local emerging market registration, legal and tax requirements, examples of which have been provided above, have become increasingly complicated and a significant issue for the SBI. These issues are expected to potentially become more complex, in particular as MSCI, the index provider, "graduates" other markets into their emerging markets index.

# **Potential Solutions:**

- 1.) Convert separately managed accounts into commingled funds.
- 2.) Require managers to gain market exposure in certain countries through depository receipts traded in either London or New York.
- 3.) Invest in only those emerging markets in which the SBI can meet all the regulatory and administrative requirements.
- 4.) Eliminate the emerging markets program.
- 5.) Other.

# Background on issues related to converting Emerging Markets Equity Holdings to Commingled Funds.

Preliminary examination by staff has pointed to a number of issues associated with converting the SBI's emerging markets equity separate accounts to comingled funds with existing managers. These issues include the following:

- <u>Transaction Costs</u>. In many emerging markets, assets cannot be transferred between beneficial owners. In a separate account, the State of Minnesota is the beneficial owner (with individual manager sub-accounts), whereas in a comingled fund the manager is the beneficial owner (with individual client sub-accounts). One of the SBI's existing emerging markets equity managers has conservatively estimated that in order to transition the state's separate account portfolio to the manager's comingled fund, the state would have to sell over fifty percent of the assets currently in the account. The average commission costs alone for this trade would be approximately eighteen basis points (0.18%) of the value of the traded assets. This amount does not include any costs associated with market impact or local taxes and fees. With \$1.6 billion U.S. dollars in emerging markets equities as of March 31, 2012, the transaction costs would be significant.
- 2. <u>Control of Investment Guidelines</u>. In a separate account, the state establishes the investment guidelines of the account. In a comingled fund, the manager establishes the investment guidelines of the fund which are uniform across all investors in the fund and cannot be customized to one investor's needs.
- 3. <u>Operational Issues Daily Valuation</u>. The SBI's assets are valued daily by the custodian, State Street Bank. This allows for daily liquidity in the Supplemental Investment Funds which invest in the unitized asset class pools. In order for the SIF International Share Account to maintain daily liquidity for participants, the emerging market comingled fund investments would have to be able to provide a daily valuation (NAV) to State Street Bank by 6 p.m. ET.
- 4. <u>Operational Issues Liquidity</u>. While a comingled fund might be able to provide a daily valuation, it might only allow weekly or monthly "openings" for contributions and redemptions. The SBI has rebalancing policies and periodic needs to raise cash to pay participant benefits and would therefore require monthly liquidity at a minimum.
- 5. Operational Issues Holdings Transparency. The SBI uses external vendors for a variety of analytics, including performance attribution. The most accurate analytics are based on holdings (versus returns only) information. Currently, all of the SBI's emerging markets equity holdings are custodied at State Street Bank. As a result, State Street can send daily holdings feeds to Factset and regularly provide holdings information to the SBI's consultant and to State Street's own Performance & Analytics department for the purpose of creating attribution analytics. However, investments in a comingled fund would be custodied at a different bank, and the SBI would have access to holdings information on a much less frequent basis, possibly with a lag and, perhaps not at all.

6. <u>Securities Lending</u>. If the SBI moved its emerging markets equity assets into comingled funds, it would require the funds to be non-lending. This requirement might restrict the fund options that the SBI has available to it and it will reduce the securities lending income which the SBI currently earns on these assets.

# **ACTION:**

Staff requests IAC input and suggestions related to the SBI's Emerging Markets Program.

Staff will request that the Board authorize staff to make necessary modifications to the Emerging Markets Program to ensure that it can operate effectively.

-5-

# EXHIBIT A

| From:    | Stephanie Gleeson [stephanie.gleeson@pop3.state.mn.us]                            |
|----------|---|
| Sent:    | Wednesday, June 30, 2010 4:40 PM  |
| То:      | 'directtaxescode-rev@nic.in'  |
| Cc:      | 'Howard.Bicker@state.mn.us'; 'Teri.Richardson@state.mn.us'                        |
| Subject: | U.S. pension fund's Comments regarding the proposed Indian Direct Taxes Code Bill |
|          | (DTC)   |

To Whom it may concern:

I am writing on behalf of a U.S. based public pension fund, the Minnesota State Board of Investment. We are responsible for investing the pension assets on behalf of all of the teachers, and state and public employees in the State of Minnesota. As of March 31, 2010, our fund was the 30<sup>th</sup> largest among both public and corporate pension funds in the United States with over \$40 billion (USD) in pension assets under its control. Our fund has been a registered FII in India since March 2004. As of June 29, 2010, our fund had the Indian Rupee equivalent of over \$157 million (USD) invested locally in the Indian equity market.

Our Executive Director would like to make the following comments to the proposed changes to the taxation of capital gains as outlined in the Revised Discussion Paper (RDP) on the proposed Direct Taxes Code Bill (DTC):

1. Our understanding is that the stated intent of the Government of India (GOI) in the DTC is to simplify the tax code, lower tax rates, and broaden the tax base. In our opinion, none of these goals are accomplished with the proposed changes to the taxation of capital gains, which have become more complex and with significantly higher tax rates.

2. If the GOI ultimately decide to raise the tax rate to 30% for all capital gains (short and long term, with an unspecified percentage reduction on long term gains), we will no longer invest locally in India. The cost, complication, and time commitment will, at that point, outweigh the potential investment benefits. Every other foreign market, developed and emerging, in which we invest recognizes the tax exempt status of U.S. pension assets. India is the only market in which we are subject to capital gains taxes on such assets.

Our Executive Director will discuss this issue and solicit the opinions of the heads of all of the other U.S. state pension funds, among whom are two of the largest institutional investors in the world, at a meeting this fall. The best solution would be for India to adopt the same practice as other countries of not subjecting the pension funds of foreign governmental entities to capital gains taxes. Alternatively, we hope that the Government of India will continue with the present tax regime for capital gains or have a moderate tax rate for capital gains which is concessional for long-term holdings.

Thank you.

Stephanie Gleeson, Manager, International Equities Minnesota State Board of Investment | 60 Empire Drive | Ste 355 | St. Paul | MN 55103 Tel: 651-296-9336 | Fax: 651-296-9572



# EXHIBIT B

MINNESOTA STATE BOARD OF INVESTMENT



**Board Members:** 

Governor Tim Pawlenty

State Auditor Rebecca Otto

Secretary of State Mark Ritchie

Attorney General Lori Swanson

Executive Director: Howard J. Bicker

60 Empire Drive Suite 355 St. Paul, MN 55103 (651) 296-3328 FAX (651) 296-9572 E-mail: <u>minn.sbi@state.mn.us</u> www.sbi.state.mn.us

An Equal Opportunity Employer October 21, 2010

U.S. Department of the Treasury Assistant Secretary (Tax Policy) 1500 Pennsylvania Avenue, N.W., Room 3120 Washington, D.C. 20220

RE: <u>U.S. Tax Convention With The Republic of India</u> and the treatment of gains of U.S. pension funds

## Dear Sir or Madam,

We represent a group of the largest U.S. based state (public) pension funds, who administer and direct the investment of the pension assets of various statewide public pension systems. As of June 30, 2010, together we controlled over \$784 billion (USD) in pension assets with significant investments in publically-traded securities in foreign markets.

We would like to bring to your attention a tax issue which we hope will be clarified when the U.S. Tax Convention With The Republic of India is renegotiated in the future. India is the only large foreign market which reserves the right to tax capital gains in accordance with the provisions of its domestic law. While India's domestic tax laws exempt from tax the Indian Government's pension scheme together with other approved local pension schemes, the Indian Government does not extend that right to foreign government pension schemes. U.S. pension funds that register to invest locally in India are required to pay capital gains taxes. The Indians also argue (in similar cases which have been upheld in local courts) that the treaty's non-discrimination clause does not apply since, in their opinion, we are not strictly speaking "in the same circumstance". Further, India feels that U.S. state governmental entities do not meet the definition of "person" under the Treaty, and therefore are not entitled to claim relief per the Treaty's provisions. We understand that other U.S. tax treaties have special treatment for foreign pension funds. We urge you to renegotiate the U.S. Tax Convention With The Republic of India, which is now twenty years old, and to include the treatment of gains realized by U.S. state/government pension funds among the negotiation points.

This issue has come to the fore recently because the Indian Government is proposing to re-write the tax code of that country. Originally, the government proposed significantly increasing the capital gains tax rates, raising short-term rates, on investment held less than one year, from 15% to 30% and raising long-term rates, on investments held longer than one year, from 0% to 30%. However,

in the bill submitted to their parliament on August 30, 2010, their proposal is to keep capital gains tax rates at current levels (15% on short term gains, 0% on long-term gains).

U.S. pension funds remain subject to whatever local law the Indian Government decides to pass now, or in the future. Should Indian capital gains tax rates ever rise to uncompetitive levels each of our funds will seriously consider no longer investing locally in India. Despite the fact that India represents a large and important market, the cost, complication, and time commitment may, at that point, outweigh the potential investment benefits.

Thank you for your consideration of this matter.

Signed,

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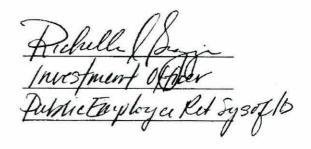
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# EXHIBIT C

MINNESOTA STATE BOARD OF INVESTMENT



### **Board Members:**

Governor Tim Pawlenty

State Auditor Rebecca Otto

Secretary of State Mark Ritchie

Attorney General Lori Swanson

Executive Director:

Howard J. Bicker

60 Empire Drive Suite 355 St. Paul, MN 55103 (651) 296-3328 FAX (651) 296-9572 E-mail: <u>minn.sbi@state.mn.us</u> www.sbi.state.mn.us

An Equal Opportunity Employer October 21, 2010

The Joint Committee on Taxation Chief of Staff & Committee Chairperson 1015 Longworth House Office Building Washington, D.C., 20515

RE: <u>U.S. Tax Convention With The Republic of India</u> and the treatment of gains of U.S. pension funds

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Signed,

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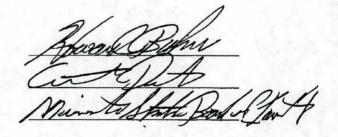
Ash Williams Greather Director 5 CFO Florida State Board of Al-ministration

Hershel Harper Deputy CIO" SC Retirement System Investment Con.

 $\sim$ Chief Invistment Office Louisiana State Employees

Matthew L. Un state Invistment Officen South Dakota Invistment Council

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Chief Investment Officer

California Public Employees' Retirement System

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