

**AGENDA**  
**INVESTMENT ADVISORY COUNCIL MEETING**  
**Tuesday, February 19, 2013**  
**12:00 Noon**  
**State Board of Investment**  
**Board Room – First Floor**  
**60 Empire Drive, St. Paul, MN**

- |   |            |
|---|------------|
| <b>1. Approval of Minutes of November 20, 2012</b>  | <b>TAB</b> |
| <b>2. Report from the Executive Director (H. Bicker)</b>  | <b>A</b>   |
| A. Quarterly Investment Review<br>(October 1, 2012 – December 31, 2012)                         |            |
| B. Administrative Report  | <b>B</b>   |
| 1. Reports on budget and travel   |            |
| 2. Results of FY12 Financial Audit  |            |
| 3. Legislative Update   |            |
| 4. Update on Sudan  |            |
| 5. Update on Iran   |            |
| 6. Litigation Update  |            |
| <b>3. Review of manager performance for the period ending<br/>December 31, 2012 (H. Bicker)</b> | <b>C</b>   |
| <b>4. Alternative Investment Report (J. Griebenow)</b>  | <b>D</b>   |
| A. Review of current strategy.  |            |
| B. Consideration of an investment commitment to one new private<br>equity manager.              |            |
| C. Review of the SBI's investment in core open-end real estate funds.                           |            |
| <b>5. Staff review of the swap market for potential legislative action (H. Bicker)</b>          | <b>E</b>   |
| <b>6. Staff review of risk associated with the management of the SBI (H. Bicker)</b>            | <b>F</b>   |
| <b>7. Other items</b>   |            |

**INVESTMENT ADVISORY COUNCIL**

**MINUTES**

**February 19, 2013**



## **INVESTMENT ADVISORY COUNCIL**

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### **Minutes Investment Advisory Council November 20, 2012**

The Investment Advisory Council (IAC) met at 12:00 Noon Tuesday, November 20, 2012 in the Board Room – First Floor, 60 Empire Drive, St. Paul, Minnesota.

**MEMBERS PRESENT:** Jeff Bailey, Dave Bergstrom, John Bohan, Dennis Duerst, Kim Faust, Doug Gorence, Laurie Hacking, Kristin Hanson (for Jim Schowalter), Judy Mares Lazar, Gary Martin and Elaine Voss.

**MEMBERS ABSENT:** Denise Anderson, Kerry Brick, Jay Kiedrowski, Malcolm McDonald and Mary Vanek.

**SBI STAFF:** Howard Bicker, Jim Heidelberg, LeaAnn Stagg, Paul Anderson, Tammy Brusehaver, Patricia Ammann, Stephanie Gleeson, Mike Messen, Ryan Hill, John Griebenow, J.J. Kirby, Aaron Griga, Debbie Griebenow, Charlene Olson and Melissa Mader.

**OTHERS ATTENDING:** State Auditor Rebecca Otto; Ann Posey, John Jackson, Callan Associates Inc.; Micah Hines; Jim Gelbmann; Christie Eller; Edgar Hernandez, SEIU; Margaret Martin, House Majority Research; Don Leathers, REAM.

The minutes of the August 21, 2012 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 outperformed its Composite Index over the ten year period ending September 30, 2012 (Combined Funds 8.7% vs. Composite 8.6%) and had provided a real rate of return over the latest 20 year period (Combined Funds 8.3% vs. CPI 2.5%).

Mr. Bicker reported that the Combined Funds' assets increased 3.4% for the quarter ending September 30, 2012 due to positive market performance. He said that the asset mix is essentially on target, and he stated that the Combined Funds outperformed its Composite Index for the quarter (Combined Funds 4.5% vs. Composite 4.3%) and for the year (Combined Funds 18.1% vs. Composite 17.7%).

Mr. Bicker reported that the domestic stock manager group matched its target for the quarter (Domestic Stocks 6.2% vs. Domestic Equity Asset Class Target 6.2%) and outperformed for the year (Domestic Stock 30.3% vs. Domestic Equity Asset Class Target 30.2%). He said the international stock manager group outperformed for the quarter (International Stock 7.7% vs. International Equity Asset Class Target 7.4%) and for the year (International Stock 14.9% vs.

International Equity Asset Class Target 14.5%). Mr. Bicker stated that the bond segment outperformed its target for the quarter (Bonds 2.4% vs. Fixed Income Asset Class Target 1.6%) and for the year (Bonds 7.5% vs. Fixed Income Asset Class Target 5.2%). He stated that the alternative investments returned 0.3% for the quarter and 6.1% for the year. He concluded his report with the comment that, as of September 30, 2012, the SBI was responsible for over \$62 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. He reported that the Legislative Auditor is working on the financial audit of the SBI's operations for FY12 and that members will receive a copy of their report when it becomes available. He added that a draft of the SBI's FY12 Annual Report will also be distributed by early December. He also noted the tentative meeting dates for calendar year 2013. He stated that updated information on Sudan and Iran is also included in Tab B.

Mr. Bicker asked Ms. Eller, Deputy Attorney General for an update on litigation. Ms. Eller reported that the Minnesota Court of Appeals had affirmed the dismissal of the lawsuit brought by the Break the Bonds group, which challenged the SBI's investment in Israeli bonds. She stated that it's possible that the plaintiffs may file a petition to review with the Minnesota Supreme Court and that the Supreme Court decides whether they will hear the case.

Mr. Bicker referred members to Tab C of the meeting materials and briefly reviewed the process used by the Master Custodian Review Committee to evaluate responses to the SBI's request for proposal for master custody services. He noted that the SBI hosted a question and answer session for potential responders and stated that five firms participated. He added that the SBI received responses from State Street Bank and Trust and Bank of NY Mellon. Mr. Martin stated that he was a member of the review committee, and he said that he was surprised that there were only two responses received. Mr. Martin noted that State Street's fee proposal was attractive and that the SBI has been satisfied with State Street's performance as a custodian. In response to a question from Mr. Gorence, Mr. Bicker stated that the securities lending terms are slightly better under the new proposal. A brief discussion followed. Mr. Bohan moved approval of the Committee's recommendation, as stated in Tab C of the meeting materials, to retain State Street Bank and Trust as the SBI's custodian. Ms. Hacking seconded the motion. The motion passed.

Mr. Bicker gave a brief update to members on the upcoming search for a new Executive Director. He stated that the Board will establish a search committee made up of seven members and that the committee will approve an RFP for the retention of an executive search firm. In response to questions, Mr. Bicker confirmed that staff expect to have the RFP approved by Minnesota Management & Budget before the committee meets in March 2013. Ms. Voss commented that she is comfortable with the search process being put in place.

Mr. Bicker referred members to Tab D of the meeting materials and stated that staff had added comments on each of the manager's performance sheets. A brief discussion followed on various aspects of manager performance and active management in general. Members agreed that any major policy changes should take place after the new Executive Director comes on board.



Mr. Griebenow referred members to Tab E of the meeting materials and briefly reviewed the new investments with two existing private equity managers, Warburg Pincus and Chicago Growth Partners, one existing resource manager, EnCap Investments and one new private equity manager, Public Pension Capital. Mr. Bohan moved approval of the three recommendations with existing managers, as stated in Tab E of the meeting materials. Ms. Voss seconded the motion. In response to questions from Mr. Duerst and Mr. Gorence, Mr. Griebenow briefly discussed the due diligence done on Warburg Pincus and changes in management fees. The motion passed.

Perry Golkin and Michael Tokarz of Public Pension Capital (PPC) gave a presentation on their organization and the PPC Fund. A question and answer session took place after the presentation. Mr. Bergstrom moved approval of the recommendation regarding a new investment in the PPC Fund, as stated in Tab E of the meeting materials. Ms. Voss seconded the motion. The motion passed.

Ms. Stagg led a brief discussion on swaps. Mr. Bailey asked members to come prepared to discuss how they use swaps in their portfolio at the February 2013 meeting.

The meeting adjourned at 2:25 P.M.

Respectfully submitted,



Howard Bicker  
Executive Director

TAB

A



**LONG TERM OBJECTIVES**  
**Period Ending 12/31/2012**

<b>COMBINED FUNDS: \$49.5 Billion</b>	<b>Result</b>	<b>Compared to Objective</b>
<b>Match or Exceed Composite Index (10 Yr.)</b>  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.	<b>8.4% (1)</b>	0.2 percentage point above the target
<b>Provide Real Return (20 yr.)</b>  Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.	<b>8.2%</b>	5.8 percentage points above CPI

(1) Performance is calculated net of fees.



**SUMMARY OF ACTUARIAL VALUATIONS****Nine Plans of MSRS, PERA and TRA  
July 1, 2012****Liabilities**

Actuarial Accrued Liabilities \$63.7 billion

**Assets**

Current Actuarial Value \$47.9 billion

**Funding Ratio**Current Actuarial Value divided by  
Accrued Liabilities 75.3%**Actuarial Assumptions:**

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

July 1, 2012 – June 30, 2017	8%
July 1, 2017 – and later	8.5%
4. Full Funding Target Date:

2040 – MSRS General
2031 – PERA General
2037 – TRA



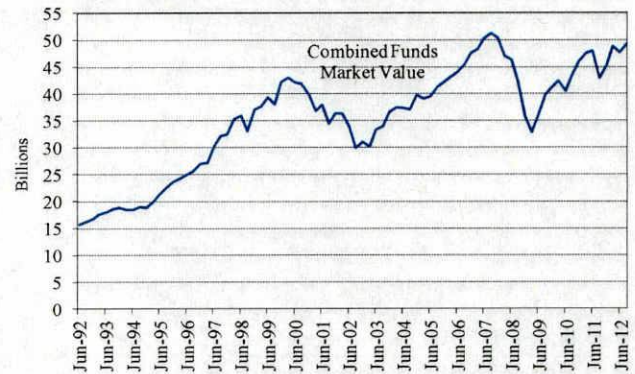
**EXECUTIVE SUMMARY**  
**Combined Funds (Net of Fees)**

**Asset Growth**

The market value of the Combined Funds increased 0.7% during the fourth quarter of 2012. Positive investment returns caused the increase in market value.

**Asset Growth**  
**During Fourth Quarter 2012**  
**(Millions)**

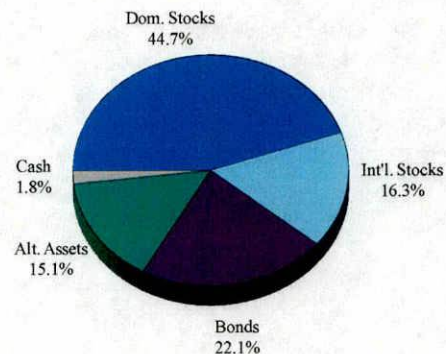
Beginning Value	\$ 49,141
Net Contributions	-479
Investment Return	807
Ending Value	\$ 49,469



**Asset Mix**

The allocation to international equity and alternative assets increased due to outperformance relative to other asset classes.

	Policy Targets	Actual Mix 12/31/2012	Actual Market Value (Millions)
Domestic Stocks	45.0%	44.7%	\$22,123
Int'l. Stocks	15.0	16.3	8,065
Bonds	18.0	22.1	10,913
Alternative Assets*	20.0	15.1	7,452
Cash	2.0	1.8	916
	100.0%	100.0%	\$49,469

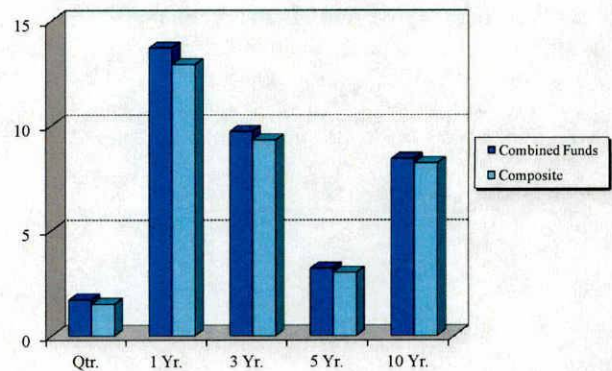


\* Any uninvested allocation is held in bonds.

**Fund Performance (Net of Fees)**

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

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds	1.7%	13.7%	9.7%	3.2%	8.4%
Composite	1.5	12.9	9.3	3.0	8.2



**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 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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Dom. Stocks</b>	<b>0.3%</b>	<b>16.6%</b>	<b>11.1%</b>	<b>1.9%</b>	<b>7.5%</b>
Asset Class Target*	0.2	16.4	11.2	2.0	7.7

\* 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 (active, semi-passive and passive combined) matched its target for the quarter and outperformed for the year.

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

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Int'l. Stocks</b>	<b>5.9%</b>	<b>17.6%</b>	<b>4.3%</b>	<b>-2.7%</b>	<b>9.6%</b>
Asset Class Target*	5.9	16.8	3.9	-2.9	9.7

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

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

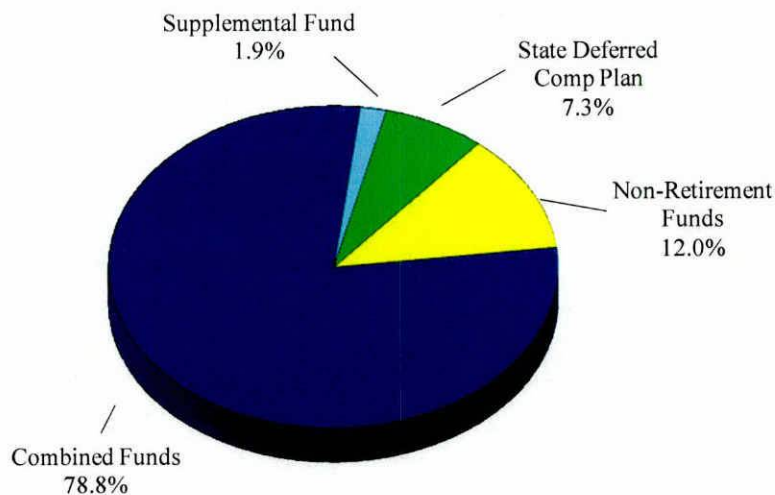
	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Bonds</b>	<b>0.6%</b>	<b>6.7%</b>	<b>7.6%</b>	<b>6.4%</b>	<b>5.6%</b>
Asset Class Target	0.2	4.2	6.2	5.9	5.2

**Alternative Investments**

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Alternatives</b>	<b>3.3%</b>	<b>12.8%</b>	<b>13.1%</b>	<b>5.7%</b>	<b>15.2%</b>



**EXECUTIVE SUMMARY**  
**Funds Under Management**



	<b>12/31/2012 Market Value (Billions)</b>
<b>Retirement Funds</b>	
Combined Funds	\$49.5
Supplemental Investment Fund	1.2
- Excluding Deferred Compensation Plan Assets	
State Deferred Compensation Plan	4.6
<b>Non-Retirement Funds</b>	
Assigned Risk Plan	0.3
Permanent School Fund	0.9
Environmental Trust Fund	0.6
Miscellaneous Trust Accounts	0.1
Other Post Employment Benefits Accounts	0.4
State Cash Accounts	5.2
<b>Total</b>	<b>\$62.8</b>

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# MINNESOTA STATE BOARD OF INVESTMENT

## QUARTERLY INVESTMENT REPORT

Fourth Quarter 2012  
(October 1, 2012 - December 31, 2012)

### Table of Contents

	Page
Capital Market Indices .....	2
Financial Markets Review .....	3
Combined Funds.....	5
Stock and Bond Manager Pools.....	9
Alternative Investments .....	10
Supplemental Investment Fund.....	11
Fund Description	
Income Share Account	
Growth Share Account	
Common Stock Index Account	
International Share Account	
Bond Market Account	
Money Market Account	
Fixed Interest Account	
Volunteer Firefighter Account	
Deferred Compensation Plan.....	14
Assigned Risk Plan .....	17
Permanent School Fund .....	18
Environmental Trust Fund.....	19
State Cash Accounts .....	20
Composition of State Investment Portfolios.....	21

## VARIOUS CAPITAL MARKET INDICES

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Equity</b>					
Russell 3000 (broad market)	0.2%	16.4%	11.2%	2.0%	7.7%
Russell 1000 (large cap)	0.1	16.4	11.1	1.9	7.5
Russell 2000 (small cap)	1.9	16.3	12.2	3.6	9.7
Dow Jones Wilshire Composite	0.2	16.4	11.4	2.2	7.9
Dow Jones Industrials	-1.8	10.1	10.8	2.6	7.3
S&P 500	-0.4	16.0	10.9	1.7	7.1
<b>Domestic Fixed Income</b>					
Barclays Capital Aggregate (1)	0.2	4.2	6.2	5.9	5.2
Barclays Capital Gov't./Corp. 3 month U.S. Treasury Bills	0.4 0.0	4.8 0.1	6.7 0.1	6.1 0.4	5.2 1.7
<b>International</b>					
Emerging Markets Free (2)	5.6	18.2	4.7	-0.9	16.5
ACWI Free ex-U.S. (3)	5.8	16.8	3.9	-2.9	9.7
EAFE (4)	6.6	17.3	3.6	-3.7	8.2
World ex-U.S. (5)	5.9	16.4	3.6	-3.4	8.6
Salomon Non U.S. Gov't. Bond	-2.4	1.5	3.9	5.2	6.4
<b>Inflation Measure</b>					
Consumer Price Index CPI-U (6)	-0.8	1.7	2.1	1.8	2.3
Consumer Price Index CPI-W (7)	-1.0	1.7	2.2	1.9	2.5

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

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

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

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

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

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

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



FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a 0.2% return during the fourth quarter of 2012. Equity markets struggled to gain any momentum in the fourth quarter as the political stalemate in Washington stoked fears of recession and dampened both consumer and investor sentiment. Within the Russell 3000, Financials was the best performing sector with a 5.0% return while the Technology sector led the detractors with a -5.8% for the quarter. Value companies outperformed their growth counterparts for the quarter across large and small capitalization.

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

Large Growth	Russell 1000 Growth	-1.3%
Large Value	Russell 1000 Value	1.5%
Small Growth	Russell 2000 Growth	0.4%
Small Value	Russell 2000 Value	3.2%

The Russell 3000 index returned 16.4% for the year ending December 31, 2012.

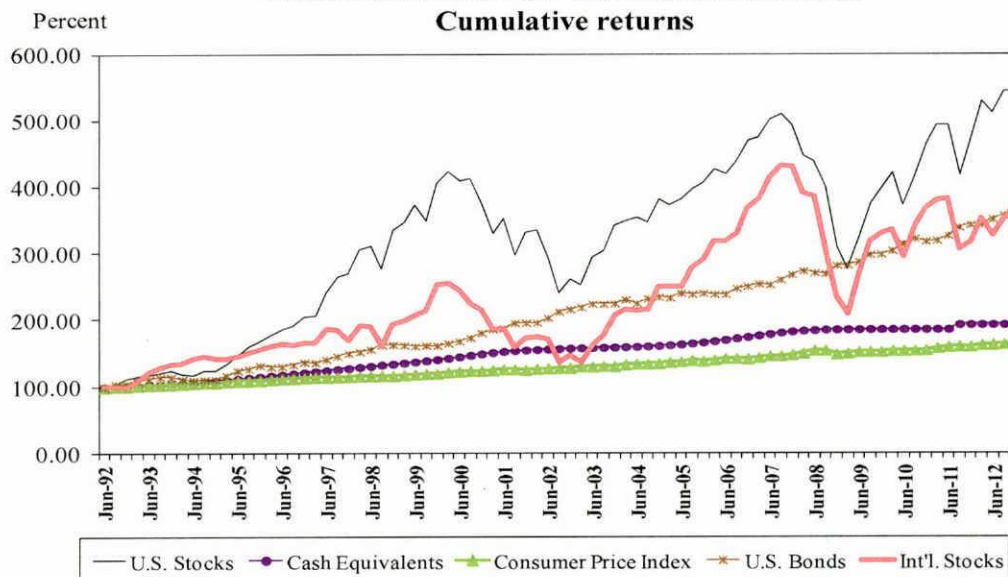
DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 0.2% for the quarter. Yields on U.S. Treasuries rose during the quarter. The 2-year U.S. Treasury ended the fourth quarter two basis points higher at 0.25%, the 10-year yield increased by 13 basis points to 1.76%, and the 30-year yield increased by 13 basis points to 2.95%. Investment grade corporate bonds and CMBS outperformed the benchmark and agency bonds matched the benchmark during the fourth quarter, while all other sectors of the Barclays Agg underperformed the broader benchmark.

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

U.S. Treasury	-0.1%
Agency	0.2
Corporates	1.1
Agency MBS	-0.2
Commercial Mortgages	0.3
Asset-backed	-0.1

PERFORMANCE OF CAPITAL MARKETS  
Cumulative returns



## 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 5.9% for the quarter. The quarterly performance of the six largest stock markets is shown below:

United Kingdom	4.2%
Japan	5.8
Canada	0.7
France	10.8
Australia	6.8
Germany	8.5

The World ex U.S. index returned 16.4% 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 net) provided a return of 5.6% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	12.9%
Brazil	3.5
Korea	4.8
Taiwan	1.5
India	0.5
South Africa	6.2

The Emerging Markets Free index returned 18.2% 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 fourth quarter of 2012, real estate posted its 12<sup>th</sup> consecutive quarter of positive returns with the NCREIF Property Index posting a return of 2.5%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. However, the real estate outlook for 2013 continues to be one of caution due to continued weakness in employment.

### PRIVATE EQUITY

Despite a sluggish start to the year, 2012 saw buyout deal flow approach the post-Lehman high level recorded in mid-2011. Capital markets seem to have thawed, as average debt multiples increased for LBOs in 2012 vs. 2011. In addition, 2012 saw the highest level of private equity-backed exits since 2006, as many buyout firms were able to exit some of their boom-era deals. This in turn led to increased levels of distributions to Limited Partners. 2013 looks to be a crowded fundraising market for GPs as over 1,900 private equity funds were fundraising as of the start of the year (source: Prequin).

### RESOURCE FUNDS

During the fourth quarter of 2012, crude oil traded between a range of \$84/bbl and \$92/bbl. The average price for the fourth quarter of 2012 was \$88/bbl which is approximately \$4/bbl less than the average price for the third quarter of 2012. Strong global energy demand and unrest in the Middle East should continue to provide strength to oil prices.



COMBINED FUNDS

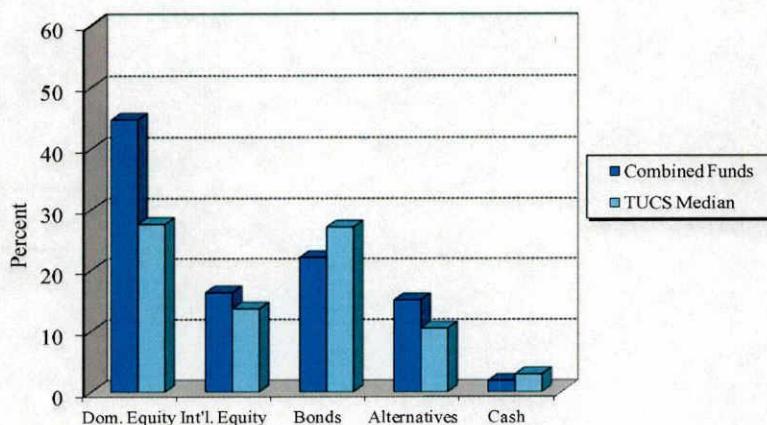
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

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

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:

	\$ Millions	%
Domestic Stocks	\$22,123	44.7%
International Stocks	8,065	16.3
Bonds	10,913	22.1
Alternative Assets	7,452	15.1
Unallocated Cash	916	1.8
<b>Total</b>	<b>\$49,469</b>	<b>100.0%</b>



	Dom. Equity	Int'l Equity	Bonds	Alternatives	Cash
<b>Combined Funds</b>	<b>44.7%</b>	<b>16.3%</b>	<b>22.1%</b>	<b>15.1%</b>	<b>1.8%</b>
Median Allocation in TUCS*	27.5	13.6	27.1	10.5**	2.9

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

\*\* May include assets other than alternatives.

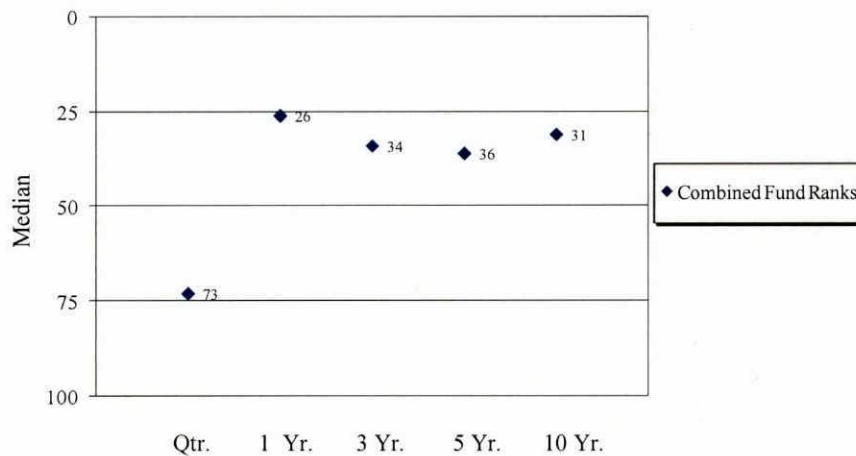
**COMBINED FUNDS  
Performance Compared to Other Pension Funds**

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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds Percentile Rank in TUCS*	73rd	26th	34th	36th	31st

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

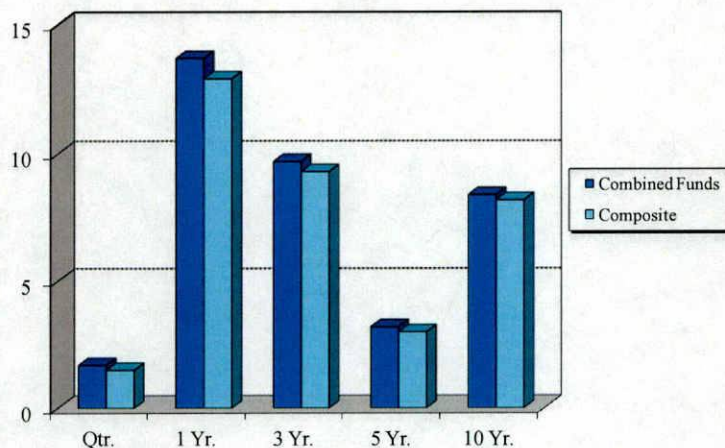


**COMBINED FUNDS**  
**Performance Compared to Composite Index**

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

	Market Index	Combined Funds Composite* 4Q12
Domestic Stocks	Russell 3000	45.0%
Int'l. Stocks	MSCI ACWI Free ex-U.S.	15.0
Bonds	Barclays Capital Aggregate	23.1*
Alternative Investments	Alternative Investments	14.9*
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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	Annualized 5 Yr.	10 Yr.
Combined Funds**	1.7%	13.7%	9.7%	3.2%	8.4%
Composite Index	1.5	12.9	9.3	3.0	8.2

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

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

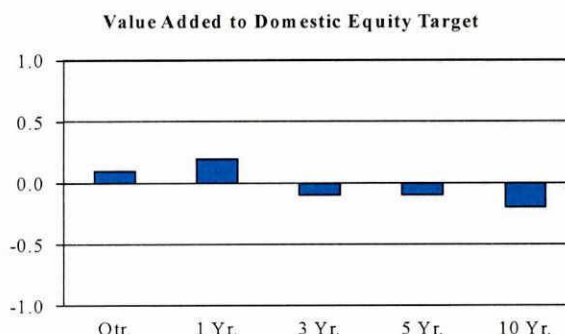
**Domestic Stocks**

**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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Stocks</b>	<b>0.3%</b>	<b>16.6%</b>	<b>11.1%</b>	<b>1.9%</b>	<b>7.5%</b>
Asset Class Target*	0.2	16.4	11.2	2.0	7.7

\* 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.



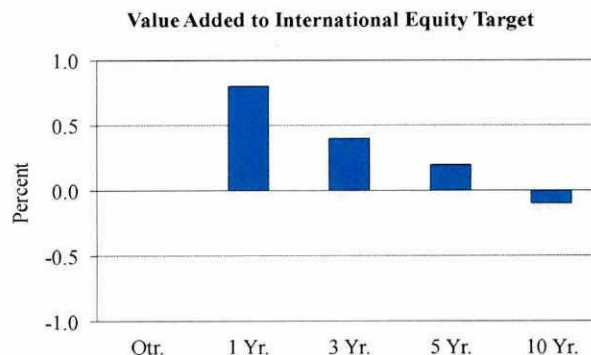
**International Stocks**

**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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Int'l. Stocks</b>	<b>5.9%</b>	<b>17.6%</b>	<b>4.3%</b>	<b>-2.7%</b>	<b>9.6%</b>
Asset Class Target*	5.9	16.8	3.9	-2.9	9.7

\* 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.

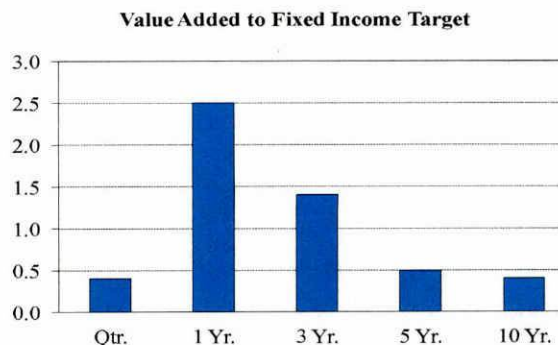


**Bonds**

**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 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Bonds</b>	<b>0.6%</b>	<b>6.7%</b>	<b>7.6%</b>	<b>6.4%</b>	<b>5.6%</b>
Asset Class Target	0.2	4.2	6.2	5.9	5.2



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

**Alternative Investments**

**Expectation:** The alternative investments are measured against themselves using actual portfolio returns.

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Annualized				
Alternatives	3.3%	12.8%	13.1%	5.7%	15.2%
Inflation	-0.8%	1.7%	2.1%	1.8%	2.3%

**Real Estate Investments (Equity emphasis)**

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

The SBI began its real estate program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Annualized				
Real Estate	2.8%	8.2%	8.5%	-2.8%	7.1%

**Private Equity Investments (Equity emphasis)**

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

The SBI began its private equity program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Annualized				
Private Equity	3.9%	15.1%	14.2%	6.4%	15.9%

**Resource Investments (Equity emphasis)**

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

The SBI began its resource program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Annualized				
Resource	0.5%	7.3%	14.5%	9.0%	27.6%

**Yield Oriented Investments (Debt emphasis)**

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

The SBI began its yield oriented program in 1994. Some of the existing investments are relatively immature and returns may not be indicative of future returns.

	Period Ending 12/31/2012				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Annualized				
Yield Oriented	3.8%	14.7%	12.6%	9.6%	16.7%



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

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## Investment Options

	<b>12/31/2012 Market Value (In Millions)</b>
<b>Income Share Account</b> – a balanced portfolio utilizing both common stocks and bonds.	\$274
<b>Growth Share Account</b> – an actively managed, all common stock portfolio.	\$139
<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.	\$176
<b>International Share Account</b> – a portfolio of non U.S. stocks that incorporates both active and passive management.	\$84
<b>Bond Market Account</b> – an actively managed, all bond portfolio.	\$138
<b>Money Market Account</b> – a portfolio utilizing short-term, liquid debt securities.	\$208
<b>Fixed Interest Account</b> – a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	\$190
<b>Volunteer Firefighter Account</b> – a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$15

## SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

## INCOME SHARE ACCOUNT

## Investment Objective

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

## Asset Mix

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

	Target	Actual
Stocks	60.0%	60.8%
Bonds	35.0	34.4
Cash	5.0	4.8
	100.0%	100.0%

## Period Ending 12/31/2012

	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	0.4%	12.2%	9.4%	4.2%	7.1%
Benchmark*	0.2	11.3	9.2	3.4	6.6

\* 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.

## 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.

## Period Ending 12/31/2012

	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	0.3%	16.8%	11.0%	1.8%	7.3%
Benchmark*	0.2	16.4	11.2	2.0	7.7

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

## 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.

## Period Ending 12/31/2012

	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	0.3%	16.4%	11.2%	2.2%	7.8%
Benchmark*	0.2	16.4	11.2	2.0	7.7

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

## 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 twenty-five 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 12/31/2012

	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total Account	5.9%	17.6%	4.3%	-2.6%	9.7%
Benchmark*	5.9	16.8	3.9	-2.9	9.7

\* 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 high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years.

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Account</b>	<b>0.6%</b>	<b>6.7%</b>	<b>7.6%</b>	<b>6.4%</b>	<b>5.7%</b>
Barclays Capital Aggregate	0.2	4.2	6.2	5.9	5.2

**MONEY MARKET ACCOUNT****Investment Objective**

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

**Asset Mix**

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

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Account</b>	<b>0.1%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.8%</b>	<b>2.0%</b>
3 month T-Bills	0.0	0.1	0.1	0.4	1.7

**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.

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Account</b>	<b>0.7%</b>	<b>2.8%</b>	<b>3.5%</b>	<b>3.9%</b>	<b>4.2%</b>
Benchmark*	0.2	0.8	1.2	1.6	2.8

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

**VOLUNTEER FIREFIGHTER ACCOUNT**

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

The Account is invested in a balanced portfolio:

	Target	Actual
Domestic Stocks	35.0	34.9%
International Stocks	15.0	15.7
Bonds	45.0	44.1
Cash	5.0	5.3
	100.0%	100.0%

	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Account</b>	<b>1.3%</b>	<b>11.7%</b>	<b>8.3</b>	<b>N/A</b>	<b>N/A</b>
Benchmark*	1.1	10.3	7.7	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.)

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

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

### Investment Options

	<b>12/31/2012 Market Value (in Millions)</b>
Vanguard Index Institutional Plus Shares (passive)	\$658
Janus Twenty (active)	\$415
Vanguard Mid Cap Index Institutional Shares (passive)	\$244
T. Rowe Price Small-Cap Stock (active)	\$451
Fidelity Diversified International (active)	\$234
Vanguard Total International Stock Index Institutional Plus (passive)	\$109
Vanguard Balanced Index Institutional Shares (passive)	\$517
Dodge & Cox Income Fund (active)	\$206
Vanguard Total Bond Market Index Institutional Shares (passive)	\$194
SIF Money Market Account	\$70
SIF Fixed Interest Account (stable value)	\$1,367
State Street Global Advisors MN Target Retirement Funds	
Income Fund	\$17
2015 Fund	\$24
2020 Fund	\$26
2025 Fund	\$17
2030 Fund	\$10
2035 Fund	\$6
2040 Fund	\$4
2045 Fund	\$2
2050 Fund	<\$1
2055 Fund	<\$1
2060 Fund	<\$1



## DEFERRED COMPENSATION PLAN ACCOUNTS

## LARGE CAP EQUITY

**Vanguard Index Institutional Plus (passive)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
S&P 500	-0.4%	16.0%	10.9%	1.7%
	-0.4	16.0	10.9	1.7

**Janus Twenty (active)**

- A concentrated fund of large cap stocks which is expected to outperform the S&P 500, over time.

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
S&P 500	-0.1%	22.3%	6.3%	0.0%
	-0.4	16.0	10.9	1.7

## MID CAP EQUITY

**Vanguard Mid Cap Index (passive)**

- A fund that passively invests in companies with medium market capitalizations that tracks the Morgan Stanley Capital International (MSCI) U.S. Midcap 450 index.

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
MSCI US	2.8%	16.0%	12.6%	3.2%
Mid-Cap 450	2.8	16.0	12.7	3.2

## SMALL CAP EQUITY

**T. Rowe Price Small Cap (active)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
Russell 2000	1.8%	18.0%	16.0%	7.6%
	1.9	16.3	12.2	3.6

## INTERNATIONAL EQUITY

**Fidelity Diversified International (active)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
MSCI EAFE	5.0%	23.9%	5.4%	-3.3%
	6.6	17.3	3.6	-3.7

**Vanguard Total International Stock Index (passive)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
			Annualized	
ACWI ex US IMI	6.7%	18.3%	N/A	N/A
	5.7	17.0	N/A	N/A

## DEFERRED COMPENSATION PLAN ACCOUNTS

**BALANCED****Vanguard Balanced Index (passive)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
	<b>0.2%</b>	<b>11.5%</b>	<b>9.6%</b>	<b>4.3%</b>
Benchmark	0.2	11.6	9.6	4.1

**FIXED INCOME****Dodge & Cox Income Fund (active)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
	<b>1.0%</b>	<b>8.0%</b>	<b>6.6%</b>	<b>7.0%</b>
Barclays Capital Agg.	0.2	4.2	6.2	5.9

**Vanguard Total Bond Market Index (passive)**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
	<b>0.1%</b>	<b>4.2%</b>	<b>6.2%</b>	<b>5.9%</b>
Barclays Capital Agg.	0.2	4.2	6.2	5.9

**Money Market Account**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
	<b>0.1%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.8%</b>
3-Mo. Treas.	0.0	0.1	0.1	0.4

**FIXED INTEREST ACCOUNT**

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

Fund	Period Ending 12/31/2012			
	Qtr.	1 Yr.	3 Yr.	5 Yr.
	<b>0.7%</b>	<b>2.8%</b>	<b>3.5%</b>	<b>3.9%</b>
Benchmark	0.2	0.8	1.2	1.6

**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.

	12/31/2012 Target	12/31/2012 Actual
Stocks	20.0%	19.6%
Bonds	80.0	80.4
Total	100.0%	100.0%

**Investment Management**

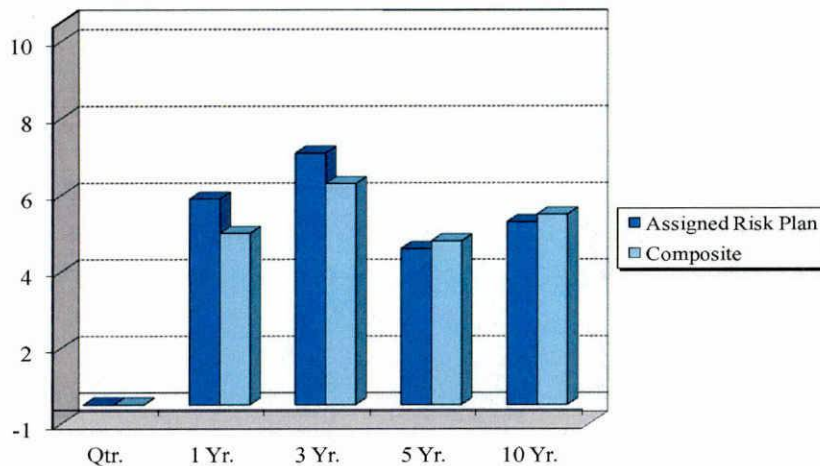
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

**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 December 31, 2012 the market value of the Assigned Risk Plan was \$271 million.



Period Ending 12/31/2012

	Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Fund*</b>	0.0%	5.4%	6.6%	4.1%	4.8%
Composite	0.0	4.5	5.8	4.3	5.0
<b>Equity Segment*</b>	-0.4	16.8	8.1	1.5	6.5
Benchmark	-0.4	16.0	10.9	1.7	7.1
<b>Bond Segment*</b>	0.1	1.8	5.7	4.5	4.1
Benchmark	0.0	1.7	4.3	4.6	4.3

\* 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.

	12/31/2012 Target	12/31/2012 Actual
Stocks	50.0%	50.4%
Bond	48.0	47.7
Cash	2.0	1.9
Total	100.0%	100.0%

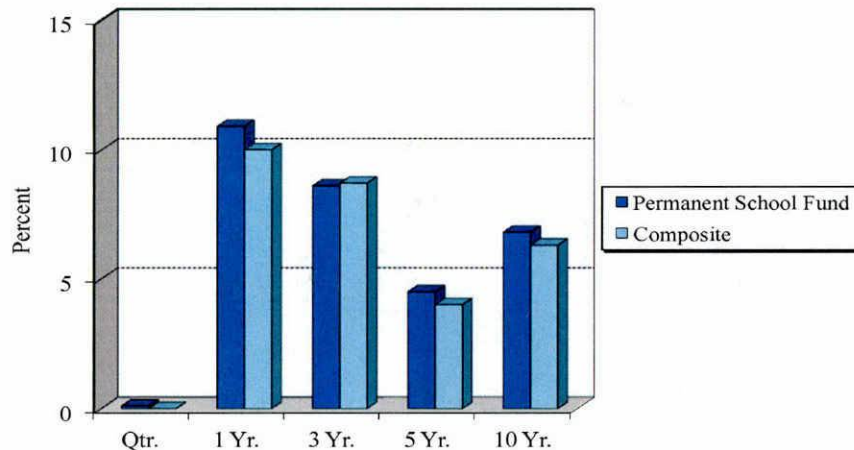
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

**Investment Management**

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

**Market Value**

On December 31, 2012 the market value of the Permanent School Fund was \$874 million.



Period Ending 12/31/2012

Annualized

	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Fund*</b>	0.1%	10.9%	8.6%	4.5%	6.8%
Composite	-0.1	10.0	8.7	4.0	6.3
<b>Equity Segment*</b>	-0.4	15.9	10.9	1.7	7.2
S&P 500	-0.4	16.0	10.9	1.7	7.1
<b>Bond Segment*</b>	0.6	5.8	5.9	6.5	5.8
Barclays Capital Agg.	0.2	4.2	6.2	5.9	5.2

\* 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

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

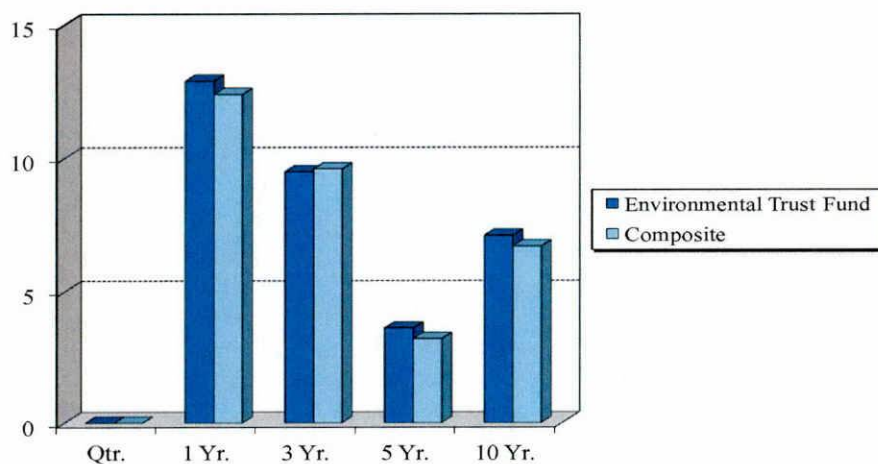
### Investment Management

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 December 31, 2012 the market value of the Environmental Trust Fund was \$648 million.

	12/31/2012 Target	12/31/2012 Actual
Stocks	70.0%	70.3%
Bonds	28.0	27.9
Cash	2.0	1.8
Total	100.0%	100.0%



	Period Ending 12/31/2012				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Fund*</b>	-0.1%	12.9%	9.5%	3.6%	7.1%
Composite	-0.2	12.4	9.6	3.2	6.7
<b>Equity Segment*</b>	-0.4	15.9	10.9	1.8	7.2
S&P 500	-0.4	16.0	10.9	1.7	7.1
<b>Bond Segment*</b>	0.6	5.8	5.9	6.4	5.8
Barclays Capital Agg.	0.2	4.2	6.2	5.9	5.2

\* Actual returns are calculated net of fees.

## 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 short-term 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.

	Market Value (Millions)	Period Ending 12/31/2012				
		Qtr.	1 Yr.	3 Yr.	Annualized 5 Yr.	10 Yr.
Treasurer's Cash Pool*	\$5,008	0.1%	0.7%	0.6%	1.5%	2.4%
Custom Benchmark**		0.0	0.0	0.0	0.5	1.5
3 month T-Bills		0.0	0.1	0.1	0.4	1.7

\* 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 December 31, 2012 (in Thousands)**

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>COMBINED RETIREMENT FUNDS</b>								
Teachers Retirement Fund	312,209 1.82%	0	3,795,916 22.07%	0	7,694,990 44.74%	2,805,353 16.31%	2,592,027 15.07%	17,200,495 100%
Public Employees Retirement Fund	275,717 1.95%	0	3,131,745 22.04%	0	6,348,597 44.68%	2,314,500 16.29%	2,138,498 15.05%	14,209,057 100%
State Employees Retirement Fund	163,101 1.72%	0	2,093,836 22.09%	0	4,244,573 44.78%	1,547,439 16.33%	1,429,767 15.08%	9,478,716 100%
Public Employees Police & Fire	108,617 1.81%	0	1,325,986 22.07%	0	2,688,006 44.74%	979,963 16.31%	905,444 15.07%	6,008,016 100%
Highway Patrol Retirement Fund	9,950 1.75%	0	125,242 22.08%	0	253,889 44.76%	92,560 16.32%	85,521 15.08%	567,162 100%
Judges Retirement Fund	2,831 1.91%	0	32,751 22.05%	0	66,393 44.70%	24,205 16.29%	22,364 15.06%	148,544 100%
Correctional Employees Retirement	12,814 1.84%	0	153,680 22.06%	0	311,535 44.73%	113,576 16.31%	104,939 15.07%	696,544 100%
Public Employees Correctional	6,907 2.08%	0	73,209 22.01%	0	148,408 44.62%	54,105 16.27%	49,991 15.03%	332,620 100%
Legislative Retirement Fund	209 1.62%	0	2,849 22.11%	0	5,776 44.83%	2,106 16.34%	1,945 15.10%	12,885 100%
PERA Minneapolis Retirement	23,135 2.84%	0	177,993 21.84%	0	360,826 44.27%	131,546 16.14%	121,543 14.91%	815,043 100%
<b>TOTAL COMBINED FUNDS</b>	<b>915,490 1.85%</b>	<b>0</b>	<b>10,913,207 22.06%</b>	<b>0</b>	<b>22,122,993 44.72%</b>	<b>8,065,353 16.304%</b>	<b>7,452,039 15.06%</b>	<b>49,469,082 100%</b>

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>MINNESOTA SUPPLEMENTAL FUNDS:</b>								
Income Share Account	13,244 4.84%	94,101 34.40%	0	0	166,221 60.76%	0	0	273,566 100%
Growth Share Account	0	0	0	0	139,223 100.00%	0	0	139,223 100%
Money Market Account	207,864 100.00%	0	0	0	0	0	0	207,864 100%
Common Stock Index	0	0	0	0	175,949 100.00%	0	0	175,949 100%
Bond Market Account	0	0	138,156 100.00%	0	0	0	0	138,156 100%
International Share Account	0	0	0	0	0	84,407 100.00%	0	84,407 100%
Fixed Interest Account	0	0	190,098 100.00%	0	0	0	0	190,098 100%
Volunteer Firefighters Account	798 5.28%	0	6,664 44.10%	0	5,271 34.88%	2,379 15.74%	0	15,112 100%
<b>TOTAL SUPPLEMENTAL FUNDS</b>	221,906 18.12%	94,101 7.69%	334,918 27.35%	0	486,664 39.75%	86,786 7.09%	0	1,224,375 100%
<b>MN DEFERRED COMP PLAN</b>	73,643 1.61%	0	2,017,220 44.10%	0	2,122,913 46.42%	360,416 7.88%	0	4,574,192 100%
<b>TOTAL RETIREMENT FUNDS</b>	1,211,039 2.19%	94,101 0.17%	13,265,345 24.00%	0	24,732,570 44.75%	8,512,555 15.40%	7,452,039 13.48%	55,267,649 100%



	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>ASSIGNED RISK PLAN</b>	1,491 0.55%	0	216,628 79.85%	0	53,186 19.60%	0	0	271,305 100%
<b>ENVIRONMENTAL FUND</b>	11,893 1.84%	180,438 27.86%	0	455,383 70.31%	0	0	0	647,714 100%
<b>PERMANENT SCHOOL FUND</b>	16,443 1.88%	416,616 47.65%	0	441,207 50.47%	0	0	0	874,266 100%
<b>Miscellaneous Trust Funds</b>	304 0.26%	56,928 49.41%	0	57,990 50.33%	0	0	0	115,222 100%
<b>Other Post Employment Funds (OPEB's)</b>	72,051 19.48%	65,975 17.84%	0	231,826 62.68%	0	0	0	369,852 100%
<b>TREASURERS CASH</b>	5,008,275 100.00%	0	0	0	0	0	0	5,008,275 100%
<b>MISCELLANEOUS ACCOUNTS</b>	0	249,736 100.00%	0	0	0	0	0	249,736 100%
<b>TOTAL CASH AND NON-RETIREMENT</b>	5,110,457 67.81%	969,693 12.87%	216,628 2.87%	1,186,406 15.74%	53,186 0.71%	0	0	7,536,370 100%
<b>GRAND TOTAL</b>	6,321,496 10.07%	1,063,794 1.69%	13,481,973 21.47%	1,186,406 1.89%	24,785,756 39.47%	8,512,555 13.55%	7,452,039 11.87%	62,804,019 100%

**TAB**

**B**



## **EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT**

DATE: February 12, 2013

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 January 31, 2013 is included as **Attachment A**.

A report on travel for the period from November 4, 2012 - February 2, 2013 is included as **Attachment B**.

### **2. Results of FY12 Financial Audit**

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

### **3. Legislative Update**

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

### **4. 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 fourth quarter, SBI managers held no shares in companies on the divestment list.

**Attachment C** is a copy of the December 11, 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.

## 5. 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 fourth quarter, SBI managers divested 399,649 shares in companies on the divestment list.

**Attachment E** is a copy of the December 11, 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.



## **6. Litigation Update**

SBI legal counsel will give the Board a verbal update on the status of the litigation at the Board meeting on March 6, 2013.

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ATTACHMENT A

STATE BOARD OF INVESTMENT  
 FISCAL YEAR 2013 ADMINISTRATIVE BUDGET REPORT  
 FISCAL YEAR TO DATE THROUGH JANUARY 31, 2013

ITEM	FISCAL YEAR 2013 BUDGET	FISCAL YEAR 2013 1/31/2013
<b>PERSONAL SERVICES</b>		
FULL TIME EMPLOYEES	\$ 2,964,500	\$ 1,538,704
PART TIME EMPLOYEES	\$ 67,000	\$ 37,354
SEVERENCE PAYOFF	0	0
WORKERS COMPENSATION INSURANCE	0	0
MISCELLANEOUS PAYROLL	5,000	858
<b>SUBTOTAL</b>	<b>\$ 3,036,500</b>	<b>\$ 1,576,916</b>
<b>STATE OPERATIONS</b>		
RENTS & LEASES	203,000	113,497
REPAIRS/ALTERATIONS/MAINTENANCE	10,000	3,012
PRINTING & BINDING	4,000	2,688
PROFESSIONAL/TECHNICAL SERVICES	0	0
COMPUTER SYSTEMS SERVICES	23,000	7,015
COMMUNICATIONS	26,000	11,644
TRAVEL, IN-STATE	900	375
TRAVEL, OUT-STATE	42,000	23,926
SUPPLIES	28,000	9,869
EQUIPMENT	12,000	0
EMPLOYEE DEVELOPMENT	5,000	6,495
OTHER OPERATING COSTS	12,000	7,997
<b>SUBTOTAL</b>	<b>\$ 365,900</b>	<b>\$ 186,518</b>
<b>TOTAL ADMINISTRATIVE BUDGET</b>	<b>\$ 3,402,400</b>	<b>\$ 1,763,434</b>

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## ATTACHMENT B

## STATE BOARD OF INVESTMENT

**Travel Summary by Date**  
**SBI Travel November 4, 2012 – February 2, 2013**

<b>Purpose</b>	<b>Name(s)</b>	<b>Destination and Date</b>	<b>Total Cost</b>
<b>Conference:</b> Institutional Investor Services (IIS) Client Advisory Council Meeting sponsored by: State Street Bank & Trust	H. Bicker	Boston, MA 11/7-11/9	\$1,186.21
<b>Manager Monitoring</b> <b>Domestic Equity Managers:</b> J.P. Morgan; Martingale Asset Mgmt.; McKinley Capital Mgmt.; Mellon Capital Mgmt. <b>Manager Search</b> <b>Domestic Equity Managers:</b> AQR; DE Shaw; Panagora; MFS	T. Brusehaver P. Ammann	Boston, MA Stamford, CT New York, NY 11/12-11/15	\$2,914.62
<b>Manager Monitoring</b> <b>Short Term Brokers/Dealers:</b> Bank of Montreal; Barclays; J.P. Morgan; Morgan Stanley <b>Manager Search</b> <b>Short Term Brokers/Dealers:</b> Alloya Corp. Credit Union	A. Griga	Chicago, IL 11/14-11/15	\$889.26
<b>Conference:</b> Public Funds Summit sponsored by Opal Financial Group	H. Bicker	Phoenix, AZ 1/8-1/10	\$652.93



**STATE BOARD OF INVESTMENT**

**Travel Summary by Date  
SBI Travel November 4, 2012 – February 2, 2013**

<b>Purpose</b>	<b>Name(s)</b>	<b>Destination and Date</b>	<b>Total Cost</b>
<b>Manager Monitoring</b> <b>Short Term/Brokers/Dealers:</b> Williams Capital Group; Deutsche Bank <b>Conference:</b> Crane's Money Fund University	S. Kuettel	New York, NY 1/24-1/26	\$2,300.84
<b>Manager Monitoring</b> <b>Alternative Investment</b> <b>Managers:</b> Audax Mezzanine Partners; Credit Suisse Strategic Partners; DLJ Investment Partners <b>Manager Search</b> <b>Alternative Investment</b> <b>Manager:</b> Apax Partners	J. Kirby	New York, NY 1/22-1/24	\$1,776.56

ATTACHMENT C

Letter to SBI International Equity Managers and Domestic Equity Managers

December 11, 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 may not be purchased for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Sudan Companies that was attached to the September 28, 2012 letter you received. **This new list is effective December 14, 2012.**

- The following companies have been **added** to the list:
  - **Statesman Resources Limited** Canada
  - **China Hydraulic and Hydroelectric Construction Group AKA Sinohydro Group** China
  - **Liaoning Huajin Tongda Chemical Co. Ltd.** China
  - **Areva T&D India** India
  - **Societe Metallurgique D'imiter** Morocco
  - **Petroliam Nasional Berhad AKA Petronas** Malaysia
  - **KLCC Property Holdings Bhd** Malaysia

- The following companies have been **removed** from the list:
  - **KEPCO Plant Service and Engineering Co. Ltd.** South Korea
  - **ONA S.A.** Morocco

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

If you have any questions about this matter, please contact Tammy Brusehaver or Patricia Ammann, Domestic Equities; Stephanie Gleeson, International Equities or me.

Sincerely,

James E. Heidelberg  
Assistant Executive Director

Enclosures

cc: LeaAnn M. Stagg, Manager, Public Programs  
Tammy Brusehaver, Manager, Domestic Equities  
Patricia Ammann, Portfolio Manager, Domestic Equities  
Stephanie Gleeson, Manager, International Equities



**ATTACHMENT 1**

<b>Restricted Sudan Stocks</b>	
<b>Company Name</b>	<b>Country of Origin</b>
Statesman Resources Limited	Canada
Wuhan Boiler Company	China
AviChina Industry & Technology Limited	China
Hafei Aviation Industry Company	China
Harbin Dongan Auto Engine Company	China
China Gezhouba Group Company Limited	China
China Hydraulic and Hydroelectric Construction Group AKA Sinohydro Group	China
Daqing Huake Group Company Limited	China
Jinan Diesel Company Limited	China
PetroChina	China
China North Industries Group Corporation AKA CNGC/Norinco	China
Norinco International Cooperation Ltd	China
Liaoning Huajin Tongda Chemical Co. Ltd.	China
Sichuan Nitrocell Co. Ltd	China
North Navigation Control Technology Co. Ltd (formerly China North Optical-Electrical Technology Company Limited)	China
AKM Industrial Company Limited	China
China Petroleum and Chemical Corporation AKA Sinopec Corp.	China
Kingdream PLC	China
Sinopec Shanghai Petrochemicals Ltd	China
Sinopec Yizheng Chemical Fibre Co Ltd	China
Jiangxi Hongdu Aviation AKA Hongdu Aviation	China
Dongfeng Motor Group Company Limited	China
Egypt Kuwait Holding Company	Egypt
Alstom	France
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Alstom India Ltd	India
Areva T&D India	India
Indian Oil Corporation Ltd. AKA IOCL	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Lanka IOC Limited	India
Mercator Ltd	India
Oil and Natural Gas Company AKA ONGC	India
Mangalore Refinery and Petrochemicals Limited	India
Oil India Limited	India
AREF Energy Holding Company	Kuwait
Managem	Morocco
Societe Metallurgique D'imiter	Morocco
Petroliam Nasional Berhad AKA Petronas	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia

**ATTACHMENT 1**

<b>Restricted Sudan Stocks</b>	
<b>Company Name</b>	<b>Country of Origin</b>
Petronas Chemicals Group Berhad	Malaysia
Scomi Group Berhad	Malaysia
Scomi Engineering Berhad	Malaysia
Mercator Lines Singapore	Singapore
LS Industrial Systems	South Korea
Electricity Generating PCL AKA EGCO	Thailand

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

Source: Conflict Risk Network

SBI Effective Date: December 14, 2012



**ATTACHMENT 2**

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

Note: AKA means "Also Known As"

Source: Conflict Risk Network

SBI Effective Date: December 14, 2012



**CONFLICT  
RISK  
NETWORK**

**Attachment 3**

Security Identifiers for "Scrutinized" Stocks

The following security identifiers correlate with the November 30, 2012

ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WRK Number	SEDG	CUSIP	Sicovam	ISIN	COMMON	CINS	Fandcode
ALSTOM (FRANCE)	ALSTOM	EN Paris (XPAR)	Common Stock	ALSTOM	ALO FP	80DJ805 FR							
ALSTOM (FRANCE)	ALSTOM	OTC US (XOTC)	Common Stock	ALSTOM	AOMFF US	80GLY93 US							
ALSTOM (FRANCE)	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GR	80G0412 DE							F0259M475
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALSP IX	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Chi-X AN TS (CHIX)	Common Stock	ALSTOM	ALOBX EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOBX EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOBX EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOBP EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOUSD EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOUSD EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Turquoise (TROX)	Common Stock	ALSTOM	ALO TQ	80DJ805 FR							
ALSTOM (FRANCE)	ALSTOM	Equidist (XEQT)	Common Stock	ALSTOM	ALO BQ	80DJ805 FR							
ALSTOM (FRANCE)	ALSTOM	BATS Europe (BATE)	Common Stock	ALSTOM	ALO EB	80DJ805 FR							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOGHF EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOGHF EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALONOK EO	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALONOK EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALCALD EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALCALD EU	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALQMD TH	80G0412 DE							
ALSTOM (FRANCE)	ALSTOM	Quote MTF (QMTF)	Common Stock	ALSTOM	ALO QM	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	LSE EuropeGS (XLON)	Common Stock	ALSTOM	ALO LI	80YLT07 GB							
ALSTOM (FRANCE)	ALSTOM	Tradegate (XGAT)	Common Stock	ALSTOM	ALO S1	80DJ805 FR							
ALSTOM (FRANCE)	ALSTOM	EN Paris (XPAR)	Common Stock	ALSTOM	ALONV FP	87YV300 FR							
ALSTOM PROJ-ECTS INDIA LTD (INDIA)	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ABBP IN	6230834 IN							
AREVA T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IN	6139890 IN							
WUHAN BOILER CO (CHINA)	ALSTOM	Shenzhen (XSHE)	Common Stock	WUHAN BOILER CO-B	200770 CH	913669							
AREF ENERGY HOLDING COMPANY (KUWAIT)	AREF ENERGY HOLDING COMPANY	Kuwait (KXUW)	Common Stock	AREF ENERGY HOLDING CO KSQC	AREFENRKK	AK0D4C							
AVICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Hong Kong (XHKG)	Common Stock	AVICHINA INDUSTRY & TECH-H	2357 HK	ADM4WY							
AVICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Frankfurt (XFRA)	Common Stock	AVICHINA INDUSTRY & TECH-H	AVT GR	ADM4WY							
AVICHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	OTC US (XOTC)	Common Stock	AVICHINA INDUSTRY & TECH-H	AVUF US	ADM4WY							
HAFEI AVIATION INDUSTRY CO (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Shanghai (XSHG)	Common Stock	HAFEI AVIATION INDUSTRY CO	600038 CH	ADM4ER							
HARBIN DONGAN AUTO ENGINE CO (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Shanghai (XSHG)	Common Stock	HARBIN DONGAN AUTO ENGINE-A	600178 CH	ADM369							
CATERPILLAR INC	CATERPILLAR INC	New York (XNYS)	Common Stock	CATERPILLAR INC	CAT US	850598							
CATERPILLAR INC	CATERPILLAR INC	Frankfurt (XFRA)	Common Stock	CATERPILLAR INC	CAT1 GR	850598							
CATERPILLAR INC	CATERPILLAR INC	EN Paris (XPAR)	Common Stock	CATERPILLAR INC	CAT FP	850598							
CATERPILLAR INC	CATERPILLAR INC	LIMA (XLIM)	Common Stock	CATERPILLAR INC	CAT PE	850598							
CATERPILLAR INC	CATERPILLAR INC	London Intl (XLON)	Common Stock	CATERPILLAR INC	CTA LN	850598							
CATERPILLAR INC	CATERPILLAR INC	Mexico (XMEX)	Common Stock	CATERPILLAR INC	CAT ES	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CAT* MM	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATG IX	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro Comp (XLON)	Common Stock	CATERPILLAR INC	CAT EO	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro Comp (XLON)	Common Stock	CATERPILLAR INC	CATG BX EU	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATG BX EU	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro Comp (XLON)	Common Stock	CATERPILLAR INC	CATER EU	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATER EU	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATR PZ	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATER EO	850598							
CATERPILLAR INC	CATERPILLAR INC	EuroTLX (ETLX)	Common Stock	CATERPILLAR INC	CAT TE	850598							
CATERPILLAR INC	CATERPILLAR INC	Turquoise (TROX)	Common Stock	CATERPILLAR INC	CAT TQ	850598							
CATERPILLAR INC	CATERPILLAR INC	NYSE ARCA Eu (XHFT)	Common Stock	CATERPILLAR INC	CAT NR	850598							
CATERPILLAR INC	CATERPILLAR INC	Tradegate (XGAT)	Common Stock	CATERPILLAR INC	CAT1 TH	850598							
CATERPILLAR INC	CATERPILLAR INC	Bolsa Colomb (XB0G)	Common Stock	CATERPILLAR INC	CAT CB	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro OTC (XLON)	Common Stock	CATERPILLAR INC	CATCF EO	850598							
CATERPILLAR INC	CATERPILLAR INC	Euro Comp (XLON)	Common Stock	CATERPILLAR INC	CATCF EU	850598							
CATERPILLAR INC	CATERPILLAR INC	BATS Europe (BATE)	Common Stock	CATERPILLAR INC	CAT EB	850598							
CATERPILLAR INC	CATERPILLAR INC	Buenos Floor (XBUE)	Receipt	CATERPILLAR-CED	CAT AR	2160201 US							
CATERPILLAR INC	CATERPILLAR INC	Buenos Floor (XBUE)	Receipt	CATERPILLAR-CED	CATD AR	2378277 AR							
CATERPILLAR INC	CATERPILLAR INC	Buenos Floor (XBUE)	Receipt	CATERPILLAR-CED	CATC AR	2378277 AR							
CATERPILLAR INC	CATERPILLAR INC	Buenos Floor (XBUE)	Receipt	CATERPILLAR-CED B	CATB AR	2378277 AR							
CATERPILLAR INC	CATERPILLAR INC	Soma (BVMF)	Receipt	CATERPILLAR-BDR	CATP1B BZ	8463G79 BR							
CATERPILLAR INC	CATERPILLAR INC	SIX Swiss Ex (XSIX)	Receipt	CATERPILLAR INC	CAT SW	850598							
CATERPILLAR INC	CATERPILLAR INC	Santiago Comercio	Common Stock	CATERPILLAR INC	CAT CI	850598							
CATERPILLAR INC	CATERPILLAR INC	EN Brussels (XBUR)	Receipt	CATERPILLAR INC	CATER BB	ATJULH							
CHINA GEZHOUBA GROUP COMPANY LTD (CHINA)	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 CH	ADM31Z							
CHINA GEZHOUBA GROUP COMPANY LTD (CHINA)	CHINA GEZHOUBA GROUP COMPANY LTD	CONSTRUCTION GROUP (SINOHYDRO)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CH								
CHINA GEZHOUBA GROUP CO LTD (CHINA)	CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000988 CH								
JINAN DIESEL ENGINE CO LTD (CHINA)	CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CH								
KUNLUN ENERGY CO LTD	CNPC	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	135 HK								
KUNLUN ENERGY CO LTD	CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	AT1CV3E							
KUNLUN ENERGY CO LTD	CNPC	OTC Exchange (XOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF US	AT1CV3E							
KUNLUN ENERGY CO LTD	CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY US								

-14-



KUNLUN ENERGY CO LTD	CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV3E	5387753 DE	952131	BMG5320C1082	050092003
PETROCHINA CO LTD (CHINA)	CNPC	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0M4YQ	6226576 HK		CNE1000003W6	011014674
PETROCHINA CO LTD (CHINA)	CNPC	Frankfurt (XFRF)	Common Stock	PETROCHINA CO LTD	PCB GR	A0M4YQ	5939507 DE		CNE1000003W6	011014674
PETROCHINA CO LTD (CHINA)	CNPC	OTC US (XOTC)	Common Stock	PETROCHINA CO LTD	PCFCYF US	A0M4YQ	801DNL9 US		CNE1000003W6	011014674
PETROCHINA CO LTD (CHINA)	CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD	601857 CH					Y6883Q104
PETROCHINA CO LTD (CHINA)	CNPC	New York (XNY5)	ADR	PETROCHINA CO LTD-ADR	PTR US	936983	256841 US		CNE1000007C1	
PETROCHINA CO LTD (CHINA)	CNPC	Frankfurt (XFRF)	ADR	PETROCHINA CO LTD-ADR	PCGA GR	936983	4633327 DE		US171646E1001	011511449
PETROCHINA CO LTD (CHINA)	CNPC	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR	PTR AR				ARDEUT113958	
PETROCHINA CO LTD (CHINA)	CNPC	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR BLK	PTBR AR				ARDEUT113958	
PETROCHINA CO LTD (CHINA)	CNPC	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR C/E	PTCR AR				ARDEUT113958	
PETROCHINA CO LTD (CHINA)	CNPC	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR \$	PTDR AR				ARDEUT113958	
PETROCHINA CO LTD (CHINA)	CNPC	Tradegate (XGAT)	Common Stock	PETROCHINA CO LTD-H	PCB TH	A0M4YQ	5939507 DE		CNE1000003W6	011014674
PETROCHINA CO LTD (CHINA)	CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD-ADR	PCGA TH	936983			US171646E1001	011511449
PETROCHINA CO LTD (CHINA)	CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD-ADR	PTR SP	936983	83KT83		US171646E1001	011511449
PETROCHINA CO LTD (CHINA)	CNPC	China National Petroleum Corp aka C Mexico (XMEX)	ADR	PETROCHINA CO LTD-ADR	PTRN MM	936983	9569834 MX		US171646E1001	011511449
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE000000V29	
LIAONING HUAJIN TONGDA CHEMICALS CO. LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	LIAONING HUAJIN TONGDA CHE - A	000059 CH	A0M30T	6796143 CN		CNE000000N19	
LIAONING HUAJIN TONGDA CHEMICALS CO. LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	LIAONING HUAJIN TONGDA CHE - A	000059 CS	A0M30T	6796143 CN		CNE000000N19	
SICHUAN NITROCELL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	A0RPGJ	839G5K4 CN		CNE000000B07	
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	CHINA NORTH OPTICAL-ELECTR-A	600435 CH	A0M4L5	6649946 CN		CNE000001F88	
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	CHINA NORTH OPTICAL-ELECTR-A	600435 CG	A0M4L5	6649946 CN		CNE000001F88	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	6298 HK	A0D86T	802J0J3 HK		HK8296013897	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIG GR	A0D86T	806L0H3 DE		HK8296013897	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	386 HK	A0M4XN	6291819 HK		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Frankfurt (XFRF)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GR	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	OTC US (XOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	SNPF US	A0M4XN	801XKR4 US		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600208 CH	A0M4GA	6373728 CN		CNE1000002Q2	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	New York (XNY5)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP US	578971	2639189 US		US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GR	578971	80RSW00 DE		US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	London Int (XLON)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP LR		2654375 GB		US16941R1086	011899374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEMICAL-CEDEB	SNPB AR				ARDEUT114071	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEM-C/E	SNPC AR				ARDEUT114071	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEM-CED \$	SNPD AR				ARDEUT114071	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Tradegate (XGAT)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU TH	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	SINOPEC GROUP	Mexico (XMEX)	ADR	CHINA PETROLEUM & CHEM - ADR	SNPN MM	578971	84Q2522 MX		US16941R1086	011899374
KINGDREAM PLC	SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000052 CH	A0M37A	6136385 CN		CNE000000X07	
SINOPEC KANTON HOLDINGS LTD (CHINA)	SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 HK	923923	6182892 HK		BM06165U1000	011563384
SINOPEC KANTON HOLDINGS LTD (CHINA)	SINOPEC GROUP	Frankfurt (XFRF)	Common Stock	SINOPEC KANTONS HOLDINGS	SAX GR	923923	4601197 DE		BM06165U1000	011563384
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	OTC US (OOTS)	ADR	SINOPEC KANTONS-UNSPON ADR	SPKOV US		83XK780 US		US82935M1099	012248750
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	Singapore (XSES)	ADR	SINOPEC SHANGHAI -SPONS ADR	SHI SP	887169	63MNGN2	908269	US82935M1099	012248750
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHEM	600688 CH	A0M3RA	6602794 CN		CNE000000B82	
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	Frankfurt (XFRF)	Common Stock	SINOPEC SHANGHAI PETROCHEM	SGJH GR					
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	338 HK	A0M4Y5	5869632 DE	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	OTC US (XOTC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SPTJF US	A0M4Y5	801XTEG US	908303	CNE1000004C8	005096162
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	New York (XNY5)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI US	887169	2800059 US	908269	US82935M1099	012248750
SINOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	SINOPEC GROUP	Frankfurt (XFRF)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GR	887169	5734638 DE	908269	US82935M1099	012248750
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK	917709	CNE1000004D6	008069662
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	SINOPEC GROUP	OTC US (OOTS)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFX US	A0M4Y6	801XVLS US	917709	CNE1000004D6	008069662
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	SINOPEC GROUP	Frankfurt (XFRF)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZI GR	A0M4Y6	430675 DE	917709	CNE1000004D6	008069662
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	SINOPEC GROUP	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEM-ADR	CHUA TH	578971		16941R108	US16941R1086	011899374
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	600871 CH	A0M3V6	6888740 CN		CNE000000H53	
DONGFENG MOTOR GROUP COMPANY LIMITED	LIMITED	Hong Kong (XHKG)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	489 HK	A0M4XY	80PHN53 HK		CNE100000312	023857456
DONGFENG MOTOR GROUP COMPANY LIMITED	LIMITED	OTC US (OOTS)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF US	A0M4XY	80XZ765 US		CNE100000312	023857456
DONGFENG MOTOR GROUP COMPANY LIMITED	LIMITED	Frankfurt (XFRF)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D40 GR	A0M4XY	80TB886 DE		CNE100000312	023857456
DONGFENG MOTOR GROUP COMPANY LIMITED	LIMITED	Tradegate (XGAT)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D40 TH	A0M4XY	80TB886 DE		CNE100000312	023857456
DONGFENG MOTOR GROUP COMPANY LIMITED	LIMITED	OTC US	ADR	DONGFENG MOTOR GRP-H-UNSP ADR	DNFGV US				CNE100000312	023857456
EGYPTIAN KUWAIT HOLDING CO (EGYPT)	EGYPTIAN KUWAIT HOLDING CO (EGYPT)	Cairo (XCAI)	Common Stock	EGYPTIAN KUWAIT HOLDING CO	EKHO EY	A0H1G7	80Q0000		US2577382037	
EGYPTIAN KUWAIT HOLDING CO (EGYPT)	EGYPTIAN KUWAIT HOLDING CO (EGYPT)	Kuwait (XKUW)	Common Stock	EGYPTIAN KUWAIT HOLDING CO	EKHOLDINKK	A0H1G7	80S5H15 KW			
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Bangkok (XBKK)	Common Stock	ELECTRICITY GENERATING PCL	EGCO TH	929726	8304632 TH	929726	TH0465010005	006148590
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Bangkok (XBKK)	Common Stock	ELECTRICITY GEN PUB CO-FOR R	EGCOF TH	930467	6304643 TH	930467	TH0465010013	006148593
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Frankfurt (XFRF)	Common Stock	ELECTRICITY GEN PUB CO-FOR R	EGCF GR	930467	5336799 DE	930467	TH0465010013	006148593
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Bangkok (XBKK)	Receipt	ELECTRICITY GENERA PCL-IVDR	EGCO-R TH	676043	6386553 TH		TH0465010R13	015662883
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	OTC US (XOTC)	Receipt	ELECTRICITY GENERA PCL-IVDR	EYUUF US	676043	80SPBX9 US		TH0465010R13	015662883
ELECTRICITY GENERATING PCL aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Munich (XMUN)	Receipt	ELECTRICITY GENERA PCL-IVDR	NVAE GR	676043	801LYC1 DE		TH0465010R13	015662883
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Hong Kong (XHKG)	Common Stock	Glencore International PLC	805 HK	A1JAGV	83NFF58		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	London Int (XLON)	Common Stock	Glencore International PLC	GLEIN LN	A1JAGV	84T38W6 GB		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Stuttgart (XSTU)	Common Stock	Glencore International PLC	BSC GR	A1JAGV	85NS1T3 DE		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	BATS Europe (BATE)	Common Stock	Glencore International PLC	GLEIN EB	A1JAGV	84T38W6 GB		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Tradegate (XGAT)	Common Stock	Glencore International PLC	8GC TH	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Quote MTF (QMTF)	Common Stock	Glencore International PLC	GLEIN GM	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Euro OTC (XLON)	Common Stock	Glencore International PLC	GLEIN EU	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Euro Comp (XLON)	Common Stock	Glencore International PLC	GLEIN EU	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Turquoise (TROX)	Common Stock	Glencore International PLC	GLENEUR EU	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Chi-X AR TS (CHIX)	Common Stock	Glencore International PLC	GLEIN TX	A1JAGV			JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	Equiduct (XEQT)	Common Stock	Glencore International PLC	GLEIN BQ	A1JAGV	84T38W6 GB		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	NYSE ARCA Eu (XHFT)	Common Stock	Glencore International PLC	GLEIN XE	A1JAGV	84T38W6 GB		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	OTC US (XOTC)	Common Stock	Glencore International PLC	GLEIN US	A1JAGV	84M5CG9 US		JE00B4T38W64	063082236
GLENCORE INTERNATIONAL PLC	GLENCORE INTERNATIONAL PLC	OTC US (OOTS)	Common Stock	Glencore International PLC-UNSP ADR	GLNCF US	A1JAGV			JE00B4T38W64	063082236
BIOPETROL INDUSTRIES AG	GLENCORE INTERNATIONAL PLC	Xetra (XETR)	Common Stock	Biopetrol Industries AG	GLNCY US		86Q2367 US		US3782731067	
BIOPETROL INDUSTRIES AG	GLENCORE INTERNATIONAL PLC	OTC US (OOTS)	Common Stock	Biopetrol Industries AG	BZ1 GR	A0HNQ5	80G9VP2 DE		CH0023225938	023647729
BIOPETROL INDUSTRIES AG	GLENCORE INTERNATIONAL PLC	Euro OTC (XLON)	Common Stock	Biopetrol Industries AG	BZ1 EU	A0HNQ5	81FDC93 US		CH0023225938	023647729
BIOPETROL INDUSTRIES AG	GLENCORE INTERNATIONAL PLC	Tradegate (XGAT)	Common Stock	Biopetrol Industries AG	BZ1 TH	A0HNQ5	80G9VP2 DE		CH0023225938	023647729
CHEMOL ENERGY LIMITED	GLENCORE INTERNATIONAL PLC	Singapore (XSES)	Common Stock	CHEMOL ENERGY LTD	CHEM SP	A0LBTG	81DLSV2 SG		HK000035819	027111866







## ATTACHMENT D

**Conflict Risk Network (CRN) List of "Scrutinized" Companies in Sudan**  
**List Effective Through February 28, 2013**

<b>Company Name</b>	<b>Country of Origin</b>
<b>Alstom</b>	France
Alstom India Ltd	India
Areva T&D India Ltd.	India
Wuhan Boiler Company	China
<b>AREF Energy Holding Company</b>	Kuwait
<b>AviChina Industry &amp; Technology Ltd.</b>	China
Hafei Aviation Industry Co.	China
Harbin Dongan Auto Engine Co.	China
<b>Caterpillar Inc.</b>	US
<b>China Gezhouba Group Company Ltd.</b>	China
<b>China Hydraulic and Hydroelectric Construction Group AKA Sinohydro</b>	China
Sichuan Power Development Co., Ltd.	China
Sinohydro Bureau 7 Co., Ltd.	China
Sinohydro Group Ltd.	China
<b>China National Petroleum Corporation AKA CNPC</b>	China
Daqing Huake Group Co., Ltd.	China
Jinan Diesel Co., Ltd.	China
Kunlun Energy Co., Ltd.	Hong Kong
PetroChina Co., Ltd.	China
<b>China North Industries Group Corporation AKA CNGC/NORINCO</b>	China
AKM Industrial Co., Ltd.	Hong Kong
China North Industries Corporation AKA NORINCO	China
Liaoning Huajin Tongda Chemicals	China
NORINCO International Cooperation Ltd.	China
North Navigation Control Technology Co., Ltd	China
Sichuan Nitrocell Co., Ltd	China
<b>China Petrochemical Corporation AKA Sinopec Group</b>	China
China Petroleum and Chemical Corporation AKA Sinopec Corp	China
Kingdream PLC	China
Sinopec Kanton Holdings Ltd.	Hong Kong
Sinopec Shanghai Petrochemicals Ltd.	China
Sinopec Yizheng Chemical Fibre Co., Ltd.	China
<b>Dongfeng Motor Group Co. Ltd.</b>	China
<b>Egypt Kuwait Holding Company</b>	Egypt
<b>Electricity Generating Company AKA EGCO</b>	Thailand
<b>Glencore International PLC</b>	Switzerland
Biopetrol Industries	Switzerland
Chemoil Energy Ltd	Singapore
<b>Indian Oil Corporation Ltd. AKA IOCL</b>	India
Chennai Petroleum Corporation Limited AKA CPCL	India
Lanka IOC Ltd	India
<b>Jiangxi Hongdu Aviation AKA Hongdu Aviation</b>	China
<b>JX Holdings</b>	Japan
Nippo Corporation	Japan
<b>LS Industrial Systems</b>	South Korea
<b>Managem</b>	Morocco
ONA S.A.	Morocco
Societe Metallurgique D'imiter	Morocco
<b>Mercator Ltd</b>	India
Mercator Lines Singapore	Singapore
<b>Oil and Natural Gas Company, AKA ONGC</b>	India
Mangalore Refinery and Petrochemicals Ltd. AKA MRPL	India
<b>Oil India Ltd.</b>	India
<b>Petroleum Nasional Berhad AKA Petronas</b>	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Bhd	Malaysia
Petronas Gas Bhd	Malaysia
<b>PT Pertamina Persero</b>	Indonesia
<b>Ranhill Berhad</b>	Malaysia
<b>Reliance Industries Ltd.</b>	India
<b>Scomi Group Berhad</b>	Malaysia
Scomi Engineering Berhad	Malaysia
<b>Statesman Resources Limited</b>	Canada
<b>Trafigura Beheer</b>	Netherlands

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

**Conflict Risk Network (CRN) List of Companies in Sudan for "Substantial Action"**  
**List Effective Through February 28, 2013**

<b><u>Company Name</u></b>	<b><u>Country of Origin</u></b>
Mott MacDonald	UK
Petrofac LTD	UK
Schlumberger LTD	Netherland
Wartsila OYJ	Finland

**Conflict Risk Network (CRN) List of Companies in Sudan with "No Publicly Traded Equity"**  
**or "Not Relevant under the CRN Targeted Divestment Model"**  
**List Effective Through February 28, 2013**

<b>Company Name</b>	<b>Country of Origin</b>
<b>Abdel Hadi Abdullah Al-Qahtani &amp; Sons Group of Companies</b>	Saudi Arabia
<b>Africa Energy</b>	Nigeria
<b>Andritz AG</b>	Austria
Andritz Hydro	Austria
<b>Ansan Wikfs Investments Ltd.</b>	Yemen
<b>APS Engineering Company S.p.A.</b>	Italy
<b>Arcadia Petroleum</b>	UK
<b>Ascom Group SA</b>	Moldova
<b>Atlas Copco AB</b>	Sweden
<b>Bharat Electronics Ltd.</b>	India
<b>Bharat Heavy Electricals Ltd.</b>	India
<b>China International Water &amp; Electric Corp AKA CWE</b>	China
<b>China Machinery Engineering Company (CMEC)</b>	China
<b>China Poly Group Corporation</b>	China
Poly Investment Ltd.	Hong Kong
<b>Citadel Capital</b>	Egypt
<b>Daedong Industrial Machinery Co., Ltd</b>	South Korea
<b>Dindir Petroleum International/Edgo Group</b>	Jordan
<b>Express Petroleum and Gas Company</b>	Nigeria
<b>GAZ Group</b>	Russia
Avtodizel OAO	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
Tverskoy Excavator OSJC	Russia
Yaroclavsky Diesel Equipment Plant OAO	Russia
<b>GIAD Industrial City</b>	Sudan
<b>Harbin Electric Co., Ltd</b>	China
Harbin Power Engineering AKA HPE	China
<b>Hi-Tech Petroleum Group Co., Ltd.</b>	Sudan
<b>HTC Yemen International Ltd.</b>	Yemen
<b>Kamaz</b>	Russia
Neftekamsky Avtozavod AKA NEFAZ	Russia
<b>Kuwait Foreign Petroleum Exploration Company AKA KUFPEC</b>	Kuwait
<b>La Mancha Resources</b>	Canada
<b>Lahmeyer International</b>	Germany
<b>MAN SE</b>	Germany
<b>MTN Group</b>	South Africa
<b>Petrolin</b>	Gabon
<b>Petronneeds Service International Company</b>	Sudan
<b>PTT Public Company Ltd.</b>	Thailand
PTT Exploration & Production PCL	Thailand
PTTEP Australia International Finance Proprietary Ltd	Thailand
PTTEP Canada International Finance Ltd.	Thailand
<b>Ranhill Berhad</b>	Malaysia
<b>Saras S.p.A.</b>	Italy
<b>Shandong Electric Power Construction Corporation</b>	China
<b>Shanghai Electric Group Co.</b>	China
Shanghai Power Transmission and Distribution Co. Ltd.	China
<b>Snowy Mountain Engineering Corporation</b>	Australia
<b>Star Petroleum S.A.</b>	Spain
<b>Sudan Petroleum Corporation AKA Sudapet</b>	Sudan
<b>Tamoil</b>	Libya
<b>Total SA (several locations)</b>	Belgium
Rosier S.A.	US
Sunpower Corporation	Canada
Total Gabon	Africa
Total Kenya Ltd.	Africa
Total Nigeria PLC	Africa
<b>UAE for Gold Minerals and Investment Company Ltd.</b>	United Arab Emirates
<b>Vitol Group</b>	Switzerland
<b>Zain Group</b>	Kuwait
<b>Zaver Petroleum Corporation Ltd</b>	Pakistan

December 14, 2012

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





ATTACHMENT E

Letter to SBI International Equity Managers and Domestic Equity Managers

December 11, 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. **These securities may not be purchased for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the September 28, 2012 letter you received. **This new list is effective December 14, 2012.**

- The following companies have been **removed** from the restricted list:
  - **Linde AG** Germany
  - **Maire Tecnimont S.p.A.** Italy
  - **MOL Magyar Olaj-es Gazipari Nyrt** Hungary

**Attachment 2** is the List of Iran Companies Requiring Divestment.

- There were no changes to the Divestment List.

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

Sincerely,

James E. Heidelberg  
Assistant Executive Director

Enclosures

cc: LeaAnn M. Stagg, 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**

<b>COMPANY NAME</b>	<b>COUNTRY</b>
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 Nafta DD	Croatia
Indian Oil Corporation Ltd.	India
L G International	Korea South
Liquefied Natural Gas Ltd	Australia
Mitsui & Co. Ltd	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	India
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Petrofac	United Kingdom
Petronet LNG Ltd.	India
Punj Lloyd Ltd.	India
Saipem Spa	Italy
Sasol Ltd	South Africa
Technip	France
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: December 14, 2012

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Gazprom Oao	Russia	July 31, 2010	January 31, 2011
Sasol Ltd	South Africa	July 31, 2010	January 31, 2011
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Petrofac	United Kingdom	September 30, 2012	March 31, 2013
Saipem SA	Italy	September 30, 2012	March 31, 2013
Technip	France	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

Effective Date: December 14, 2012

**ATTACHMENT 3  
IRAN RESTRICTED COMPANIES  
Security Identifiers**

<b>COMPANY_NAME</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>CUSIP_2</b>	<b>COUNTRY</b>
Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547			India
China Petroleum & Chemical Corp	2654375	US16941R1086		16941R108		China
China Petroleum & Chemical Corp	BORSW00	US16941R1086		16941R108		China
China Petroleum & Chemical Corp	2639189	US16941R1086		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		16941R108		China
China Petroleum & Chemical Corp	B1C5SX8	ARDEUT114071		16941R108		China
Daelim Industrial	6246604	KR7000211003				Korea South
Daelim Industrial	B1T52M8	KR7000211003				Korea South
Daelim Industrial	6249584	KR7000210005	A000210			Korea South
Gail (India) Ltd.	B1HJ0L7	US36268T2069		36268T206		India
Gail (India) Ltd.	3235520	US36268T2069		36268T206		India
Gail (India) Ltd.	B2NTDN1	US36268T2069		36268T206		India
Gail (India) Ltd.	B033102	US36268T2069		36268T206		India
Gail (India) Ltd.	2498517	US36268T1079		36268T206		India
Gail (India) Ltd.	3235490	US36268T1079		36268T206		India
Gail (India) Ltd.	6133405	INE129A01019	532155	36268T206		India
Gazprom	B0338T0	US3682873068		368287207		Russia
Gazprom	5385003	US3682873068		368287207		Russia
Gazprom	2016629	US3682872078		368287207		Russia
Gazprom	5259528	US3682872078		368287207		Russia
Gazprom	5140989	US3682872078		368287207		Russia
Gazprom	2398899	US3682871088		368287207		Russia
Gazprom	3313181	US3682871088		368287207		Russia
Gazprom	4364928	RU0007661625	GAZP	368287207		Russia
Gazprom	B2NH841	ARDEUT114261		368287207		Russia
GS Engineering & Construction Corp	B06ZHC9	KR7006360002	A006360			Korea South



**ATTACHMENT 3  
IRAN RESTRICTED COMPANIES  
Security Identifiers**

<b>COMPANY_NAME</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>CUSIP_2</b>	<b>COUNTRY</b>
GS Engineering & Construction Corp	6537096	KR7006360002	A006360			Korea South
GS Holdings	B02FVX2	KR7078931003		Y2901P103		Korea South
GS Holdings	B01RJV3	KR7078930005	A078930	Y2901P103		Korea South
Gubre Fabrikalari T.A.S.	B03MTC7	TRAGUBRF91E2	GUBRF			Turkey
Gubre Fabrikalari T.A.S.	B188YV1	TRAGUBRF91E2	GUBRF			Turkey
Ina-Industrija Nafta DD	B1L56D5	US45325E2019		45325E102	45325E201	Croatia
Ina-Industrija Nafta DD	B1L1YV7	US45325E2019		45325E102	45325E201	Croatia
Ina-Industrija Nafta DD	B1HJKC8	US45325E2019		45325E102	45325E201	Croatia
Ina-Industrija Nafta DD	B1HJKF1	US45325E1029		45325E102	45325E201	Croatia
Ina-Industrija Nafta DD	B1L5RN2	US45325E1029		45325E102	45325E201	Croatia
Ina-Industrija Nafta 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	B05KKL5	AU000000LNG0	LNG			Australia
Liquefied Natural Gas Ltd	B2RHN19	AU000000LNG0	LNG			Australia
Liquefied Natural Gas Ltd	B02L5H2	AU000000LNG0	LNG			Australia
Mitsui & Co. Ltd	4597058	XS0029348686		606827202		Japan
Mitsui & Co. Ltd	2597061	US6068272029		606827202		Japan
Mitsui & Co. Ltd	B1HHX89	US6068272029		606827202		Japan
Mitsui & Co. Ltd	B0ZGPX0	JP3893600001	8031	606827202		Japan
Mitsui & Co. Ltd	B03KWZ5	JP3893600001	8031	606827202		Japan
Mitsui & Co. Ltd	5736463	JP3893600001	8031	606827202		Japan
Mitsui & Co. Ltd	4594071	JP3893600001	8031	606827202		Japan
Mitsui & Co. Ltd	6597302	JP3893600001	8031	606827202		Japan
Nagarjuna Fertilizers & Chemicals Ltd.	6628644	INE580A01013	500075			India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01011	500312	Y64606117		India
PetroChina Co. Ltd.	2568841	US71646E1001		71646E100		China
PetroChina Co. Ltd.	4633327	US71646E1001		71646E100		China

**ATTACHMENT 3**  
**IRAN RESTRICTED COMPANIES**  
**Security Identifiers**

<b>COMPANY_NAME</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>CUSIP_2</b>	<b>COUNTRY</b>
PetroChina Co. Ltd.	B28SLD9	CNE1000007Q1		71646E100		China
PetroChina Co. Ltd.	B17HOR7	CNE1000003W8	857	71646E100		China
PetroChina Co. Ltd.	5939507	CNE1000003W8	857	71646E100		China
PetroChina Co. Ltd.	B01DNL9	CNE1000003W8	857	71646E100		China
PetroChina Co. Ltd.	6226576	CNE1000003W8	857	71646E100		China
PetroChina Co. Ltd.	B1C5SR2	ARDEUT113958		71646E100		China
Petrofac	B0H2K53	GB00B0H2K534	PFC	G7052T101		United Kingdom
Petrofac	B11B6G6	GB00B0H2K534	PFC	G7052T101		United Kingdom
Petrofac	B0LWHB4	GB00B0H2K534	PFC	G7052T101		United Kingdom
Petronet LNG Ltd.	B00KT68	INE347G01014	532522			India
Punj Lloyd Ltd.	B1VJSG4	INE701B01021	532693			India
Saipem Spa	2209076	US79376W1099		79376W208	79376W109	Italy
Saipem Spa	B28LP70	IT0000068533		79376W208	79376W109	Italy
Saipem Spa	B02ZP63	IT0000068533		79376W208	79376W109	Italy
Saipem Spa	4768779	IT0000068533		79376W208	79376W109	Italy
Saipem Spa	4769103	IT0000068525	SPM	79376W208	79376W109	Italy
Saipem Spa	B02OR51	IT0000068525	SPM	79376W208	79376W109	Italy
Saipem Spa	4765996	IT0000068525	SPM	79376W208	79376W109	Italy
Saipem Spa	4768768	IT0000068525	SPM	79376W208	79376W109	Italy
Saipem Spa	B28LP69	IT0000068525	SPM	79376W208	79376W109	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	4776910	US8038663006		803866300	803866102	South Africa
Sasol Ltd	2777294	US8038663006		803866300	803866102	South Africa
Technip	2811620	US8785462099		878546209	F90676101	France
Technip	2878658	US8785461000		878546209	F90676101	France
Technip	B2NG4D9	FR0010565044		878546209	F90676101	France
Technip	B1MD4Y5	FR0010412353		878546209	F90676101	France

**ATTACHMENT 3  
IRAN RESTRICTED COMPANIES  
Security Identifiers**

<b>COMPANY_NAME</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>CUSIP_2</b>	<b>COUNTRY</b>
Technip	B0WC5Z3	FR0010273250		878546209	F90676101	France
Technip	B05K6W8	FR0010150342		878546209	F90676101	France
Technip	7328482	FR0000206039		878546209	F90676101	France
Technip	B06PC80	FR0000131708	TEC	878546209	F90676101	France
Technip	4122018	FR0000131708	TEC	878546209	F90676101	France
Technip	4874160	FR0000131708	TEC	878546209	F90676101	France
Technip	B28MSJ6	FR0000131708	TEC	878546209	F90676101	France
Toyo Engineering Corporation	6899718	JP3607800004	6330			Japan
Toyo Engineering Corporation	B02MHK2	JP3607800004	6330			Japan
Toyota Tsusho Corporation	6900580	JP3635000007	8015	J92719111		Japan



Letter to SBI Fixed Income Managers

December 11, 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. **These securities may not be purchased for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the September 28, 2012 letter you received. **This new list is effective December 14, 2012.**

- The following companies have been **removed** from the restricted list:
  - **Linde AG** Germany
  - **Maire Tecnimont S.p.A.** Italy
  - **MOL Magyar Olaj-es Gazipari Nyrt** Hungary

**Attachment 2** is the List of Iran Companies Requiring Divestment.

- There have been no changes to the Divestment List.

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

Sincerely,

James E. Heidelberg  
Assistant Executive Director

Enclosures

cc.: LeaAnn M. Stagg, Manager, Public Programs  
Ryan Hill, Portfolio Manager, Long-Term Debt  
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**

<b>COMPANY NAME</b>	<b>COUNTRY</b>
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 Nafta DD	Croatia
Indian Oil Corporation Ltd.	India
L G International	Korea South
Liquefied Natural Gas Ltd	Australia
Mitsui & Co. Ltd	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	India
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Petrofac	United Kingdom
Petronet LNG Ltd.	India
Punj Lloyd Ltd.	India
Saipem Spa	Italy
Sasol Ltd	South Africa
Technip	France
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: December 14, 2012



**ATTACHMENT 2**

**LIST OF IRAN COMPANIES REQUIRING DIVESTMENT**

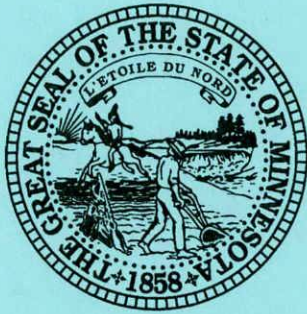
<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Gazprom Oao	Russia	July 31, 2010	January 31, 2011
Sasol Ltd	South Africa	July 31, 2010	January 31, 2011
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Petrofac	United Kingdom	September 30, 2012	March 31, 2013
Saipem SA	Italy	September 30, 2012	March 31, 2013
Technip	France	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

Effective Date: December 14, 2012

TAB

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# STATE BOARD OF INVESTMENT

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## Domestic Equity Manager Evaluation Reports

Fourth Quarter, 2012



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A-2

# Domestic Equity

## Table of Contents

	<b>Page</b>
Domestic Equity Performance Summary	A-5
Active Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-6
Semi-Passive and Passive Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-7
Active Manager Performance Summary (by calendar year)	A-8
Semi-Passive and Passive Manager Performance Summary (by calendar years)	A-9
Large Cap Core (R1000)	A-13
Large Cap Growth (R1000 Growth)	A-19
Large Cap Value (R1000 Value)	A-29
Small Cap Growth (R2000 Growth)	A-37
Small Cap Value (R2000 Value)	A-43
Semi-Passive and Passive	A-51

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A-4



**COMBINED RETIREMENT FUNDS**  
**ACTIVE DOMESTIC EQUITY MANAGERS**  
**Periods Ending December, 2012**

	Quarter		1 Year		3 Years		5 Years	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
Russell 1000 Core Aggregate	-0.7	0.1	12.4	16.4	7.1	11.1	-1.1	1.9
Russell 1000 Growth Aggregate	-1.2	-1.3	15.5	15.3	11.2	11.4	2.6	3.1
Russell 1000 Value Aggregate	1.7	1.5	16.9	17.5	9.6	10.9	0.2	0.6
Russell 2000 Growth Aggregate	-1.1	0.4	12.0	14.6	10.9	12.8	-0.6	3.5
Russell 2000 Value Aggregate	3.9	3.2	19.6	18.1	14.2	11.6	5.4	3.5
<b>Active Manager Aggregate</b>	<b>0.3</b>	<b>0.5</b>	<b>15.4</b>	<b>16.3</b>	<b>10.4</b>	<b>11.3</b>	<b>1.1</b>	<b>2.2</b>
<b>Semi-Passive Aggregate</b>	<b>0.2</b>	<b>0.1</b>	<b>17.7</b>	<b>16.4</b>	<b>11.5</b>	<b>11.1</b>	<b>2.2</b>	<b>1.9</b>
<b>Passive Manager (BlackRock)</b>	<b>0.3</b>	<b>0.2</b>	<b>16.4</b>	<b>16.4</b>	<b>11.2</b>	<b>11.2</b>	<b>2.1</b>	<b>2.0</b>
<b>Total Aggregate</b>	<b>0.3</b>	<b>0.2</b>	<b>16.6</b>	<b>16.4</b>	<b>11.1</b>	<b>11.2</b>	<b>1.9</b>	<b>2.0</b>
<b>Russell 3000 Index</b>		<b>0.2</b>		<b>16.4</b>		<b>11.2</b>		<b>2.0</b>

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
Russell 1000 Core Aggregate	12.4	16.4	-3.5	1.5	13.3	16.1	27.6	28.4	-39.6	-37.6
Russell 1000 Growth Aggregate	15.5	15.3	-0.4	2.6	19.3	16.7	44.5	37.2	-42.7	-38.4
Russell 1000 Value Aggregate	16.9	17.5	-2.1	0.4	15.0	15.5	23.8	19.7	-38.0	-36.8
Russell 2000 Growth Aggregate	12.0	14.6	-5.6	-2.9	29.1	29.1	33.6	34.5	-46.8	-38.5
Russell 2000 Value Aggregate	19.6	18.1	-4.5	-5.5	30.5	24.5	36.3	20.6	-36.1	-28.9
Active Manager Aggregate	15.4	16.3	-2.7	0.0	19.7	18.7	32.3	27.9	-40.5	-36.9
Semi-Passive Aggregate	17.7	16.4	2.2	1.5	15.2	16.1	28.5	28.4	-37.2	-37.6
Passive Manager (BlackRock)	16.4	16.4	0.8	1.0	17.2	16.9	28.2	28.3	-37.1	-37.3
Total Aggregate	16.6	16.4	0.4	1.0	17.1	16.9	29.6	28.3	-38.1	-37.3
Russell 3000 Index		16.4		1.0		16.9		28.3		-37.3

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

	Quarter		1 Year		3 Years		5 Years		Since Inception (1)		Market Value (in millions)	Pool %
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %		
<b>LARGE CAP</b>												
<b>Russell 1000 Core</b>												
New Amsterdam Partners	-1.6	0.1	8.2	16.4	6.9	11.1	-0.7	1.9	9.2	9.1	\$392.0	1.7%
UBS Global	0.1	0.1	16.7	16.4	7.3	11.1	0.5	1.9	8.1	8.3	\$402.4	1.8%
<b>Aggregate</b>	<b>-0.7</b>	<b>0.1</b>	<b>12.4</b>	<b>16.4</b>	<b>7.1</b>	<b>11.1</b>	<b>-1.1</b>	<b>1.9</b>			<b>\$794.4</b>	<b>3.5%</b>
<b>Russell 1000 Growth</b>												
INTECH	-1.6	-1.3	17.8	15.3	12.1	11.4	1.6	3.1	4.2	5.2	\$388.6	1.7%
Jacobs Levy	-1.8	-1.3	13.0	15.3	12.9	11.4	1.7	3.1	3.5	5.2	\$350.3	1.5%
Knelman Asset Mgmt.	-0.7	-1.3	16.6	15.3	10.0	11.4	1.0	3.1	4.4	5.2	\$71.1	0.3%
Sands Capital	-0.8	-1.3	24.2	15.3	17.4	11.4	7.4	3.1	7.5	5.2	\$355.4	1.6%
Winslow-Large Cap	-1.4	-1.3	13.7	15.3	9.9	11.4	2.7	3.1	6.5	5.2	\$155.8	0.7%
Zevenbergen Capital	-0.5	-1.3	8.0	15.3	6.2	11.4	1.3	3.1	8.4	7.7	\$322.6	1.4%
<b>Aggregate</b>	<b>-1.2</b>	<b>-1.3</b>	<b>15.5</b>	<b>15.3</b>	<b>11.2</b>	<b>11.4</b>	<b>2.6</b>	<b>3.1</b>			<b>\$1,643.9</b>	<b>7.3%</b>
<b>Russell 1000 Value</b>												
Barrow, Hanley	1.7	1.5	15.5	17.5	9.0	10.9	0.7	0.6	5.1	4.9	\$501.3	2.2%
Earnest Partners	-0.3	1.5	10.7	17.5	7.7	10.9	-0.2	0.6	4.2	4.9	\$198.3	0.9%
LSV Asset Mgmt.	3.6	1.5	20.4	17.5	10.8	10.9	0.5	0.6	5.7	4.9	\$479.5	2.1%
Systematic Financial Mgmt.	0.3	1.5	18.2	17.5	8.9	10.9	-1.1	0.6	4.7	4.9	\$334.7	1.5%
<b>Aggregate</b>	<b>1.7</b>	<b>1.5</b>	<b>16.9</b>	<b>17.5</b>	<b>9.6</b>	<b>10.9</b>	<b>0.2</b>	<b>0.6</b>			<b>\$1,513.7</b>	<b>6.7%</b>
<b>SMALL CAP</b>												
<b>Russell 2000 Growth</b>												
McKinley Capital	3.7	0.4	23.2	14.6	13.4	12.8	-1.0	3.5	3.8	6.2	\$250.2	1.1%
Next Century Growth	-7.1	0.4	1.9	14.6	8.0	12.8	-2.9	3.5	0.5	1.7	\$261.5	1.2%
Turner Investment Partners	0.7	0.4	13.1	14.6	11.6	12.8	2.0	3.5	6.1	6.2	\$296.2	1.3%
<b>Aggregate</b>	<b>-1.1</b>	<b>0.4</b>	<b>12.0</b>	<b>14.6</b>	<b>10.9</b>	<b>12.8</b>	<b>-0.6</b>	<b>3.5</b>			<b>\$807.9</b>	<b>3.6%</b>
<b>Russell 2000 Value</b>												
Goldman Sachs	2.4	3.2	16.6	18.1	14.5	11.6	7.0	3.5	7.8	6.1	\$183.3	0.8%
Hotchkis & Wiley	5.2	3.2	24.1	18.1	16.6	11.6	7.6	3.5	6.0	6.1	\$158.2	0.7%
Martingale Asset Mgmt.	4.7	3.2	20.1	18.1	13.2	11.6	2.8	3.5	4.8	6.1	\$142.3	0.6%
Peregrine Capital	3.8	3.2	18.8	18.1	13.2	11.6	5.1	3.5	9.7	8.9	\$247.3	1.1%
<b>Aggregate</b>	<b>3.9</b>	<b>3.2</b>	<b>19.6</b>	<b>18.1</b>	<b>14.2</b>	<b>11.6</b>	<b>5.4</b>	<b>3.5</b>			<b>\$731.1</b>	<b>3.2%</b>
<b>Active Mgr. Aggregate (2)</b>	<b>0.3</b>	<b>0.5</b>	<b>15.4</b>	<b>16.3</b>	<b>10.4</b>	<b>11.3</b>	<b>1.1</b>	<b>2.2</b>			<b>\$5,491.0</b>	<b>24.3%</b>

(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 December, 2012  
Versus Manager Benchmarks**

	Quarter		1 Year		3 Years		5 Years		Since Inception (1)		Market Value (in millions)	Pool %
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%	%	%		%
<b>SEMI-PASSIVE MANAGERS (2)</b>												
BlackRock Institutional	0.5	0.1	19.0	16.4	11.3	11.1	2.0	1.9	8.3	8.0	\$2,547.7	11.3%
INTECH	0.3	0.1	16.6	16.4					10.4	9.9	\$1,832.2	8.1%
JP Morgan	0.2	0.1	17.6	16.4	11.6	11.1	2.9	1.9	8.3	8.0	\$3,023.7	13.4%
Mellon Capital	-0.3	0.1	17.3	16.4	11.7	11.1	1.8	1.9	7.6	8.0	\$1,897.7	8.4%
<b>Semi-Passive Aggregate (R1000)</b>	<b>0.2</b>	<b>0.1</b>	<b>17.7</b>	<b>16.4</b>	<b>11.5</b>	<b>11.1</b>	<b>2.2</b>	<b>1.9</b>			<b>\$9,301.2</b>	<b>41.1%</b>
<b>PASSIVE MANAGER (R3000)</b>												
BlackRock Institutional	0.3	0.2	16.4	16.4	11.2	11.2	2.1	2.0	7.7	7.6	\$7,817.4	34.6%
<b>Total Aggregate (3)</b>	<b>0.3</b>	<b>0.2</b>	<b>16.6</b>	<b>16.4</b>	<b>11.1</b>	<b>11.2</b>	<b>1.9</b>	<b>2.0</b>	<b>9.7</b>	<b>9.9</b>	<b>\$22,609.7</b>	<b>100.0%</b>
Russell 3000		0.2		16.4		11.2		2.0		10.3		
Russell 1000		0.1		16.4		11.1		1.9		10.4		
Russell 2000		1.9		16.3		12.2		3.6		8.9		

(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**

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
<b>LARGE CAP</b>										
<b>Russell 1000 Core</b>										
New Amsterdam Partners	8.2	16.4	-3.0	1.5	16.2	16.1	24.8	28.4	-36.7	-37.6
UBS Global	16.7	16.4	-4.1	1.5	10.3	16.1	41.3	28.4	-41.3	-37.6
<b>Aggregate</b>	<b>12.4</b>	<b>16.4</b>	<b>-3.5</b>	<b>1.5</b>	<b>13.3</b>	<b>16.1</b>	<b>27.6</b>	<b>28.4</b>	<b>-39.6</b>	<b>-37.6</b>
<b>Russell 1000 Growth</b>										
INTECH	17.8	15.3	0.1	2.6	19.5	16.7	34.0	37.2	-42.8	-38.4
Jacobs Levy	13.0	15.3	6.6	2.6	19.5	16.7	37.1	37.2	-44.9	-38.4
Knelman Asset Mgmt.	16.6	15.3	-3.3	2.6	18.1	16.7	31.1	37.2	-39.9	-38.4
Sands Capital	24.2	15.3	2.7	2.6	26.8	16.7	71.6	37.2	-48.6	-38.4
Winslow-Large Cap	13.7	15.3	0.1	2.6	16.8	16.7	40.9	37.2	-39.1	-38.4
Zevenbergen Capital	8.0	15.3	-9.8	2.6	22.9	16.7	57.4	37.2	-43.2	-38.4
<b>Aggregate</b>	<b>15.5</b>	<b>15.3</b>	<b>-0.4</b>	<b>2.6</b>	<b>19.3</b>	<b>16.7</b>	<b>44.5</b>	<b>37.2</b>	<b>-42.7</b>	<b>-38.4</b>
<b>Russell 1000 Value</b>										
Barrow, Hanley	15.5	17.5	1.7	0.4	10.4	15.5	23.2	19.7	-35.2	-36.8
Earnest Partners	10.7	17.5	-4.7	0.4	18.5	15.5	31.6	19.7	-39.8	-36.8
LSV Asset Mgmt.	20.4	17.5	-0.8	0.4	14.0	15.5	24.0	19.7	-39.3	-36.8
Systematic Financial Mgmt.	18.2	17.5	-7.4	0.4	18.1	15.5	23.2	19.7	-40.6	-36.8
<b>Aggregate</b>	<b>16.9</b>	<b>17.5</b>	<b>-2.1</b>	<b>0.4</b>	<b>15.0</b>	<b>15.5</b>	<b>23.8</b>	<b>19.7</b>	<b>-38.0</b>	<b>-36.8</b>
<b>SMALL CAP</b>										
<b>Russell 2000 Growth</b>										
McKinley Capital	23.2	14.6	-7.9	-2.9	28.5	29.1	28.0	34.5	-49.1	-38.5
Next Century Growth	1.9	14.6	-4.5	-2.9	29.6	29.1	35.0	34.5	-49.3	-38.5
Turner Investment Partners	13.1	14.6	-4.8	-2.9	29.0	29.1	36.9	34.5	-41.9	-38.5
<b>Aggregate</b>	<b>12.0</b>	<b>14.6</b>	<b>-5.6</b>	<b>-2.9</b>	<b>29.1</b>	<b>29.1</b>	<b>33.6</b>	<b>34.5</b>	<b>-46.8</b>	<b>-38.5</b>
<b>Russell 2000 Value</b>										
Goldman Sachs	16.6	18.1	1.3	-5.5	27.0	24.5	27.8	20.6	-26.8	-28.9
Hotchkis & Wiley	24.1	18.1	-10.8	-5.5	43.4	24.5	62.5	20.6	-44.1	-28.9
Martingale Asset Mgmt.	20.1	18.1	-5.2	-5.5	27.4	24.5	19.4	20.6	-33.8	-28.9
Peregrine Capital	18.8	18.1	-4.1	-5.5	27.3	24.5	45.8	20.6	-39.4	-28.9
<b>Aggregate</b>	<b>19.6</b>	<b>18.1</b>	<b>-4.5</b>	<b>-5.5</b>	<b>30.5</b>	<b>24.5</b>	<b>36.3</b>	<b>20.6</b>	<b>-36.1</b>	<b>-28.9</b>
<b>Active Mgr. Aggregate (1)</b>	<b>15.4</b>	<b>16.3</b>	<b>-2.7</b>	<b>0.0</b>	<b>19.7</b>	<b>18.7</b>	<b>32.3</b>	<b>27.9</b>	<b>-40.5</b>	<b>-36.9</b>

(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**

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
<b>SEMI-PASSIVE MANAGERS</b>										
BlackRock Institutional	19.0	16.4	1.6	1.5	14.0	16.1	27.6	28.4	-37.1	-37.6
INTECH	16.6	16.4	2.9	1.5						
JP Morgan	17.6	16.4	1.1	1.5	16.8	16.1	32.1	28.4	-37.1	-37.6
Mellon Capital	17.3	16.4	4.6	1.5	13.7	16.1	25.6	28.4	-37.6	-37.6
<b>Semi-Passive Aggregate (R1000)</b>	<b>17.7</b>	<b>16.4</b>	<b>2.2</b>	<b>1.5</b>	<b>15.2</b>	<b>16.1</b>	<b>28.5</b>	<b>28.4</b>	<b>-37.2</b>	<b>-37.6</b>
<b>PASSIVE MANAGER (R3000)</b>										
BlackRock Institutional	16.4	16.4	0.8	1.0	17.2	16.9	28.2	28.3	-37.1	-37.3
<b>Total Aggregate</b>	<b>16.6</b>	<b>16.4</b>	<b>0.4</b>	<b>1.0</b>	<b>17.1</b>	<b>16.9</b>	<b>29.6</b>	<b>28.3</b>	<b>-38.1</b>	<b>-37.3</b>
Russell 3000		16.4		1.0		16.9		28.3		-37.3
Russell 1000		16.4		1.5		16.1		28.4		-37.6
Russell 2000		16.3		-4.2		26.9		27.2		-33.8

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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A-12

# Large Cap Core (R1000)

## Table of Contents

	<b>Page</b>
New Amsterdam Partners LLC	A-14
UBS Global Asset Management (Americas) Inc.	A-15



**NEW AMSTERDAM PARTNERS LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Michelle Clayman**

**Assets Under Management: \$392,020,484**

**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.

**Staff Comments**

New Amsterdam's growth at a reasonable price (GARP) investment process has struggled as performance has lagged the Russell 1000 over all time periods shown, with the exception of since inception. For the one year return, sector allocation and stock selection were negative across all sectors.

The strategy remains the same and Michelle Clayman, founder and majority owner, continues to lead the investment team. Staff continues to monitor this account closely.

**Quantitative Evaluation**

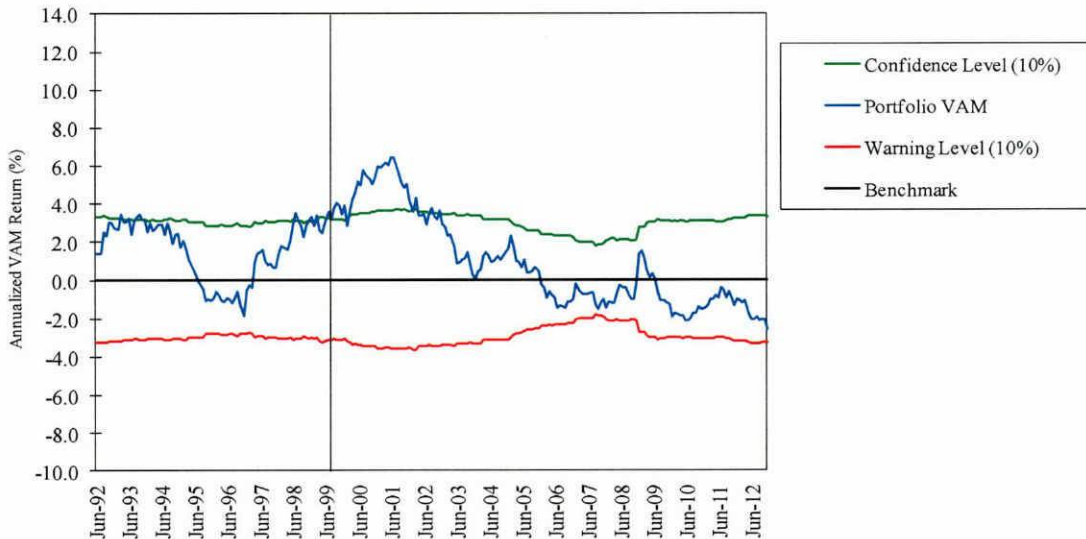
	<b>Actual</b>	<b>Russell Index</b>
Last Quarter	-1.6%	0.1%
Last 1 year	8.2	16.4
Last 2 years	2.5	8.7
Last 3 years	6.9	11.1
Last 4 years	11.1	15.2
Last 5 years	-0.7	1.9
Since Inception (1) (4/94)	9.2	9.1

**Recommendation**

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)**



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

**UBS GLOBAL ASSET MANAGEMENT (AMERICAS) INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: John Leonard**

**Assets Under Management: \$402,423,398**

**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.

**Staff Comments**

Short term performance relative to the Russell 1000 improved as stock selection had a positive impact.

The investment team was restructured during the quarter, and included downsizing the Analyst team from 12 to 9 people. A senior US Equity Strategist was also appointed. The investment strategy remains the same. Staff continues to monitor this account closely.

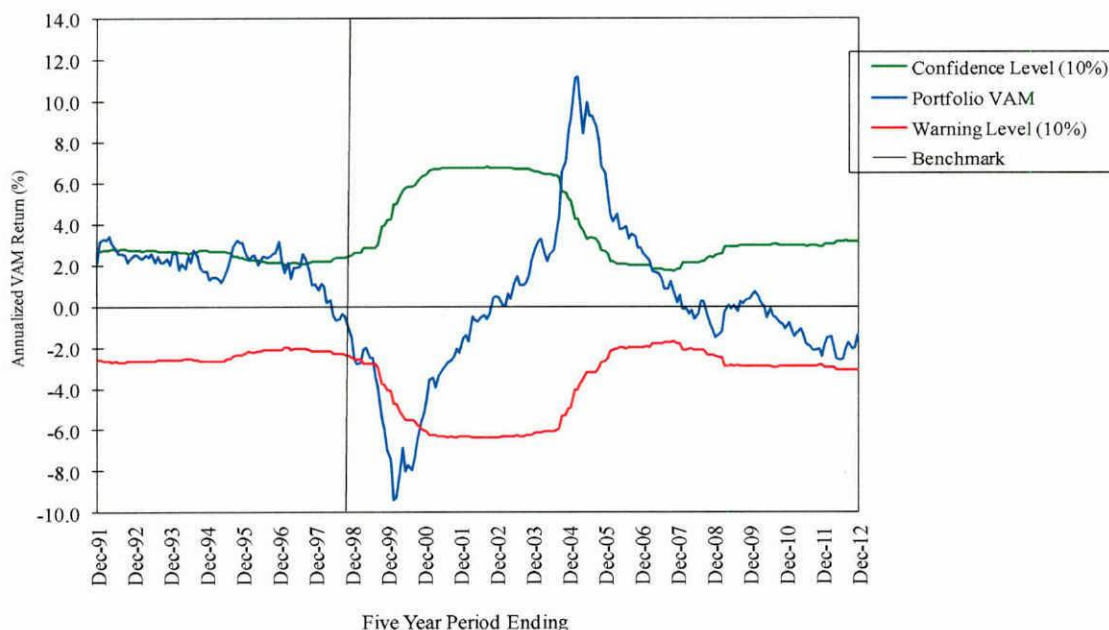
**Quantitative Evaluation**

	<b>Actual</b>	<b>(R1000 Core)</b>
Last Quarter	0.1%	0.1%
Last 1 year	16.7	16.4
Last 2 years	5.8	8.7
Last 3 years	7.3	11.1
Last 4 years	14.9	15.2
Last 5 years	0.5	1.9
Since Inception (7/93)	8.1	8.3

**Recommendation**

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.

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## **Large Cap Growth (R1000 Growth)**



## Large Cap Growth (R1000 Growth)

### Table of Contents

	Page
INTECH Investment Management LLC	A-20
Jacobs Levy Equity Management, Inc.	A-21
Knelman Asset Management Group, LLC	A-22
Sands Capital Management, LLC	A-23
Winslow Capital Management, Inc.	A-24
Zevenbergen Capital Investments LLC	A-25



**INTECH INVESTMENT MANAGEMENT LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Adrian Banner**

**Assets Under Management: \$388,581,269**

**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.

**Staff Comments**

Effective November 29, 2012, Adrian Banner, CIO, assumed the role of CEO, replacing Jennifer Young, who stepped down. There were additional staffing changes as the reporting structure to Adrian shifted. Staff will monitor the changes and any impact closely.

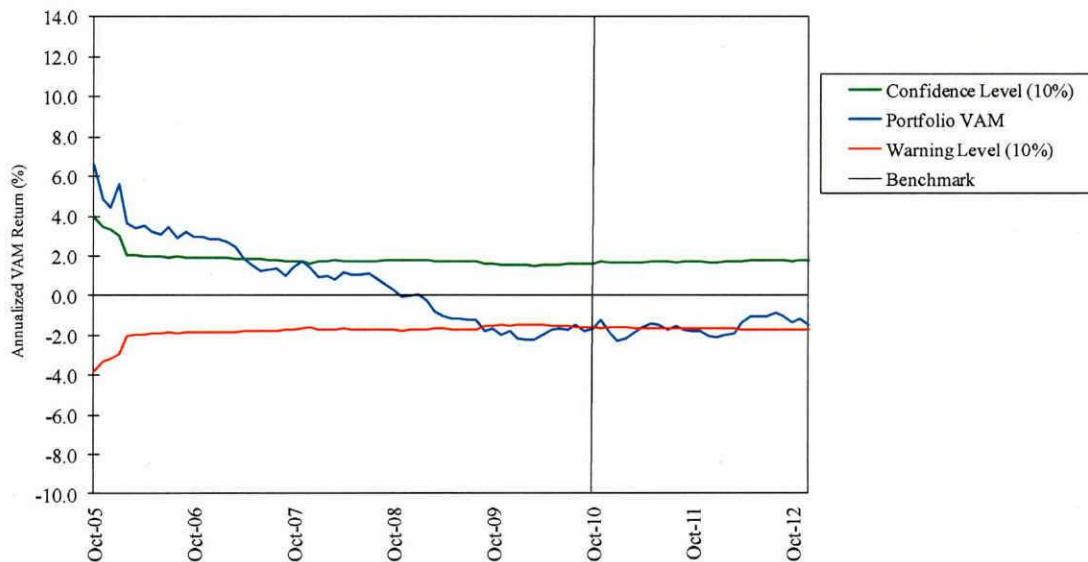
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-1.6%	-1.3%
Last 1 year	17.8	15.3
Last 2 years	8.6	8.8
Last 3 years	12.1	11.4
Last 4 years	17.2	17.3
Last 5 years	1.6	3.1
Since Inception (1/05)	4.2	5.2

**Recommendation**

No action required.

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



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

**JACOBS LEVY EQUITY MANAGEMENT, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Bruce Jacobs and Ken Levy**

**Assets Under Management: \$350,332,553**

**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.

**Staff Comments**

Staff has no concerns with Jacobs Levy at this time.

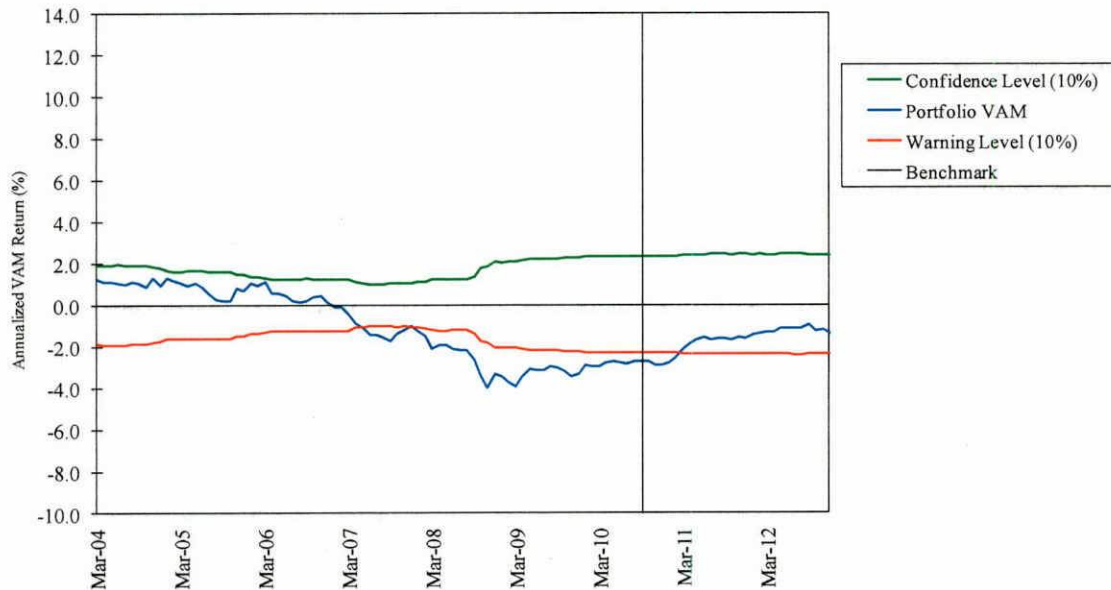
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-1.8%	-1.3%
Last 1 year	13.0	15.3
Last 2 years	9.8	8.8
Last 3 years	12.9	11.4
Last 4 years	18.5	17.3
Last 5 years	1.7	3.1
Since Inception (1/05)	3.5	5.2

**Recommendation**

No action required.

**JACOBS LEVY EQUITY MANAGEMENT**  
**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.

**KNELMAN ASSET MANAGEMENT GROUP, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Kip Knelman**

**Assets Under Management: \$71,106,529**

**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.

**Staff Comments**

The portfolio performance relative to the Russell 1000 Growth has improved over the quarter and one year. There have been no owner or personnel changes and the investment process remains the same at Knelman. Staff will continue to monitor performance.

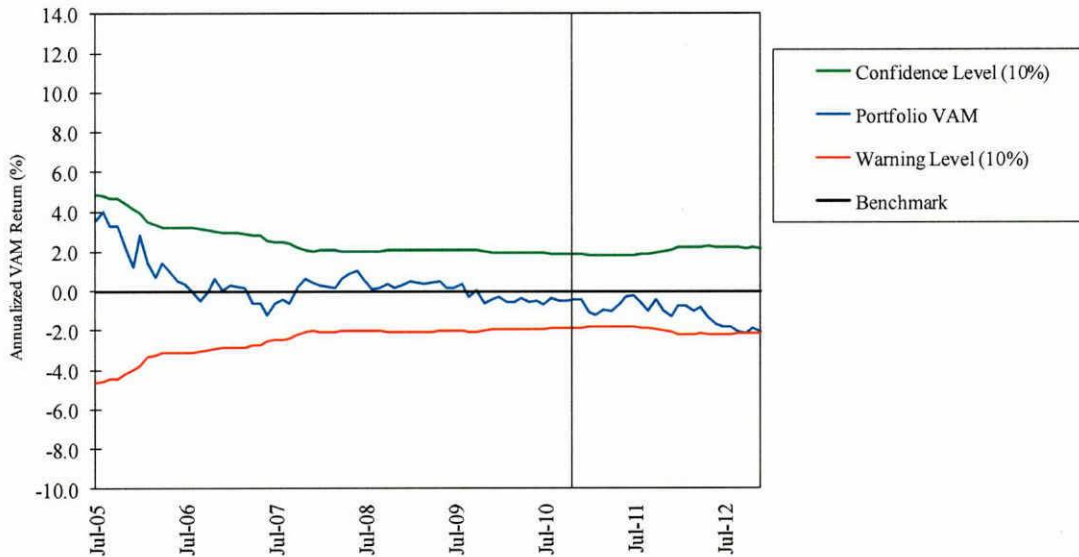
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-0.7%	-1.3%
Last 1 year	16.6	15.3
Last 2 years	6.2	8.8
Last 3 years	10.0	11.4
Last 4 years	14.9	17.3
Last 5 years	1.0	3.1
Since Inception (1/05)	4.4	5.2

**Recommendation**

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 December, 2012**

**Portfolio Manager: Frank Sands, Jr.**

**Assets Under Management: \$355,436,679**

**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.

**Staff Comments**

Sands has positive relative return to the Russell 1000 Growth for all time periods shown. Staff anticipates high tracking error for this portfolio given Sands active share approach, concentrated portfolio, and long-term view of the companies in the portfolio.

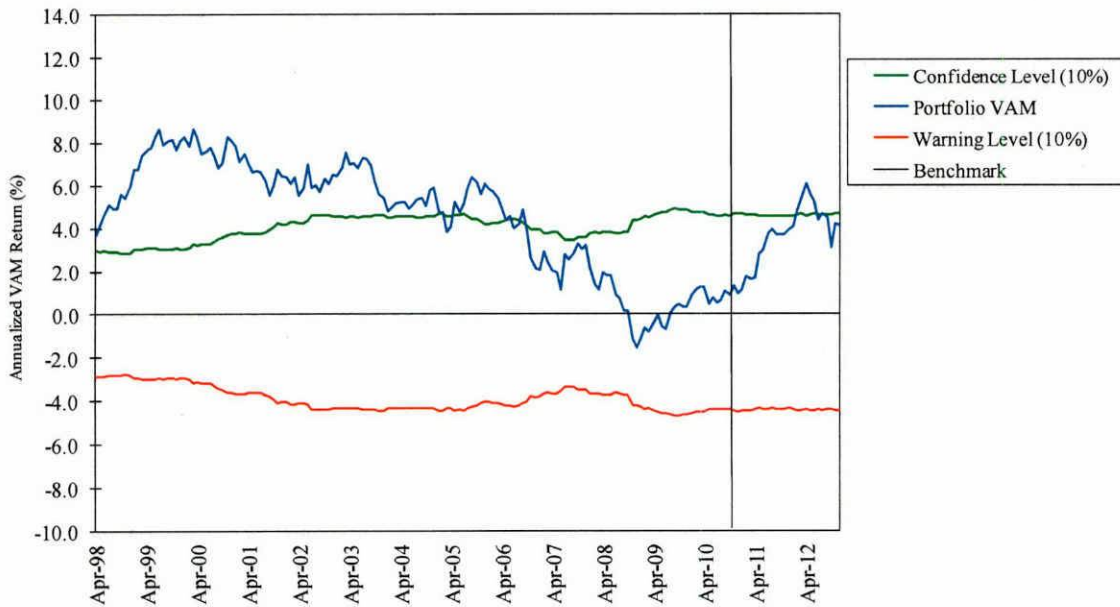
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-0.8%	-1.3%
Last 1 year	24.2	15.3
Last 2 years	12.9	8.8
Last 3 years	17.4	11.4
Last 4 years	29.1	17.3
Last 5 years	7.4	3.1
Since Inception (1/05)	7.5	5.2

**Recommendation**

No action required.

**SANDS CAPITAL 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.

**WINSLOW CAPITAL MANAGEMENT, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Bart Wear and Justin Kelly**

**Assets Under Management: \$155,834,109**

**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.

**Staff Comments**

The portfolio has underperformed relative to the Russell 1000 Growth for all time periods shown, with the exception of since inception. Security selection has been negative and slightly offset by positive sector allocation.

There have been no owner or personnel changes and the investment process remains the same.

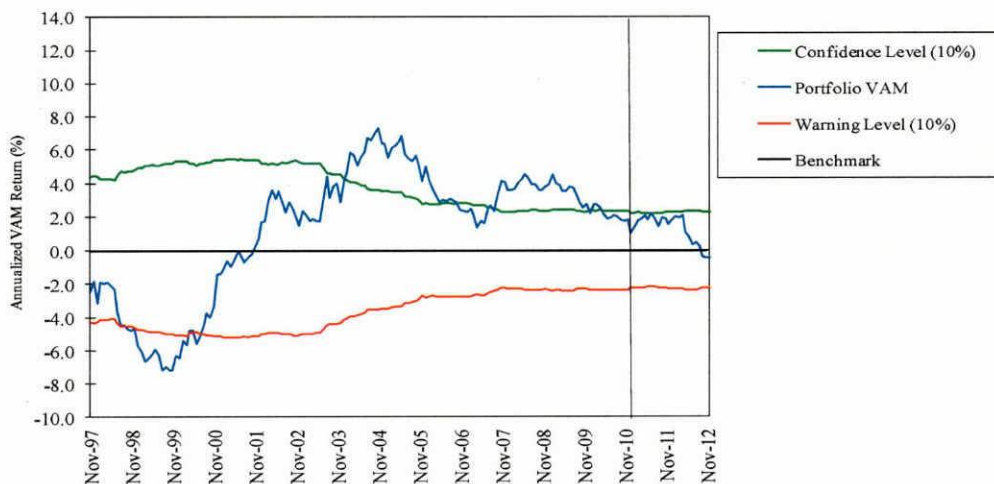
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-1.4%	-1.3%
Last 1 year	13.7	15.3
Last 2 years	6.7	8.8
Last 3 years	9.9	11.4
Last 4 years	17.0	17.3
Last 5 years	2.7	3.1
Since Inception (1/05)	6.5	5.2

**Recommendation**

No action required.

WINSLOW CAPITAL 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.

**ZEVENBERGEN CAPITAL INVESTMENTS LLC**  
**Periods Ending December, 2012**

**Portfolio Manager:** Nancy Zevenbergen

**Assets Under Management:** \$322,562,810

**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.

**Staff Comments**

Zevenbergen's relative underperformance to the Russell 1000 Growth began in June of 2011 and has negatively impacted the one through five year returns. This concentrated growth portfolio is associated with significant volatility. Tracking error for this portfolio is within the policy range of 7-13%.

There have been no owner or personnel changes and the investment process remains the same. Staff will continue to monitor their performance.

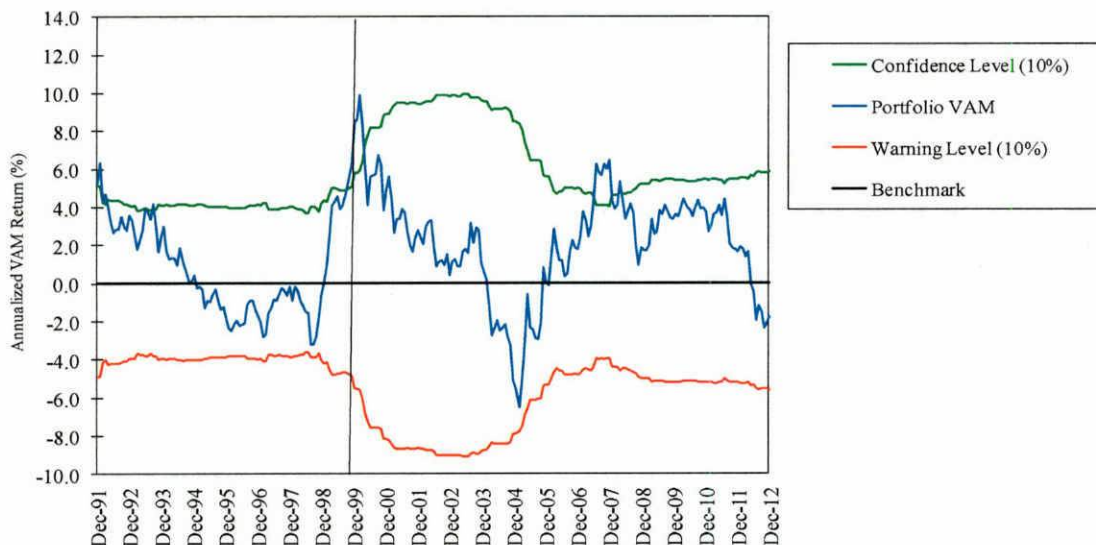
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Growth</b>
Last Quarter	-0.5%	-1.3%
Last 1 year	8.0	15.3
Last 2 years	-1.3	8.8
Last 3 years	6.2	11.4
Last 4 years	17.1	17.3
Last 5 years	1.3	3.1
Since Inception (4/94)	8.4	7.7

**Recommendation**

No action required.

**ZEVENBERGEN CAPITAL INVESTMENTS 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.



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## **Large Cap Value (R1000 Value)**

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A-28



## Large Cap Value (R1000 Value)

### Table of Contents

	<b>Page</b>
Barrow, Hanley, Mewhinney & Strauss, Inc.	A-30
Earnest Partners, LLC	A-31
LSV Asset Management	A-32
Systematic Financial Management, L.P.	A-33

**BARROW, HANLEY, MEWHINNEY & STRAUSS, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Tim Culler**

**Assets Under Management: \$501,270,193**

**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 value-oriented investment process dedicated to the selection of securities on a bottom-up basis. The team does not attempt to time the market or rotate in and out of broad market sectors.

The manager remains fully invested with a defensive, conservative orientation based on the belief that superior returns can be achieved while taking below average risks. This strategy is implemented by constructing 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.

**Staff Comments**

Staff has no concerns with Barrow Hanley at this time.

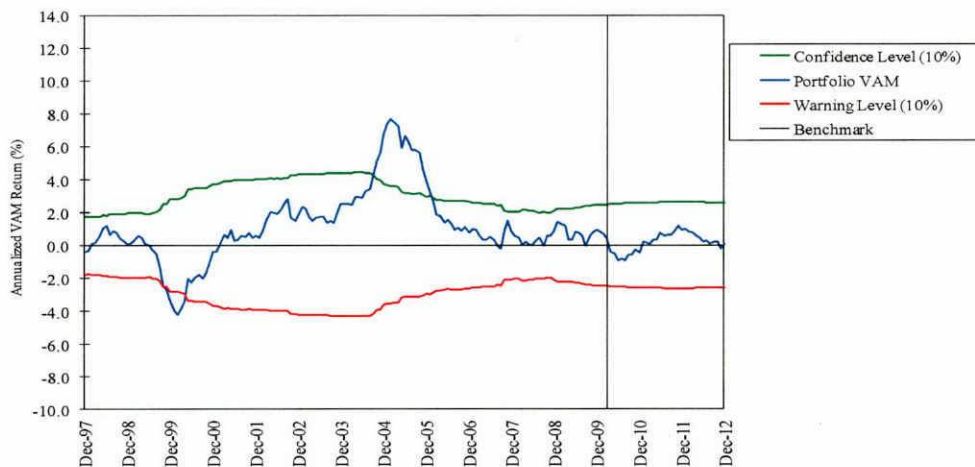
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Value</b>
Last Quarter	1.7%	1.5%
Last 1 year	15.5	17.5
Last 2 years	8.3	8.6
Last 3 years	9.0	10.9
Last 4 years	12.4	13.0
Last 5 years	0.7	0.6
Since Inception (4/04)	5.1	4.9

**Recommendation**

No action required.

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



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

**EARNEST PARTNERS, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Paul Viera**

**Assets Under Management: \$198,310,223**

**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 out-performance 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.

**Staff Comments**

Staff has no concerns with Earnest at this time. Although performance has lagged over most time periods, the organization is stable and the process remains the same.

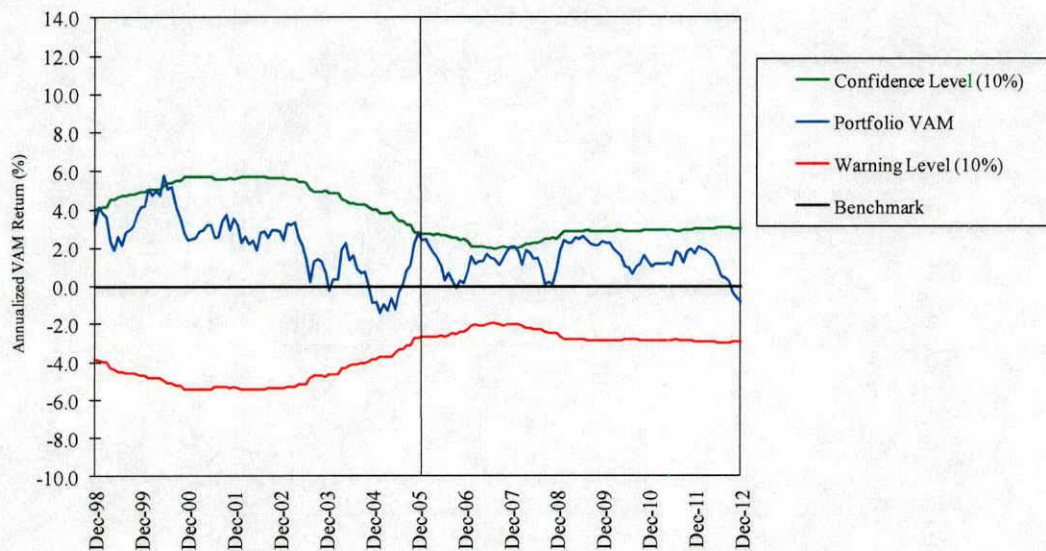
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Value</b>
Last Quarter	-0.3%	1.5%
Last 1 year	10.7	17.5
Last 2 years	2.7	8.6
Last 3 years	7.7	10.9
Last 4 years	13.3	13.0
Last 5 years	-0.2	0.6
Since Inception (7/00)	4.2	4.9

**Recommendation**

No action required.

**EARNEST PARTNERS**  
**Rolling Five Year VAM vs. Russell 1000 Value**



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



**LSV ASSET MANAGEMENT**  
**Periods Ending December, 2012**

**Portfolio Manager: Josef Lakonishok**

**Assets Under Management: \$479,456,122**

**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.

**Staff Comments**

Staff has no concerns with LSV at this time.

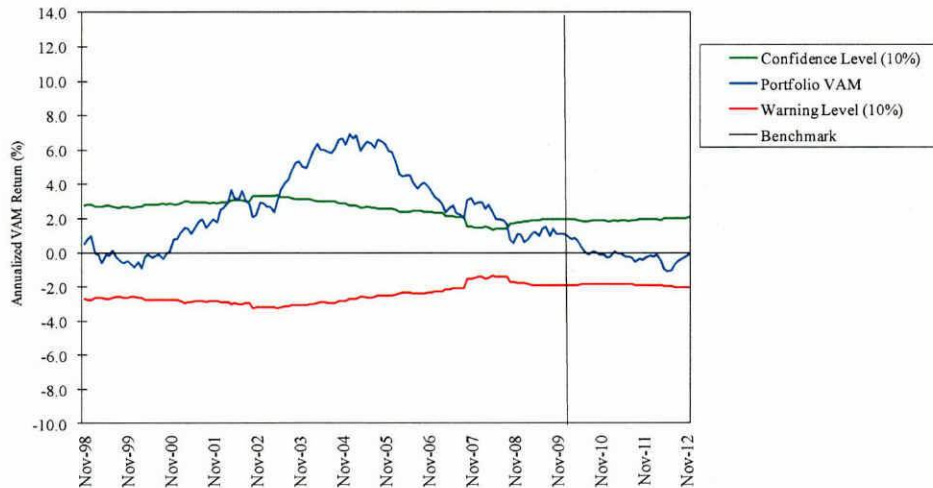
**Quantitative Evaluation**

	<b>Actual</b>	<b>R1000 Value</b>
Last Quarter	3.6%	1.5%
Last 1 year	20.4	17.5
Last 2 years	9.3	8.6
Last 3 years	10.8	10.9
Last 4 years	14.0	13.0
Last 5 years	0.5	0.6
Since Inception (4/04)	5.7	4.9

**Recommendation**

No action required.

LSV ASSET MANAGEMENT  
 Rolling Five Year VAM vs. Russell 1000 Value



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

# SYSTEMATIC FINANCIAL MANAGEMENT, L.P.

Periods Ending December, 2012

**Portfolio Manager: Kevin McCreesh**

**Assets Under Management: \$334,676,509**

## 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.

## Staff Comments

Staff has no concerns with Systematic at this time.

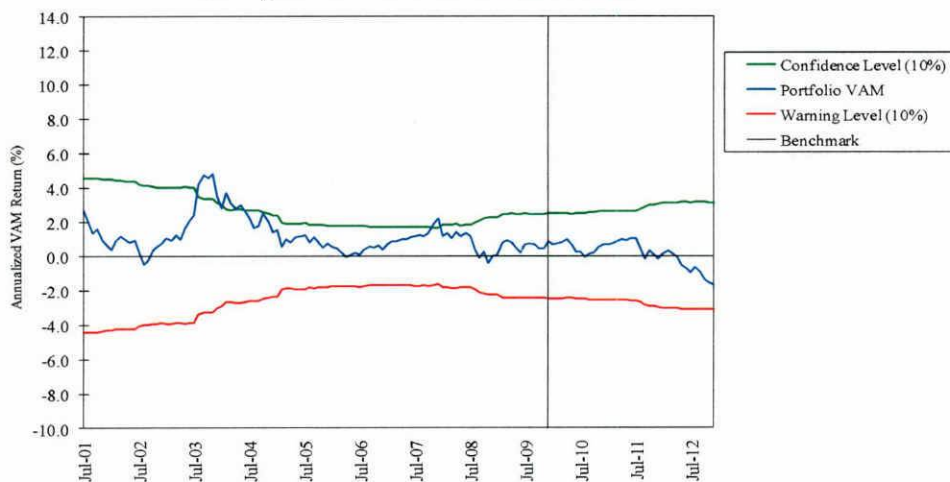
## Quantitative Evaluation

	Actual	R1000 Value
Last Quarter	0.3%	1.5%
Last 1 year	18.2	17.5
Last 2 years	4.6	8.6
Last 3 years	8.9	10.9
Last 4 years	12.4	13.0
Last 5 years	-1.1	0.6
Since Inception (4/04)	4.7	4.9

## Recommendation

No action required.

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



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)**



## Small Cap Growth (R2000 Growth)

### Table of Contents

	<b>Page</b>
McKinley Capital Management, Inc.	A-38
Next Century Growth Investors, LLC	A-39
Turner Investment Partners, Inc.	A-40



**MCKINLEY CAPITAL MANAGEMENT, LLC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Robert A. Gillam**

**Assets Under Management: \$250,150,334**

**Investment Philosophy**

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

The primary model includes a linear regression model to identify common stocks that are inefficiently priced relative to the market while adjusting each security for standard deviation. The ratio of alpha to standard deviation is the primary screening value and is used to filter out all but the top 10% of stocks in its initial 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.

**Staff Comments**

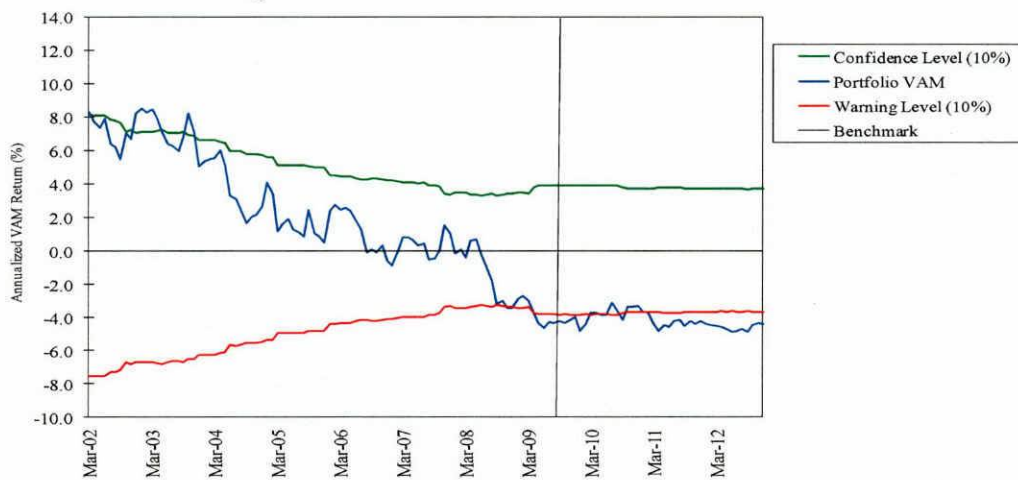
McKinley's recent performance rebound continues their recovery from significant underperformance. McKinley has been consistent with their investment process and the organization has remained stable. Staff is monitoring the portfolio closely.

**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Growth</b>	
Last Quarter	3.7%	0.4%	No action required.
Last 1 year	23.2	14.6	
Last 2 years	6.5	5.5	
Last 3 years	13.4	12.8	
Last 4 years	16.9	17.9	
Last 5 years	-1.0	3.5	
Since Inception (1/04)	3.8	6.2	

**Recommendation**

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



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

**NEXT CENTURY GROWTH INVESTORS, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Thomas Press and Don Longlet**

**Assets Under Management: \$261,514,616**

**Investment Philosophy**

Next Century Growth's (NCG) goal is to invest in the highest quality and fastest growing companies in America. They believe that growth opportunities exist regardless of the economic cycle. NCG uses fundamental analysis to identify companies that will surpass consensus earnings estimates, which they believe to be the number one predictor of future out-performance. Their investment process focuses on 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.

**Staff Comments**

Next Century has underperformed in all time periods shown. This past year was the worst relative to the benchmark in their fourteen year history. Next Century has been consistent with their investment process and the organization has remained stable. Staff will continue to track their performance.

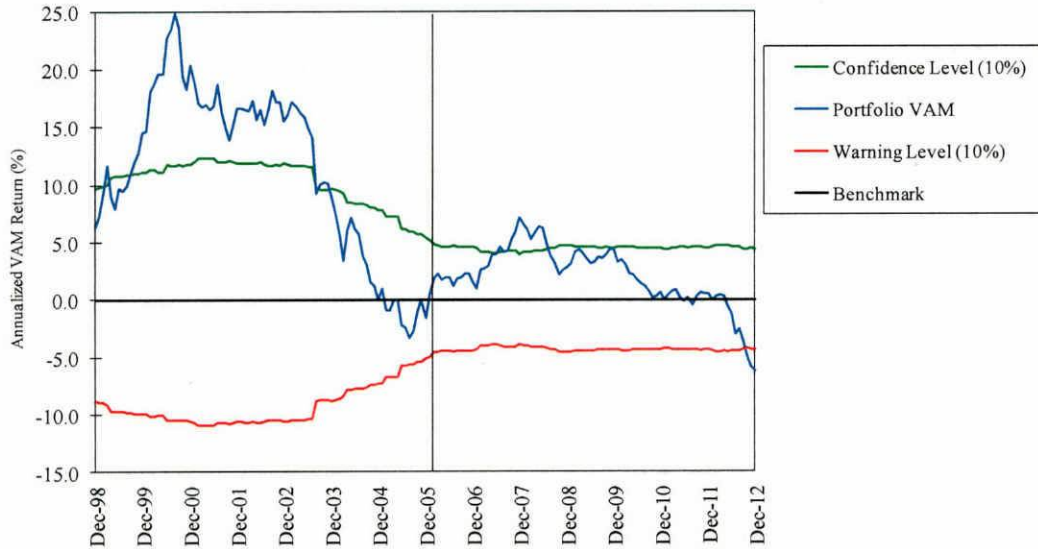
**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Growth</b>
Last Quarter	-7.1%	0.4%
Last 1 year	1.9	14.6
Last 2 years	-1.4	5.5
Last 3 years	8.0	12.8
Last 4 years	14.2	17.9
Last 5 years	-2.9	3.5
Since Inception (7/00)	0.5	1.7

**Recommendation**

No action required.

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



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

**TURNER INVESTMENT PARTNERS, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: William McVail**

**Assets Under Management: \$296,242,976**

**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.

**Staff Comments**

Staff has no concerns with Turner at this time.

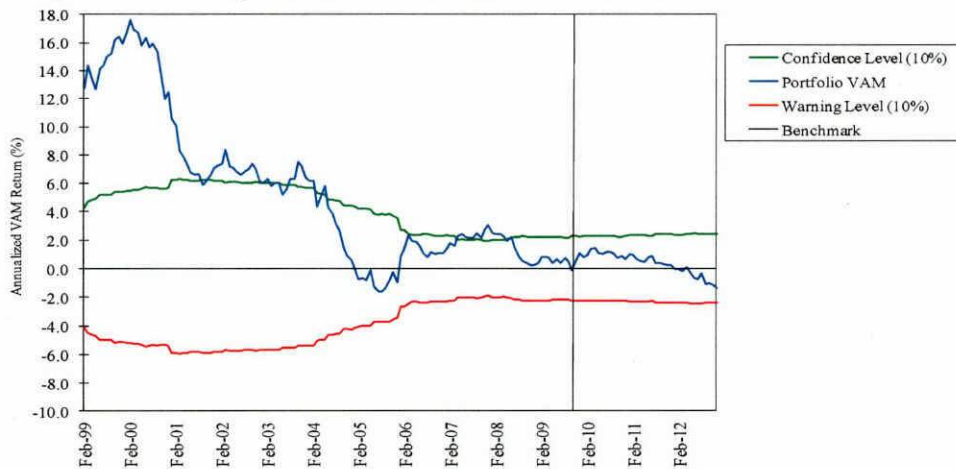
**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Growth</b>
Last Quarter	0.7%	0.4%
Last 1 year	13.1	14.6
Last 2 years	3.8	5.5
Last 3 years	11.6	12.8
Last 4 years	17.5	17.9
Last 5 years	2.0	3.5
Since Inception (1/04)	6.1	6.2

**Recommendation**

No action required.

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



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



## **Small Cap Value (R2000 Value)**

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A-42

## Small Cap Value (R2000 Value)

### Table of Contents

	<b>Page</b>
Goldman Sachs Asset Management, L.P.	A-44
Hotchkis & Wiley Capital Management, LLC	A-45
Martingale Asset Management, L.P.	A-46
Peregrine Capital Management	A-47



**GOLDMAN SACHS ASSET MANAGEMENT, L.P.**  
**Periods Ending December, 2012**

**Portfolio Manager: Sally Pope-Davis and Rob Crystal      Assets Under Management: \$183,274,065**

**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.

**Staff Comments**

Staff has no concerns with Goldman at this time.

**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Value</b>
Last Quarter	2.4%	3.2%
Last 1 year	16.6	18.1
Last 2 years	8.7	5.6
Last 3 years	14.5	11.6
Last 4 years	17.7	13.8
Last 5 years	7.0	3.5
Since Inception (1/04)	7.8	6.1

**Recommendation**

No action required.

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



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

**HOTCHKIS & WILEY CAPITAL MANAGEMENT**  
**Periods Ending December, 2012**

**Portfolio Manager: Jim Miles and David Green**

**Assets Under Management: \$158,196,137**

**Investment Philosophy**

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

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

**Staff Comments**

Staff has no concerns with Hotchkis at this time.

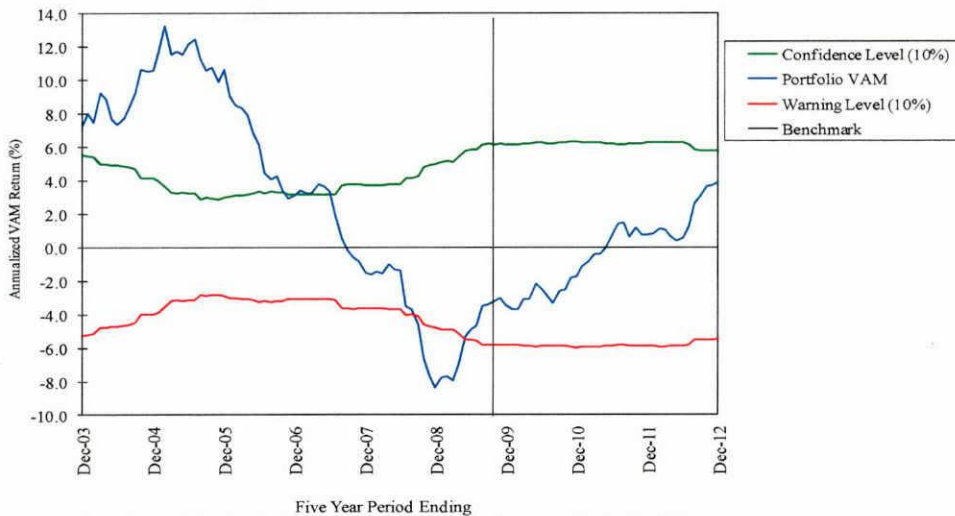
**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Value</b>
Last Quarter	5.2%	3.2%
Last 1 year	24.1	18.1
Last 2 years	5.2	5.6
Last 3 years	16.6	11.6
Last 4 years	26.7	13.8
Last 5 years	7.6	3.5
Since Inception (1/04)	6.0	6.1

**Recommendation**

No action required.

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



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

**MARTINGALE ASSET MANAGEMENT, L.P.**  
**Periods Ending December, 2012**

**Portfolio Manager: William Jacques**

**Assets Under Management: \$142,287,642**

**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.

**Staff Comments**

Staff has no concerns with Martingale at this time.

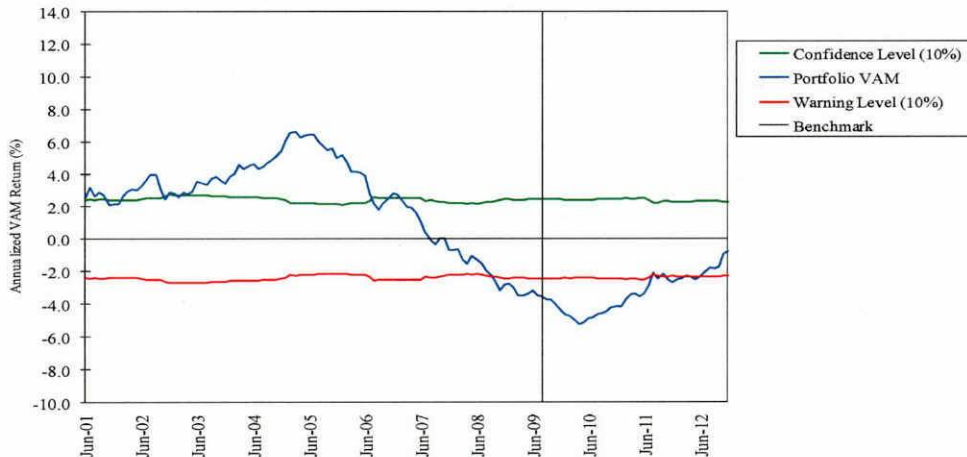
**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Value</b>
Last Quarter	4.7%	3.2%
Last 1 year	20.1	18.1
Last 2 years	6.7	5.6
Last 3 years	13.2	11.6
Last 4 years	14.7	13.8
Last 5 years	2.8	3.5
Since Inception (1/04)	4.8	6.1

**Recommendation**

No action required.

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



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



**PEREGRINE CAPITAL MANAGEMENT, INC**  
**Periods Ending December, 2012**

**Portfolio Manager: Doug Pugh and Tasso Coin**

**Assets Under Management: \$247,349,515**

**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 basis. Drawing on thirty years of data, the analysis 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.

**Staff Comments**

Staff has no concerns with Peregrine at this time.

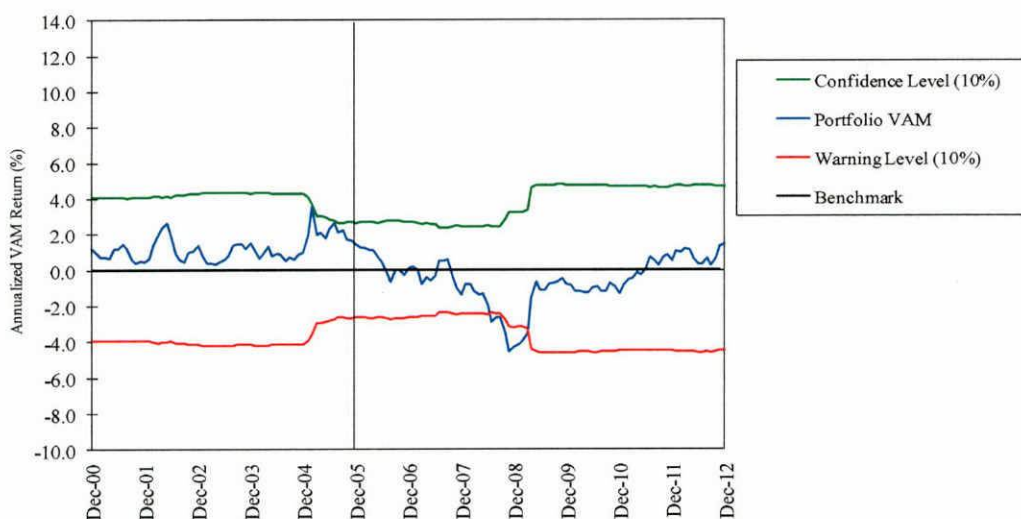
**Quantitative Evaluation**

	<b>Actual</b>	<b>R2000 Value</b>
Last Quarter	3.8%	3.2%
Last 1 year	18.8	18.1
Last 2 years	6.7	5.6
Last 3 years	13.2	11.6
Last 4 years	20.6	13.8
Last 5 years	5.1	3.5
Since Inception (7/00)	9.7	8.9

**Recommendation**

No action required.

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



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



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## **Semi-Passive and Passive**

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A-50

## **Semi-Passive and Passive**

### **Table of Contents**

	<b>Page</b>
<b>Semi-Passive</b>	
BlackRock Institutional Trust Co., N.A. (Russell 1000)	A-52
INTECH Investment Management LLC (Russell 1000)	A-53
J.P. Morgan Investment Management, Inc. (Russell 1000)	A-54
Mellon Capital Management Corporation (Russell 1000)	A-55
<b>Passive</b>	
BlackRock Institutional Trust Co., N.A. (Russell 3000)	A-56



**BLACKROCK INSTITUTIONAL TRUST CO., N.A.**  
**Periods Ending December, 2012**

**Portfolio Manager: Raffaele Savi**

**Assets Under Management: \$2,547,664,656**

**Investment Philosophy – Semi-Passive Style**

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

**Staff Comments**

Blackrock has had significant organizational changes at the top level due to the merger with Barclays Global Investors, including numerous structural and personnel changes within the Client Services Division. However, the portfolio management team assigned to the SBI domestic equity portfolio has been stable since that time. Staff will continue to monitor and provide updates as necessary.

**Quantitative Evaluation**

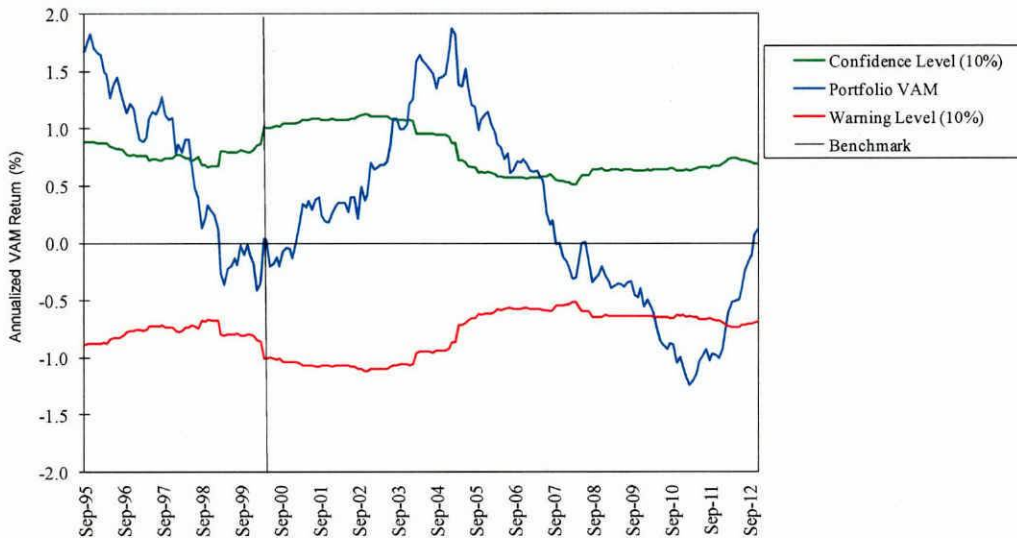
	<b>Actual</b>	<b>Manager Benchmark*</b>
Last Quarter	0.5%	0.1%
Last 1 year	19.0	16.4
Last 2 years	10.0	8.7
Last 3 years	11.3	11.1
Last 4 years	15.2	15.2
Last 5 years	2.0	1.9
Since Inception (1/95)	8.3	8.0

**Recommendation**

No action required.

\* 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**



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

**INTECH INVESTMENT MANAGEMENT LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Adrian Banner**

**Assets Under Management: \$1,832,207,907**

**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.

**Staff Comments**

Effective November 29, 2012, Adrian Banner, CIO, assumed the role of CEO, replacing Jennifer Young, who stepped down. There were additional staffing changes as the reporting structure to Adrian shifted. Staff will monitor the changes and any impact closely.

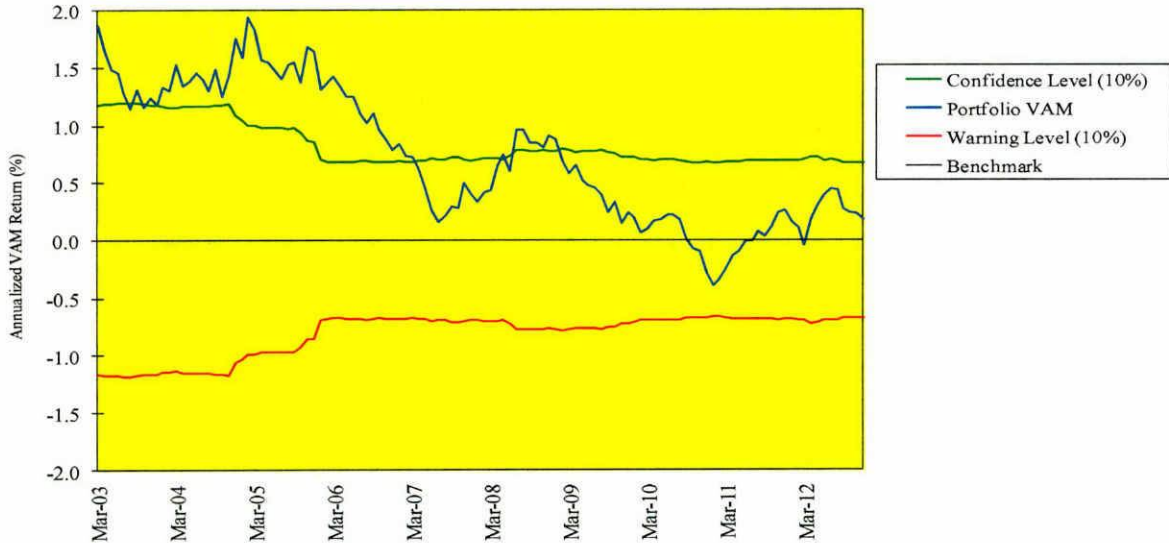
**Quantitative Evaluation**

	<b>Actual</b>	<b>Russell 1000</b>
Last Quarter	0.3%	0.1%
Last 1 year	16.6	16.4
Last 2 years	9.5	8.7
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)	10.4	9.9

**Recommendation**

No action required.

INTECH Investment Management LLC - Semi-Passive  
 Rolling Five Year VAM vs. Russell 1000



Five Year Period Ending  
 Note: Shaded area includes performance prior to retention by the SBI.

**J.P. MORGAN INVESTMENT MANAGEMENT INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Ralph Zingone and Scott Blasdell      Assets Under Management: \$3,023,672,290**

**Investment Philosophy – Semi-Passive Style**

**Staff Comments**

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.

Staff has no concerns with JP Morgan.

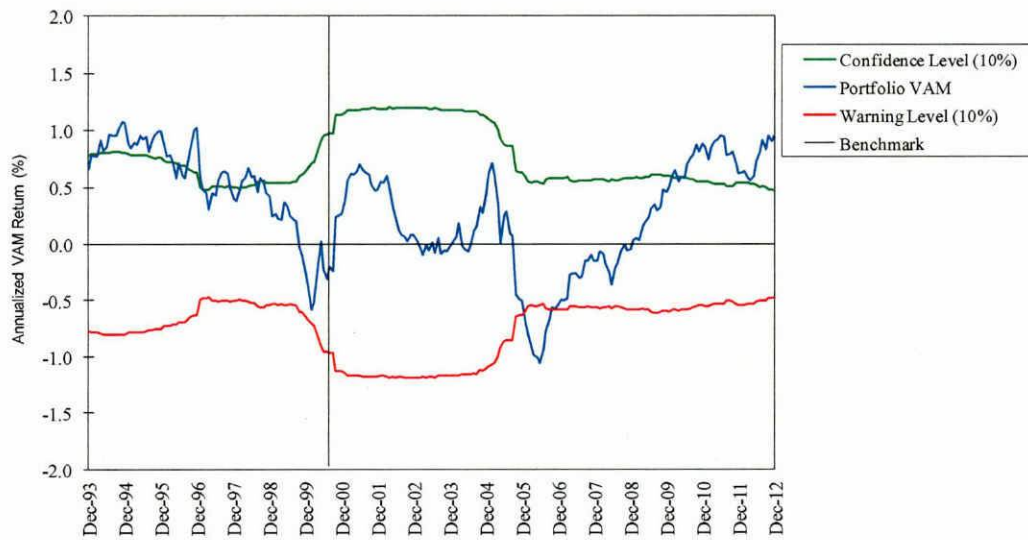
**Quantitative Evaluation**

**Recommendation**

	<b>Actual</b>	<b>Manager Benchmark*</b>	
Last Quarter	0.2%	0.1%	No action required.
Last 1 year	17.6	16.4	
Last 2 years	9.0	8.7	
Last 3 years	11.6	11.1	
Last 4 years	16.4	15.2	
Last 5 years	2.9	1.9	
Since Inception (1/95)	8.3	8.0	

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

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



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



**MELLON CAPITAL MANAGEMENT CORPORATION**  
**Periods Ending December, 2012**

**Portfolio Manager: Warren Chiang**

**Assets Under Management: \$1,897,689,085**

**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.

**Staff Comments**

Staff has no concerns with Mellon at this time.

**Quantitative Evaluation**

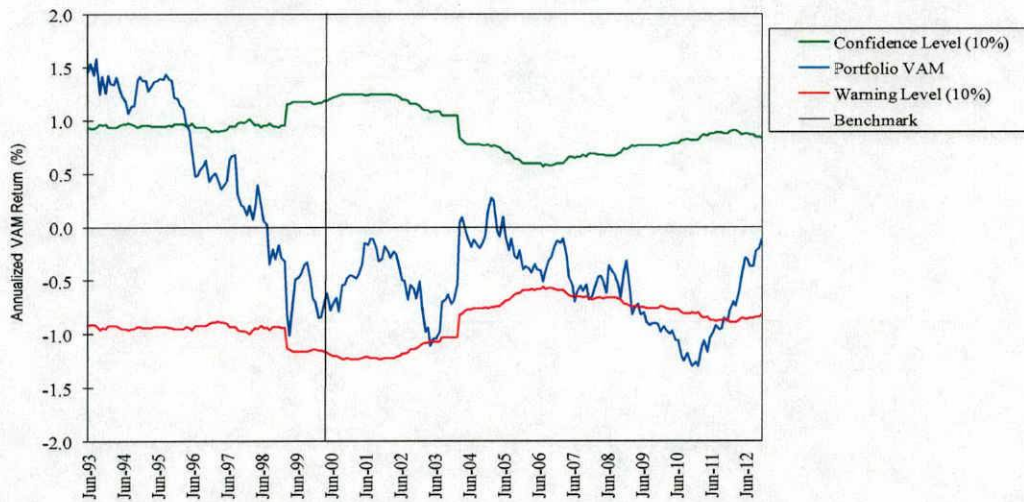
	<b>Actual</b>	<b>Manager Benchmark*</b>
Last Quarter	-0.3%	0.1%
Last 1 year	17.3	16.4
Last 2 years	10.7	8.7
Last 3 years	11.7	11.1
Last 4 years	15.0	15.2
Last 5 years	1.8	1.9
Since Inception (1/95)	7.6	8.0

**Recommendation**

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



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



**BLACKROCK INSTITUTIONAL TRUST CO., N.A.**  
**Periods Ending December, 2012**

**Portfolio Manager: Amy Schioldager**

**Assets Under Management: \$7,817,397,024**

**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.

**Staff Comments**

Blackrock has had significant organizational changes at the top level due to the merger with Barclays Global Investors, including numerous structural and personnel changes within the Client Services Division. However, the portfolio management team assigned to the SBI domestic equity portfolio has been stable since that time. Staff will continue to monitor and provide updates as necessary.

**Quantitative Evaluation**

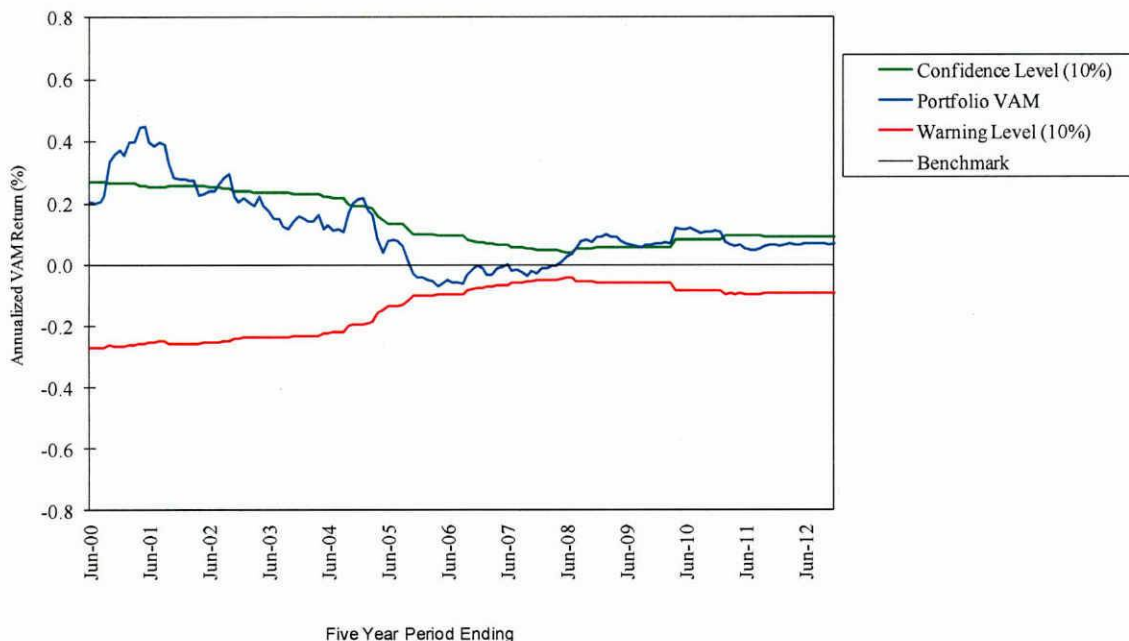
	<b>Actual</b>	<b>Manager Benchmark*</b>
Last Quarter	0.3%	0.2%
Last 1 year	16.4	16.4
Last 2 years	8.4	8.4
Last 3 years	11.2	11.2
Last 4 years	15.3	15.3
Last 5 years	2.1	2.0
Since Inception (7/95)	7.7	7.6

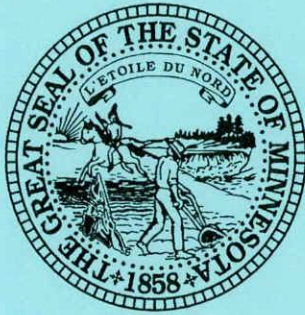
**Recommendation**

No action required.

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

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





# STATE BOARD OF INVESTMENT

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## **Bond Manager Evaluation Reports**

**Fourth Quarter, 2012**

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A-58

## **Bond Managers**

### **Table of Contents**

	<b>Page</b>
Bond Manager Performance Summary (quarter, 1, 3, 5, year periods)	A-60
Bond Manager Performance Summary (by calendar years)	A-61
Aberdeen Asset Management Inc.	A-62
Columbia Management Investment Advisers, LLC	A-63
Dodge & Cox	A-64
Pacific Investment Management Company LLC (PIMCO)	A-65
Western Asset Management Company	A-66
BlackRock Financial Management, Inc.	A-67
Goldman Sachs Asset Management	A-68
Neuberger Berman Fixed Income LLC	A-69



**COMBINED RETIREMENT FUNDS**  
**BOND MANAGERS**  
**Periods Ending December, 2012**

	Quarter		1 Year		3 Years		5 Years		Since (1) Inception		Market Value (in millions)	Pool %
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %		
<b>Active Managers</b>												
Aberdeen	0.8	0.2	7.7	4.2	8.8	6.2	5.4	5.9	6.3	6.3	\$862.3	7.8%
Columbia (RiverSource)	0.5	0.2	6.9	4.2	7.7	6.2	6.3	5.9	6.1	6.2	\$976.8	8.8%
Dodge & Cox	1.2	0.2	8.5	4.2	7.1	6.2	7.4	5.9	7.3	6.3	\$1,150.4	10.4%
PIMCO	1.1	0.2	9.3	4.2	8.6	6.2			9.7	6.9	\$1,271.5	11.5%
Western	0.9	0.2	7.8	4.2	8.6	6.2	7.0	5.9	9.5	8.3	\$1,310.1	11.8%
<b>Active Mgr. Aggregate</b>	<b>0.9</b>	<b>0.2</b>	<b>8.1</b>	<b>4.2</b>	<b>8.2</b>	<b>6.2</b>	<b>6.4</b>	<b>5.9</b>			<b>\$5,571.1</b>	<b>50.4%</b>
<b>Semi-Passive Managers</b>												
BlackRock	0.3	0.2	5.0	4.2	6.5	6.2	5.6	5.9	6.3	6.2	\$1,743.8	15.8%
Goldman	0.4	0.2	5.4	4.2	7.2	6.2	6.4	5.9	6.5	6.2	\$1,878.8	17.0%
Neuberger	0.3	0.2	5.4	4.2	7.4	6.2	6.8	5.9	7.4	7.2	\$1,864.2	16.9%
<b>Semi-Passive Mgr. Aggregate</b>	<b>0.3</b>	<b>0.2</b>	<b>5.3</b>	<b>4.2</b>	<b>7.0</b>	<b>6.2</b>	<b>6.3</b>	<b>5.9</b>			<b>\$5,486.8</b>	<b>49.6%</b>
<b>Historical Aggregate (2)</b>	<b>0.6</b>	<b>0.2</b>	<b>6.7</b>	<b>4.2</b>	<b>7.6</b>	<b>6.2</b>	<b>6.4</b>	<b>5.9</b>	<b>8.5</b>	<b>8.3</b>	<b>\$11,057.9</b>	<b>100.0%</b>
Barclays Capital Aggregate (3)		0.2		4.2		6.2		5.9		8.3		

(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**

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
<b>Active Managers</b>										
Aberdeen	7.7	4.2	8.0	7.8	10.7	6.5	18.4	5.9	-14.7	5.2
Columbia (RiverSource)	6.9	4.2	8.1	7.8	8.1	6.5	14.0	5.9	-4.9	5.2
Dodge & Cox	8.5	4.2	5.0	7.8	7.8	6.5	16.5	5.9	0.1	5.2
PIMCO	9.3	4.2	4.5	7.8	12.1	6.5				
Western	7.8	4.2	7.1	7.8	10.9	6.5	17.5	5.9	-6.8	5.2
<b>Active Mgr. Aggregate</b>	<b>8.1</b>	<b>4.2</b>	<b>6.4</b>	<b>7.8</b>	<b>10.0</b>	<b>6.5</b>	<b>16.5</b>	<b>5.9</b>	<b>-7.3</b>	<b>5.2</b>
<b>Semi-Passive Managers</b>										
BlackRock	5.0	4.2	8.0	7.8	6.5	6.5	9.6	5.9	-1.1	5.2
Goldman	5.4	4.2	8.3	7.8	8.0	6.5	12.0	5.9	-1.2	5.2
Neuberger	5.4	4.2	7.6	7.8	9.1	6.5	14.3	5.9	-1.9	5.2
<b>Semi-Passive Mgr. Aggregate</b>	<b>5.3</b>	<b>4.2</b>	<b>8.0</b>	<b>7.8</b>	<b>7.9</b>	<b>6.5</b>	<b>12.0</b>	<b>5.9</b>	<b>-1.4</b>	<b>5.2</b>
<b>Historical Aggregate</b>										
	6.7	4.2	7.2	7.8	9.0	6.5	14.3	5.9	-4.2	5.2
Barclays Capital Aggregate		4.2		7.8		6.5		5.9		5.2

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

**ABERDEEN ASSET MANAGEMENT INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Neil Moriarty**

**Assets Under Management: \$862,307,756**

**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.

**Staff Comments**

Aberdeen continues to rebound from the adverse market conditions of 2008 while still trailing all other managers in the Active strategy over the five-year period ending December 2012. Previously, staff was concerned about Aberdeen's loss of fixed income assets under management and institutional client accounts during the 2008-10 time periods; however assets under management have stabilized since that time. Conversely, Aberdeen was the best performing portfolio in both the Active strategy and total fixed income portfolio over the recent three-year period. Staff has no additional organizational or performance issues to note.

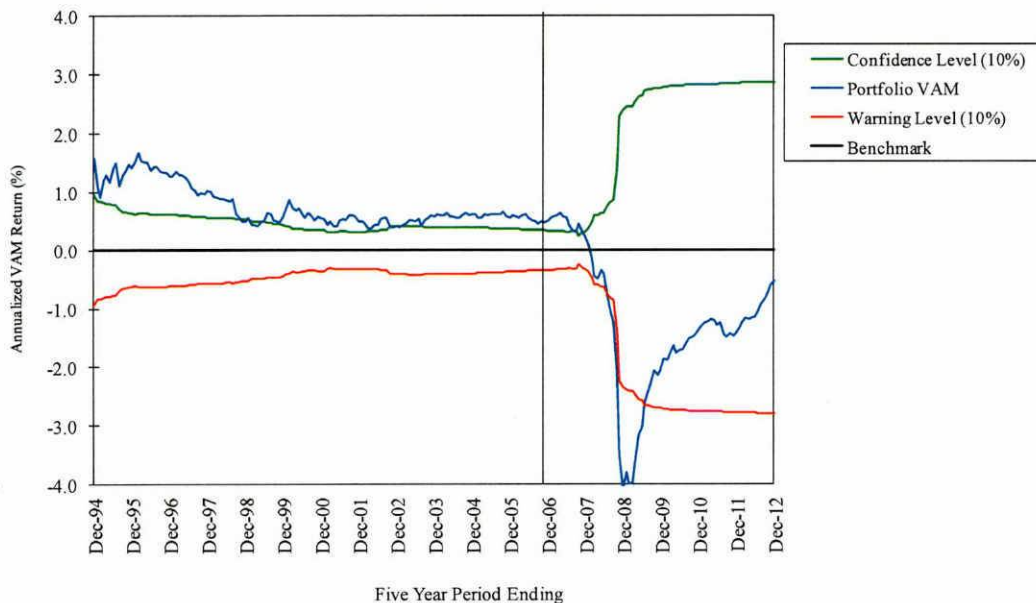
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.8%	0.2%
Last 1 year	7.7	4.2
Last 2 years	7.9	6.0
Last 3 years	8.8	6.2
Last 4 years	11.1	6.1
Last 5 years	5.4	5.9
Since Inception (2/00)	6.3	6.3

**Recommendations**

No action required.

**ABERDEEN ASSET MANAGEMENT**  
**Rolling Five Year VAM**



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

**COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Colin Lundgren**

**Assets Under Management: \$976,797,584**

**Investment Philosophy**

Columbia (formerly American Express and RiverSource) manages portfolios using a top-down approach culminating with in-depth fundamental research and credit analysis. Five portfolio components are actively managed: duration, maturity structure, sector selection, industry emphasis, and security selection. Duration and maturity structure are determined by the firm's economic analysis and interest rate outlook. This analysis also identifies sectors and industries expected to produce the best risk-adjusted 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.

**Staff Comments**

Staff has no significant organizational or performance issues to note.

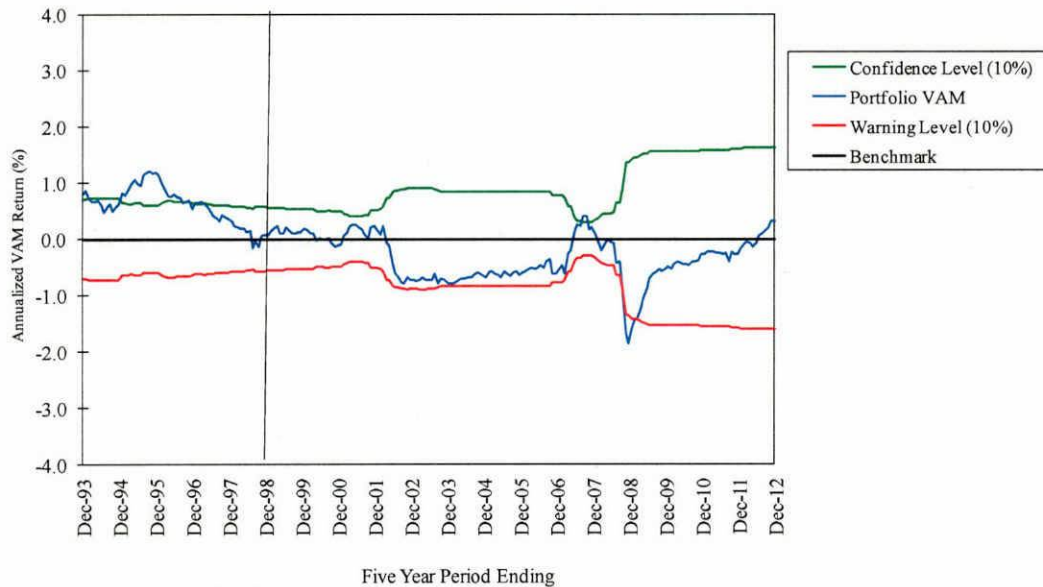
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.5%	0.2%
Last 1 year	6.9	4.2
Last 2 years	7.5	6.0
Last 3 years	7.7	6.2
Last 4 years	9.3	6.1
Last 5 years	6.3	5.9
Since Inception (7/93)	6.1	6.2

**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, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Dana Emery**

**Assets Under Management: \$1,150,407,887**

**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.

**Staff Comments**

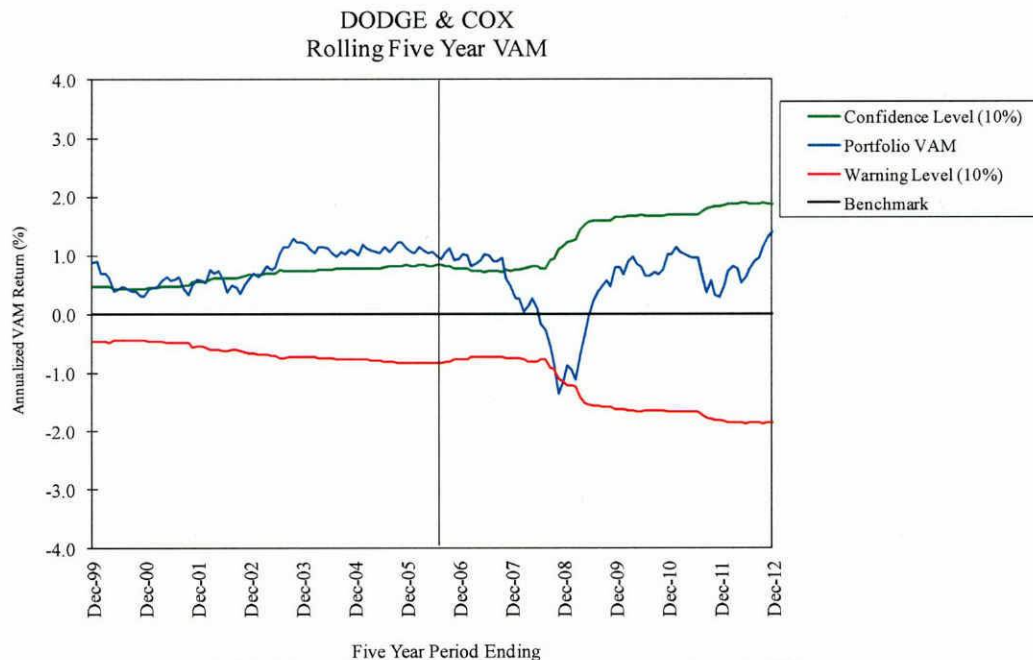
Staff has no significant organizational or performance issues to note.

**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	1.2%	0.2%
Last 1 year	8.5	4.2
Last 2 years	6.7	6.0
Last 3 years	7.1	6.2
Last 4 years	9.4	6.1
Last 5 years	7.4	5.9
Since Inception (2/00)	7.3	6.3

**Recommendations**

No action required.



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

**PACIFIC INVESTMENT MANAGEMENT COMPANY LLC (PIMCO)**  
**Periods Ending December, 2012**

**Portfolio Manager: Bill Gross**

**Assets Under Management: \$1,271,451,294**

**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 strategies. They consider both the "top-down" conclusions emanating from PIMCO's Forum, as well as the "bottom-up" market intelligence provided by PIMCO's teams of sector specialist portfolio managers. Through an interactive series of meetings, the IC defines a set of consistent strategies that are then implemented. PIMCO was retained by the SBI in September 2008.

**Staff Comments**

SBI staff expressed concern to PIMCO in early 2012 regarding the dispersion of returns across accounts within the Core Plus Constrained composite and has since implemented additional reporting requirements for all fixed income managers. Staff has no additional organizational or performance issues to note.

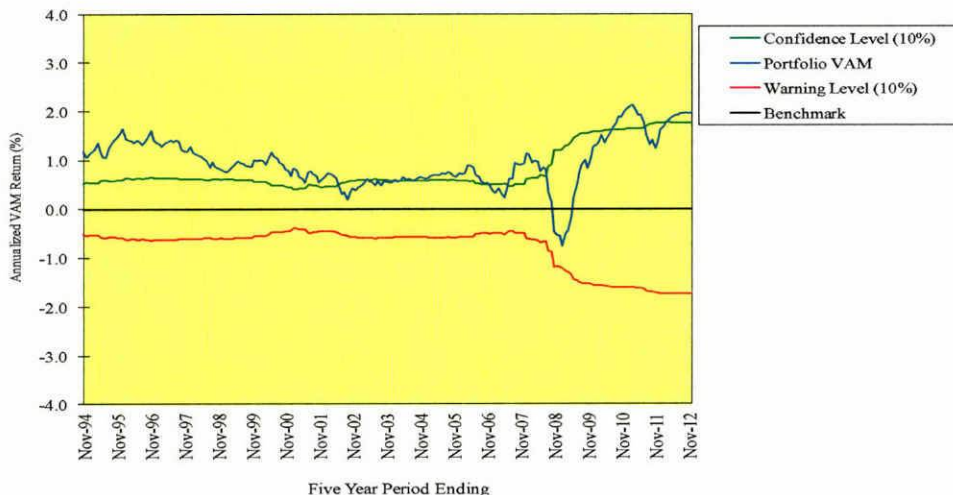
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	1.1%	0.2%
Last 1 year	9.3	4.2
Last 2 years	6.8	6.0
Last 3 years	8.6	6.2
Last 4 years	10.3	6.1
Last 5 years	N/A	N/A
Since Inception (9/08)	9.7	6.9

**Recommendations**

No action required.

PACIFIC INVESTMENT MANAGEMENT CO.  
 Rolling Five Year VAM



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

**WESTERN ASSET MANAGEMENT COMPANY**  
**Periods Ending December, 2012**

**Portfolio Manager: Steve Walsh**

**Assets Under Management: \$1,310,109,853**

**Investment Philosophy**

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

**Staff Comments**

Staff has no significant organizational or performance issues to note.

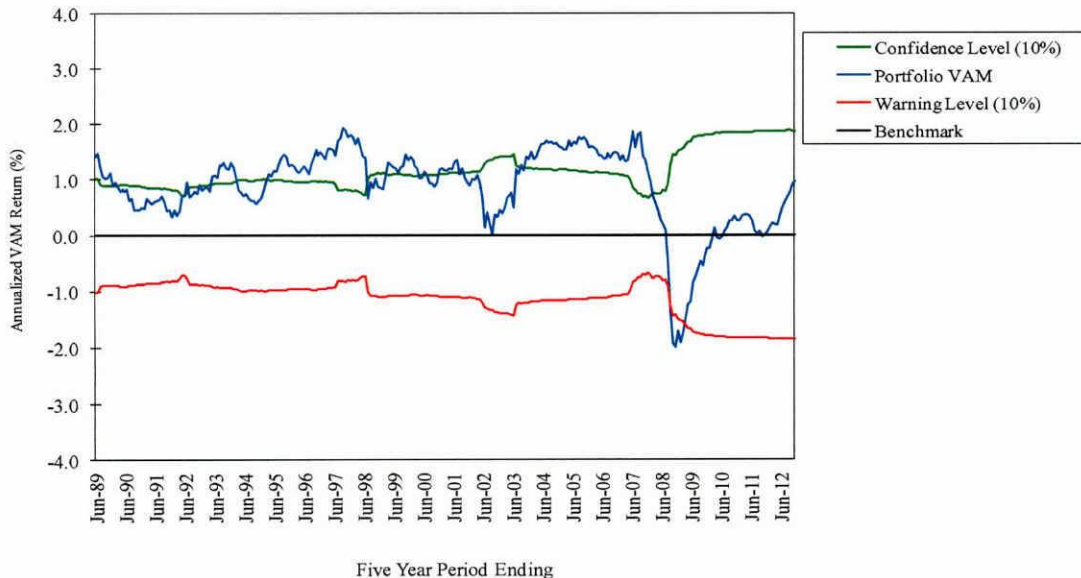
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.9%	0.2%
Last 1 year	7.8	4.2
Last 2 years	7.4	6.0
Last 3 years	8.6	6.2
Last 4 years	10.7	6.1
Last 5 years	7.0	5.9
Since Inception (7/84)	9.5	8.3

**Recommendations**

No action required.

**WESTERN ASSET MANAGEMENT**  
**Rolling Five Year VAM**





**BLACKROCK FINANCIAL MANAGEMENT**  
**Periods Ending December, 2012**

**Portfolio Manager: Brian Weinstein**

**Assets Under Management: \$1,743,800,648**

**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.

**Staff Comments**

Blackrock has had significant changes at the top level across their entire organization due to the merger with Barclays Global Investors, including numerous structural and personnel changes within the Client Services Division. However, the portfolio management team assigned to the SBI fixed income portfolio has been relatively stable over this timeframe. Staff will continue to monitor and provide updates as necessary. Staff has no additional organizational or performance issues to note.

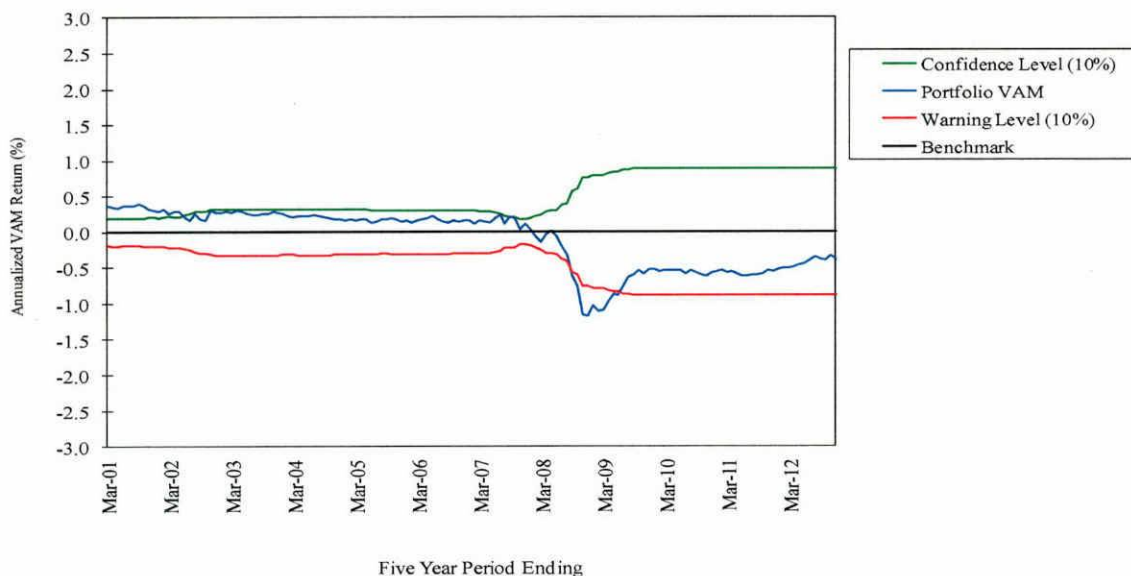
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.3%	0.2%
Last 1 year	5.0	4.2
Last 2 years	6.5	6.0
Last 3 years	6.5	6.2
Last 4 years	7.3	6.1
Last 5 years	5.6	5.9
Since Inception (4/96)	6.3	6.2

**Recommendation**

No action required.

BLACKROCK, INC.  
Rolling Five Year VAM





**GOLDMAN SACHS ASSET MANAGEMENT**  
**Periods Ending December, 2012**

**Portfolio Manager: Jonathon Beinrer**

**Assets Under Management: \$1,878,812,878**

**Investment Philosophy**

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

**Staff Comments**

Goldman Sachs acquired a stable value-focused fixed income manager during the second quarter of 2012; however the acquisition should not impact the SBI portfolio. Staff has no additional organizational or performance issues to note.

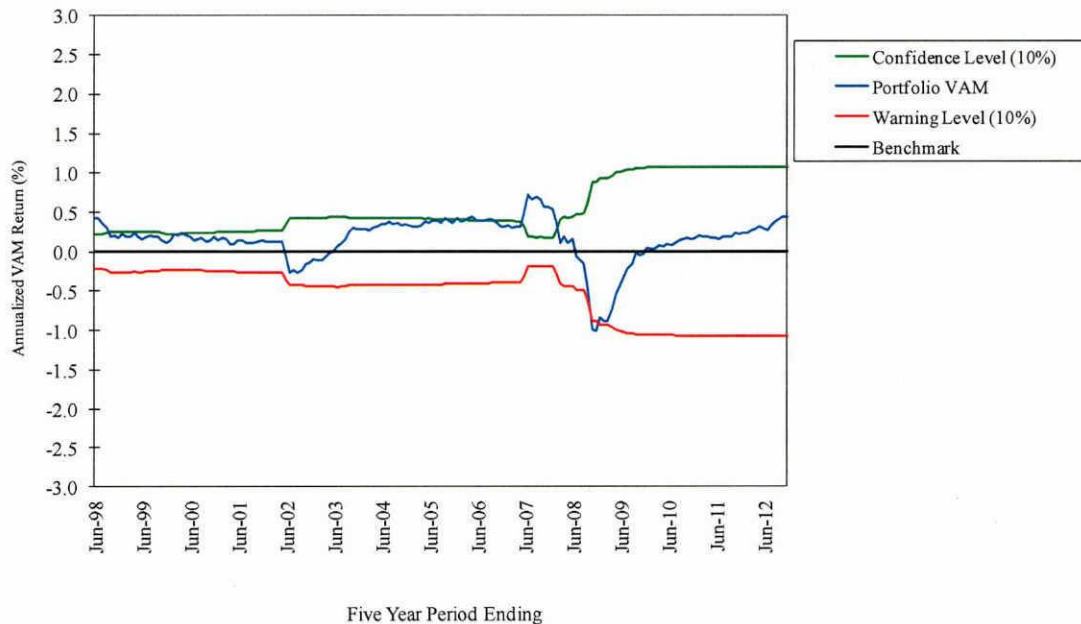
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.4%	0.2%
Last 1 year	5.4	4.2
Last 2 years	6.9	6.0
Last 3 years	7.2	6.2
Last 4 years	8.4	6.1
Last 5 years	6.4	5.9
Since Inception (7/93)	6.5	6.2

**Recommendations**

No action required.

**GOLDMAN SACHS ASSET MANAGEMENT**  
**Rolling Five Year VAM**



**NEUBERGER BERMAN FIXED INCOME LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Andrew Johnson**

**Assets Under Management: \$1,864,227,986**

**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 spread-related factors. For each interest rate factor, the portfolio is very closely matched to the index to ensure that the portfolio earns the same return as the index for any change in interest rates. For each spread factor, the portfolio can deviate slightly from the index as a means of seeking value-added. Setting target active risk exposures that must fall within pre-established 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.

**Staff Comments**

Staff has no significant organizational or performance issues to note.

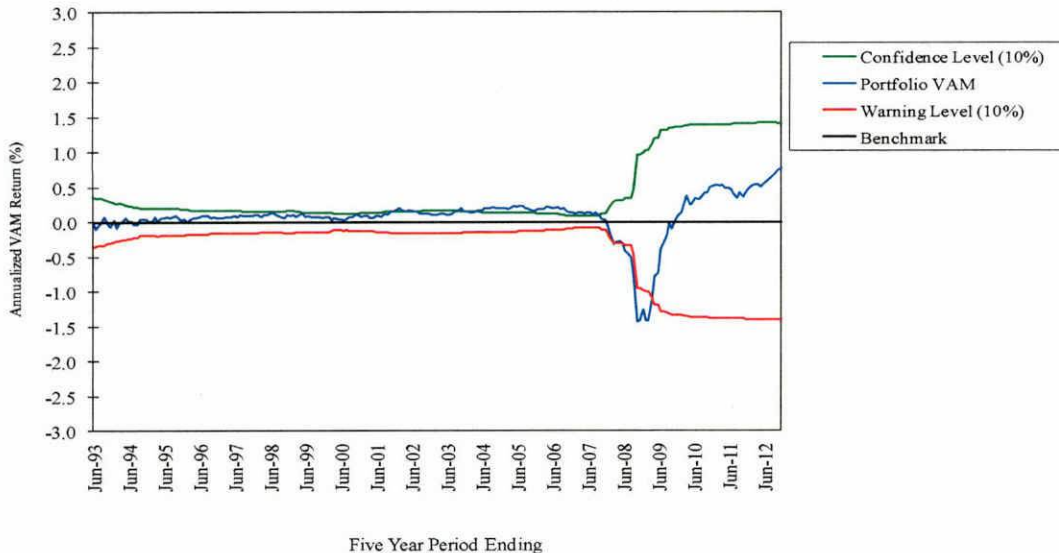
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.3%	0.2%
Last 1 year	5.4	4.2
Last 2 years	6.5	6.0
Last 3 years	7.4	6.2
Last 4 years	9.0	6.1
Last 5 years	6.8	5.9
Since Inception (7/88)	7.4	7.2

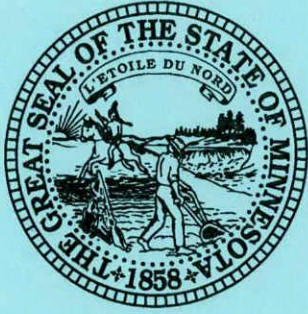
**Recommendations**

No action required.

**NEUBERGER BERMAN**  
**Rolling Five Year VAM**



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# STATE BOARD OF INVESTMENT

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## International Manager Evaluation Reports

Fourth Quarter, 2012



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A-72

# International Managers

## Table of Contents

	<b>Page</b>
International Manager Performance Summary (quarter, 1, 3, 5, year periods)	A-74
International Manager Performance Summary (by calendar years)	A-75
Acadian Asset Management, LLC	A-76
Columbia Management Investment Advisers, LLC	A-77
INVESCO Global Asset Management (N.A.), Inc.	A-78
J.P. Morgan Investment Management Inc.	A-79
Marathon Asset Management LLP	A-80
McKinley Capital Management LLC	A-81
Pyramis Global Advisors Trust Company – Active	A-82
Capital International, Inc.	A-83
Morgan Stanley Investment Management Inc.	A-84
AQR Capital Management, LLC	A-85
Pyramis Global Advisors Trust Company – Semi-Passive	A-86
State Street Global Advisors –Semi-Passive	A-87
State Street Global Advisors – Passive Emerging Markets	A-88
State Street Global Advisors – Passive Developed Markets	A-89

**COMBINED RETIREMENT FUNDS  
INTERNATIONAL STOCK MANAGERS  
Periods Ending December, 2012**

	Quarter		1 Year		3 Years		5 Years		Since (1) Inception		Market Value (in millions)	Pool %
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %		
<b>Active Developed Markets (2)</b>												
Acadian	5.8	5.9	17.6	16.4	5.3	3.7	-5.7	-3.4	3.6	4.3	\$292.1	3.6%
Columbia (RiverSource)	3.7	5.9	19.0	16.4	6.4	3.7	-1.6	-3.4	0.9	2.3	\$288.6	3.5%
Invesco	7.8	5.9	15.0	16.4	1.9	3.7	-3.1	-3.4	3.5	2.3	\$235.7	2.9%
J.P. Morgan	6.9	5.9	18.4	16.4	4.6	3.7	-1.7	-3.4	4.6	4.3	\$256.2	3.1%
Marathon	4.9	5.9	17.9	16.4	7.0	3.7	-0.3	-3.4	8.1	4.9	\$586.1	7.2%
McKinley	4.3	5.9	16.9	16.4	3.4	3.7	-6.7	-3.4	3.0	4.3	\$238.7	2.9%
Pyramis (Fidelity)	6.3	5.9	20.3	16.4	5.8	3.7	-1.8	-3.4	6.0	4.3	\$286.7	3.5%
<b>Aggregate</b>	<b>5.5</b>	<b>5.9</b>	<b>17.9</b>	<b>16.4</b>	<b>5.2</b>	<b>3.7</b>	<b>-2.5</b>	<b>-3.4</b>			<b>\$2,184.3</b>	<b>26.8%</b>
<b>Active Emerging Markets (3)</b>												
Capital International	5.6	5.6	13.8	18.2	0.7	4.7	-0.9	-0.9	10.5	11.9	\$742.7	9.1%
Morgan Stanley	5.0	5.6	21.1	18.2	5.6	4.7	-1.6	-0.9	12.1	11.9	\$795.6	9.8%
<b>Aggregate</b>	<b>5.4</b>	<b>5.6</b>	<b>17.6</b>	<b>18.2</b>	<b>3.0</b>	<b>4.7</b>	<b>-1.9</b>	<b>-0.9</b>			<b>\$1,538.3</b>	<b>18.9%</b>
<b>Semi-Passive Developed Markets (2)</b>												
AQR	8.6	5.9	20.8	16.4	5.0	3.7	-2.5	-3.4	4.7	4.3	\$281.9	3.5%
Pyramis (Fidelity)	6.1	5.9	19.4	16.4	5.2	3.7	-3.2	-3.4	5.3	4.3	\$423.6	5.2%
State Street	7.8	5.9	17.3	16.4	2.5	3.7	-4.5	-3.4	3.3	4.3	\$254.0	3.1%
<b>Aggregate</b>	<b>7.3</b>	<b>5.9</b>	<b>19.2</b>	<b>16.4</b>	<b>4.4</b>	<b>3.7</b>	<b>-3.3</b>	<b>-3.4</b>			<b>\$959.5</b>	<b>11.8%</b>
<b>Passive Emerging &amp; Developed Markets (2) (3)</b>												
State Street (Emerging Mkts.)	6.0	5.6	18.5	18.2					18.5	18.2	\$171.3	2.1%
State Street (Developed Mkts.)	6.0	5.9	16.7	16.4	4.2	3.7	-3.0	-3.4	6.2	6.0	\$3,298.8	40.5%
									<b>Since 10/1/92</b>			
Equity Only (4) (6)	5.9	5.9	17.6	16.8	4.3	3.9	-2.7	-2.9	6.8	6.4	\$8,152.1	100.0%
<b>Total Program (5) (6)</b>	<b>5.9</b>	<b>5.9</b>	<b>17.6</b>	<b>16.8</b>	<b>4.3</b>	<b>3.9</b>	<b>-2.7</b>	<b>-2.9</b>	<b>7.0</b>	<b>6.4</b>	<b>\$8,152.1</b>	<b>100.0%</b>
SBI Int'l Equity Target (6)		5.9		16.8		3.9		-2.9		6.4		
MSCI ACWI Free ex. U.S. (7)		5.9		16.8		3.9		-2.9		6.6		
MSCI World ex U.S. (net)		5.9		16.4		3.7		-3.4		6.1		
MSCI EAFE Free (net)		6.6		17.3		3.6		-3.7		5.8		
MSCI Emerging Markets Free (8)		5.6		18.2		4.7		-0.9		8.9		

- (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**

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
<b>Active Developed Markets (1)</b>										
Acadian	17.6	16.4	-12.9	-12.2	13.9	8.9	28.8	33.7	-50.5	-43.5
Columbia (RiverSource)	19.0	16.4	-12.1	-12.2	15.2	8.9	29.3	33.7	-40.8	-43.5
Invesco	15.0	16.4	-13.0	-12.2	5.8	8.9	32.0	33.7	-38.8	-43.5
J.P. Morgan	18.4	16.4	-10.2	-12.2	7.6	8.9	37.5	33.7	-41.5	-43.5
Marathon	17.9	16.4	-9.2	-12.2	14.4	8.9	29.8	33.7	-38.0	-43.5
McKinley	16.9	16.4	-15.5	-12.2	11.8	8.9	24.1	33.7	-48.5	-43.5
Pyramis (Fidelity)	20.3	16.4	-11.9	-12.2	11.7	8.9	35.1	33.7	-42.9	-43.5
<b>Aggregate</b>	<b>17.9</b>	<b>16.4</b>	<b>-11.7</b>	<b>-12.2</b>	<b>11.9</b>	<b>8.9</b>	<b>31.9</b>	<b>33.7</b>	<b>-42.8</b>	<b>-43.5</b>
<b>Active Emerging Markets (2)</b>										
Capital International	13.8	18.2	-22.8	-18.4	16.1	18.9	83.1	78.5	-48.9	-53.2
Morgan Stanley	21.1	18.2	-17.8	-18.4	18.4	18.9	71.7	78.5	-54.5	-53.2
<b>Aggregate</b>	<b>17.6</b>	<b>18.2</b>	<b>-20.6</b>	<b>-18.4</b>	<b>17.1</b>	<b>18.9</b>	<b>77.3</b>	<b>78.5</b>	<b>-53.0</b>	<b>-53.2</b>
<b>Semi-Passive Developed Markets (1)</b>										
AQR	20.8	16.4	-13.9	-12.2	11.4	8.9	36.0	33.7	-44.0	-43.5
Pyramis (Fidelity)	19.4	16.4	-12.6	-12.2	11.5	8.9	30.2	33.7	-44.0	-43.5
State Street	17.3	16.4	-15.6	-12.2	8.7	8.9	34.9	33.7	-45.3	-43.5
<b>Aggregate</b>	<b>19.2</b>	<b>16.4</b>	<b>-13.8</b>	<b>-12.2</b>	<b>10.6</b>	<b>8.9</b>	<b>33.6</b>	<b>33.7</b>	<b>-44.4</b>	<b>-43.5</b>
<b>Passive Developed Markets (1)</b>										
State Street	16.7	16.4	-11.9	-12.2	9.9	8.9	34.0	33.7	-43.4	-43.5
Equity Only (3) (4)	17.6	16.8	-14.2	-13.7	12.3	11.2	41.2	41.5	-45.3	-45.5
<b>Total Program (4)</b>	<b>17.6</b>	<b>16.8</b>	<b>-14.2</b>	<b>-13.7</b>	<b>12.3</b>	<b>11.2</b>	<b>41.2</b>	<b>41.5</b>	<b>-45.3</b>	<b>-45.5</b>
SBI Int'l Equity Target (5)		16.8		-13.7		11.2		41.5		-45.5
MSCI ACWI Free ex. U.S. (net)		16.8		-13.7		11.2		41.5		-45.5
MSCI World ex U.S. (net)		16.4		-12.2		8.9		33.7		-43.6
MSCI EAFE Free (net)		17.3		-12.1		7.7		31.8		-43.4
MSCI Emerging Markets Free (net)		18.2		-18.4		18.9		78.5		-53.3

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

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



**ACADIAN ASSET MANAGEMENT, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: John Chisholm**

**Assets Under Management: \$292,149,487**

**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, factor-driven 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.

**Staff Comments**

Acadian has a stable organization and team with mixed performance. The SBI has confidence that the strategy will add value over time.

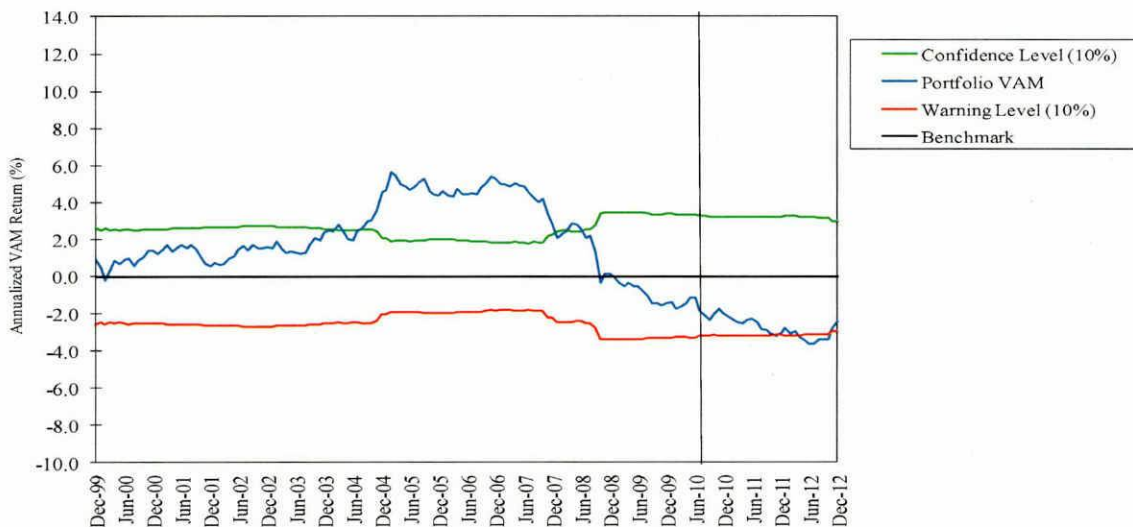
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	5.8%	5.9%
Last 1 year	17.6	16.4
Last 2 years	1.2	1.1
Last 3 years	5.3	3.7
Last 4 years	10.7	10.5
Last 5 years	-5.7	-3.4
Since Inception (7/05)	3.6	4.3

**Recommendations**

No action required.

**ACADIAN ASSET MANAGEMENT**  
**Rolling Five Year VAM**



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

**COLUMBIA MANAGEMENT INVESTMENT ADVISERS, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Esther Perkins**

**Assets Under Management: \$288,620,009**

**Investment Philosophy**

Columbia's (formerly RiverSource) philosophy focuses on key forces of change in markets and the companies that will benefit. The firm believes that in a global marketplace, where sustainable competitive advantage is rare, their research should focus on the dynamics of change. A good understanding of the likely impact of these changes at a company level, complemented with an appreciation of the ability of management to exploit these changes, creates significant opportunities to pick winners and avoid losers.

**Staff Comments**

Columbia has a stable organization and team.

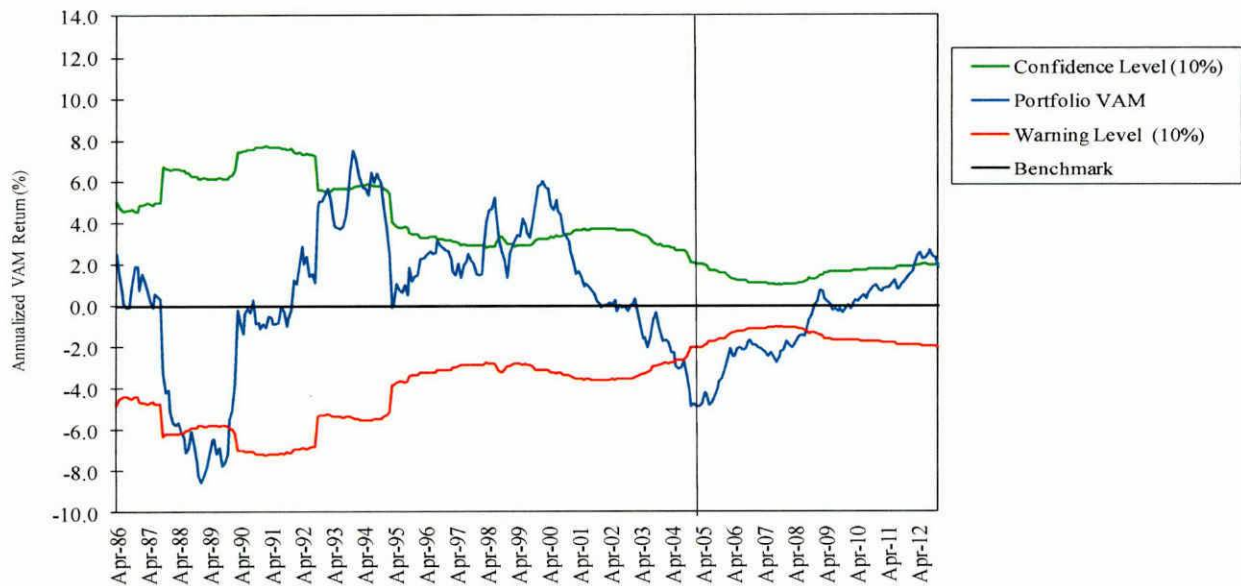
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	3.7%	5.9%
Last 1 year	19.0	16.4
Last 2 years	2.3	1.1
Last 3 years	6.4	3.7
Last 4 years	11.7	10.5
Last 5 years	-1.6	-3.4
Since Inception (3/00)	0.9	2.3

**Recommendations**

No action required.

**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.

**INVESCO GLOBAL ASSET MANAGEMENT (N.A.), INC.**  
**Periods Ending December, 2012**

**Portfolio Manager:** W. Lindsay Davidson

**Assets Under Management:** \$235,683,842

**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 investment professionals enhances fundamental 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.

**Staff Comments**

There has been recent turnover on the investment team. We are monitoring performance and personnel changes closely.

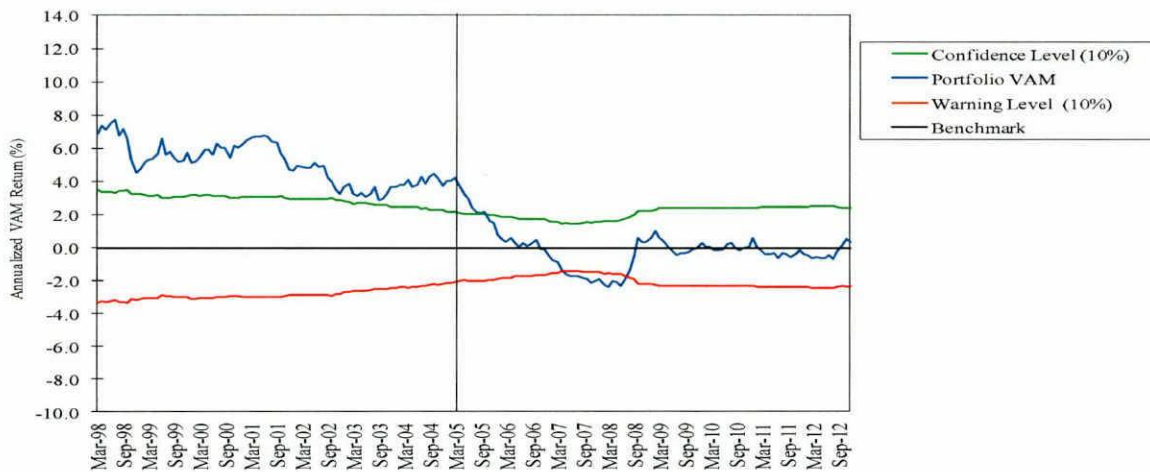
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	7.8%	5.9%
Last 1 year	15.0	16.4
Last 2 years	0.0	1.1
Last 3 years	1.9	3.7
Last 4 years	8.7	10.5
Last 5 years	-3.1	-3.4
Since Inception (3/00)	3.5	2.3

**Recommendations**

No action required.

**INVESCO GLOBAL ASSET MANAGEMENT**  
**Rolling Five Year VAM**



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



**J.P. MORGAN INVESTMENT MANAGEMENT INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: James Fisher**

**Assets Under Management: \$256,188,841**

**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.

**Staff Comments**

J.P. Morgan has a stable organization and team.

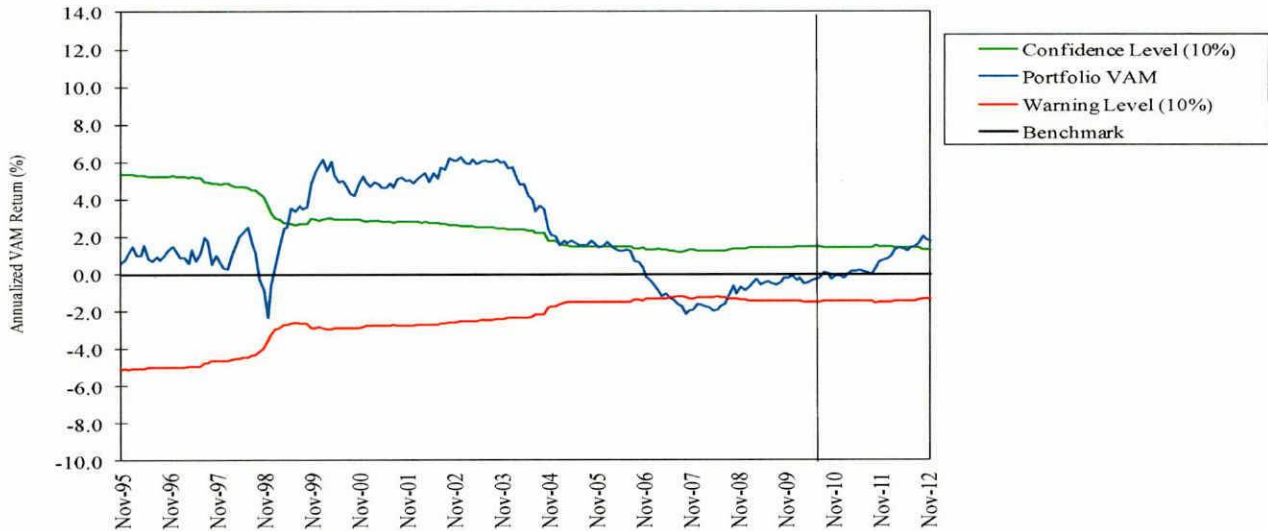
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	6.9%	5.9%
Last 1 year	18.4	16.4
Last 2 years	3.1	1.1
Last 3 years	4.6	3.7
Last 4 years	12.0	10.5
Last 5 years	-1.7	-3.4
Since Inception (7/05)	4.6	4.3

**Recommendations**

No action required.

**J.P. MORGAN INVESTMENT MANAGEMENT, INC.**  
**Rolling Five Year VAM**



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



**MARATHON ASSET MANAGEMENT LLP**  
**Periods Ending December, 2012**

**Portfolio Manager:** William Arah

**Assets Under Management:** \$586,144,310

**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.

**Staff Comments**

Marathon has experienced significant recent changes to investment personnel in what has otherwise been a very stable organization over time. The recent changes do not materially impact the management of the SBI's portfolio and are not expected to affect the significant long-term added value in the strategy. However, the SBI is closely monitoring any further changes to the investment team.

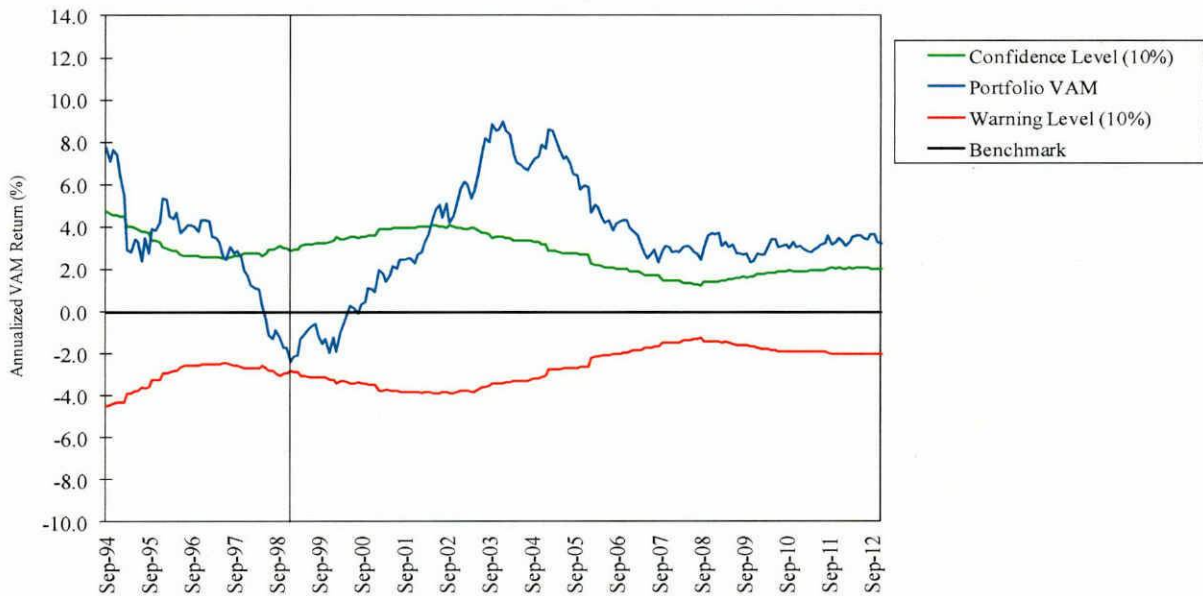
**Quantitative Evaluation**

	<b>Actual</b>	<b>Custom Benchmark</b>
Last Quarter	4.9%	5.9%
Last 1 year	17.9	16.4
Last 2 years	3.5	1.1
Last 3 years	7.0	3.7
Last 4 years	12.3	10.5
Last 5 years	-0.3	-3.4
Since Inception (11/93)	8.1	4.9

**Recommendations**

No action required.

**MARATHON ASSET MANAGEMENT**  
**Rolling Five Year VAM**



5 Year Period Ending

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

**MCKINLEY CAPITAL MANAGEMENT LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Robert A. Gillam**

**Assets Under Management: \$238,746,932**

**Investment Philosophy**

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

**Staff Comments**

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

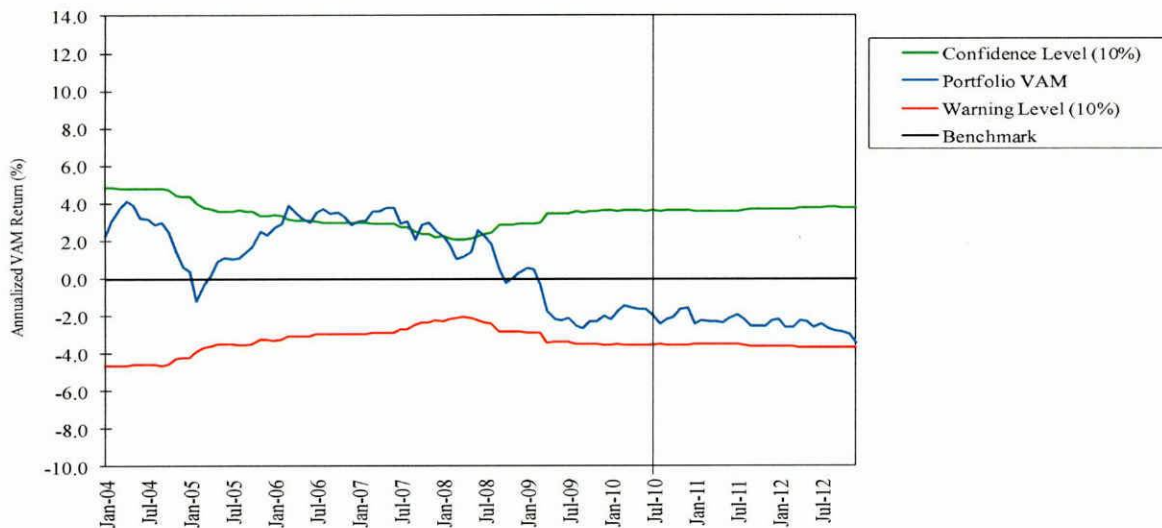
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	4.3%	5.9%
Last 1 year	16.9	16.4
Last 2 years	-0.6	1.1
Last 3 years	3.4	3.7
Last 4 years	8.2	10.5
Last 5 years	-6.7	-3.4
Since Inception (7/05)	3.0	4.3

**Recommendations**

No action required.

**MCKINLEY CAPITAL MANAGEMENT**  
**Rolling Five Year VAM**



5 Year Period Ending

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

**PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Active)**  
**Periods Ending December, 2012**

**Portfolio Manager:** Michael Strong

**Assets Under Management:** \$286,723,040

**Investment Philosophy**

Pyramis' 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, Smithfield Rhode Island, and Toronto construct regional sub-portfolios, selecting stocks based on Fidelity analysts' bottom-up research and their own judgment and expertise. Portfolio guidelines seek to ensure risk is commensurate with the performance target and to focus active risk on stock selection. Resulting portfolios typically contain between 200-250 holdings.

**Staff Comments**

Stable organization and team.

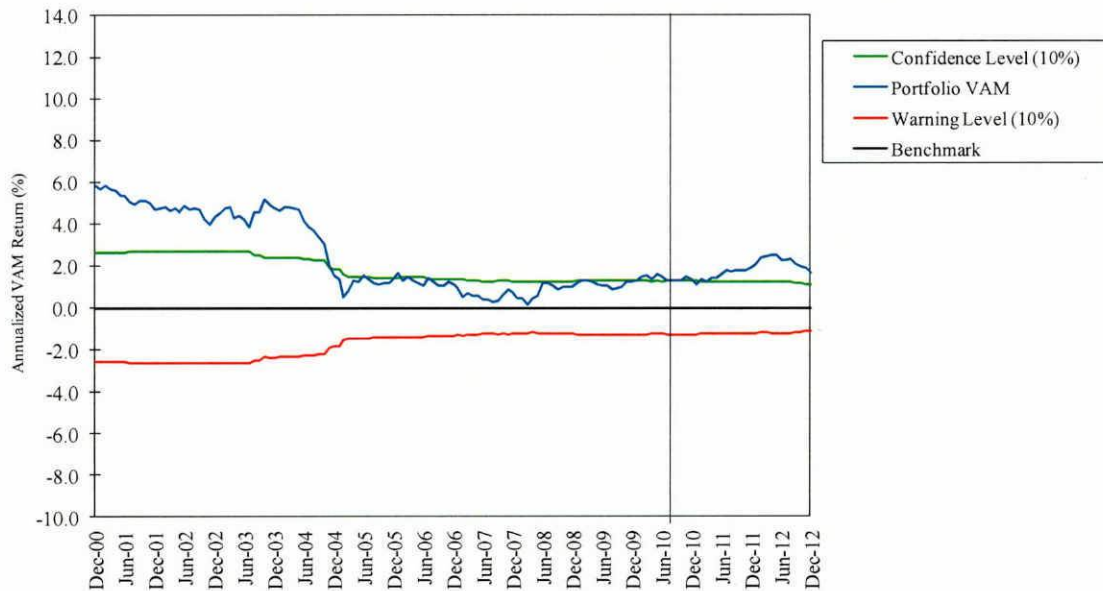
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	6.3%	5.9%
Last 1 year	20.3	16.4
Last 2 years	3.0	1.1
Last 3 years	5.8	3.7
Last 4 years	12.5	10.5
Last 5 years	-1.8	-3.4
Since Inception (7/05)	6.0	4.3

**Recommendations**

No action required.

**PYRAMIS GLOBAL ADVISORS TRUST CO. - INTL GROWTH**  
**Rolling Five Year VAM**



5 Year Period Ending

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



**CAPITAL INTERNATIONAL, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Victor Kohn**

**Assets Under Management: \$742,690,773**

**Investment Philosophy**

**Staff Comments**

Stable organization and team.

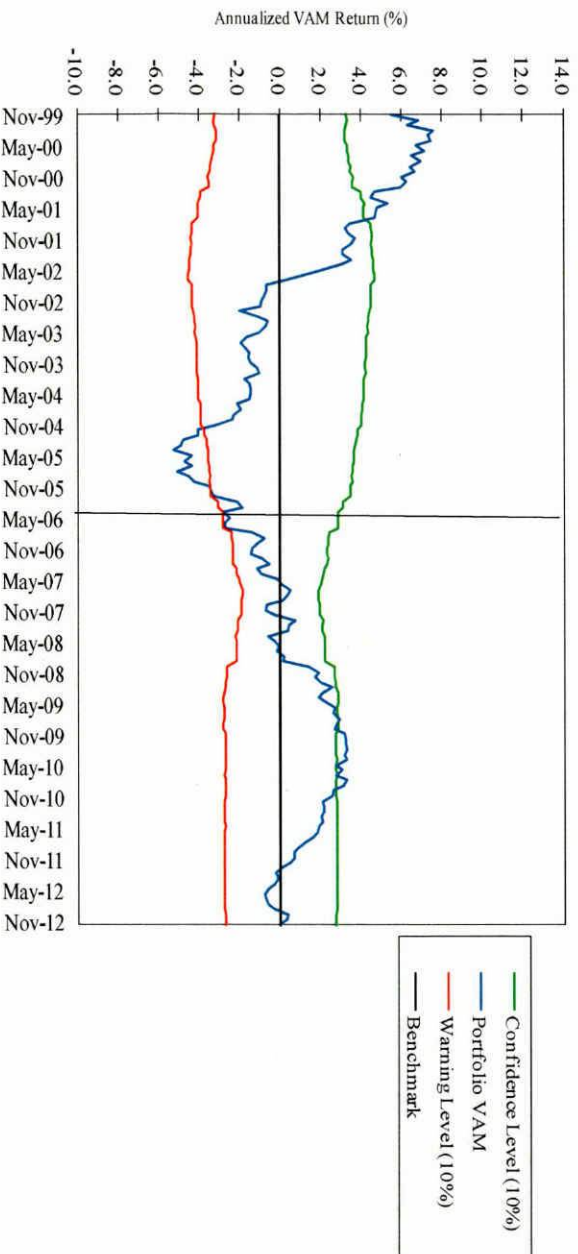
Capital International's philosophy is value-oriented, as they focus on identifying the difference between the underlying value of a company and the price of its securities in its home market. Capital International's basic, fundamental, bottom-up approach is blended with macroeconomic and political judgments 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**

**Recommendations**

	<b>Actual</b>	<b>Benchmark</b>	
Last Quarter	5.6%	5.6%	No action required.
Last 1 year	13.8	18.2	
Last 2 years	-6.2	-1.8	
Last 3 years	0.7	4.7	
Last 4 years	16.9	19.6	
Last 5 years	-0.9	-0.9	
Since Inception (3/01)	10.5	11.9	

**CAPITAL INTERNATIONAL, INC.**  
**Rolling Five Year VAM**



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



**MORGAN STANLEY INVESTMENT MANAGEMENT INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Ruchir Sharma**

**Assets Under Management: \$795,635,410**

**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.

**Staff Comments**

Stable organization and team.

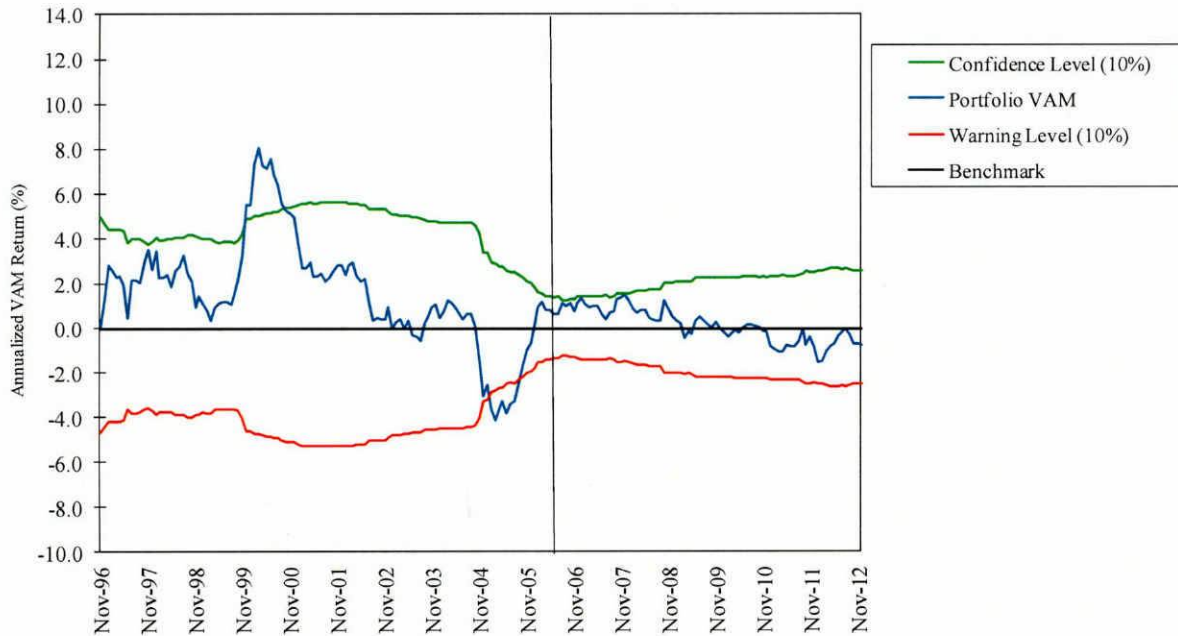
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	5.0%	5.6%
Last 1 year	21.1	18.2
Last 2 years	-0.2	-1.8
Last 3 years	5.6	4.7
Last 4 years	19.3	19.6
Last 5 years	-1.6	-0.9
Since Inception (3/01)	12.1	11.9

**Recommendations**

No action required.

**MORGAN STANLEY INVESTMENT MANAGEMENT**  
**Rolling Five Year VAM**



5 Year Period Ending

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

**AQR CAPITAL MANAGEMENT, LLC**  
**Periods Ending December, 2012**

**Portfolio Manager: Cliff Asness**

**Assets Under Management: \$281,865,231**

**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.

**Staff Comments**

AQR has a stable organization and investment process. While the stock selection strategy has added value since inception of the account, the currency (forwards) and country (futures) strategies have had mixed performance. The SBI is confident that the strategy will add value over time, but is monitoring performance attribution closely.

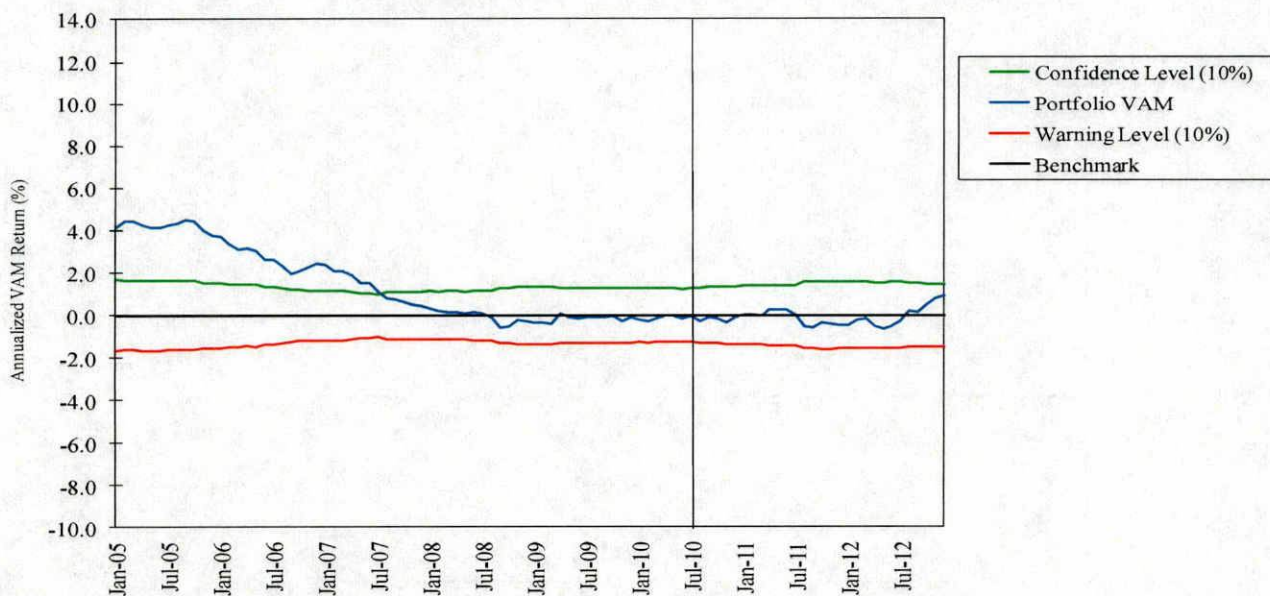
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	8.6%	5.9%
Last 1 year	20.8	16.4
Last 2 years	2.0	1.1
Last 3 years	5.0	3.7
Last 4 years	12.0	10.5
Last 5 years	-2.5	-3.4
Since Inception (7/05)	4.7	4.3

**Recommendations**

No action required.

**AQR CAPITAL MANAGEMENT, LLC**  
**Rolling Five Year VAM**



5 Year Period Ending

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

**PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Semi-Passive)**  
**Periods Ending December, 2012**

**Portfolio Manager: Cesar Hernandez**

**Assets Under Management: \$423,597,677**

**Investment Philosophy**

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

**Staff Comments**

Stable organization and team.

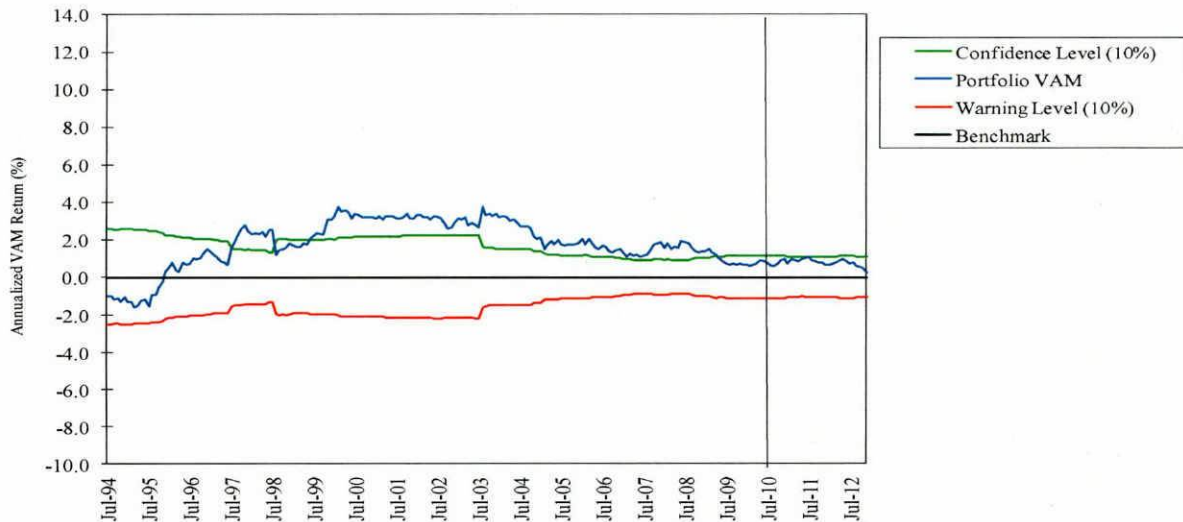
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	6.1%	5.9%
Last 1 year	19.4	16.4
Last 2 years	2.2	1.1
Last 3 years	5.2	3.7
Last 4 years	11.0	10.5
Last 5 years	-3.2	-3.4
Since Inception (7/05)	5.3	4.3

**Recommendations**

No action required.

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



5 Year Period Ending

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



**STATE STREET GLOBAL ADVISORS (Semi-Passive)**  
**Periods Ending December, 2012**

**Portfolio Manager: Didier Rosenfeld**

**Assets Under Management: \$254,044,476**

**Investment Philosophy**

SSgA's Alpha strategy is managed using a quantitative process. Stock selection provides the best opportunity to add consistent value. Industry factors have come to dominate country factors and an approach that uses industry weights to add incremental value complements stock selection. Unwanted biases are controlled through disciplined risk-control techniques. Country and regional allocations are a result of the security selection process but are managed to remain with +/- 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.

**Staff Comments**

Significant team changes to the team shortly after inception of the account. There have been changes to the investment process recently. The SBI is monitoring this strategy closely due to persistent underperformance.

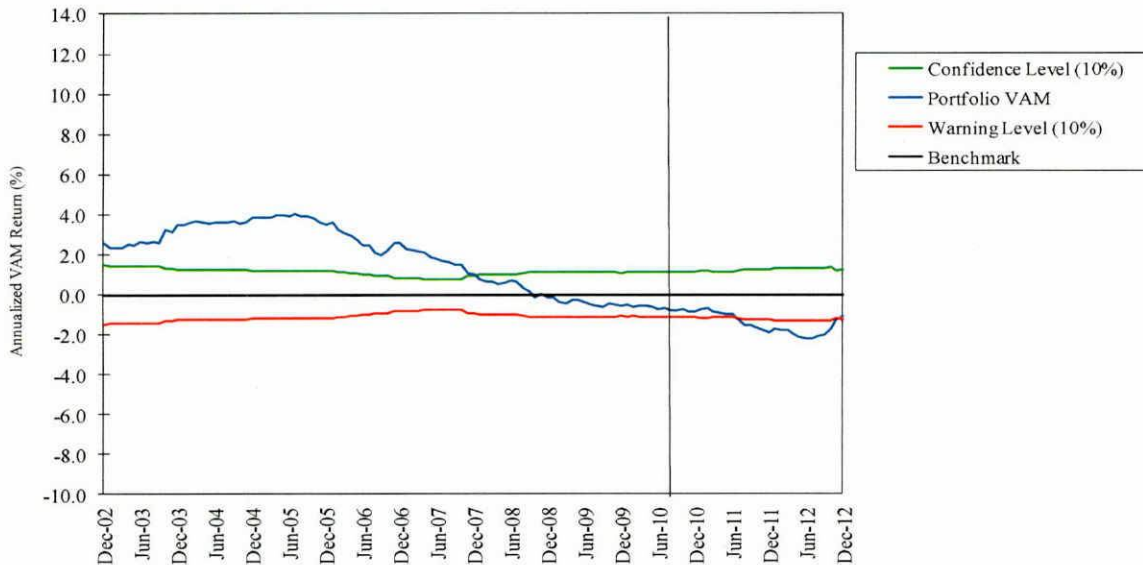
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	7.8%	5.9%
Last 1 year	17.3	16.4
Last 2 years	-0.5	1.1
Last 3 years	2.5	3.7
Last 4 years	9.8	10.5
Last 5 years	-4.5	-3.4
Since Inception (7/05)	3.3	4.3

**Recommendations**

No action required.

**STATE STREET GLOBAL ADVISORS - ALPHA**  
**Rolling Five Year VAM**



5 Year Period Ending

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 December, 2012**

**Portfolio Manager: Tom Coleman**

**Assets Under Management: \$171,254,899**

**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.

**Staff Comments**

Retained at the beginning of 2012. Stable team with tracking error within expectation.

**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	6.0%	5.6%
Last 1 year	18.5	18.2
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 (12/11)	18.5	18.2

**Recommendation**

No action required.

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

**STATE STREET GLOBAL ADVISORS (Passive Developed Markets)**  
**Periods Ending December, 2012**

**Portfolio Manager: Lynn Blake**

**Assets Under Management: \$3,298,792,981**

**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.

**Staff Comments**

Very stable investment team with consistent tracking error within expectation over time.

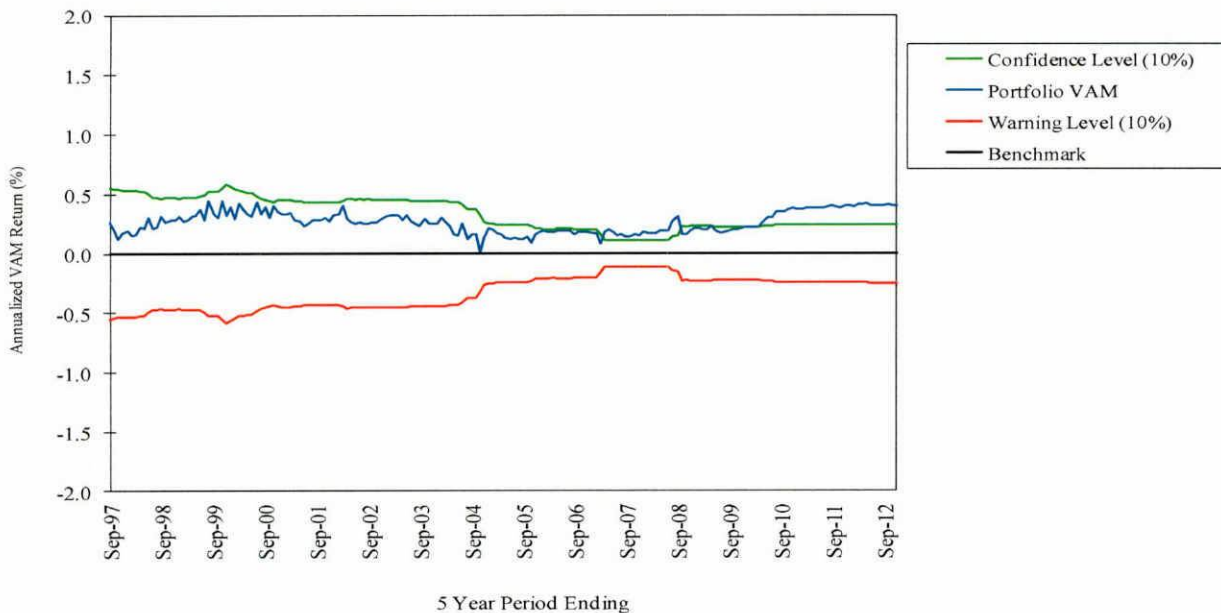
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	6.0%	5.9%
Last 1 year	16.7	16.4
Last 2 years	1.4	1.1
Last 3 years	4.2	3.7
Last 4 years	10.9	10.5
Last 5 years	-3.0	-3.4
Since Inception (10/92)	6.2	6.0

**Recommendation**

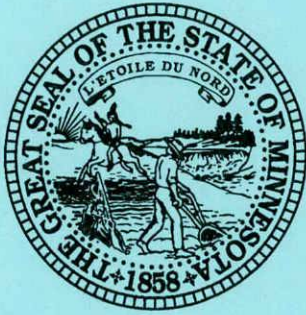
No action required.

**SSGA - PASSIVE DEVELOPED MARKETS**  
**Rolling Five Year VAM**



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# STATE BOARD OF INVESTMENT

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## Non-Retirement Manager Evaluation Reports

Fourth Quarter, 2012

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A-92

## **Non-Retirement Managers**

### **Table of Contents**

	<b>Page</b>
Non-Retirement Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-94
Non-Retirement Manager Performance Summary (by calendar year)	A-95
GE Asset Management Inc. – Assigned Risk Plan	A-96
RBC Global Asset Management (U.S.) Inc. – Assigned Risk Plan	A-97
Galliard Capital Management, Inc.	A-98
Internal Stock Pool – Trust/Non-Retirement Assets	A-99
Internal Bond Pool – Income Share Account	A-100
Internal Bond Pool – Trust/Non-Retirement Assets	A-101

**NON - RETIREMENT MANAGERS**  
**Periods Ending December, 2012**

	Quarter		1 Year		3 Years		5 Years		Since (1) Inception		Market Value (in millions)
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	
GE Asset Management (S&P 500 Index)	-0.4	-0.4	16.8	16.0	8.1	10.9	1.5	1.7	8.9	8.5	\$54.5
RBC Global Asset Management (2) (Barclays Capital Intermediate Government)	0.1	0.0	1.8	1.7	5.7	4.3	4.5	4.6	5.9	6.0	\$216.8
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	0.7	0.2	2.8	0.8	3.5	1.2	3.9	1.6	5.2	4.0	\$1,557.5
Internal Stock Pool (S&P 500 Index)	-0.4	-0.4	16.0	16.0	10.9	10.9	1.8	1.7	8.3	8.2	\$1,183.8
Internal Bond Pool - Income Share (Barclays Capital Aggregate) (3)	0.6	0.2	6.2	4.2	6.2	6.2	6.5	5.9	7.6	7.2	\$94.1
Internal Bond Pool - Trust (Barclays Capital Aggregate)	0.6	0.2	5.8	4.2	5.9	6.2	6.4	5.9	7.0	6.6	\$717.7

(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**

	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
GE Asset Management (S&P 500 Index)	16.8	16.0	-2.2	2.1	10.7	15.1	32.3	26.5	-35.6	-37.0
RBC Global Asset Management (1) (Barclays Capital intermediate Government)	1.8	1.7	7.1	6.2	8.4	5.0	8.3	0.9	-2.4	9.5
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	2.8	0.8	3.4	1.2	4.1	1.5	4.7	1.9	4.7	2.6
Internal Stock Pool (S&P 500 Index)	16.0	16.0	2.2	2.1	15.1	15.1	26.3	26.5	-36.7	-37.0
Internal Bond Pool - Income Share (Barclays Capital Aggregate)	6.2	4.2	5.3	7.8	7.0	6.5	12.9	5.9	1.3	5.2
Internal Bond Pool - Trust (Barclays Capital Aggregate)	5.8	4.2	5.6	7.8	6.3	6.5	12.2	5.9	2.6	5.2

(1) 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.

**GE ASSET MANAGEMENT INC. - Assigned Risk Plan**  
**Periods Ending December, 2012**

**Portfolio Manager: Dave Carlson**

**Assets Under Management: \$54,537,169**

**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.

**Staff Comments**

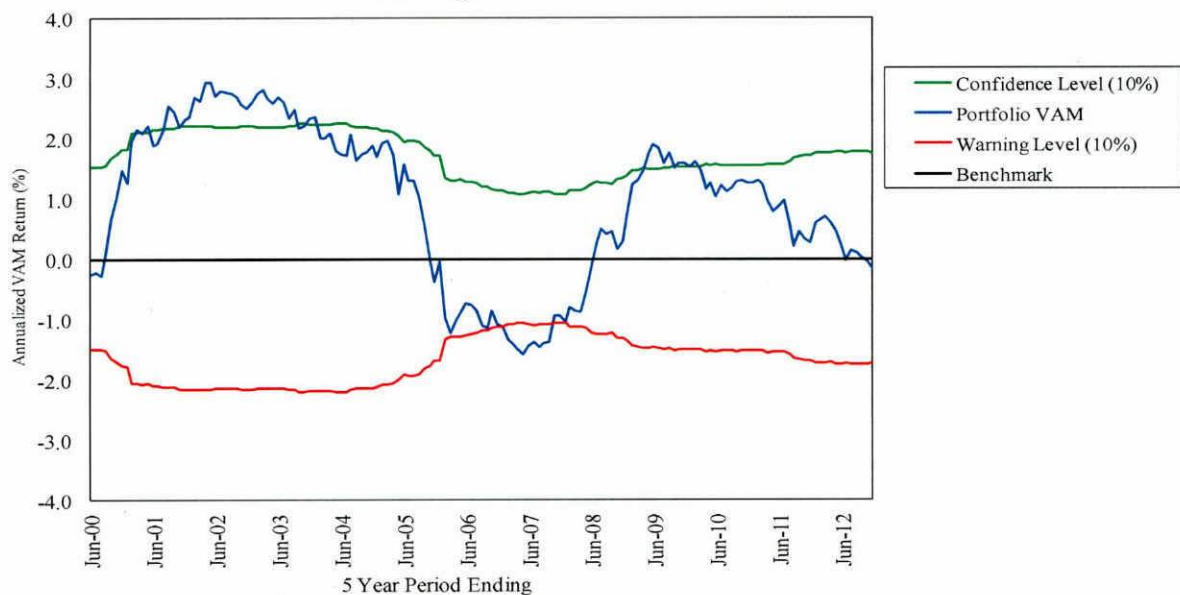
No long-term performance concerns. No organizational concerns.

**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>	
Last Quarter	-0.4%	-0.4%	No action required.
Last 1 year	16.8	16.0	
Last 2 years	6.9	8.8	
Last 3 years	8.1	10.9	
Last 4 years	13.7	14.6	
Last 5 years	1.5	1.7	
Since Inception (1/95)	8.9	8.5	

**Recommendation**

**GE ASSET MANAGEMENT**  
**Rolling Five Year VAM**



**RBC GLOBAL ASSET MANAGEMENT (U.S.) INC. - Assigned Risk Plan**  
**Periods Ending December, 2012**

**Portfolio Manager: Brian Svendahl**

**Assets Under Management: \$216,767,739**

**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.

**Staff Comments**

No long-term performance concerns. No organizational concerns.

**Quantitative Evaluation**

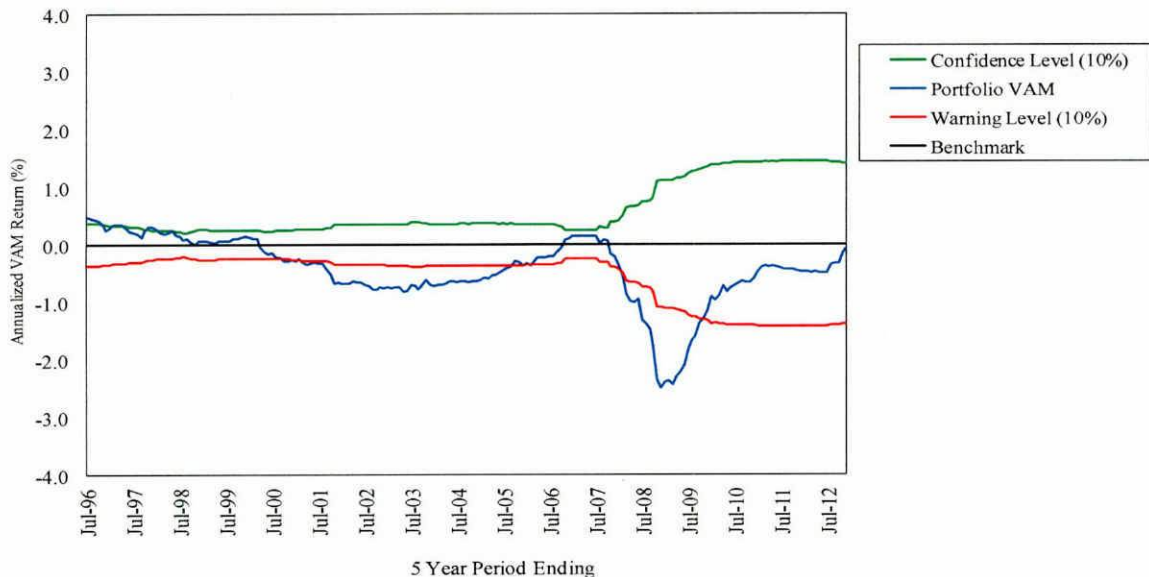
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	0.1%	0.0%
Last 1 year	1.8	1.7
Last 2 years	4.4	3.9
Last 3 years	5.7	4.3
Last 4 years	6.4	3.4
Last 5 years	4.5	4.6
Since Inception (7/91)	5.9	6.0

**Recommendation**

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**



**GALLIARD CAPITAL MANAGEMENT, INC.**  
**Periods Ending December, 2012**

**Portfolio Manager: Karl Tourville**

**Assets Under Management: \$1,557,533,425**

**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 market-type accounts. The manager invests cash flows to optimize yields. The manager invests in high quality fixed income securities and investment contracts with U.S. and non-U.S. financial institutions. To maintain necessary liquidity, the manager invests a portion of the portfolio in its Stable Return Fund and in cash equivalents. The Stable Return Fund is a large, daily priced fund consisting of a wide range of stable value instruments that is available to retirement plans of all sizes.

**Staff Comments**

No long-term performance concerns. No organizational concerns.

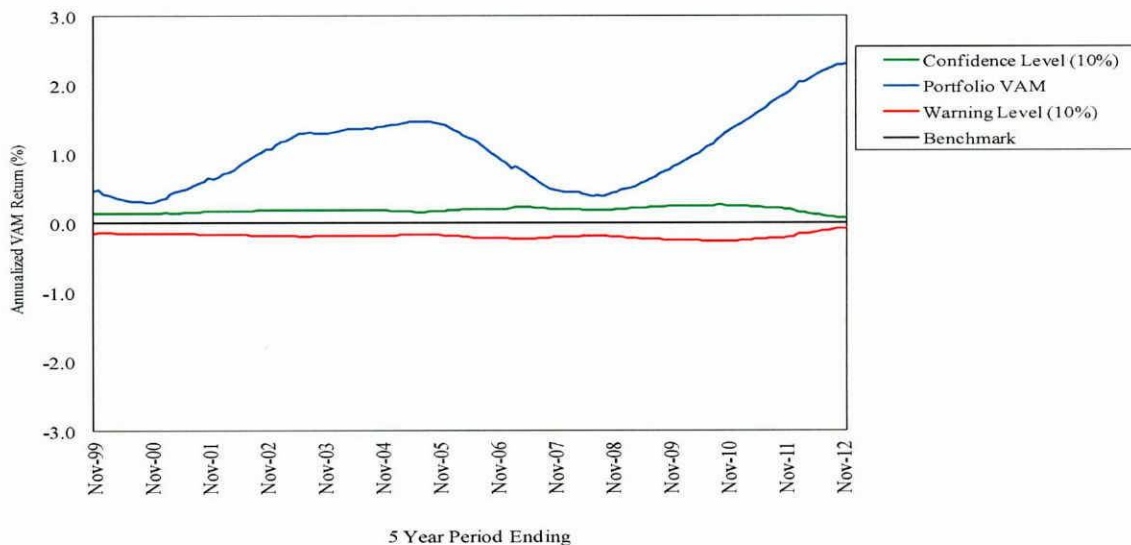
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.7%	0.2%
Last 1 year	2.8	0.8
Last 2 years	3.1	1.0
Last 3 years	3.5	1.2
Last 4 years	3.8	1.3
Last 5 years	3.9	1.6
Since Inception (11/94)	5.2	4.0

**Recommendation**

No action required.

**Galliard Capital Management  
Rolling Five Year VAM**





**INTERNAL STOCK POOL - Trust/Non-Retirement Assets**  
**Periods Ending December, 2012**

**Portfolio Manager: Mike Messen**

**Assets Under Management: \$1,183,809,935**

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

**Staff Comments**

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.

No tracking issues.

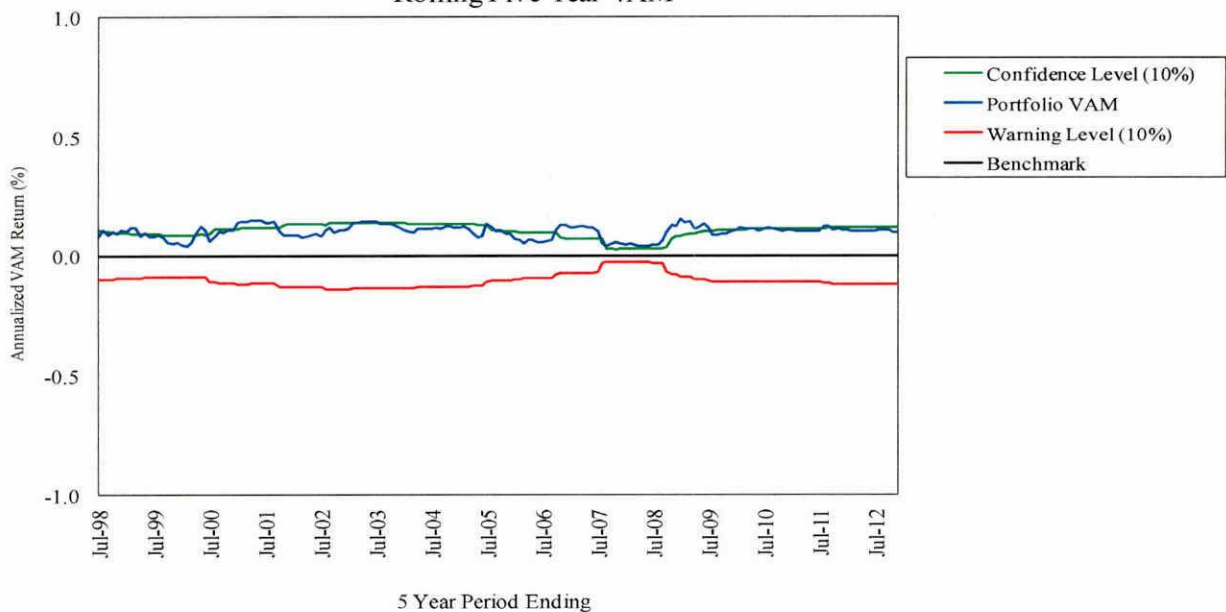
**Quantitative Evaluation**

**Recommendation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	-0.4%	-0.4%
Last 1 year	16.0	16.0
Last 2 years	8.9	8.8
Last 3 years	10.9	10.9
Last 4 years	14.6	14.6
Last 5 years	1.8	1.7
Since Inception (7/93)	8.3	8.2

No action required.

**INTERNAL STOCK POOL**  
**Trust/Non-Retirement Assets**  
**Rolling Five Year VAM**



**INTERNAL BOND POOL - Income Share Account**  
**Periods Ending December, 2012**

**Portfolio Manager: Mike Messen**

**Assets Under Management: \$94,100,885**

**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.

**Staff Comments**

No long-term performance concerns.

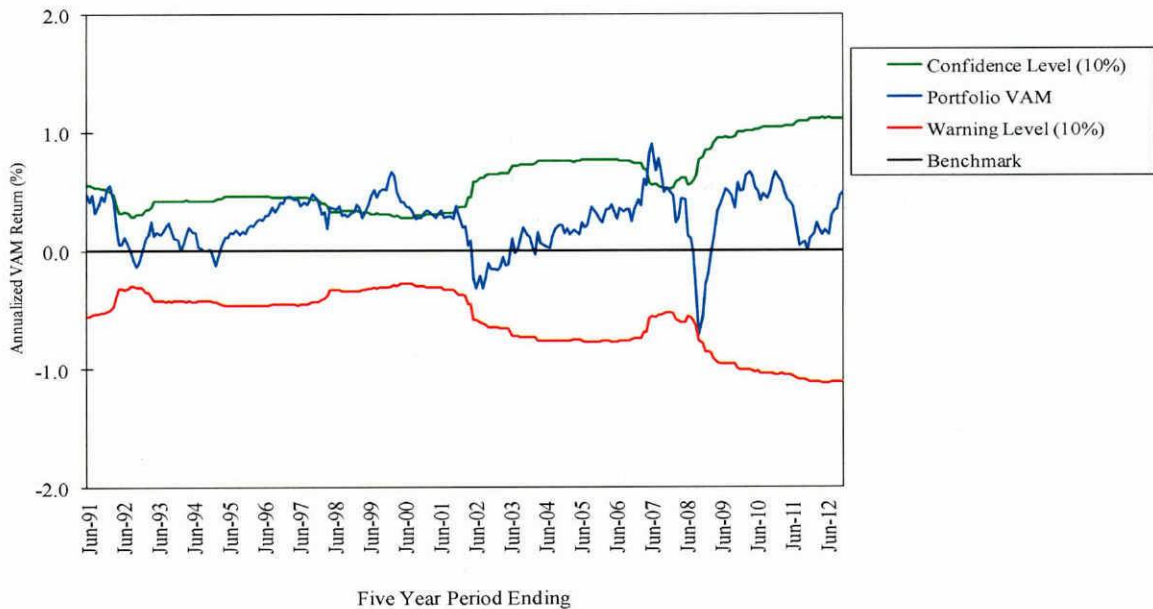
**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.6%	0.2%
Last 1 year	6.2	4.2
Last 2 years	5.8	6.0
Last 3 years	6.2	6.2
Last 4 years	7.8	6.1
Last 5 years	6.5	5.9
Since Inception (7/86)	7.6	7.2

**Recommendation**

No action required.

**INTERNAL BOND POOL - INCOME SHARE ACCOUNT**  
**Rolling Five Year VAM**



**INTERNAL BOND POOL - Trust/Non-Retirement Assets**  
**Periods Ending December, 2012**

**Portfolio Manager: Mike Menssen**

**Assets Under Management: \$717,671,018**

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

**Staff Comments**

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.

No long-term performance concerns.

**Quantitative Evaluation**

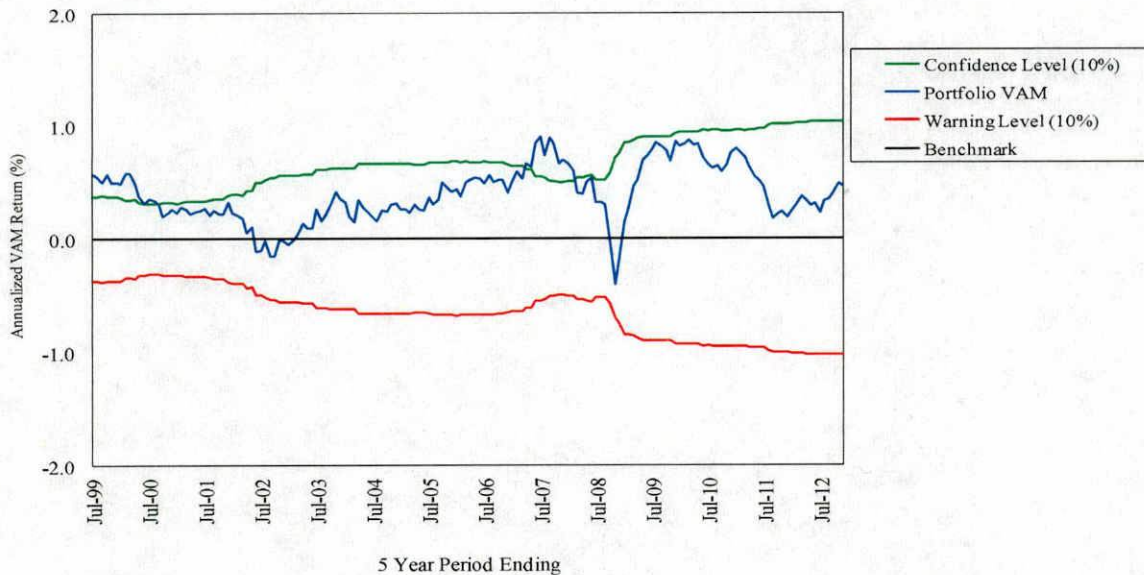
**Recommendation**

	<b>Actual</b>	<b>Benchmark</b>
Last Quarter	0.6%	0.2%
Last 1 year	5.8	4.2
Last 2 years	5.7	6.0
Last 3 years	5.9	6.2
Last 4 years	7.4	6.1
Last 5 years	6.4	5.9
Since Inception (7/94)*	7.0	6.6

No action required.

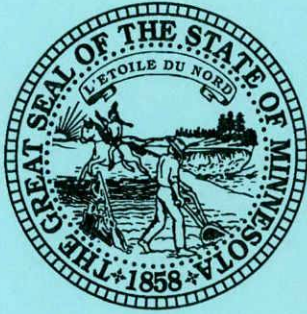
\* Date started managing the pool against the Barclays Capital Aggregate.

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



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# STATE BOARD OF INVESTMENT

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## Deferred Compensation Plan Evaluation Reports

Fourth Quarter, 2012

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A-104

# Deferred Compensation Plan

## Table of Contents

	<b>Page</b>
Fund Manager Performance Summary (quarter, 1, 3, 5 year periods)	A-106
Fund Manager Performance Summary (by calendar year)	A-108
Janus Twenty	A-110
Vanguard Index Institutional Plus	A-111
Vanguard Mid-Cap Index Institutional	A-112
T. Rowe Price Small Cap Stock Fund	A-113
Vanguard Balanced Index Institutional Fund	A-114
Dodge & Cox Income Fund	A-115
Vanguard Total Bond Market Index Institutional	A-116
Fidelity Diversified International	A-117
Vanguard Total International Stock Index Institutional Plus	A-118
State Street Global Advisors MN Target Retirement Funds	A-119

**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS (1)**  
**Periods Ending December, 2012**

457 Mutual Funds	Quarter		1 Year		3 Years		5 Years		Since (2) Retention by SBI		State's Participation In Fund (\$ millions)	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	%	%		
<b>Large Cap Equity:</b>												
Janus Twenty (S&P 500)	-0.1	-0.4	22.3	16.0	6.3	10.9	0.0	1.7	2.1	2.2	\$415.1	
Vanguard Institutional Index Plus (S&P 500)	-0.4	-0.4	16.0	16.0	10.9	10.9	1.7	1.7	2.2	2.2	\$657.9	
<b>Mid Cap Equity:</b>												
Vanguard Mid-Cap Index (MSCI US Mid-Cap 450)	2.8	2.8	16.0	16.0	12.6	12.7	3.2	3.2	7.7	7.6	\$244.2	
<b>Small Cap Equity:</b>												
T. Rowe Price Small-Cap Stock (Russell 2000)	1.8	1.9	18.0	16.3	16.0	12.2	7.6	3.6	9.0	6.1	\$451.1	
<b>Balanced:</b>												
Vanguard Balanced Index Inst. Fund (60% MSCI US Broad Market, 40% Barclays Capital Agg)	0.2	0.2	11.5	11.6	9.6	9.6	4.3	4.1	6.2	6.1	\$516.6	
<b>Bond:</b>												
Dodge & Cox Income Fund (Barclays Capital Aggregate)	1.0	0.2	8.0	4.2	6.6	6.2	7.0	5.9	6.6	6.1	\$206.5	
Vanguard Total Bond Market Index Inst. (Barclays Capital Aggregate)	0.1	0.2	4.2	4.2	6.2	6.2	5.9	5.9	5.4	5.4	\$194.3	
<b>International:</b>												
Fidelity Diversified International (MSCI EAFE-Free)	5.0	6.6	23.9	17.3	5.4	3.6	-3.3	-3.7	6.6	3.2	\$234.1	
Vanguard Total International Stock Index (ACWI ex US IMI) (3)	6.7	5.7	18.3	17.0	3.9	3.5	-3.0	-3.2	-1.7	-2.1	\$109.4	

Numbers in blue include returns prior to retention by SBI.

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

- (1) Money Market Account and Fixed Interest Accounts are also offered in the Supplemental Investment Fund, which is described within Tab A. Performance for these accounts is reported under the Deferred Compensation Plan accounts within Tab A.
- (2) Vanguard Total International retained July 2011; Vanguard Mid-Cap Index Fund retained January 2004; Vanguard Balanced, Vanguard Total Bond Mkt. retained December 2003; all others, July 1999.
- (3) Benchmark is the 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 December, 2012**

SSgA Target Retirement Funds	Quarter		1 Year		3 Years		5 Years		Since Retention by the SBI*		State Participation in Fund (\$ millions)
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	
	%	%	%	%	%	%	%	%	%	%	
Income Fund	1.0	0.9	9.7	9.8	7.9	8.2	4.7	4.8	6.7	6.8	\$16.7
2015 Fund	1.0	0.9	11.0	11.0	10.0	10.2	5.0	4.7	8.8	8.9	\$24.3
2020 Fund	1.1	1.0	12.5	12.5	11.1	11.3	4.8	4.5	10.0	10.0	\$26.1
2025 Fund	1.3	1.2	13.7	13.7	11.3	11.4	4.4	4.1	9.6	9.6	\$17.1
2030 Fund	1.4	1.2	14.3	14.1	11.3	11.4	3.9	3.6	9.2	9.2	\$10.1
2035 Fund	1.5	1.3	14.9	14.7	11.2	11.2	3.4	3.1	8.6	8.5	\$5.9
2040 Fund	1.7	1.5	15.5	15.3	10.8	10.8	2.7	2.5	7.4	7.4	\$3.8
2045 Fund	2.0	1.8	16.0	15.8	10.5	10.4	2.6	2.4	6.6	6.6	\$1.9
2050 Fund	2.0	1.8	15.9	15.8	10.4	10.4	2.6	2.4	6.6	6.6	\$0.9
2055 Fund	2.0	1.8	15.9	15.8	10.4	10.4			6.6	6.6	\$0.6
2060 Fund	2.0	1.8	16.0	15.8					6.6	6.6	\$0.6

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.

SSgA Index Funds	Quarter		1 Year		3 Years		5 Years			
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%		
S&P 500 Index Fund (S&P 500)	-0.4	-0.4	16.0	16.0	10.9	10.9	1.7	1.7	7.7	7.7
DJ-UBS Roll Select Commodity Index Fund (DJ-UBS Roll Select Commodity Index)	-5.4	-5.3							4.1	4.2
Russell Small/Mid Cap Index Fund (Russell Small Cap Completeness Index)	3.1	3.0							8.7	8.7
Global All Cap Equity ex US Index Fund (MSCI ACWI ex U.S. IMI)	6.6	5.7	18.2	17.0					-1.3	-2.1
Global Real Estate Securities Index Fund (FTSE EPRA/NAREIT Dev Liquid)	6.1	5.5	28.9	27.5					9.8	8.7
Long Government Bond Index Fund (Barclays Capital Long Government)	-0.8	-0.7	3.8	3.8	13.6	13.6	9.6	9.6	19.6	19.7
Bond Index Fund (Barclays Capital Aggregate)	0.2	0.2	4.2	4.2	6.2	6.2	6.1	5.9	6.2	6.2
Inflation Protection Bond Index Fund (Barclays Capital U.S. TIPS)	0.7	0.7	6.9	7.0	8.8	8.9	7.0	7.0	9.6	9.6
High Yield Bond Index Fund (Barclays Capital U.S. High Yield Very Liquid)	3.4	3.5	14.8	15.4					10.4	10.9
U.S. Short-Term Govt/Credit Index Fund (Barclays Capital 1-3 Yr Govt/Credit)	0.1	0.2	3.9	1.3					2.9	1.2

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**

457 Mutual Funds	2012		2011		2010		2009		2008	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
<b>Large Cap Equity:</b>										
Janus Twenty (S&P 500)	22.3	16.0	-8.2	2.1	7.0	15.1	43.3	26.5	-42.0	-37.0
Vanguard Institutional Index Plus (S&P 500)	16.0	16.0	2.1	2.1	15.1	15.1	26.7	26.5	-36.9	-37.0
<b>Mid Cap Equity:</b>										
Vanguard Mid-Cap Index (MSCI US Mid-Cap 450)	16.0	16.0	-2.0	-1.9	25.7	25.7	40.5	40.5	-41.8	-41.8
<b>Small Cap Equity:</b>										
T. Rowe Price Small-Cap Stock (Russell 2000)	18.0	16.3	-0.1	-4.2	32.5	26.9	38.5	27.2	-33.4	-33.8
<b>Balanced:</b>										
Vanguard Balanced Index Inst. Fund (60% MSCI US Broad Market, 40% Barclays Capital Agg)	11.5	11.6	4.3	4.1	13.3	13.5	20.2	19.7	-22.1	-22.4
<b>Bond:</b>										
Dodge & Cox Income Fund (Barclays Capital Aggregate)	8.0	4.2	4.8	7.8	7.2	6.5	16.1	5.9	-0.3	5.2
Vanguard Total Bond Market Index Inst. (Barclays Capital Aggregate)	4.2	4.2	7.7	7.8	6.6	6.5	6.1	5.9	5.2	5.2
<b>International:</b>										
Fidelity Diversified International (MSCI EAFE-Free)	23.9	17.3	-13.8	-12.1	9.7	7.7	31.8	31.8	-45.2	-43.4
Vanguard Total International Stock Index (ACWI ex US IMI) (2)	18.3	17.0	-14.6	-14.3	11.1	10.7	36.7	40.4	-44.1	-45.5

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**

SSgA Target Retirement Funds	2012		2011		2010		2009		2008	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
Income Fund	9.7	9.8	4.6	4.8	9.6	10.1	14.8	15.0	-12.9	-13.2
2015 Fund	11.0	11.0	6.9	7.1	12.1	12.5	15.3	14.4	-16.7	-17.6
2020 Fund	12.5	12.5	7.3	7.4	13.6	13.9	18.3	17.5	-22.2	-23.1
2025 Fund	13.7	13.7	5.9	6.0	14.6	14.7	20.3	19.6	-25.2	-26.1
2030 Fund	14.3	14.1	4.9	5.0	15.1	15.3	21.9	21.4	-28.1	-29.0
2035 Fund	14.9	14.7	3.5	3.6	15.7	15.8	24.3	23.9	-30.9	-31.6
2040 Fund	15.5	15.3	1.5	1.6	15.9	16.1	26.7	26.5	-33.6	-34.1
2045 Fund	16.0	15.8	0.0	0.1	16.2	16.2	27.2	27.0	-33.7	-34.1
2050 Fund	15.9	15.8	0.1	0.1	16.1	16.2	27.2	27.0	-33.5	-34.1
2055 Fund	15.9	15.8	0.1	0.1	16.1	16.2	27.2	27.0	-33.5	-34.1
2060 Fund	16.0	15.8								

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

SSgA Index Funds	2012		2011		2010		2009		2008	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
S&P 500 Index Fund (S&P 500)	16.0	16.0	2.1	2.1	15.1	15.1	26.7	26.5	-36.9	-37.0
DJ-UBS Roll Sheet Commodity Index Fund (DJ-UBS Roll Select Commodity Index)										
Russell Small/Mid Cap Index Fund (Russell Small Cap Completeness Index)										
Global All Cap Equity ex U.S. Index Fund (MSCI ACWI ex U.S. IMI)	18.2	17.0								
Global Real Estate Securities Index Fund (FTSE EPRA/NAREIT Dev Liquid)	28.9	27.5	-5.4	-5.8	19.1	18.4				
Long Government Bond Index Fund (Barclays Capital Long Government)	3.8	3.8	29.2	29.1	9.5	9.4	-12.2	-12.2	22.6	22.7
Bond Index Fund (Barclays Capital Aggregate)	4.2	4.2	7.8	7.8	6.6	6.5	6.4	5.9	5.6	5.2
Inflation Protection Bond Index Fund (Barclays Capital U.S. TIPS)	6.9	7.0	13.5	13.6	6.2	6.3	11.3	11.4	-2.4	-2.4
High Yield Bond Index Fund (Barclays Capital U.S. High Yield Very Liquid)	14.8	15.4	5.7	6.1	12.5	15.1				
U.S. Short-Term Govt/Credit Bond Index Fund (Barclays Capital 1-3 Yr Govt/Credit)	3.9	1.3	1.5	1.6	2.4	2.8				

Numbers in blue include returns prior to retention by SBI.

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

**MN STATE 457 DEFERRED COMPENSATION PLAN  
LARGE CAP EQUITY – JANUS TWENTY  
Periods Ending December, 2012**

**Portfolio Manager: Ron Sachs**

**State's Participation in Fund: \$415,110,259  
Total Assets in Fund: \$8,300,000,000**

**Investment Philosophy  
Janus Twenty**

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

**Staff Comments**

No long-term performance concerns. No organizational concerns.

**Quantitative Evaluation**

	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	-0.1%	-0.4%
Last 1 year	22.3	16.0
Last 2 years	6.0	8.8
Last 3 years	6.3	10.9
Last 4 years	14.5	14.6
Last 5 years	0.0	1.7
Since Retention by SBI (7/99)	2.1	2.2

**Recommendation**

No action required.

\*Benchmark is the S&P 500.

**LARGE CAP EQUITY - JANUS TWENTY  
Rolling Five Year VAM**



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  
EQUITY INDEX – VANGUARD INSTITUTIONAL INDEX PLUS  
Periods Ending December, 2012**

**Portfolio Manager: Mike Buek**

**State's Participation in Fund: \$657,887,203  
Total Assets in Fund: \$49,286,000,000**

**Investment Philosophy  
Vanguard Institutional Index**

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

**Staff Comments**

Long-term CIO, Gus Sauter retired; Tim Buckley, Managing Director, Vanguard veteran succeeds Sauter January 2013. No tracking issues.

**Quantitative Evaluation**

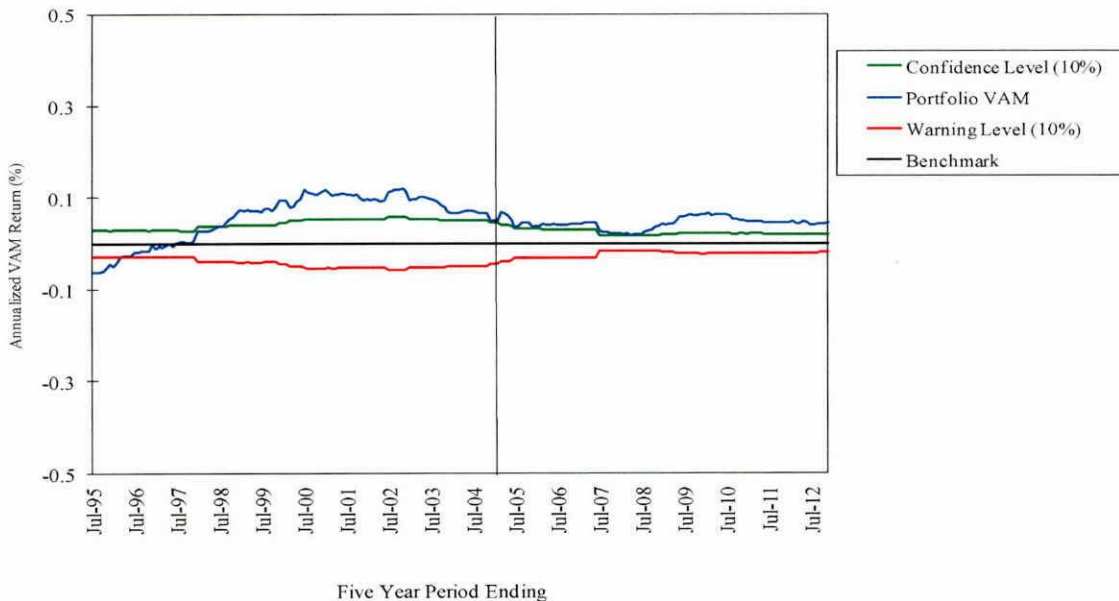
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	-0.4%	-0.4%
Last 1 year	16.0	16.0
Last 2 years	8.8	8.8
Last 3 years	10.9	10.9
Last 4 years	14.6	14.6
Last 5 years	1.7	1.7
Since Retention by SBI (7/99)	2.2	2.2

**Recommendation**

No action required.

\*Benchmark is the S&P 500.

**EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS  
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  
MID CAP EQUITY – VANGUARD MID-CAP INDEX  
Periods Ending December, 2012**

**Portfolio Manager: Donald Butler**

**State's Participation in Fund: \$244,169,305  
Total Assets in Fund: \$7,057,000,000**

**Investment Philosophy  
Vanguard Mid-Cap Index**

The fund employs a “passive management”- or indexing- investment 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.

**Staff Comments**

Long-term CIO, Gus Sauter retired; Tim Buckley, Managing Director, Vanguard veteran succeeds Sauter January 2013. No tracking issues.

**Quantitative Evaluation**

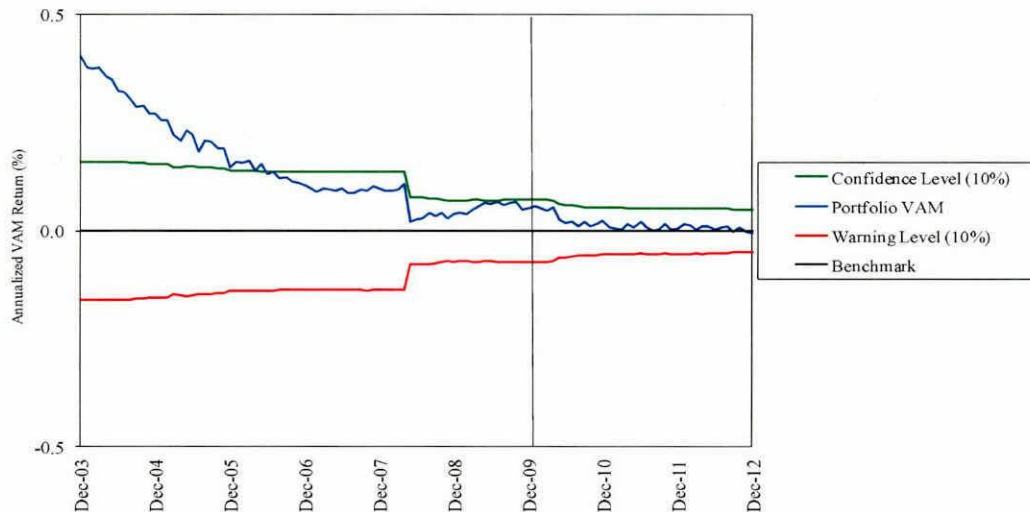
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	2.8%	2.8%
Last 1 year	16.0	16.0
Last 2 years	6.7	6.7
Last 3 years	12.6	12.7
Last 4 years	19.0	19.1
Last 5 years	3.2	3.2
Since Retention by SBI (1/04)	7.7	7.6

**Recommendation**

No action required.

\*Benchmark is the MSCI US Mid Cap 450.

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



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

**MN STATE 457 DEFERRED COMPENSATION PLAN  
SMALL CAP EQUITY – T. ROWE PRICE SMALL CAP STOCK FUND  
Periods Ending December, 2012**

<b>Portfolio Manager:</b> Gregory A. McCrickard	<b>State's Participation in Fund:</b> \$451,114,270
	<b>Total Assets in Fund:</b> \$7,400,889,914

**Investment Philosophy  
T. Rowe Price Small Cap Equity Fund**

The strategy of this fund is to invest primarily in stocks of small to medium-sized companies that are believed to offer either superior earnings growth or appear undervalued. The fund normally invests at least 80% of assets in equities of small companies in the Russell 2000 or S&P Small-Cap 600. The manager does not favor making big bets on any particular sector or any particular stock. The fund's combination of growth and value stocks offers investors relatively more stable performance compared to other small cap stock funds.

**Staff Comments**

No long-term performance concerns. No organizational concerns.

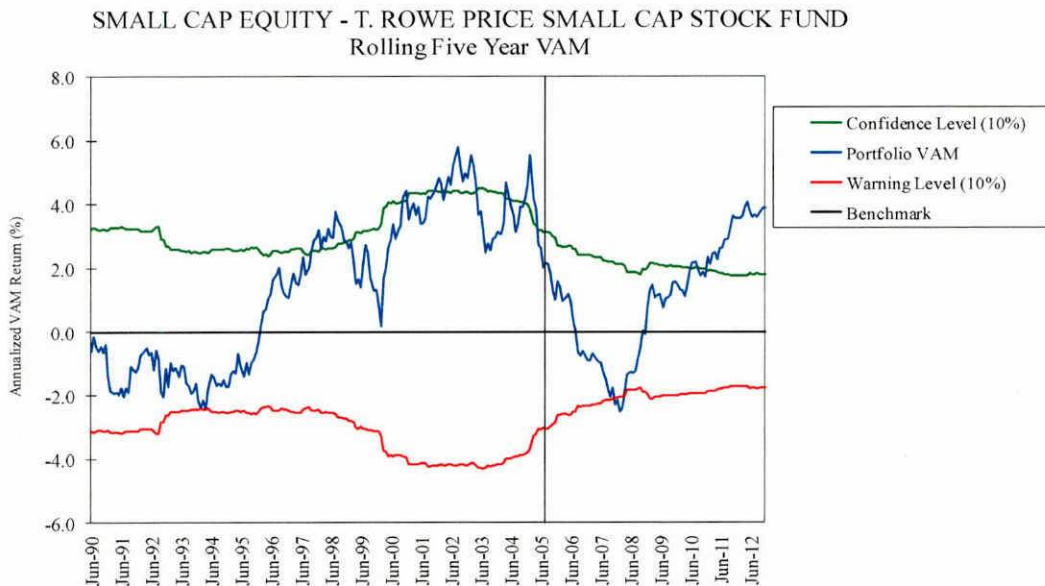
**Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	1.8%	1.9%
Last 1 year	18.0	16.3
Last 2 years	8.6	5.6
Last 3 years	16.0	12.2
Last 4 years	21.3	15.8
Last 5 years	7.6	3.6
Since Retention by SBI (7/99)	9.0	6.1

**Recommendation**

No action required.

\*Benchmark is the Russell 2000.



Five Year Period Ending

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

**MN STATE 457 DEFERRED COMPENSATION PLAN  
BALANCED – VANGUARD BALANCED INDEX INSTITUTIONAL FUND  
Periods Ending December, 2012**

**Portfolio Manager: Michael Perre**

**State's Participation in Fund: \$516,637,528  
Total Assets in Fund: \$5,554,000,000**

**Investment Philosophy  
Vanguard Balanced Index Fund**

The fund's assets are divided between stocks and bonds, with an average of 60% of its assets in stocks and 40% in bonds. The fund's stock segment attempts to track the performance of the MSCI US Broad Market Index, an unmanaged index representing the overall U.S. equity market. The fund's bond segment attempts to track the performance of the Barclays Capital Aggregate Bond Index, an unmanaged index that covers virtually all taxable fixed-income securities.

**Staff Comments**

Long-term CIO, Gus Sauter retired; Tim Buckley, Managing Director, Vanguard veteran succeeds Sauter January 2013. No tracking issues.

**Quantitative Evaluation**

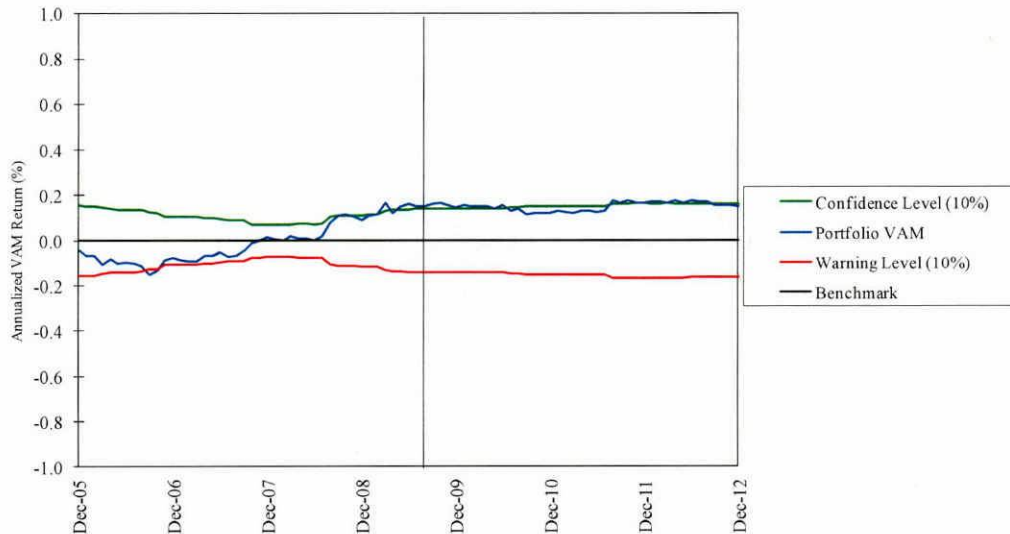
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	0.2%	0.2%
Last 1 year	11.5	11.6
Last 2 years	7.8	7.8
Last 3 years	9.6	9.6
Last 4 years	12.2	12.1
Last 5 years	4.3	4.1
Since Retention by SBI (12/03)	6.2	6.1

**Recommendation**

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**



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 December, 2012**

**Portfolio Manager: Dana Emery**

**State's Participation in Fund: \$206,488,354  
Total Assets in Fund: \$26,538,551,094**

**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.

**Staff Comments**

No long-term performance concerns. No organizational concerns.

**Quantitative Evaluation**

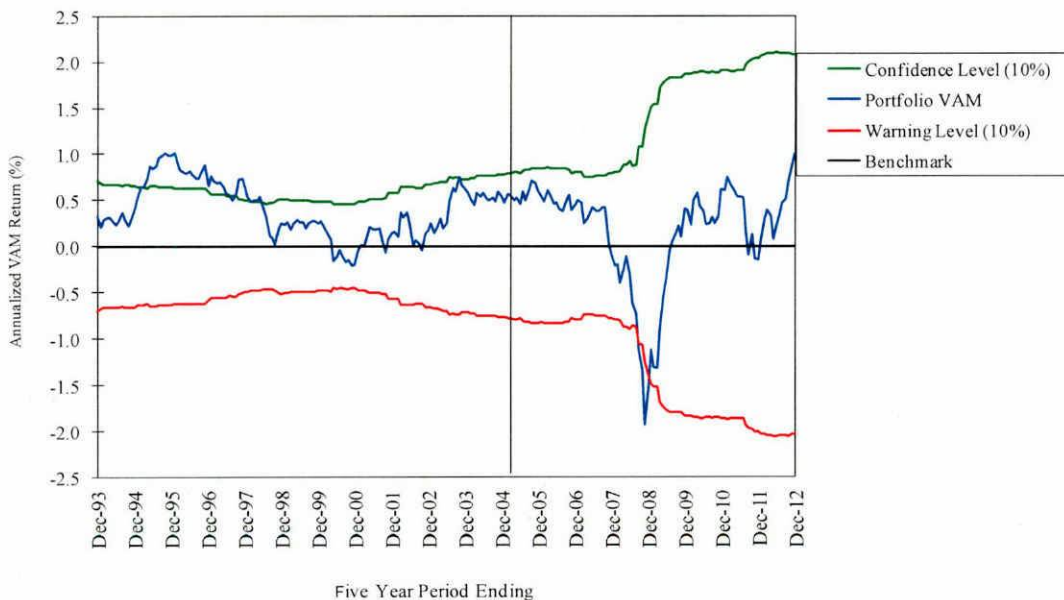
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	1.0%	0.2%
Last 1 year	8.0	4.2
Last 2 years	6.3	6.0
Last 3 years	6.6	6.2
Last 4 years	8.9	6.1
Last 5 years	7.0	5.9
Since Retention By SBI (7/99)	6.6	6.1

**Recommendation**

No action required.

\*Benchmark is the Barclays Capital Aggregate.

**BOND - DODGE & COX INCOME 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**  
**BOND – VANGUARD TOTAL BOND MARKET INDEX INSTITUTIONAL**  
 Periods Ending December, 2012

**Portfolio Manager: Kenneth Volpert**

**State's Participation in Fund: \$194,312,179**  
**Total Assets in Fund: \$22,494,000,000**

**Investment Philosophy**  
**Vanguard Total Bond Market Index**  
**Institutional**

**Staff Comments**

The fund attempts to track the performance of the Barclays Capital Aggregate Bond Index, which is a widely recognized measure of the entire taxable U.S. bond market. The index consists of more than 7,800 U.S. Treasury, federal agency, mortgage-backed, and investment-grade corporate securities. Because it is not practical or cost-effective to own every security in the index, the fund invests in a large sampling that matches key characteristics of the index (such as market-sector weightings, coupon interest rates, credit quality, and maturity). To boost returns, the fund holds a higher percentage than the index in short-term, investment-grade corporate bonds and a lower percentage in short-term Treasury securities.

Long-term CIO, Gus Sauter retired; Tim Buckley, Managing Director, Vanguard veteran succeeds Sauter January 2013. No tracking issues.

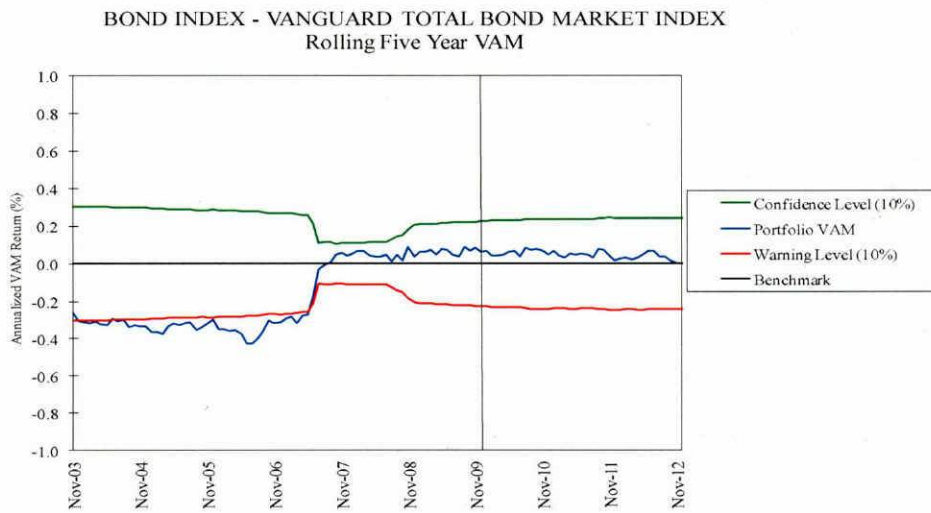
**Quantitative Evaluation**

**Recommendation**

	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	0.1%	0.2%
Last 1 year	4.2	4.2
Last 2 years	5.9	6.0
Last 3 years	6.2	6.2
Last 4 years	6.1	6.1
Last 5 years	5.9	5.9
Since Retention by SBI (12/03)	5.4	5.4

No action required.

\*Benchmark is the Barclays Capital Aggregate.



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

**MN STATE 457 DEFERRED COMPENSATION PLAN  
INTERNATIONAL – FIDELITY DIVERSIFIED INTERNATIONAL  
Periods Ending December, 2012**

**Portfolio Manager: William Bower**

**State's Participation in Fund: \$234,092,057  
Total Assets in Fund: \$13,545,140,000**

**Investment Philosophy  
Fidelity Diversified International**

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

**Staff Comments**

No long-term performance concerns. No organizational concerns.

**Quantitative Evaluation**

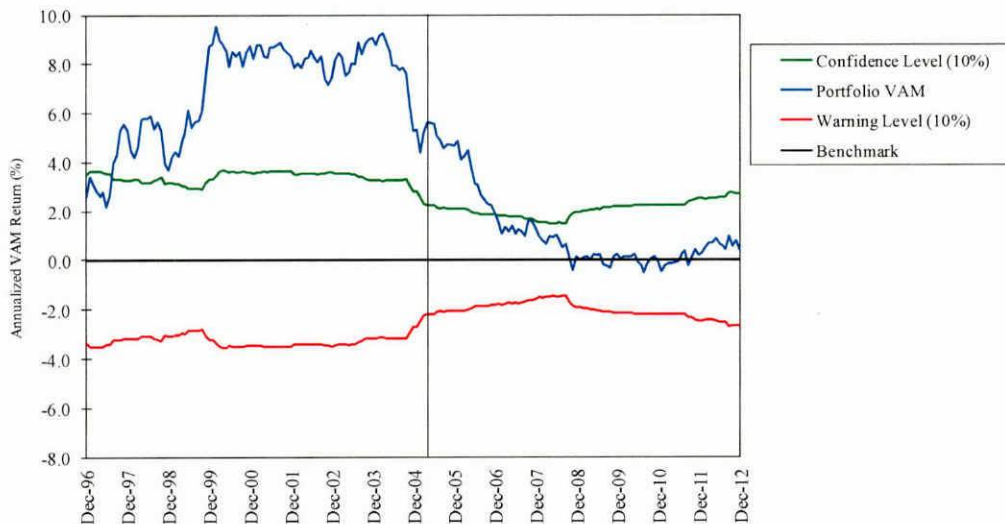
	<b>Actual</b>	<b>Benchmark*</b>
Last Quarter	5.0%	6.6%
Last 1 year	23.9	17.3
Last 2 years	3.4	1.5
Last 3 years	5.4	3.6
Last 4 years	11.5	10.0
Last 5 years	-3.3	-3.7
Since Retention By SBI (7/99)	6.6	3.2

**Recommendation**

No action required.

\*Benchmark is the MSCI EAFE-Free.

INTERNATIONAL - FIDELITY DIVERSIFIED INTERNATIONAL  
Rolling Five Year VAM



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  
INTERNATIONAL – VANGUARD TOTAL INTERNATIONAL STOCK INDEX  
Periods Ending December, 2012**

**Portfolio Manager: Michael Perre**

**State's Participation in Fund: \$109,381,624  
Total Assets in Fund: \$13,840,000,000**

**Investment Philosophy  
Vanguard Total International Stock Index**

The fund seeks to track the 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. The fund assets are invested in the small, mid, and large cap common stocks included in the target index. The fund assets are allocated based on each region's weighting in the index.

**Staff Comments**

Long-term CIO, Gus Sauter retired; Tim Buckley, Managing Director, Vanguard veteran succeeds Sauter January 2013. Tracking error due to fair value pricing.

**Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	6.7%	5.7%
Last 1 year	18.3	17.0
Last 2 years	0.5	0.1
Last 3 years	3.9	3.5
Last 4 years	11.3	11.7
Last 5 years	-3.0	-3.2
Since Retention by SBI (7/11)	-1.7	-2.1

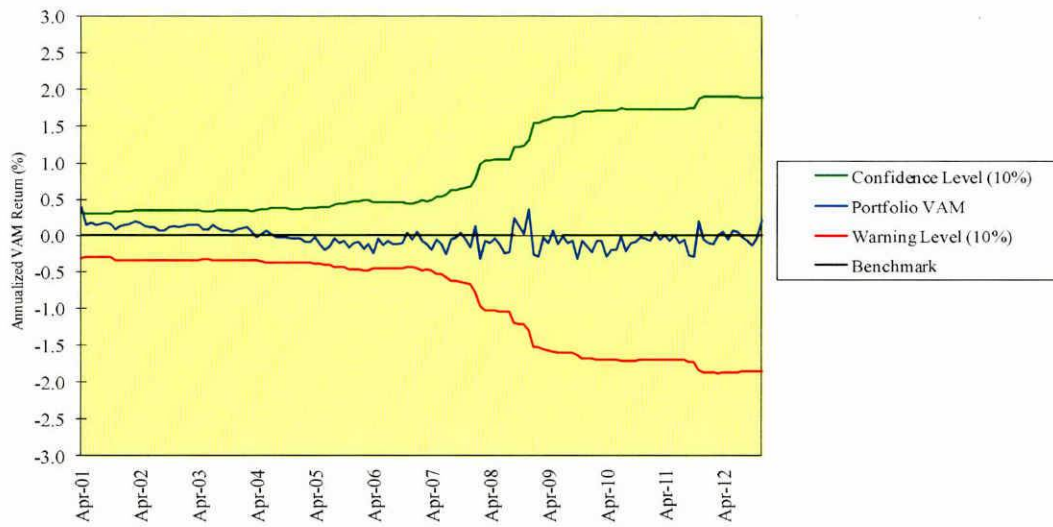
**Recommendation**

No action required.

Numbers in blue include returns prior to retention by SBI.

\* 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**



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



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

**Portfolio Manager: Various Index Fund Managers**      **State's Participation in Fund: \$108,049,377**  
**Total Assets in Fund: \$1,222,683,402**

**Investment Philosophy  
Target Retirement Funds**

The most important factor in determining the asset allocation mix is the time horizon of each fund. Funds with longer time horizons are assigned initial risk and return objectives which reflect the need to outpace inflation, the ability to take on more short-term volatility, and a reduced need for regular income. This results in larger starting equity allocations. Funds with shorter time horizons are assigned risk and return objectives that reflect a lower tolerance for volatility and an increased need for regular income, and therefore lower equity allocations.

The broad equity/fixed allocations are driven by the risk and return objectives for each fund. In determining the mix, the following factors are considered:

- The time horizon of each fund, which translates into a specific risk/return objective.
- SSgA current capital market assumptions and their impact on the forward looking risk/return of the portfolio.
- The need to differentiate the risk/return profiles for each portfolio so as to offer distinctly different options for plan participants.

**Staff Comments**

No tracking issues. No organizational concerns.

**Recommendation**

No action required.

**Targeted Asset Allocations: Rebalanced Quarterly**

Fund	Total Equity	Total Fixed Income	US		US Agg - Bonds	US High Yield Bonds	US Long-Term Gov't Bonds	Large US Stocks	Small/Mid Cap Stocks	Commodities	Non-US Stocks	Global REITs
			1-3 Yr Gov't Credit	US TIPS								
2060	90.0	10.0	0.0	0.0	0.0	0.0	10.0	38.9	17.3	3.5	30.3	0.0
2055	90.0	10.0	0.0	0.0	0.0	0.0	10.0	38.9	17.3	3.5	30.3	0.0
2050	90.0	10.0	0.0	0.0	0.0	0.0	10.0	38.9	17.3	3.5	30.3	0.0
2045	90.0	10.0	0.0	0.0	0.0	0.0	10.0	38.9	17.3	3.5	30.3	0.0
2040	85.0	15.0	0.0	0.0	5.0	0.0	10.0	38.4	15.0	3.5	28.1	0.0
2035	80.0	20.0	0.0	0.0	10.0	0.0	10.0	38.0	12.6	3.5	25.9	0.0
2030	72.5	27.5	0.0	2.1	12.5	2.9	10.0	35.5	10.4	3.5	23.1	0.0
2025	65.0	35.0	0.0	4.2	15.0	5.8	10.0	32.0	8.0	3.5	20.0	1.5
2020	52.5	47.5	0.0	6.5	25.0	6.0	10.0	25.2	5.4	3.5	14.4	4.0
2015	40.0	60.0	10.0	18.0	21.2	7.0	3.8	19.2	3.1	3.5	9.2	5.0
Income	35.0	65.0	20.0	18.0	20.0	7.0	0.0	15.8	3.0	3.5	7.7	5.0

Note: Totals may not add due to rounding.

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DATE: February 12, 2013

TO: Members, Investment Advisory Council

FROM: **John Griebenow**  
**J.J. Kirby**

Staff has reviewed the following information and action agenda items:

1. Review of current strategy.
2. New investment with one new private equity manager, Apax Partners.
3. Review of Core Open-End Real Estate Fund holdings with Prudential Real Estate Investors, UBS Realty, and Morgan Stanley.

**IAC action is required on the last two items.**

**INFORMATION ITEMS:**

**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.

#### **ACTION ITEMS:**

##### **1) Investment with a new private equity manager, Apax Partners (Apax), in Apax VIII.**

Apax is seeking investors for a new €9 billion private equity fund, Apax VIII. This fund is a successor to four flagship buyout funds managed by Apax. The SBI has never invested with Apax. Like the prior private equity funds, this fund will focus on buyouts in Europe and the U.S. in targeted sectors.

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

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

#### **RECOMMENDATION:**

**Staff recommends a commitment of \$200 million, or 20% of Apax VIII, whichever is less. Approval by the Investment Advisory Council of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Apax upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Apax or reduction or termination of the commitment.**

## **2) Review of Core Open-End Real Estate Fund holdings with Prudential Real Estate Investors, UBS Realty, and Morgan Stanley.**

At the inception of the SBI's alternative investment program in 1981, real estate as an asset in a broadly diversified institutional portfolio had exhibited characteristics which made it a desirable investment option for the SBI. These characteristics included the ability of real estate to provide additional diversification, an inflation hedge and attractive long-term rates of return. The determination was made by the SBI to make initial investments in open-end core real estate funds which would provide instant access to known, diversified, high quality real estate assets. These initial investments were made in Aetna's Real Estate Separate Account (now named UBS-Trumbull Property Fund), Equitable's Separate Account 8 (now named Morgan Stanley Prime Property Fund), and Prudential's PRISA fund. These open-end core real estate fund investments formed the initial foundation of the SBI's alternative investment allocation. The three investments were with, at the time, three of the largest and most established real estate funds of their kind in the market.

Today, the alternative investment allocation consists of these same three open-end real estate funds in addition to 160 closed-end funds in a wide variety of alternative investment strategies, including real estate, private equity, yield-oriented investments and resource investments. All together, the Combined Funds' open-end real estate investments are valued at \$565 million as of June 30, 2012, compared to total alternative investments of \$7.4 billion.

With the build-out of the SBI's alternative investment portfolio over the last 30 years, staff has re-examined the role and performance of the SBI's initial real estate investments in the three open-end core real estate funds. Staff analyzed the fit of open-end core real estate fund investments within the SBI's current alternative investment program by examining the performance of open-end core real estate funds relative to the SBI's goals and expectations.

Staff's evaluation of the open-end real estate funds' ability to achieve the goals and expectations that were assigned to them has yielded mostly disappointing results. The statistical analysis has shown that over time the SBI's core open-end real estate fund holdings have not consistently achieved the desired rate of return expectations on a nominal or real basis. The open-end real estate funds have provided some diversification benefits, but have proven to be inadequate inflation hedges. The open-end real estate funds did provide the Combined Funds with immediate access to the asset class when the initial investment was made, and they have also dampened the volatility of the Combined Funds.

In general, open-end core real estate funds seem better suited for investors starting an alternative investment program, given the instant access and liquidity these funds provide. The SBI's Alternative Investments Program, however, is no longer in a position in which liquidity is valued over total rate of return. These open-end real estate funds have, on the whole, provided far less risk-adjusted return than the Alternative investments aggregate.

**RECOMMENDATION:**

**Staff recommends divesting from all three core open-end real estate funds, based upon the conclusion that these investments are no longer suitable for the SBI Alternative Investment program. This divestment should be done at a measured pace by requesting withdrawals each quarter over the next three years, starting with PRISA and Prime Property, followed by UBS-Trumbull. This time frame will provide for an orderly wind-down of the open-end fund holdings and a dollar-cost average exit from the underlying assets. Staff further recommends that the funds generated from the liquidation of the open-end real estate fund holdings be reallocated to alternative investments broadly, subject to available investment opportunities.**



ATTACHMENT A

**Minnesota State Board of Investment**  
*Pooled Alternative Investments*  
*Combined Funds*  
*December 31, 2012*

Combined Funds Market Value \$49,469,081,720  
 Amount Available for Investment **\$2,633,655,971**

	<b>Current Level</b>	<b>Target Level</b>	<b>Difference</b>
Market Value (MV)	\$7,260,160,373	\$9,893,816,344	\$2,633,655,971
MV +Unfunded	\$11,045,434,056	\$14,840,724,516	\$3,795,290,461

<b>Asset Class</b>	<b>Market Value</b>	<b>Unfunded Commitment</b>	<b>Total</b>
Private Equity	\$4,039,594,024	\$2,222,759,265	\$6,262,353,289
Real Estate	\$1,221,070,365	\$268,208,672	\$1,489,279,037
Resource	\$984,137,778	\$605,931,487	\$1,590,069,264
Yield-Oriented	\$1,015,358,206	\$688,374,259	\$1,703,732,465
<b>Total</b>	<b>\$7,260,160,373</b>	<b>\$3,785,273,682</b>	<b>\$11,045,434,056</b>



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# ATTACHMENT B

## Minnesota State Board of Investment - Alternative Investments -

As of December 31, 2012

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>I. REAL ESTATE</b>								
<b>Blackstone</b>								
Blackstone Real Estate Partners V	100,000,000	96,786,582	114,448,116	34,242,120	4,417,812	8.96	1.54	6.68
Blackstone Real Estate Partners VI	100,000,000	96,822,705	116,284,658	18,084,321	5,435,393	8.30	1.39	5.75
Blackstone Real Estate Partners VII	100,000,000	42,745,673	44,633,235	3,277,920	57,254,327	15.35	1.12	N/A
<b>Colony Capital</b>								
Colony Investors II	80,000,000	78,482,328	2,600	90,022,404	1,517,672	4.68	1.15	17.75
Colony Investors III	100,000,000	100,000,000	4,396,600	167,834,385	0	14.58	1.72	15.00
<b>CSFB/ DLJ</b>								
CSFB Strategic Partners III RE	25,000,000	25,166,647	11,701,857	592,398	398,070	-14.48	0.49	7.50
CS Strategic Partners IV RE	50,000,000	48,534,804	31,102,487	7,111,348	2,053,409	-6.61	0.79	4.54
<b>Silverpeak Real Estate Partners</b>								
Silverpeak Legacy Pension Partners II	75,000,000	70,753,841	33,088,969	34,070,874	9,857,501	-1.32	0.95	7.50
Silverpeak Legacy Pension Partners III	150,000,000	66,143,137	27,552,916	0	83,274,488	-19.21	0.42	4.62
Prime Property Fund	40,000,000	40,000,000	274,244,396	0	0	6.41	6.86	31.23
PRISA Real Estate	9,111,000	9,111,000	9,517,879	398,825	0	8.91	1.09	1.01
<b>Retail Properties of America</b>								
Retail Properties of America A Common St	3,723	3,723	1,293	940	0	-73.03	0.60	0.78
Retail Properties of America, Class B2	1,864	1,864	1,293	54	0	-28.30	0.72	0.78
Retail Properties of America, Class B3	1,864	1,864	1,293	54	0	-28.30	0.72	0.78
<b>T.A. Associates Realty</b>								
Realty Associates Fund V	50,000,000	50,000,000	312,422	90,653,530	0	10.20	1.82	13.60
Realty Associates Fund VI	50,000,000	50,000,000	25,165,803	57,608,397	0	10.99	1.66	10.51
Realty Associates Fund VII	75,000,000	75,000,000	47,323,996	28,446,770	0	0.15	1.01	8.13
Realty Associates Fund VIII	100,000,000	100,000,000	67,391,600	5,058,686	0	-6.62	0.72	6.50
Realty Associates Fund IX	100,000,000	96,000,000	103,529,663	18,096,425	4,000,000	12.05	1.27	4.35
Realty Associates Fund X	100,000,000	0	0	0	100,000,000	N/A	0.00	0.84
UBS-Trumbull Property Fund	42,376,529	42,376,529	310,369,290	0	0	7.14	7.32	30.67
<b>Real Estate Total</b>	<b>1,346,494,979</b>	<b>1,087,930,696</b>	<b>1,221,070,365</b>	<b>555,499,451</b>	<b>268,208,672</b>		<b>1.63</b>	
<b>II. RESOURCE</b>								
<b>Apache Corp III</b>								
EnCap Energy	30,000,000	30,000,000	5,158,500	56,468,585	0	12.25	2.05	26.00
<b>EnCap Energy Capital Fund VII</b>								
EnCap Energy Capital Fund VII	100,000,000	85,170,461	30,398,989	96,327,132	15,382,282	19.98	1.49	5.50
EnCap Energy Capital Fund VIII	100,000,000	35,637,986	37,827,853	4,155,159	64,362,014	20.04	1.18	2.25
EnCap Energy Capital Fund IX	100,000,000	0	0	0	100,000,000	N/A	0.00	0.07
<b>Energy &amp; Minerals Group</b>								
NGP Midstream & Resources	100,000,000	95,493,964	100,843,446	66,305,300	4,817,059	20.87	1.75	5.75
The Energy & Minerals Group Fund III	100,000,000	40,236,023	37,821,137	88,215	59,763,977	-14.19	0.94	1.27
Energy Capital Partners II-A	100,000,000	49,323,919	57,594,229	5,080,856	54,616,614	15.39	1.27	2.45
<b>First Reserve</b>								
First Reserve Fund X	100,000,000	100,000,000	18,390,316	160,125,496	0	30.78	1.79	8.16
First Reserve Fund XI	150,000,000	149,318,555	125,439,832	42,999,746	681,445	3.46	1.13	6.03
First Reserve Fund XII	150,000,000	121,630,597	113,349,416	8,895,980	28,369,403	0.21	1.01	4.17
<b>NGP</b>								
Natural Gas Partners IX	150,000,000	129,111,388	138,970,123	24,268,243	18,228,421	10.28	1.26	5.19
NGP Natural Resources X	150,000,000	34,181,576	33,387,333	53,200	115,818,424	-4.37	0.98	1.22
<b>Sheridan</b>								
Sheridan Production Partners I	100,000,000	100,002,260	84,376,984	59,250,000	0	12.24	1.44	5.75
Sheridan Production Partners II	100,000,000	36,250,000	30,235,001	0	63,750,000	-26.52	0.83	2.25
<b>EIG Global Energy Partners</b>								
TCW Energy Partners XIV	100,000,000	99,402,333	76,176,227	55,244,190	15,211,103	11.42	1.32	5.70
Energy Partners XV	150,000,000	85,069,256	94,168,391	6,338,806	64,930,744	17.05	1.18	2.57
<b>Resource Total</b>	<b>1,780,000,000</b>	<b>1,190,828,317</b>	<b>984,137,778</b>	<b>585,600,908</b>	<b>605,931,487</b>		<b>1.32</b>	
<b>III. YIELD-ORIENTED</b>								
<b>Audax Mezzanine Fund III</b>								
Audax Mezzanine Fund III	100,000,000	42,437,637	38,804,012	5,531,791	57,562,363	5.67	1.04	2.74
<b>Citicorp Mezzanine III</b>								
Citicorp Mezzanine III	100,000,000	88,029,296	511,384	132,324,719	0	15.61	1.51	13.17
<b>DLJ Investment Partners</b>								
DLJ Investment Partners II	27,375,168	23,164,217	506,392	34,731,888	4,955,172	10.52	1.52	13.00
DLJ Investment Partners III	100,000,000	47,908,779	21,720,977	31,407,639	54,090,510	0.79	1.11	6.53
<b>Gold Hill Venture Lending</b>								
Gold Hill Venture Lending	40,000,000	40,000,000	7,709,216	50,491,994	0	8.99	1.46	8.26
Gold Hill 2008	25,852,584	23,525,851	23,931,037	8,506,138	2,326,732	15.70	1.38	4.50
<b>GS Mezzanine Partners</b>								
GS Mezzanine Partners II	100,000,000	100,000,000	326,058	131,871,972	0	7.09	1.32	12.84
GS Mezzanine Partners III	75,000,000	74,934,629	8,256,582	90,965,966	65,371	8.12	1.32	9.48
GS Mezzanine Partners 2006 Institutional	100,000,000	74,999,888	35,082,847	66,136,993	25,000,112	-1.41	1.35	6.74
GS Mezzanine Partners V	150,000,000	61,390,770	56,114,936	20,517,465	79,593,217	11.01	1.25	5.19
<b>Merit Capital Partners</b>								
William Blair Mezzan. Cap. Fd. III	60,000,000	57,633,241	5,070,898	103,358,263	2,366,759	15.16	1.88	13.00
Merit Mezzanine Fund IV	75,000,000	69,807,692	34,130,045	58,638,000	5,192,308	7.39	1.33	8.04
Merit Mezzanine Fund V	75,000,000	35,816,327	33,598,902	373,018	39,183,673	-4.17	0.95	3.04
<b>Merit Energy Partners</b>								
Merit Energy Partners B	24,000,000	24,000,000	58,317,593	129,692,669	0	24.77	7.83	16.50
Merit Energy Partners C	50,000,000	50,000,000	170,090,709	293,584,270	0	31.36	9.27	14.18
Merit Energy Partners D	88,000,000	70,938,303	106,851,353	208,890,579	0	23.32	4.45	11.60
Merit Energy Partners E	100,000,000	39,983,197	50,303,924	47,761,408	0	15.71	2.45	8.21
Merit Energy Partners F-II	100,000,000	57,841,607	44,084,563	19,273,487	42,158,394	2.61	1.10	6.77
Merit Energy Partners H	100,000,000	32,547,044	27,267,612	1,385,483	67,452,956	-17.28	0.88	1.91

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

As of December 31, 2012

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>Prudential Capital Partners</b>								
<i>Prudential Capital Partners I</i>	100,000,000	97,386,612	30,730,812	117,045,498	7,356,824	10.88	1.52	11.70
<i>Prudential Capital Partners II</i>	100,000,000	93,553,902	39,415,605	90,616,388	6,848,066	8.77	1.39	7.50
<i>Prudential Capital Partners III</i>	100,000,000	90,470,829	92,446,384	24,034,134	12,435,638	14.13	1.29	3.71
<i>Prudential Capital Partners IV</i>	100,000,000	2,979,662	3,285,695	738	97,020,338	9.41	1.10	0.95
<b>Summit Partners</b>								
<i>Summit Subordinated Debt Fund I</i>	20,000,000	18,000,000	78,348	31,406,578	2,000,000	30.54	1.75	18.75
<i>Summit Subordinated Debt Fund II</i>	45,000,000	40,500,000	3,452,446	87,489,642	4,500,000	56.28	2.25	15.42
<i>Summit Subordinated Debt Fund III</i>	45,000,000	42,690,965	20,512,060	33,870,368	2,850,000	8.59	1.27	8.88
<i>Summit Subordinated Debt Fund IV</i>	50,000,000	30,249,999	32,867,919	816,860	19,750,001	6.65	1.11	4.76
<b>TCW/Crescent Mezzanine Partners III</b>	75,000,000	68,868,042	5,340,591	156,103,491	29,701,079	36.09	2.34	11.76
<b>Windjammer Capital Investors</b>								
<i>Windjammer Mezzanine &amp; Equity Fund II</i>	66,708,861	52,082,565	9,995,609	67,156,653	14,372,929	8.31	1.48	12.75
<i>Windjammer Senior Equity Fund III</i>	75,000,000	64,335,083	54,133,752	48,074,624	13,256,327	16.42	1.59	6.99
<i>Windjammer Senior Equity Fund IV</i>	100,000,000	1,664,510	419,944	0	98,335,490	-86.57	0.25	0.85
<b>Yield-Oriented Total</b>	<b>2,366,936,613</b>	<b>1,617,740,648</b>	<b>1,015,358,206</b>	<b>2,092,058,718</b>	<b>688,374,259</b>		<b>1.92</b>	
<b>IV. PRIVATE EQUITY</b>								
<b>Adams Street Global Secondary Fund 5</b>	100,000,000	5,700,000	7,951,481	0	94,300,000	34.82	1.39	0.54
<b>Advent International</b>								
<i>Advent International GPE VI-A</i>	50,000,000	47,125,005	56,513,687	6,834,035	2,874,995	15.28	1.34	4.75
<i>Advent International GPE VII</i>	90,000,000	13,635,000	13,635,000	0	76,365,000	-0.81	1.00	0.29
<b>Affinity Ventures</b>								
<i>Affinity Ventures IV</i>	4,000,000	4,000,000	2,300,133	1,541,970	0	-1.23	0.96	8.50
<i>Affinity Ventures V</i>	5,000,000	3,800,000	3,138,487	814,728	1,200,000	1.60	1.04	4.50
<b>Banc Fund</b>								
<i>Banc Fund VII</i>	45,000,000	45,000,000	28,488,825	812,725	0	-7.14	0.65	7.75
<i>Banc Fund VIII</i>	98,250,000	64,845,000	73,196,323	0	33,405,000	7.55	1.13	4.68
<b>Blackstone</b>								
<i>Blackstone Capital Partners IV</i>	70,000,000	71,910,169	44,915,499	132,566,103	2,361,139	38.01	2.47	10.47
<i>Blackstone Capital Partners V</i>	140,000,000	129,997,627	122,690,121	18,408,494	11,925,078	1.16	1.09	6.91
<i>Blackstone Capital Partners VI</i>	100,000,000	19,572,271	22,394,122	106,356	80,427,730	4.91	1.15	4.44
<b>BLUM Capital Partners</b>								
<i>Blum Strategic Partners I</i>	50,000,000	49,158,307	117,191	99,450,576	2,009,928	12.69	2.03	14.03
<i>Blum Strategic Partners II</i>	50,000,000	40,185,889	1,623,311	87,143,085	2,127,584	22.34	2.21	11.46
<i>Blum Strategic Partners III</i>	75,000,000	74,806,485	15,758,360	56,282,692	193,515	-2.45	0.96	7.58
<i>Blum Strategic Partners IV</i>	150,000,000	147,168,674	82,531,915	30,436,993	15,258,645	-6.73	0.77	5.12
<b>Carval Investors</b>								
<i>CVI Global Value Fund</i>	200,000,000	190,000,000	146,251,719	122,498,203	10,000,000	7.98	1.41	5.97
<i>CarVal Credit Value Fund I</i>	100,000,000	95,000,000	123,892,920	63,000	5,000,000	18.30	1.30	2.25
<i>CarVal Credit Value Fund II</i>	150,000,000	0	0	0	150,000,000	N/A	0.00	0.17
<b>Chicago Growth Partners</b>								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	6,440,185	63,741,199	1,650,000	9.06	1.46	11.82
<i>Chicago Growth Partners I</i>	50,000,000	51,891,998	33,168,665	32,588,932	850,000	6.78	1.27	7.44
<i>Chicago Growth Partners II</i>	60,000,000	48,783,309	45,387,698	19,328,440	10,964,691	15.16	1.33	4.81
<b>Court Square Capital</b>								
<i>Court Square Capital Partners</i>	100,000,000	80,271,218	3,855,849	177,179,433	10,528,927	28.95	2.26	11.06
<i>Court Square Capital Partners II</i>	175,000,000	158,692,575	181,284,647	34,620,619	17,947,631	10.60	1.36	6.32
<i>Court Square Capital Partners III</i>	175,000,000	31,183,047	31,026,022	164,288	143,816,953	0.05	1.00	0.58
<b>Crescendo</b>								
<i>Crescendo III</i>	25,000,000	25,000,000	753,922	10,854,713	0	-12.86	0.46	14.15
<i>Crescendo IV</i>	101,500,000	101,500,000	13,646,674	28,270,880	0	-9.55	0.41	12.81
<b>CSFB/ DLJ</b>								
<i>DLJ Merchant Banking Partners III</i>	125,000,000	121,661,834	23,625,175	251,112,952	3,338,166	19.21	2.26	12.25
<i>DLJ Strategic Partners</i>	100,000,000	94,982,875	7,620,622	165,390,543	3,467,125	22.52	1.82	11.95
<i>CSFB Strategic Partners II-B</i>	100,000,000	83,911,102	8,050,790	151,818,994	10,288,898	35.36	1.91	9.46
<i>CSFB Strategic Partners III VC</i>	25,000,000	24,045,841	13,579,087	17,218,612	954,159	6.43	1.28	7.58
<i>CSFB Strategic Partners III-B</i>	100,000,000	76,386,415	66,240,437	38,343,909	16,771,489	6.39	1.37	7.58
<i>CS Strategic Partners IV-B</i>	100,000,000	86,288,724	75,161,767	49,342,383	13,711,276	14.02	1.44	4.77
<i>CS Strategic Partners IV VC</i>	40,500,000	37,116,846	34,336,650	16,071,624	3,218,260	11.07	1.36	4.54
<i>CS Strategic Partners V</i>	100,000,000	43,972,714	51,702,187	6,217,305	56,027,286	68.85	1.32	1.37
<b>CVC European Equity Partners V</b>	131,840,025	93,210,671	92,964,308	29,956,449	19,861,409	12.33	1.32	4.77
<b>Diamond Castle Partners IV</b>	100,000,000	89,086,053	81,120,915	23,831,659	10,954,432	3.84	1.18	6.31
<b>DSV Partners IV</b>	10,000,000	10,000,000	32,194	39,196,082	0	10.61	3.92	27.73
<b>EBF and Associates</b>								
<i>Merced Partners II</i>	75,000,000	63,768,881	17,953,028	103,167,143	0	24.88	1.90	5.75
<i>Merced Partners III</i>	100,000,000	70,000,000	78,802,920	0	30,000,000	6.61	1.13	2.65
<i>Elevation Partners</i>	75,000,000	68,595,072	30,980,792	59,599,863	12,490,518	7.76	1.32	7.62
<b>Fox Paine Capital Fund II</b>	50,000,000	45,719,869	15,657,801	73,394,027	12,532,969	19.95	1.95	12.50
<b>GHJM Marathon Fund</b>								
<i>GHJM Marathon Fund IV</i>	40,000,000	39,051,000	485,415	57,012,488	949,000	8.35	1.47	13.71
<i>GHJM Marathon Fund V</i>	50,000,000	49,277,860	53,635,988	30,980,949	798,851	11.90	1.72	8.25
<i>TrailHead Fund</i>	20,000,000	6,287,464	5,954,561	0	13,712,536	-9.80	0.95	0.85
<b>Golder, Thoma, Cressy, Rauner Fund IV</b>	20,000,000	20,000,000	77,624	42,300,018	0	25.06	2.12	18.92
<b>GS Capital Partners</b>								
<i>GS Capital Partners 2000</i>	50,000,000	50,000,000	5,912,850	102,748,177	0	22.45	2.17	12.33
<i>GS Capital Partners V</i>	100,000,000	66,390,364	50,023,523	104,532,874	26,041,099	15.32	2.33	7.75
<i>GS Capital Partners VI</i>	100,000,000	66,705,766	47,067,637	25,342,507	25,461,228	0.05	1.09	5.91



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

As of December 31, 2012

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<b>GTCR Golder Rauner</b>								
<i>GTCR VI</i>	90,000,000	90,000,000	717,312	77,813,800	0	-4.93	0.87	14.50
<i>GTCR VII</i>								
<i>GTCR Fund VII</i>	131,250,000	129,390,615	543,647	306,551,141	1,859,375	21.93	2.37	12.90
<i>GTCR Fund VII-A</i>	43,750,000	29,859,374	176,063	80,771,585	13,890,626	82.03	2.71	11.95
<i>GTCR IX</i>	75,000,000	69,539,933	61,218,808	31,590,915	5,460,067	9.94	1.33	6.50
<i>GTCR X</i>	100,000,000	61,448,604	59,749,059	0	38,551,396	-3.83	0.97	2.06
<b>Hellman &amp; Friedman</b>								
<i>Hellman &amp; Friedman Capital Partners V</i>	160,000,000	145,400,966	79,580,557	288,026,934	16,632,056	27.38	2.53	8.08
<i>Hellman &amp; Friedman Capital Partners VI</i>	175,000,000	167,607,319	96,131,345	118,713,667	8,515,300	5.95	1.28	5.75
<i>Hellman &amp; Friedman Capital Partners VII</i>	50,000,000	14,650,828	12,252,678	1,388,758	35,349,172	-7.01	0.93	3.70
<b>Kohlberg Kravis Roberts</b>								
<i>KKR 1996 Fund</i>	200,000,000	199,902,841	126,241	374,566,859	0	13.17	1.87	16.33
<i>KKR Millennium Fund</i>	200,000,000	200,000,000	138,389,926	240,460,494	0	16.42	1.89	10.06
<i>KKR 2006 Fund</i>	200,000,000	200,371,411	153,513,286	111,214,088	12,932,787	6.47	1.32	6.26
<b>Green Equity Investors VI</b>	200,000,000	18,648,286	18,648,286	508,257	181,351,714	3.42	1.03	0.80
<b>Lexington Capital Partners</b>								
<i>Lexington Capital Partners VI-B</i>	100,000,000	95,279,295	63,485,531	57,367,984	4,720,705	6.98	1.27	7.02
<i>Lexington Capital Partners VII</i>	200,000,000	111,494,768	111,488,928	29,545,837	88,505,232	21.36	1.26	3.55
<b>RWI Ventures</b>								
<i>RWI Group III</i>	616,430	616,430	34,868	526,806	0	-3.25	0.91	6.51
<i>RWI Ventures I</i>	7,603,265	7,603,265	541,361	5,974,262	0	-5.27	0.86	6.51
<b>Sightline Healthcare</b>								
<i>Sightline Healthcare Fund III</i>	20,000,000	20,000,000	2,216,141	5,465,766	0	-10.93	0.38	13.94
<i>Sightline Healthcare Fund IV</i>	7,700,000	7,753,673	2,370,897	4,621,834	0	-2.85	0.90	9.27
<b>Silver Lake Partners</b>								
<i>Silver Lake Partners II</i>	100,000,000	89,314,415	54,610,781	84,695,591	11,681,453	9.61	1.56	8.50
<i>Silver Lake Partners III</i>	100,000,000	73,401,330	63,525,191	43,976,513	27,334,097	16.48	1.46	5.75
<i>Silver Lake Partners IV</i>	100,000,000	0	0	0	100,000,000	N/A	0.00	0.26
<b>Split Rock Partners</b>								
<i>Split Rock Partners</i>	50,000,000	44,799,999	34,051,816	597,892	5,200,001	-6.04	0.77	7.67
<i>Split Rock Partners II</i>	60,000,000	24,960,000	20,465,791	479,262	34,340,000	-8.98	0.84	4.68
<b>Summit Partners</b>								
<i>Summit Ventures V</i>	25,000,000	24,125,000	304,825	32,936,046	875,000	8.06	1.38	14.75
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	7,000,000	6,757,730	0	93,000,000	-4.74	0.97	1.66
<b>T. Rowe Price</b>	45,602,320	45,602,320	20,859,422	15,244,941	0	-23.58	0.79	6.43
<b>Thoma Cressey</b>								
<i>Thoma Cressey Fund VI</i>	35,000,000	33,915,000	4,687,495	30,693,447	1,085,000	0.50	1.04	14.37
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	16,308,510	85,422,640	0	23.72	2.03	12.35
<i>Thoma Cressey Fund VIII</i>	70,000,000	68,932,574	74,157,626	77,541,167	770,000	16.03	2.20	6.67
<b>Thomas, Mc Nerney &amp; Partners</b>								
<i>Thomas, Mc Nerney &amp; Partners I</i>	30,000,000	28,950,000	14,471,437	10,504,694	1,050,000	-3.44	0.86	10.15
<i>Thomas, Mc Nerney &amp; Partners II</i>	50,000,000	42,875,000	38,310,400	6,240,826	7,125,000	1.31	1.04	6.50
<b>Varde Fund</b>								
<i>Varde Fund IX</i>	100,000,000	100,000,000	108,474,428	54,893,193	0	12.51	1.63	4.52
<i>Varde Fund X</i>	150,000,000	142,500,000	161,866,890	0	7,500,000	7.63	1.14	2.70
<b>Vestar Capital Partners</b>								
<i>Vestar Capital Partners IV</i>	55,000,000	52,761,494	9,315,761	84,094,802	746,945	13.38	1.77	13.05
<i>Vestar Capital Partners V</i>	75,000,000	73,865,049	53,029,292	22,488,956	1,460,180	0.58	1.02	7.04
<i>Vestar Capital Partners VI</i>	100,000,000	1,472,711	1,472,711	0	98,527,289	0.00	1.00	1.27
<b>Warburg Pincus</b>								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	3,675,852	157,951,853	0	9.97	1.62	14.52
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,000,000	82,697,210	141,560,275	0	15.80	2.24	10.71
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	90,070,885	73,904,388	0	10.08	1.64	7.43
<i>Warburg Pincus Private Equity X</i>	150,000,000	146,910,914	145,185,139	23,668,047	3,150,000	5.01	1.15	5.19
<i>Warburg Pincus Private Equity XI</i>	200,000,000	0	0	0	200,000,000	N/A	0.00	0.03
<b>Wayzata</b>								
<i>Wayzata Opportunities Fund</i>	100,000,000	93,180,000	78,124,478	84,939,109	6,820,000	9.85	1.75	7.03
<i>Wayzata Opportunities Fund II</i>	150,000,000	57,450,000	134,640,215	11,529,900	92,550,000	14.51	2.54	5.19
<i>Wayzata Opportunities Fund III</i>	150,000,000	0	0	0	150,000,000	N/A	0.00	0.54
<b>Welsh, Carson, Anderson &amp; Stowe</b>								
<i>Welsh, Carson, Anderson &amp; Stowe VIII</i>	100,000,000	100,000,000	654,245	128,163,520	0	3.10	1.29	14.44
<i>Welsh, Carson, Anderson &amp; Stowe IX</i>	125,000,000	123,750,000	37,717,203	167,761,205	1,250,000	11.65	1.66	12.51
<i>Welsh, Carson, Anderson &amp; Stowe X</i>	100,000,000	97,578,466	86,788,918	36,892,636	3,000,000	4.92	1.27	7.04
<i>Welsh, Carson, Anderson &amp; Stowe XI</i>	100,000,000	66,259,646	74,235,808	4,310,834	33,740,354	10.04	1.19	4.45
<b>Private Equity Total</b>	<b>8,557,612,040</b>	<b>6,313,007,451</b>	<b>4,039,594,024</b>	<b>5,426,886,747</b>	<b>2,222,759,265</b>		<b>1.50</b>	
<b>Alternatives Total</b>	<b>13,801,043,632</b>	<b>10,209,507,112</b>	<b>7,260,160,373</b>	<b>8,660,045,824</b>	<b>3,535,273,682</b>		<b>1.56</b>	

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





<b>PRIVATE EQUITY MANAGER SUMMARY PROFILE</b>
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**I. Background Data**

<b>Name of Fund:</b>	Apax VIII
<b>Type of Fund:</b>	Private Equity
<b>Target Fund Size:</b>	€9 billion
<b>Fund Manager:</b>	Apax Partners, LLP as adviser to ApaxVIII GP L.P. Inc, the General Partner
<b>Manager Contact:</b>	David Kim Apax Partners, L.P. 601 Lexington Avenue 53rd Floor New York, NY 10022 Telephone: 212 753 6300

**II. Organization and Staff**

The history of Apax is interwoven with the development of the private equity asset class in Europe and the US. Throughout its 30 year history, Apax has successfully raised and advised 30 funds which have invested across all investment stages, and through several economic cycles.

Apax was born as a venture capital business and in its early years, during the 1980s and early 1990s, pioneered venture investing in Europe and in the US. This is when Apax started to specialise in specific sectors and to focus on driving growth in portfolio companies. This is also the period when country funds were raised (Germany, Israel, the UK and the US).

From 1993, Apax started to invest in buy-outs and raised 'balanced funds' with a growing portion of buy-outs rather than venture capital. At the same time, country teams were being merged and regional rather than domestic funds were raised. The first Buy-out Fund, Apax Europe V, was raised in 2001 with 79% of its capital invested in buy-outs. Apax no longer invests in venture capital but has retained a very strong focus on sector expertise, growth and the operational rather than financial backgrounds of its investment professionals.

The Apax team currently consists of approximately 300 people worldwide, of whom 109 are investment professionals. Apax's international presence, with eight offices across Europe, America and Asia and a team with 25 nationalities provides it with local knowledge to source and execute transactions. The Investment Adviser is 90% owned by the 16 partners. The remaining 10% is owned by three sovereign wealth funds who are strategically important business partners for Apax in the Asian markets.

### **III. Investment Strategy**

Apax is seeking to raise Fund VIII to continue its proven strategy of investing in buy-outs in the €1-5bn enterprise value range across five sectors:

- Financial & Business Services
- Healthcare
- Media
- Retail & Consumer
- Tech & Telecom

Apax's sector strategy, combined with its global platform and local knowledge has consistently generated unique investment opportunities. The vast majority of investments made by predecessor funds raised over the last ten years ("Buy-out Funds") were executed through proprietary or limited competition processes. Apax intends to invest the majority of the Fund in European or North American investments.

### **IV. Investment Performance**

Previous fund performance as of September 30, 2012 for Apax and the SBI's investments with previous funds, where applicable, is shown below:

<b>Fund</b>	<b>Inception Date</b>	<b>Total Commitments</b>	<b>SBI Investment</b>	<b>Net IRR from Inception*</b>	<b>Net MOIC from Inception*</b>
Apax Europe VII	2007	€11.2 billion		6.2%	1.2
Apax US VII	2006	\$856 million		13.1%	1.6
Apax Europe VI	2005	€4.3 billion		9.5%	1.4
Apax Europe V	2001	€4.4 billion		28.6%	1.9

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

### **V. General Partner's Investment**

The General Partner will procure that persons connected to the Investment Adviser (either themselves or vehicles through which they invest) will invest in and/or alongside the Fund an amount equal to at least €400 million (the "Apax Commitment") or 4.5% of the Fund's €9.0bn target.

### **VI. Management Fee**

1.5% of capital committed to the Fund, declining after the investment period as the portfolio is liquidated.



## **VII. Distributions**

80% of realized profits to the Limited Partners and 20% to the General Partner, subject to an 8% preferred return to the Limited Partners.

## **VIII. Investment Period and Term**

The Fund will have a term of 10 years, subject to possible extension.

The Investment Period will last for a period of six years, subject to possible extension.

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



TAB

E

DATE: February 12, 2013

TO: Members, Investment Advisory Council

FROM: LeaAnn Stagg, Manager, Public Programs  
Mike Menssen, Manager, Long-Term Debt

**SUBJECT: Swaps**

Staff is requesting input from the IAC on the attached memo concerning the swap market.

The following options will be discussed:

- 1) Have legislation introduced to allow the SBI to purchase swaps.
- 2) Request additional information
- 3) Wait until the final rules and regulations have been implemented before making a decision on legislation.
- 4) Other



## SWAPS

Staff is researching the swaps market to determine whether access to the swaps market would be beneficial to the SBI in regards to obtaining market exposure, additional potential excess returns, and risk management. If it is determined that access to the swaps market will materially benefit the SBI, staff will recommend that a bill be submitted during the current session to receive legislative approval to invest in the swap market.

Historically, the SBI has not invested in the swaps market because swaps are not traded "on a contract market regulated by a governmental agency or by a financial institution regulated by a governmental agency" (11A.24, subdivision 1). In addition, staff has had other concerns about the swaps market:

- 1) Swaps are traded on the over-the-counter (OTC) market through individually negotiated bilateral contracts that have no central clearinghouse which subjects the SBI to counterparty risk.
- 2) Swaps have no standardized margin requirements.
- 3) Swap prices have limited transparency.

Staff has determined that the swaps market could provide benefits to the SBI going forward due to the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act that provides for new federal regulation by the SEC and the CFTC. The most significant changes being made by the Dodd-Frank Act are the following:

- 1) Standardized swaps will be traded on a Swap Execution Facility (SEF) and cleared through a central counterparty (CCP) to mitigate counterparty risk.
- 2) Standardized margin requirements for swaps cleared through a CCP and for all bilateral contracts will be required.
- 3) Central trades repository reporting requirement will provide greater price transparency.

Staff currently believes that the final implementation of the Dodd-Frank Act could alleviate most of staffs' concerns about the swaps market.

The CFTC and the SEC are in the process of implementing the Dodd-Frank Act. The following is staffs' understanding of the current status of the regulations:

- 1) Interest rate swaps and credit index swaps (CDX swaps) will start to be cleared in March 2013 and will be phased in through September 2013.
- 2) A central clearinghouse can submit an application to the appropriate regulatory agency to clear a new swap. The regulatory agency has a review process that takes about 120 days to determine whether the application will be approved.



- 3) Regulations for the SEF's have not been released yet. The CFTC is scheduled to release them the third week of February for the start of the review process that will take at least 120 days.
- 4) Client suitability and monitoring/reporting of trade activity regulations were effective as of January 1, 2013.
- 5) The collateral required for clearing swap agreements will be materially higher than what is generally required for the futures market.
- 6) Rules and regulations related to SEF's and central clearing for total return swaps has not been determined.

If staff were to receive approval to invest in the swap market, some of the potential uses within the SBI portfolio will be:

- 1) Exposure to asset classes could be adjusted. Swaps could be used to adjust the asset allocation of a fund to gain or reduce exposure to particular markets. Total rate of return swaps could be used to gain exposure to the emerging international market where tax treatment, capital controls, and registration requirements make it difficult in the cash markets. Total return swaps could also be used to rebalance a fund without having to trade the actual physical securities. If a fund is overweighted to domestic equities and underweighted to domestic fixed income relative to its policy weights, staff could rebalance by selling a Russell 3000 swap and buying a swap tied to the Barclay's Aggregate. Another use of a total return swap would be to reduce the cash drag at the fund level. Staff could eliminate the need to include a cash allocation in a fund asset allocation policy but still hold cash in the fund by covering the fund with a total return swap tied to the appropriate asset class target.
- 2) A manager could gain exposure to various parts of the market and individual securities. By trading in index swaps a manager could increase or decrease its exposure to a particular part of the market. For example, a fixed income manager could decrease its exposure to the investment grade credit market by selling a swap tied to the IG Index, while maintaining exposure to individual credits that the manager feels are undervalued. Also, a manager could gain exposure to an individual credit by purchasing a credit default swap when the bond is difficult to obtain in the cash market.
- 3) A manager could adjust the duration of a fixed income portfolio by using an interest rate swap to increase or decrease the duration on some part of the interest rate curve. By paying a fixed rate and receiving a floating rate or the reverse of that transaction, a manager could decrease or increase the portfolio duration.

The rules and regulations related to the new swap market are evolving. The SBI is requesting guidance from the IAC as it considers the most appropriate next steps related to swaps.

**TAB**

**F**

DATE: February 12, 2013

TO: Members, Investment Advisory Council

FROM: LeaAnn Stagg, Manager, Public Programs  
Mike Menssen, Manager, Long-Term Debt

**SUBJECT: SBI Risk Management Program**

In response to a request by the IAC, the SBI staff has consolidated its overall risk management approach in the attached Risk Management paper. This paper represents an integration of the risk management strategies and procedures that occur in SBI's entire investment process but were previously documented in separate policy papers.

Please review and provide any comments related to this to the SBI.

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## **Risk Management**

The SBI invests the Combined Funds in various asset classes in order to pay future promised pension benefits. Investing involves market and non-market risks. Market risk involves asset class returns, volatility and correlations that vary over time. Market risk also includes interest rate risk and credit risk among others. Interest rates and credit spreads, for example, vary with unpredictable economic events and business cycles. Because market risk is inherent to investing and cannot be avoided, managing this risk is central to all of the SBI's risk management efforts documented in this policy.

The SBI manages market risk by investing in multiple assets classes that historically have performed differently under varying market conditions. This approach provides diversification and minimizes short-term volatility. Given the statutorily prescribed return of 8.0 percent required to meet the expected pension liabilities and the long-term performance expectations of the capital markets, the SBI must invest a high proportion of its assets in equity-like investments. Within the context of this high required allocation to equities, the SBI diversifies its investment portfolio by allocating to bonds and alternative investments which lower the year-to-year return volatility.

In addition to managing market risk, the SBI dedicates significant resources to managing non-market risks, which include governance, legal, accounting and operational risks. A policy making board comprised of four of the state's constitutional officers, along with fiduciary responsibility and investment authority prescribed in state law, form the foundation for a strong governance and risk control system at the SBI. In executing its investment strategy, the SBI has implemented robust internal controls which include: a complete separation of the investment management and asset custody functions; the segregation of duties between asset management and accounting staff; the timely reconciliation of account positions; external audits by the legislative auditors; and checks and balances by outside consultants, the Investment Advisory Council and the Attorney General's office.

As discussed in this paper, a strong governance structure with a fiduciary emphasis, documented investment policies and processes, a disciplined approach to strategic asset allocation and asset class rebalancing and robust internal controls reinforce each other and support the management of market and non-market investment risks. This approach enhances the probability that the prescribed return is met over the long run and that sufficient funds are available to finance future promised pension benefits. This comprehensive risk management approach is applied to the non-retirement funds managed by the SBI as well.

Because it forms the framework for the SBI's overall risk management approach, the legal and governance structure is discussed first. The paper then details critical components of the SBI's risk management approach in its investment process. Finally, this paper sets forth the key elements of accounting and operational internal controls at the SBI.



## **Constitutional and Legal Authority and Fiduciary Education**

### **A. Constitutional and Legal Authority**

The Minnesota State Board of Investment (SBI) is established by Article XI, section 8 of the Minnesota Constitution.

All activity of the SBI is governed by *Minnesota Statutes (M.S.)*, Chapters 11A and 356A. Section 11A.01 sets forth a statement of purpose for the SBI:

“to ensure that state and pension assets... will be responsibly invested to maximize the total rate of return without incurring undue risk.”

The SBI's duties and powers are set forth in *M.S.* section 11A.04. The SBI is responsible for the formulation of policies and procedures it deems necessary and appropriate to carry out the functions of the SBI. The SBI retains an executive director whose duties and powers are set forth in section 11A.07. The SBI has the authority to undertake any other activity necessary to implement its duties and powers.

Section 11A.09 (and section 356A.04) sets forth the prudent person rule as the SBI's fiduciary standard.

### **B. Fiduciary Education**

In compliance with 356A.13, the SBI has developed and periodically revises a program for the continuing education of Board members and any of their chief administrative officers with respect to their activities as fiduciaries. The program has been designed to provide those persons with knowledge and skills sufficient to enable them to perform their fiduciary activities adequately.

## **Governance Structure**

The SBI benefits from the supervision and oversight exercised by a number of entities. These entities perform valuable oversight functions that serve as outside checks on the business operations of the SBI and provide strong governance and risk control over the investment activities of the SBI.

### **A. Board**

The State Board of Investment consists of the governor, the state auditor, the secretary of state, and the attorney general. Its purpose is to administer and direct the investment of all state funds.

## **B. Legislature**

The powers, duties, responsibilities and investment authority of the SBI are set forth in statute and may only be changed by legislative action. As stated previously, all activities of the SBI are governed by statute. When the Legislature makes changes in the governing statutes, the SBI adapts its policies and practices to conform. Any modifications to the investment authority of the SBI must be approved by the Legislature.

## **C. Attorney General**

The Office of the Attorney General serves as legal counsel to the SBI for review and negotiation of contracts, and for any other matters that require legal counsel.

## **D. Investment Advisory Council**

*M.S.*, section 11A.08 creates an Investment Advisory Council (IAC) consisting of 17 members. Ten of the IAC members, appointed by the SBI, are experienced in general investment matters. The Commissioner of Minnesota Management & Budget as well as the Executive Directors of MSRS, PERA and TRA are ex-officio members. Two active employee representatives as well as one retired employee are appointed by the Governor.

Each quarter, the IAC reviews investment subjects relevant to the SBI's decision-making and adopts recommendations for SBI consideration. The chair presents the report and recommendations of the Council at the quarterly meetings of the Board.

## **E. Consultants**

The SBI employs consultants to assist the Board, the IAC and Staff in the formulation and implementation of its policies. Currently the SBI has two consultants under contract.

- Callan Associates is the SBI's general consultant. Callan's responsibility is to provide the SBI and Staff with advice and resources to enable the SBI to continue to develop and enhance its investment program. In addition, Callan is responsible for attending IAC and Board meetings as well as maintaining direct communication with Board members, Staff and the IAC.
- Pension Consulting Alliance is the SBI's special projects consultant. PCA's responsibility is to assist with advice and resources as needed for ad hoc topics.

## **F. SBI Committees**

The Board meets quarterly with representatives from Staff, the IAC and the Consultant to review performance and associated investment issues of the funds. In addition, the SBI has established committees to facilitate the implementation and development of its policies and to make recommendations to the Board on various investment and administrative issues under its control.



- Administrative Committee

The Administrative Committee is comprised of a designee of each Board member, the directors of each statewide retirement system and the chair and vice chair of the IAC. The primary responsibility of the Committee is to review and make recommendations to the Board concerning Staff's annual Management and Budget Plan.

- Proxy Voting Committee

The SBI recognizes its fiduciary responsibility concerning proxy issues and delegates proxy voting responsibility to its Proxy Voting Committee. The Committee is comprised of a designee of each Board member. The Committee has formulated guidelines by which it votes on a wide range of corporate governance and social responsibility issues.

- Deferred Compensation Review Committee

The Deferred Compensation Review Committee is comprised of a designee of each Board member and the directors of each statewide retirement plan. The primary responsibility of the Committee is to review and make recommendations to the SBI related to the investment options and operations of the State's deferred compensation plan.

- Ad-Hoc Committees

The SBI has formed ad-hoc committees as necessary for various purposes. Membership on these committees has included a designee of each Board member and others as appropriate. Examples have been search committees for the purposes of retaining a general consultant and the retention of a custodian bank.

## **Investment Process**

### **A. Investment Objectives**

#### **Combined Funds**

Investment objectives provide a set of long-term goals for managing the assets of the Combined Funds. The SBI has two long-term objectives for the Combined Funds.

1. Match or exceed over a ten year period a composite market index weighted in a manner that reflects the long-term asset allocation of the Combined Funds.
2. Provide returns that are three to five percentage points greater than inflation over the latest twenty year period.



### **Non-Retirement Funds**

The investment objective for each of the non-retirement funds varies depending on the risk and return expectations for each fund.

### **B. Policy Papers**

Over the years the SBI has published position papers documenting various investment policies. The purpose of these papers is to provide background information and define investment processes and administrative procedures for various assets that the SBI manages. The papers cover subjects such as asset allocation, asset class target and structure, internal cash management, alternative assets, and non-retirement funds.

### **C. Asset Allocation Policy**

The SBI determines the overall investment strategy for the Combined Funds and each of the non-retirement funds that it is responsible for through a strategic asset allocation policy. The asset allocation for each fund will reflect the risk and return expectations for that fund and may include allocations to domestic equity, international equity, fixed income, alternative assets, and cash equivalents.

### **D. Manager Structure**

The risk level of the Domestic Equity, International Equity, and Fixed Income programs is managed by using a multi-manager approach and setting an allocation among active, semi-passive, and passive management styles. The objective of each management structure is to balance the goal of adding value to the asset class target relative to the risk incurred with the structure implemented.

### **E. Benchmarks**

The SBI assigns benchmarks for each of its public security asset classes and each manager within those asset classes. A benchmark for each asset class will reflect the fund's return objectives and risk tolerance for that asset class by incorporating the appropriate range of investment opportunities and any constraints of the SBI. Benchmarks are assigned to each manager in the public security asset classes that represent the potential investments and risk arising from the manager's specific investment strategy.

The SBI monitors the actual portfolios relative to the appropriate benchmarks to make sure that the portfolios stay within appropriate risk tolerances.

### **F. Investment Guidelines**

In addition to assigning each manager a benchmark, the SBI also gives each individual asset manager a specific set of investment guidelines. These guidelines provide a set of parameters that the manager must follow in managing the SBI portfolio. The guidelines provide a level of risk control by defining limitations such as allowable investments, concentration limits, and ratings restrictions to which the manager must adhere.

To monitor the guidelines, Staff has implemented a guideline compliance system that produces a monthly report for each manager. Staff reviews each report and investigates and takes any corrective action needed for any violation cited in the report.

### **G. Rebalancing**

The SBI follows a disciplined approach to rebalancing to maintain the asset allocation policy of the Combined Funds and each non-retirement fund under SBI's control. When actual asset allocation deviates 5 percent or more from the target allocation, Staff may redistribute assets to achieve the target allocation. If the actual asset allocation deviates 10 percent or more, assets must be redistributed among the asset classes to achieve the target allocation.

### **H. Manager Retention Policy**

In order to make informed judgments regarding the current capabilities of the Board's managers, the SBI has developed a set of specific evaluation guidelines which assists the Board in its decisions concerning retention and termination of asset managers. The Manager Retention Policy includes both qualitative and quantitative evaluation criteria that provide several benefits to the process:

- It encourages a comprehensive and consistent applied analysis.
- It creates a long-term outlook toward performance evaluation.
- It communicates investment objectives between the Board, its investment managers and Staff.

In addition, Staff uses the same criteria when evaluating prospective managers that the Board could hire in the future.

### **I. Performance**

To ensure accurate performance, three separate organizations calculate performance on a monthly basis. Performance calculations are audited to ensure that there are no discrepancies between the calculations. Staff audits the benchmark returns to the source provider to verify accuracy. After all the performance numbers have been verified they are finalized in the performance database to be used for reporting purposes.

### **J. Quarterly/Annual Reports**

Staff produces quarterly reports of manager performance relative to applicable benchmarks that are reviewed with the Board. The reports also include information on various administration issues and any proposed changes to the investment policy requiring Board approval.



Staff also produces an annual report that provides performance, an update of various events that took place during the year, and general descriptions of the various funds and asset managers.

## **Operations and Accounting**

### **A. Safekeeping/ Custody Services**

In accordance with the provisions of *M.S.*, sections 11A.07 and 356A.06, the SBI retains two custodian banks as depository agents for securities owned by the SBI. External safekeeping of securities provides a necessary degree of control in the business operations of the SBI. The SBI retains State Street Bank and Trust as master custodian to provide settlement and custody services, income collection, reporting and performance measurement services for retirement and non-retirement assets. The SBI retains Wells Fargo as custodian to service the state's cash accounts.

### **B. Separation of Investment Authority from Asset Custody/Recordkeeping**

In order to provide for the appropriate separation of investment management from asset custody, securities are held at the custodial bank in the custodian's name on behalf of the SBI. Investment managers do not have direct control over the assets. When securities are purchased or sold, the custodian receives instruction from a manager to receive or deliver the securities on a delivery versus payment basis.

For internally managed assets, the SBI segregates the duties of the management of the investment portfolio from the accounting and recordkeeping function of the portfolio. Investment decisions for the state's cash accounts are made by SBI investment staff with trades entered into SBI's accounting system by SBI accounting personnel. Internally managed fixed income and passive equity investment decisions are made by SBI investment staff, while trades are recorded and cleared by the custodian.

### **C. Accounting**

The SBI retains an external accounting firm to provide accounting services for cash accounts managed internally by Staff. In addition, the accounting firm receives data on all accounting transactions of the retirement and non-retirement assets from SBI's master custodian and replicates totals. In performing these tasks, the accounting firm provides a necessary independent verification that accounting transactions have been properly recorded.

Internally, SBI accounting staff compare a sampling of custodian prices with Bloomberg prices to ensure pricing accuracy.

### **D. Audits**

The SBI is audited annually by the Office of the Legislative Auditor. The Legislative Auditor performs a financial audit of the SBI's books, records, accounts and accounting control systems.



The Legislative Auditor also utilizes the custodial internal control, SAS 70 reports to ensure the control objectives are effective.

#### **E. Reconciliation**

Each portfolio manager and the custodian reconcile the account positions on a monthly basis. Discrepancies are noted and resolved on a timely basis. For internally managed assets, the SBI accounting staff is responsible for completing the timely reconciliations of the internal accounting system to the custodial system.

SBI's independent accounting service provider also reconciles the manager account positions to the custodial records on a monthly basis. This additional check ensures that a breakdown does not occur in the custodial system.

Finally, SBI accounting staff reconciles the assets to plan level data and verifies daily plan pricing to ensure accuracy in the aggregate plan values.

#### **G. Wire Processing and Signature Authority**

All wire processing is carried out at the custodian level. A request for a wire transfer by the custodian must be received by an authorized staff member and must also be approved through a call-back process by a second individual authorized on the account.

SBI account signature authority is reviewed and updated with every change in SBI personnel.

#### **H. Disaster Recovery**

The SBI has developed and documented a disaster recovery plan meeting the requirements of Executive Order No. 90-2. This plan provides SBI employees with emergency plans and procedures for protecting personnel, equipment, supplies and public records as well as for carrying on normal services in the event of a disaster. Normal services include continuing to maximize return of the pension funds given the appropriate risk level and ensuring that funds are available to finance benefits to plan participants. Normal operations also include meeting all of the liquidity needs of the State of Minnesota. All service providers hired by the SBI are, in turn, required to have robust, documented disaster recovery plans that allow the entities to continue normal operations in the event of a disaster.

The SBI disaster recovery plan has been designed to address 1) a total disruption of operations, 2) a loss of data processing functions, 3) a partial loss of operations in a functional area and 4) the total loss of SBI facilities. Alternate site and resource designation, a risk assessment, training of personnel and testing of the disaster recovery plan are critical components of the disaster recovery plan.

## **I. Monitoring of Staff investments**

The SBI maintains an investment policy covering staff purchases and sales of securities for their personal investments. Each staff member must provide information about the purchase or sale of securities and receive signed authorization from the Executive Director or Assistant Executive Director prior to the transaction. Quarterly, each staff member must provide a list of their holdings which is compiled into a report that is sent to each Board member.



