# AGENDA INVESTMENT ADVISORY COUNCIL MEETING

Tuesday, May 18, 2010 12:00 Noon State Board of Investment Board Room – First Floor 60 Empire Drive, St. Paul, MN

1.	Approval of Minutes of February 16, 2010	TAB
2.	Report from the Executive Director (H. Bicker)	A
	A. Quarterly Investment Review (January 1, 2010 – March 31, 2010)	
	B. Administrative Report  1. Reports on budget and travel  2. Legislative Update  3. Update on Sudan  4. Update on Iran  5. Update on Cash Management  6. Litigation Update	В
3.	Report from the SBI Administrative Committee (K. Kardell) A. Review of Executive Director's Proposed Workplan for FY11. B. Review of Budget Plan for FY11. C. Review of Continuing Fiduciary Education Plan. D. Review of Executive Director's Evaluation Process. E. Update of Disaster Recovery Plan.	С
4.	Review of manager performance for the period ending March 31, 2010 (H. Bicker)	D
5.	Review of Semi-Passive investing in the Fixed Income, International Equity, and Domestic Equity programs (H. Bicker)	E
5.	Consideration of implementing customized MSCI benchmarks in the International Equity program (H. Bicker)	F
7.	Alternative Investment Report (H. Bicker)	G
	A. Review of current strategy.	
	B. Consideration of investment commitments to new funds with two existing resource managers, one existing private equity manager, and one new resource manager.	
	C. Review of timberland asset class.	

8. Other items

# INVESTMENT ADVISORY COUNCIL

**MINUTES** 

May 18, 2010

# Minutes Investment Advisory Council February 16, 2010

MEMBERS PRESENT: Jeff Bailey, Dave Bergstrom, John Bohan, Kerry Brick,

Dennis Duerst, Doug Gorence, Laurie Hacking, Heather Johnston, Kathy Kardell (for Tom Hanson), P. Jay Kiedrowski, LeRoy Koppendrayer, Judy Mares, Gary Martin, Malcolm McDonald, Gary Norstrem, and Mary

Vanek.

**MEMBERS ABSENT:** Frank Ahrens.

SBI STAFF: Howard Bicker, Teri Richardson, Jim Heidelberg, Tammy

Brusehaver, Patricia Ammann, Stephanie Gleeson, John Griebenow, Michael McGirr, Mike Menssen, J.J. Kirby, Steve Schugel, Debbie Griebenow, Carol Nelson, and

Charlene Olson.

OTHERS ATTENDING: Ann Posey, Nuveen Investments; Celeste Grant, Jim

Gelbmann, Christie Eller, and John Plotnicky.

The Investment Advisory Council (IAC) met at 12:00 noon on Tuesday, February 16, 2010 in the Board Room, First Floor, 60 Empire Drive, St. Paul, MN. The minutes of the November 18, 2009 meeting were approved.

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

Mr. Bicker, Executive Director, referred members to Tab A of the meeting materials and reported that the Combined Funds had outperformed its Composite Index over the ten year period ending December 31, 2009 (Combined Funds 3.2% vs. Composite 3.1%,) and had provided a real rate of return over the latest 20 year period (Combined Funds 8.2% vs. CPI 2.7%.) He stated that the Combined Funds' market value increased 3.5% during the quarter ending December 31, 2009 due to strong investment returns. He said that the asset mix was rebalanced during the quarter, and he reported that the Combined Funds outperformed its target for the quarter (Combined Funds 4.6% vs. Composite 4.1%) and for the year (Combined Funds 20.3% vs. Composite 17.8%.)

Mr. Bicker reported that the domestic stock manager group outperformed its target for the quarter (Domestic Stock 6.0% vs. Domestic Equity Asset Class Target 5.9%) and for the year (Domestic Stocks 29.6% vs. Domestic Equity Asset Class Target 28.3%.) He said the International Stock manager group outperformed its Composite Index for the quarter (International Stocks 4.0% vs. International Equity Asset Class Target 3.7%) and

underperformed it for the year (International Stocks 41.2% vs. International Equity Asset Class Target 41.5%.) Mr. Bicker stated that the bond segment outperformed its target for the quarter (Bonds 1.3% vs. Fixed Income Asset Class Target 0.2%) and for the year (Bonds 14.3% vs. Fixed Income Asset Class Target 5.9%.) He noted that alternative investments returned 6.1% for the quarter, and he noted that there is a one quarter lag in reporting for the alternative returns relative to the other markets. He concluded his report with the comment that, as of December 31, 2009, the SBI was responsible for \$53.5 billion in assets.

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

Mr. Bicker referred members to Tab B of the meeting materials for an update on the budget and travel for the quarter. Mr. Bicker noted that the SBI's audit is finished and that members will receive a final copy as soon as it becomes available.

Mr. Bicker stated that there are several legislative items that affect the SBI. He said that later in the meeting, the three statewide retirement system directors would be presenting information related to legislative proposals they are proposing to improve the funding levels of their plans. He reported that there will also be a bill introduced for an administrative merger of the Minneapolis Employees Retirement Fund (MERF) with the Public Employees Retirement Association (PERA.) He noted that if the merger is approved, MERF would become a subaccount within PERA and would then be eligible to participate in the SBI's alternative investment pool. Mr. Bicker briefly reviewed the implementation status of the Sudan and Iran divestment legislation that was passed during the last couple of years. He stated that the Sudan legislation resulted in the divestment of ten companies with a market value of approximately \$28 million. He reported that the Iran divestment is still in the early stages of implementation, and he briefly reviewed the timeline for that process. He noted that staff may need to consider developing a customized benchmark for the international asset class target because the impact of the various investment restrictions is becoming more significant. Mr. Bicker noted that there had recently been a recommendation for a 6% budget cut for all state agencies.

Ms. Eller, Deputy State Attorney General, stated that there was no significant action regarding the Lehman bankruptcy proceedings.

#### Review of Manager Performance

Mr. Bicker referred members to Tab C of the meeting materials and noted that BlackRock had acquired Barclays and that, so far, there had been no personnel changes related to either the passive or semi-passive accounts managed by the firm for the SBI.

#### **Domestic Equity Semi-Passive Program**

Mr. Bicker referred members to Tab D of the meeting materials and stated that staff had conducted a semi-passive manager review to update the short list of managers. He noted that currently the SBI has approximately \$7 billion in the semi-passive program and utilizes three semi-passive managers. He stated that after an extensive review five firms were considered for the short list.

Mr. Bicker stated that Mellon (formerly Franklin) is working through some organizational changes, and he stated that staff would prefer to have four semi-passive managers rather than three in order to avoid any one manager's portfolio from becoming too large in case a manager needed to be terminated. He said that staff is recommending that INTECH Investment Management be considered as an addition to the semi-passive manager program.

In response to several questions from various members of the IAC, Mr. Bicker discussed INTECH's performance history, succession planning for retiring senior people, and the firm's quantitative investment approach. In response to a question from Mr. Bailey, Mr. Bicker stated that staff currently plans to keep approximately 25% of the domestic stock segment actively managed. Ms. Posey stated that she is supportive of additional managers as long as the new manager's process is sufficiently different enough from the SBI's existing semi-passive managers. She noted that she would encourage staff to continue to add managers in the semi-passive area. Mr. Bergstrom moved approval of staff's recommendation, as stated in Tab D. Mr. McDonald seconded the motion. In response to a question from Mr. Martin, Mr. Bicker stated that staff did not consider a fixed income based enhanced equity strategy. The motion passed.

#### **Alternative Investment Report**

Mr. Griebenow referred members to Tab E of the meeting materials and briefly reviewed performance for the quarter. He stated that staff is recommending new investments with two existing private equity managers, EBF and Värde; one existing resource manager, TCW Energy; and one new yield-oriented manager, Audax. Mr. McDonald moved approval of staff's recommendation regarding new investments with the three existing managers, EBF, Värde and TCW Energy, as stated in Tab E of the meeting materials. Mr. Gorence seconded the motion. The motion passed.

Mr. Bicker stated that the new manager under consideration, Audax would make a presentation to members, and Mr. Griebenow provided some brief background information on Audax. A presentation by Kevin Magid and Peter Gummeson from Audax followed. Mr. McDonald moved approval of staff's recommendation regarding a new investment with Audax, as stated in Tab E of the meeting materials. Mr. Gorence seconded the motion. The motion passed.

#### **Review of Performance Based Fees**

Mr. Bicker referred members to Tab F of the meeting materials, and Ms. Brusehaver gave a presentation on performance based fees and how they are calculated. A discussion followed.

#### **Retirement System Presentation on Funding Updates**

Ms. Vanek, Mr. Bergstrom and Ms. Hacking each gave brief presentations on the funding status of their respective systems and some proposed legislative changes to the plans (see **Attachment A.**) A discussion followed.

The meeting adjourned at 2:36 P.M.

Respectfully submitted,

Howard Baker

Howard Bicker

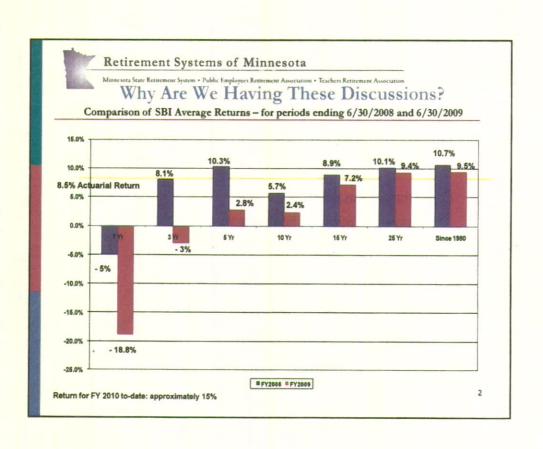
**Executive Director** 



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# Statewide Retirement Systems Funding Updates

Mary Vanek, PERA Executive Director
Dave Bergstrom, MSRS Executive Director
Laurie Hacking, TRA Executive Director





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# Basic Pension Funding Principle

# C + I = B + E

Contributions + Investments = Benefits + Expenses

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## Common Modifications to Address Funding

Elements of funding principle the Boards and Legislature could modify to address recent investment losses

- □ C Contribution rates
   Proposed employee and employer contribution rate adjustments
- □ B Benefits

   annual retiree increases
   prospective deferred augmentation interest rate
   interest on future lump sum refunds
   interest on re-employed retiree accounts



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## Financial Status of PERA General Fund

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009 Market Value (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	69.99 %	53.81 %
Current Contributions*	12.88 % of pay	12.88 % of pay
Contributions Needed	15.55 % of pay	19.61 % of pay
Contribution Deficiency	(2.67) % of pay	(6.73) % of pay

<sup>\*</sup> Employee rate = 6%; Employer rate = 7% (effective 01/01/10)

Source: Mercer Consulting, FY 09 annual actuarial valuation

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# Financial Status of PERA P&F Fund

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009 Market Value (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	83.22 %	63.55 %
Current Contributions*	23.50 % of pay	23.50 % of pay
Contributions Needed	29.99 % of pay	39.13 % of pay
Contribution Deficiency	(6.49) % of pay	(15.63) % of pay

<sup>\*</sup>Employee rate = 9.4%; Employer rate = 14.1%

Source: Mercer Consulting, FY 09 annual actuarial valuation



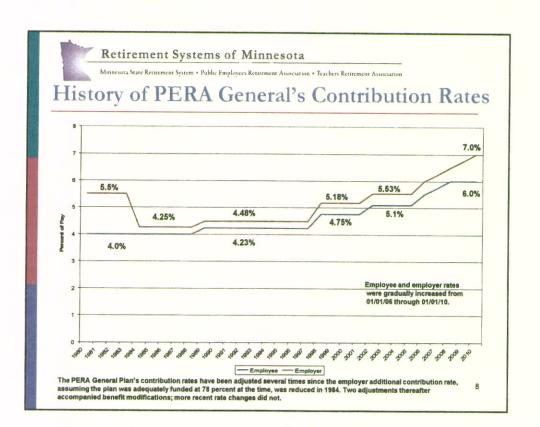
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# Financial Status of PERA Correctional Fund

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009  Market Value  (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	94.85 %	72.93 %
Current Contributions*	14.58 % of pay	14.58 % of pay
Contributions Needed	14.03 % of pay	16.77 % of pay
Contribution Deficiency	0.55 % of pay	(2.19) % of pay

\*Employee rate = 5.83%; Employer rate = 8.75%

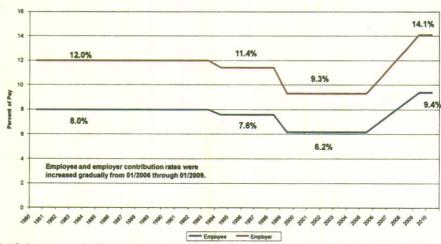
Source: Mercer Consulting, FY 09 annual actuarial valuation





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#### History of Police and Fire Plan's Contribution Rates



Contribution rates were reduced because the plan was over 100 percent funded, but the rates were reduced below the actual cost of the benefits, so when the markets eroded the excess assets and created an unfunded liability the rates had to be significantly increased to bring them back up to the annual cost of the benefits plus additional to pay unfunded portion.



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# Path to PERA Long-Term Sustainability

#### Where do we go from here?

- Shared responsibility and sacrifice— active members, employers, deferred members and benefit recipients will need to be part of the solution.
  - ✓ Reduce annual benefit recipient adjustment
    - Decrease annual adjustment from 2.5 percent to 1 percent until plans are again at least 90 percent funded (market value).
  - Increase contributions 0.5 percent

Coordinated Plan shared equally between employees & employers

Police & Fire Plan - shared between employees and employers

- Reduce certain active and former member benefits
  - Reduce interest rate on refunds from 6 percent to 4 percent
  - Reduce deferred interest for current deferred members and future terminated vested members to 1
    percent --currently 3 percent to age 55 and 5 percent thereafter for those hired prior to July 1,
    2006 or 2.5 percent for all years for those hired after July 1, 2006.
  - Increase vesting to five years
  - Eliminate interest on re-employed retiree accounts.



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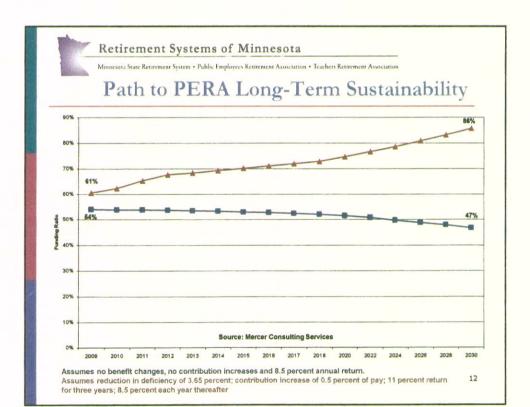
# Path to PERA Long-Term Sustainability

# What do we save if Board's recommendations are adopted?

	PERA General	PERA P & F
Modify annual increase: 1.0 percent for future yrs. *	3.6 %	9.45 %
Reduce deferred interest	0.45 %	0.45 %
Increase contributions	0.50 %	0.50 %
Cost Change/adoption of assumption changes	(0.40) %	N/A
Expected savings/revenue from proposals	4.15%	10.40%
Actuarial value contribution deficiency	(2.67) %	(6.49) %
Resulting actuarial value contribution sufficiency after proposals	1.48 %	3.91 %
Projected market value contribution deficiency	(6.73)%	(15.63)%
Remaining market value contribution deficiency after proposals	(2.58)%	(5.23)%

\* Until plans are 90 percent funded

Source: Mercer Consulting Services





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# Financial Status of MSRS General Plan

Fiscal Year 2009	July 1, 2009 Actuarial Value 30 Year Amortization (5 yr smoothing of investment losses)	July 1, 2009 Market Value 30 Year Amortization (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	85.9 %	65.61%
Current Contributions	10 % of pay	10 % of pay
Contributions Needed**	11.5 % of pay	16.25 % of pay
Contribution Deficiency**	(1.5) % of pay	(6.25) % of pay

\*Source: Mercer Consulting, FY 09 annual actuarial valuation – EE rate = 5%; ER rate = 5% (eff. 07/01/10)
\*\* 2010 Legislation to propose 30 year amortization; amounts estimated using FY09 valuation results

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## Financial Status of State Patrol Plan

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009 Market Value (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	80.58 %	62.05 %
Current Contributions	26.0 % of pay	26.0 % of pay
Contributions Needed	38.16 % of pay	50.21 % of pay
Contribution Deficiency	(12.16) % of pay	(24.21) % of pay

\* Source: Mercer Consulting, FY 09 annual actuarial valuation - EE rate = 10.4%; ER rate = 15.6%

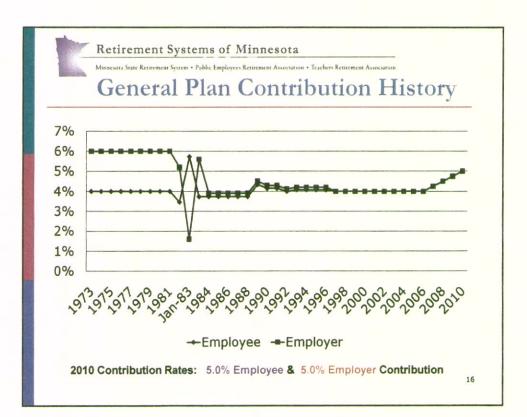


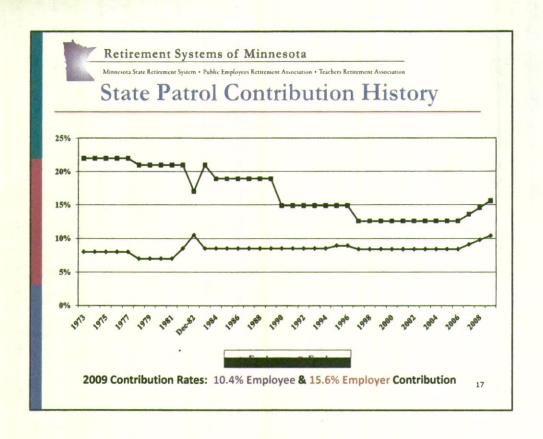
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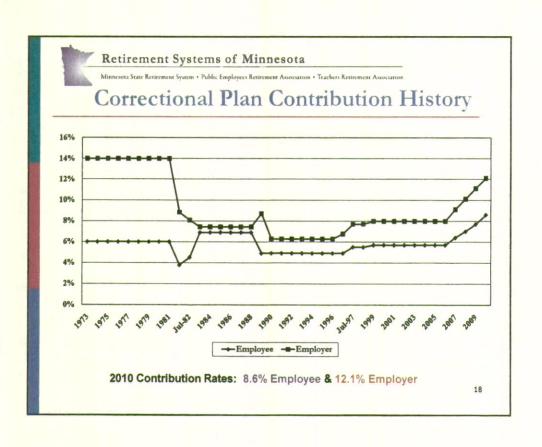
#### Financial Status of MSRS Correctional Fund

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009 Market Value (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	71.88 %	55.62 %
Current Contributions	20.70 % of pay	20.70 % of pay
Contributions Needed	24.85 % of pay	28.57 % of pay
Contribution Deficiency	(4.15) % of pay	(7.87) % of pay

\* Source: Mercer Consulting, FY 09 annual actuarial valuation – EE rate = 8.60%; ER rate = 12.10% eff. 7/1/2010









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# Path to MSRS Long-Term Sustainability

#### Where do we go from here?

- □ Shared responsibility—active members, employers, deferred members and benefit recipients will need to be part of the solution.
  - Reduce annual benefit recipient adjustment
     Decrease annual adjustment from 2.5 percent to 2 percent until plans are again at least 90 percent funded (market value).
  - ✓ Extend amortization to 30 years and modify some actuarial assumptions.
  - Reduce certain active and former member benefits
    - Reduce interest rate on refunds from 6 percent to 4 percent
    - Reduce deferred interest for current deferred members and future terminated vested members to 2 percent --currently 3 percent to age 55 and 5 percent thereafter for those hired prior to July 1, 2006 or 2.5 percent for all years for those hired after July 1, 2006.
    - Increase vesting to five years
    - Eliminate interest on re-employed retiree accounts.

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Source: Mercer Consulting Services



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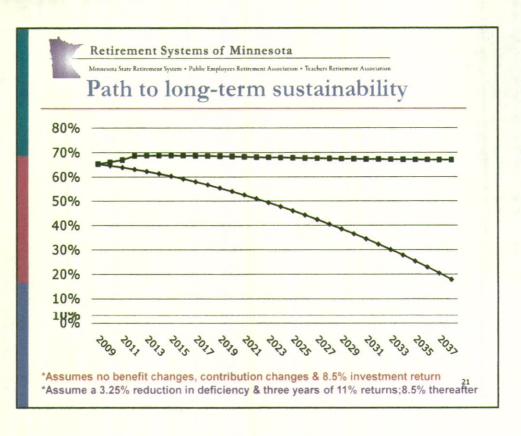
# Path to MSRS Long-Term Sustainability

#### Contribution rate impact of the Board's recommendations

Proposals	General	Correctional	State Patrol
Modify annual increase: 2.0 percent for future yrs, *	0.9%	1.7%	4.10%
Reduce deferred interest	0.7%	1.2%	0.20%
Increase contributions	0.0%	0.0%	12.00%
Cost Change/adoption of assumption changes	1.10%	N/A	N/A
Expected savings/revenue from proposals	2.70%	2.9%	16.3%
Actuarial value contribution deficiency	(1.5) %	(4.15) %	(12.16) %
Resulting actuarial value contribution sufficiency after proposals	1.20%	(1.25)%**	4.14%
Projected <i>market</i> value contribution deficiency	(6.25)%	(7.87)%	(24.21)%
Remaining <i>market</i> value contribution deficiency after proposals	(3.55)%	(4.97)%	(7.91)% 2

Until 90% funded

\*\*Future savings from longer vesting and benefit reductions



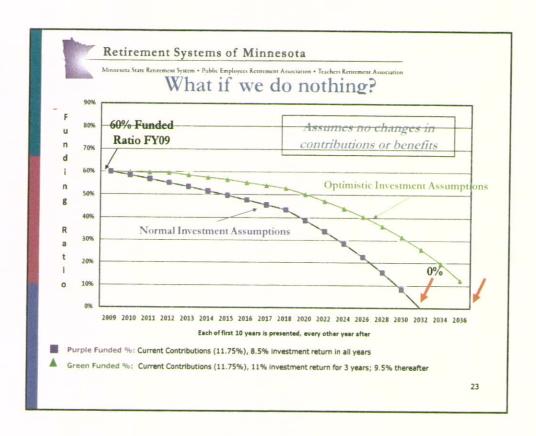


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## Financial Status of TRA

Fiscal Year 2009	July 1, 2009 Actuarial Value (5 yr smoothing of investment losses)	July 1, 2009 Market Value (no smoothing of investment losses)
Funding Ratio (Assets as % of Liabilities)	77 %	60 %
Current Contributions	11.69 % of pay	11.69 % of pay
Contributions Needed	16.81 % of pay	22.76 % of pay
Contribution Deficiency	(5.12) % of pay	(11.07) % of pay

<sup>\*</sup> Source: Mercer Consulting, FY 09 valuation – EE rate = 5.5%; ER rate = 5.5%

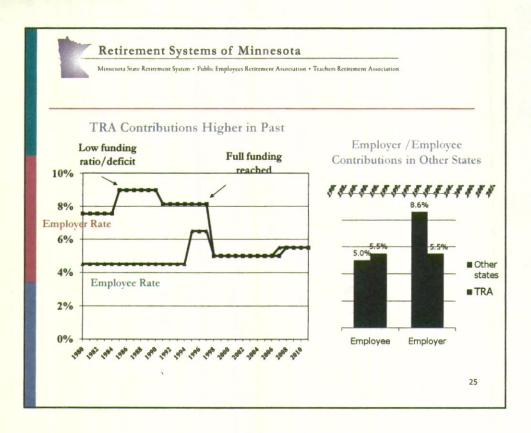




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# How did we get here?

- 1. Severe market downturns in 2000's
  - √ Market declines in 2001- 2002 down 15%+
  - √ Market plummets in 2008-2009 down 24%
- 2. Extra investment returns of 1990's not retained in TRA Fund -
  - Large increases in retiree annual increases 9.7%/year, 1997-2000; 3/4th of current unfunded liability is due to Post Fund; over 60% of TRA liabilities are for retirees
  - ▼ Precipitous rollback in TRA's employER & employEE contributions
    - EmployER rate cut from 8.14% to 5.0%
    - EmployEE rate cut from 6.5% to 5.0%
    - Rate cut = to \$176 million/year





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# Path to TRA Long-Term Sustainability

#### Where do we go from here?

- □ Shared sacrifice active members, employers, deferred members and benefit recipients will need to be part of the solution.
  - Reduce annual benefit recipient adjustment
     Temporary 2-year suspension (Jan. 2011 and Jan. 2012)
     2 percent annual increase thereafter until plan is stabilized
  - Increase employee and employer contributions phased in over 4 years

    2 percent for employers phased in 0.5% per year, July 1, 2011 July 1, 2014

    2 percent for employees phased in 0.5% per year, July 1, 2011 July 1, 2014
  - Reduce certain active and former member benefits

    Reduce interest rate on refunds to 4%; reduce deferred interest for current deferred members and future terminated vested members to 2%; eliminate interest on re-employed retiree accounts.
- Re-evaluation of all elements in 5 years Investment returns will have a major impact (unknown).



# Path to TRA Long-Term Sustainability

#### TRA Board Recommendations

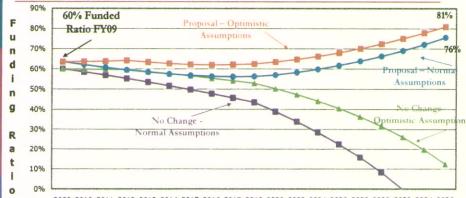
Proposals	Savings/revenue estimate
Modify annual increase: 2 percent for future years until fund stabilized	2.0%
Suspend annual increase for two years (2011-12)	1.0 %
Increase contributions: 2% employers, phased in 0.5%/yr, 2011-2014	2.0 %
Increase contributions: 2% employees; phased in 0.5%/yr, 2011 - 2014	2.0 %
Reduce deferred interest rate to 2%, reduce refund rate to 4% and ELSA rate to 0%	0.55 %
Savings from assumption changes	0.20 %
Expected revenue/savings from proposals	7.75 %
Actuarial value contribution deficiency	(5.12%)
Resulting actuarial value contribution sufficiency after proposals	2.63%
Market value contribution deficiency	(11.07%)
Remaining market value contribution deficiency after proposals	(3.32%)

Source: Mercer Consulting Services

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## Path to TRA Long-Term Sustainability



2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2020 2022 2024 2026 2028 2030 2032 2034 2036

Each of first 10 years is presented, every other year after

Purple: Current Contributions (11.69%), no changes in contributions/benefits, 8.5% return in all years

Green: Current Contributions (11.69%), no changes in contributions/benefits, 11% return for 3 yrs; 9.5% thereafter

Blue: Higher Contributions (15.69%), 2 year COLA suspension with 2% thereafter, reset amortization period in 2016, 8.5% return in all yrs

Red: Higher Contributions (15.69%), 2 year COLA suspension with 2% thereafter, reset amortization period in 2016, 11% return for 3 yrs;
8.5% thereafter

\* Source: Mercer Consulting actuarial projections, 12/16/09, 1/22/10



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## MN Public Pensions Important to State

- □ MN's public pension systems serve nearly one-half million persons, 1 in 10 Minnesotans
- More than 90 percent of the systems' benefit recipients reside in Minnesota
- Systems paid out over \$2.5 billion in benefits which added \$3.3 billion on state economy and led to 22,500 additional jobs statewide
- □ State/local taxes paid by recipients and holders of new jobs exceeded public employer pension contributions to the systems by \$80 million annually
- Economic impact of pension benefits was larger than the gross state product from mining and 92% of agricultural (crop/animal) production.

Source: Lubov, Andrea. "Measuring the Impact of Minnesota's Retirement Systems, March 2008

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## What are other states considering?

Actions Taken or Under consideration	State or Local Government
Contributions/Revenues	
Contribution increases	California, Cincinnati, Colorado, Illinois, Iowa, Louisiana, Missouri, Montana, Nebraska, New Hampshire, New Mexico, Ohio, Oklahoma, Oregon, Texas, Utah Vermont, Virginia, West Virginia, Wisconsin, Wyoming
Contribution cuts/ holiday	New Jersey
Change actuarial techniques	California, Louisiana, Massachusetts, Missouri, Oregon, Vermont, Washington
Pension Obligation Bonds	Illinois, Pennsylvania
Taxes - on pension income	Illinois, Indiana, Philadelphia, Montana
Benefits	
COLA cuts	Colorado, Georgia, Illinois, Louisiana, Massachusetts, Montana, Nevada, New York, Ohio, Rhode Island, South Dakota, Wisconsin, Virginia
Increase normal retirement age or minimum eligibility age, steepen early retirement penalty	California, Cincinnati, Colorado, Kansas, Kentucky, Illinois, Massachusetts, Montana, Nevada, New Mexico, New York, Ohio, Rhode Island, Texas, Vermont, Virginia
Lower benefit tier/ lower formula for future service/new hires	California, Illinois, Nevada, New Mexico, New York, Rhode Island
Switch to DC or hybrid DB/DC	Georgia, Kansas, Louisiana, Massachusetts, Montana, New Jersey, Orange County, Rhode Island, Utah, Virginia
Increase vesting period	Iowa, Massachusetts, New York
Increase high-X salary period	California, Colorado, Iowa, Massachusetts, Montana, Ohio, Rhode Island, Texas
Early retirement incentives to reduce workforce	Connecticut, Iowa, Maine, Vermont

# Tab A

# LONG TERM OBJECTIVES Period Ending 3/31/2010

COMBINED FUNDS: \$42.3 Billion	Result	Compared to Objective
Match or Exceed Composite Index (10 Yr.)  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.	3.3% (1)	0.1 percentage point above the target
Provide Real Return (20 yr.)	8.6%	6.0 percentage points above CPI
Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.		above CF1

<sup>(1)</sup> Performance is calculated net of fees.

#### SUMMARY OF ACTUARIAL VALUATIONS

## Eight Plans of MSRS, PERA and TRA July 1, 2009

Liabilities

Actuarially Accrued Liabilities \$60.7 billion

Assets

Current Actuarial Value \$46.8 billion

**Funding Ratio** 

Current Actuarial Value divided by 77.1%

Accrued Liabilities

#### **Actuarial Assumptions:**

1. Liabilities calculated using entry age normal cost method.

2. Difference between actual returns and actuarially expected returns spread over five years.

3. Interest/Discount Rate: 8.5%

4. Full Funding Target Date:

2020 - MSRS General

2031 - PERA General

2037 - TRA

#### **EXECUTIVE SUMMARY**

Combined Funds (Net of Fees)

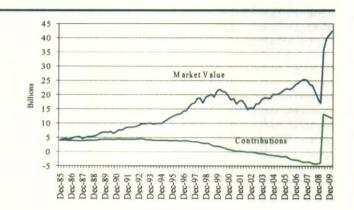
#### **Asset Growth**

The market value of the Combined Funds increased 3.0% during the first quarter of 2010. Strong investment returns accounted for the increase.

# Asset Growth During First Quarter 2010 (Millions)

Beginning Value	\$ 41,079
Net Contributions	-439
Investment Return	1,679
Ending Value	\$ 42,319

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

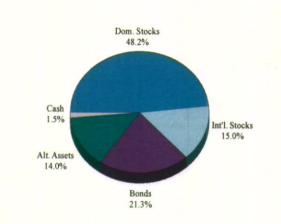


#### Asset Mix

The allocation to domestic stocks increased due to a strong equity market. The cash allocation decreased due to payments made to retirees.

	Policy Targets	Actual Mix 3/31/2010	Actual Market Value (Millions)
Domestic Stocks	45.0%	48.2%	\$20,375
Int'l. Stocks	15.0	15.0	6,357
Bonds	18.0	21.3	9,031
Alternative Assets*	20.0	14.0	5,933
Unallocated Cash	2.0	1.5	623
	100.0%	100.0%	\$42,319

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



#### Fund Performance (Net of Fees)

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

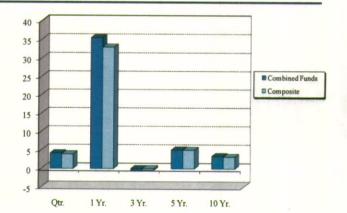
Period Ending 3/31/2010

Annualized

Otr. 1 Yr. 3 Yr. 5 Yr. 10 Yr.

4.1% 35.5% -0.4% 5.1% 3.3%

Composite 3.9 33.0 -0.4 5.0 3.2



#### **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 3/31/2010

Annualized

Qtr. 1 Yr. 3 Yr. 5 Yr. 10 Yr.

Dom. Stocks
Asset Class Target\*

5.9 52.4 -4.0 2.4 -0.4

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

#### International Stocks

The international stock manager group (active, semi-passive and passive combined) was even with its target for the quarter and underperformed 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 3/31/2010 Annualized 5 Yr. 10 Yr. Otr. 1 Yr. 3 Yr. 1.6% 60.4% -4.0% 6.3% 3.1% Int'l. Stocks -4.1 6.2 2.7 60.9 Asset Class Target\* 1.6

\* 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.

	Per	iod Endir	ng 3/31/20	010	
			A	nnualize	ed
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Bonds	2.7%	16.4%	5.6%	5.2%	6.4%
Asset Class Target	1.8	7.7	6.1	5.4	6.3

#### Alternative Investments

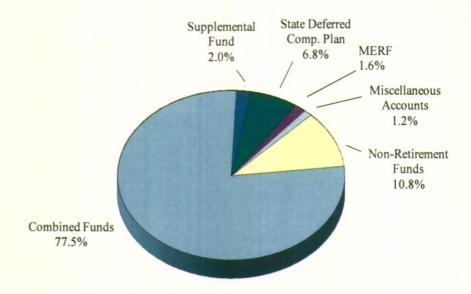
Period Ending 3/31/2010

Annualized

Qtr. 1 Yr. 3 Yr. 5 Yr. 10 Yr.

Alternatives 3.3% 2.5% 3.5% 14.1% 12.3%

# **EXECUTIVE SUMMARY**Funds Under Management



Retirement Funds	3/31/2010 Market Value (Billions)
Combined Funds	\$42.3
Supplemental Investment Fund	1.1
State Deferred Compensation Plan Non-SIF Assets	3.7
Minneapolis Employees Retirement Fund (MERF)	0.9
Non-Retirement Funds	
Assigned Risk Plan	0.3
Permanent School Fund	0.7
Environmental Trust Fund	0.5
State Cash Accounts	4.4
Miscellaneous Accounts	0.7
Total	\$54.6

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# MINNESOTA STATE BOARD OF INVESTMENT

# **QUARTERLY INVESTMENT REPORT**

First Quarter 2010 (January 1, 2010 - March 31, 2010)

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#### VARIOUS CAPITAL MARKET INDICES

		Period Ending 3/31/2010			
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity					
Dow Jones Wilshire Composite	6.2%	52.6%	-3.7%	2.7%	0.0%
Dow Jones Industrials	4.8	46.9	-1.5	3.3	2.3
S&P 500	5.4	49.8	-4.2	1.9	-0.7
Russell 3000 (broad market)	5.9	52.4	-4.0	2.4	-0.1
Russell 1000 (large cap)	5.7	51.6	-4.0	2.3	-0.4
Russell 2000 (small cap)	8.9	62.8	-4.0	3.4	3.7
<b>Domestic Fixed Income</b>					
Barclays Capital Aggregate (1)	1.8	7.7	6.1	5.4	6.3
Barclays Capital Gov't./Corp.	1.5	7.5	5.8	5.2	6.2
3 month U.S. Treasury Bills	0.0	0.1	1.7	2.7	2.7
International					
EAFE (2)	0.9	54.4	-7.0	3.8	1.3
Emerging Markets Free (3)	2.5	81.6	5.5	16.0	10.1
ACWI Free ex-U.S. (4)	1.7	61.7	-3.7	6.6	3.2
World ex-U.S. (5)	1.3	56.0	-6.2	4.3	1.7
Salomon Non U.S. Gov't. Bond	-2.1	8.4	7.5	4.7	6.5
Inflation Measure					
Consumer Price Index CPI-U (6)	0.8	2.3	2.0	2.2	2.4
Consumer Price Index CPI-W (7)	0.9	3.0	2.1	2.5	2.4

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

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

<sup>(3)</sup> Morgan Stanley Capital International Emerging Markets Free index. (Gross index)

<sup>(4)</sup> Morgan Stanley Capital International All Country World Index Ex-U.S. (Gross index)

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

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

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

#### FINANCIAL MARKETS REVIEW

#### DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a 5.9% return during the first quarter of 2010. The equity market rally, which began around a year ago off of the market low, continued in the first quarter as the balance of economic data showed continuing gradual improvement, especially in corporate The absence of new market shocks, accommodative monetary policies and improvement in consumer demand helped to improve consumer confidence. Within the Russell 3000, the "Other" sector, which includes multi-sector companies, reported the strongest return, up 15.8% for the quarter. The Utilities sector was the worst performing sector with a -2.9% return for the quarter. Small cap companies outperformed large cap companies within the Russell 3000.

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

Large Growth	Russell 1000 Growth	4.7%
Large Value	Russell 1000 Value	6.8%
Small Growth	Russell 2000 Growth	7.6%
Small Value	Russell 2000 Value	10.0%

The Russell 3000 index returned 52.4% for the year ending March 31, 2010.

#### DOMESTIC BONDS

The rally in the spread sectors that started in 2Q09 continued in 1Q10, though at a slower pace. All spread sectors once again outperformed Treasuries. The Barclays Capital Aggregate Index returned 1.8% for the quarter and 7.7% for the last 12 months.

The Treasury Yield Curve was little changed during the quarter, though it is much steeper on a year-over-year basis. Corporate bonds continued to outperform, as investor demand continued for new corporate bond issuance. CMBS and ABS performed well (due to support from the government's TALF program which ended March 31) and increased investor demand for yield. The Fed has ended its support of the Agency MBS market after purchasing a total of \$1.25 trillion in Agency MBS from January 2009 through March 2010. This activity helped Agency MBS outperform Treasuries in 13 of those 15 months.

The major sector returns for the Barclays Capital Aggregate for the quarter were:

U.S. Treasury	1.1%
Agency	1.2
Corporates	2.3
Agency MBS	1.5
Commercial Mortgages	9.1
Asset-backed	2.2

#### PERFORMANCE OF CAPITAL MARKETS Percent Cumulative returns 800.00 700.00 600.00 500.00 400.00 300.00 200.00 100.00 0.00 Jun-90 Jun-92 Jun-93 Jun-91 U.S. Stocks Cash Equivalents Consumer Price Index U.S. Bonds

#### FINANCIAL MARKETS REVIEW

#### INTERNATIONAL STOCKS

In aggregate, developed international stock markets (as measured by the MSCI World ex U.S. index) provided a return of 1.3% for the quarter. The quarterly performance of the six largest stock markets is shown below:

Japan	8.2%
United Kingdom	-0.6
France	-3.9
Canada	6.0
Germany	-2.7
Switzerland	4.0

The World ex U.S. index returned 56.0% during the last year.

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

#### **EMERGING MARKETS**

Emerging markets (as measured by MSCI Emerging Markets Free index) provided a return of 2.5% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	-1.6%
Brazil	<b>-0</b> .1
Korea	4.0
Taiwan	-3.8
India	4.9
South Africa	4.6

The Emerging Markets Free index returned 81.6% during the last year.

The Emerging Markets Free (EMF) index is compiled by MSCI and measures performance of 22 stock markets in Latin America, Asia, Africa and Eastern Europe. EMF includes only those securities foreign investors are allowed to hold. The markets listed above comprise about 73% of the value of the international markets in the index.

#### REAL ESTATE

After a very difficult 2009, real estate returns turned positive for the first quarter of 2010 with the NCREIF Property Index posting a positive return of 0.76%. Optimism on future expected real estate returns may be premature with continued high unemployment rates in the US as well as abroad and \$1.4 trillion of commercial real estate debt coming due by the end of 2012. The outlook for 2010 continues to be one of caution.

#### PRIVATE EQUITY

Global merger and acquisition activity was up 14% for the first quarter of 2010 compared with the same time period a year earlier. Deal activity for the first quarter of 2010 was much stronger than the first quarter of 2009 as both the overall economy and credit markets have continued to improve. During the first quarter of 2010, initial public offerings were down from the previous quarter, but were higher than the same quarter in 2009. The total number of IPO's continues to be much lower than historical averages, but there is considerable optimism that the IPO market will pick up significantly in the coming quarters. IPO activity in North American and Europe has remained fairly sluggish while the Asian markets continue the trend of seeing the largest number of new issuances.

#### RESOURCE FUNDS

During the first quarter of 2010, crude oil prices remained relatively stable, hovering in the \$80/bbl range. Crude ended the quarter at \$83.76/bbl, representing a slight 3% gain since the end of 2009. The price stability was due to demand from developing Asian countries and continued concerns over global inflation, coupled with weakness of the U.S. dollar. Natural gas prices saw a downward trend throughout the first quarter of 2010, ending the quarter slightly below \$4/mmbtu. M&A activity among exploration and production companies was strong in the first quarter of 2010 compared to the first quarter of 2009 as the capital markets continue to generally loosen.

#### **COMBINED FUNDS**

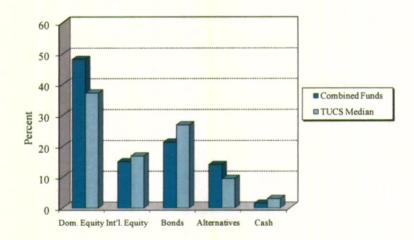
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

#### Asset Mix Compared to Other Pension Funds

On March 31, 2010, the actual asset mix of the Combined Funds was:

	\$ Millions	%
Domestic Stocks	\$20,375	48.2%
International Stocks	6,357	15.0
Bonds	9,031	21.3
Alternative Assets	5,933	14.0
Unallocated Cash	623	1.5
Total	\$42,319	100.0%

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



	Dom. Equity	Int'l Equity	Bonds	Alternatives	Cash
Combined Funds	48.2%	15.0%	21.3%	14.0%	1.5%
Median Allocation in TUCS*	37.2	16.8	26.9	9.5**	3.0

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

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

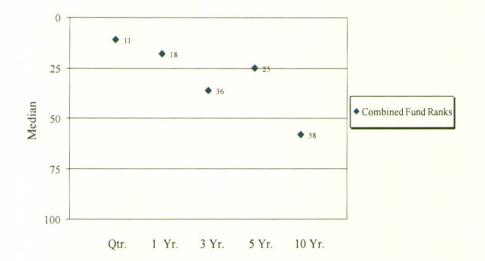
# COMBINED FUNDS Performance Compared to Other Pension Funds

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

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

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

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



	Period Ending 3/31/2010				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds					
Percentile Rank in TUCS*	11th	18th	36th	25th	58th

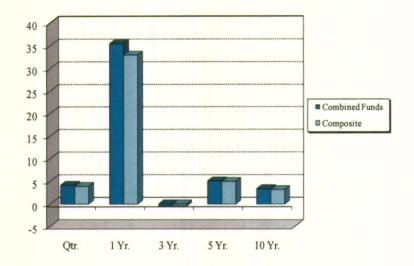
<sup>\*</sup> Compared to public and corporate plans greater than \$1 billion, gross of fees.

# 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* 1Q10
Domestic Stocks	Russell 3000	45.0%
Int'lStocks	MSCI ACWI Free ex-U.S.	15.0
Bonds	Barclays Capital Aggregate	24.8*
Alternative Investments	Alternative Investments	14.2*
Unallocated Cash	3 Month T-Bills	1.0
		100.0%

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



#### Period Ending 3/31/2010

				Annualized	
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds**	4.1%	35.5%	-0.4%	5.1%	3.3%
Composite Index	3.9	33.0	-0.4	5.0	3.2

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

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#### STOCK AND BOND MANAGERS

Performance of Asset Pools (Net of Fees)

#### **Domestic Stocks**

Target: Russell 3000

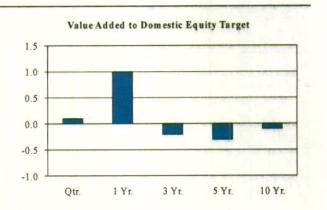
**Expectation:** If one-third of the pool is actively managed, one-third is semi-passively managed, and one-third is passively managed, the entire pool is expected to exceed the target by .18% - .40% annualized, over time.

#### Period Ending 3/31/2010

Annualized

	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Stocks</b>	6.0%	53.4%	-4.2%	2.1%	-0.5%
Asset Class Target*	5.9	52.4	-4.0	2.4	-0.4

<sup>\*</sup> 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: MSCI ACWI Free ex U.S. (net)

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

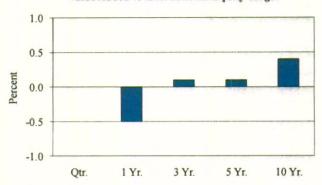
#### Period Ending 3/31/2010

Annualized

			1 21111 11 11 11 11					
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.			
Int'l. Stocks	1.6%	60.4%	-4.0%	6.3%	3.1%			
Asset Class Target*	1.6	60.9	-4.1	6.2	2.7			

<sup>\*</sup> 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.

#### Value Added to International Equity Target



#### Bonds

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

#### Period Ending 3/31/2010

Annualized Yr. 5 Yr. 10 Y

	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Bonds	2.7%	16.4%	5.6%	5.2%	6.4%
Asset Class Target	1.8	7.7	6.1	5.4	6.3

#### Value Added to Fixed Income Target 9.0 8.0 7.0 6.0 5.0 4.0 3.0 2.0 1.0 0.0 -1.0 1 Yr. 3 Yr. 5 Yr. 10 Yr. Qtr.

returns.

### **ALTERNATIVE INVESTMENTS**

# Performance of Asset Categories (Net of Fees)

Expectation: The alternative investments are		1/2010				
measured against themselves using actual portfolio returns.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
	Alternatives	3.3%	2.5%	3.5%	14.1%	12.3%
	Inflation	0.8%	2.3%	2.0%	2.2%	2.4%
Real Estate Investments (Equity emphasis)						
Expectation: Real estate investments are expected to exceed the rate of inflation by 5% annualized, over the	investments are expected to by 5% annualized, over the Period Ending 3/3.			31/2010 Annualized		
life of the investment.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
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.	Real Estate	-7.2%	-32.5%	-10.6%	1.3%	6.2%
Private Equity Investments (Equity emphasis)  Expectation: Private equity investments are expected			Period Fr	nding 3/31	/2010	
to exceed the rate of inflation by 10% annualized, over		Period Ending 3/31/2010 Annualized				
the life of the investment.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Y
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.	Private Equity	5.2%	15.6%	5.1%	13.8%	10.7
Resource Investments (Equity emphasis)			_			
Expectation: Resource investments are expected to			Period En		2010 nualized	
exceed the rate of inflation by 5% annualized, over the life of the investment.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
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.	Resource	9.5%	0.1%	5.8%	35.6%	27.2%
Yield Oriented Investments (Debt emphasis)						
Expectation: Yield oriented investments are expected to			Period En		2010 nualized	
exceed the rate of inflation by 5.5% annualized, over the life of the investment.		Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
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	Yield Oriented	2.5%	2.4%	10.0%	18.8%	16.0%

#### 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:

- It functions as the investment manager for all assets of the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan and Hennepin County Supplemental Retirement Plan.
- 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.
- It serves as an external money manager for a portion of some local police and firefighter retirement plans.
- It serves as the investment vehicle for the Voluntary Statewide Volunteer Firefighter Plan.

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

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

On March 31, 2010 the market value of the entire Fund was \$1.1 billion.

# **Investment Options**

	3/31/2010 Market Value (In Millions)
Income Share Account – a balanced portfolio utilizing both common stocks and bonds.	\$233
Growth Share Account – an actively managed, all common stock portfolio.	\$112
Common Stock Index Account – a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	\$226
<b>International Share Account</b> – a portfolio of non U.S. stocks that incorporates both active and passive management.	\$120
Bond Market Account – an actively managed, all bond portfolio.	\$123
Money Market Account – a portfolio utilizing short-term, liquid debt securities.	\$160
Fixed Interest Account – a portfolio of guaranteed investment contracts (GIC's) and GIC type investments which offer a fixed rate of return for a specified period of time.	\$116
<b>Volunteer Firefighters Account</b> – a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$1

#### SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

Benchmark\*

#### 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	35.3
Unallocated Cash	5.0	3.9
	100.0%	100.0%

# Period Ending 3/31/2010 Annualized Qtr. 1 Yr. 3 Yr. 5 Yr. 10 Yr. Total Account 4.5% 34.7% 0.7% 4.3% 2.6%

-0.3

3.5

2.2

\* 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.

4.3

32.6

#### **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 3/31/2010

			Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
<b>Total Account</b>	6.0%	53.6%	-4.4%	1.9%	-0.7%		
Benchmark*	5.9	52.4	-4.0	2.4	-0.4		

<sup>\*</sup> 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 3/31/2010

Annualized

	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Total Account</b>	6.0%	52.6%	-3.8%	2.6%	-0.2%
Benchmark*	5.9	52.4	-4.0	2.4	-0.4

<sup>\*</sup> 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 up to 10% of the Account is "semi-passively managed." These portions of the Account are designed to track and modestly outperform, respectively, the return of 22 developed markets included in the Morgan Stanley Capital International World ex U.S. Index. The remainder of the Account is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value.

# Period Ending 3/31/2010 Annualized

			Annuanzeu			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
<b>Total Account</b>	1.6%	60.6%	-3.9%	6.4%	3.2%	
Benchmark*	1.6	60.9	-4.1	6.2	2.7	

\* 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**

In the set Objection		Period Ending 3/31/2010							
Investment Objective		,	reriou El						
The investment objective of the Bond Market Account is						Annualized			
to exceed the return of the broad domestic bond market		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.			
by investing in fixed income securities.			16.5%	5.6%	5.3%	6.4%			
	Barclays Capital								
Asset Mix	Aggregate	1.8	7.7	6.1	5.4	6.3			

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

#### MONEY MARKET ACCOUNT

Investment Objective		Period Ending 3/31/2010				
The investment objective of the Money Market Account				A	nnualize	ed
is to protect principal by investing in short-term, liquid		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
U.S. Government securities.	<b>Total Account</b>	0.0%	0.2%	2.4%	3.1%	3.1%
	3 month T-Bills	0.0	0.1	1.7	2.7	2.7

#### Asset Mix

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

#### FIXED INTEREST ACCOUNT

Investment Objectives	Period Ending 3/31/2010							
The investment objectives of the Fixed Interest Account		Annua				ualized		
are to protect investors from loss of their original		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
investment and to provide competitive interest rates	<b>Total Account</b>	1.0%	4.5%	4.7%	4.6%	5.0%		
using somewhat longer-term investments than typically	Benchmark*	0.5	1.9	2.8	3.6	3.7		
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.

# \* 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	36.2%
International Stocks	15.0	15.1
Bonds	45.0	45.5
Cash	5.0	3.2
	100.0%	100.0%

Period Ending 3/31/2010 Annualized

Qtr. 1 Yr.
Total Account 3.6 N/A
Benchmark\* 3.2

<sup>\*</sup> 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 6 actively managed mutual funds and 5 passively managed mutual funds.

The SBI also offers a money market option, a fixed interest option, and a fixed fund 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 March 1, 2004. The investment options and objectives are outlined below.

# **Investment Options**

	3/31/2010 Market Value (in Millions)
Vanguard Institutional Index (passive)	\$391
Janus Twenty (active)	\$446
Legg Mason Appreciation Y (active)	\$119
Vanguard Mid Cap Index (passive)	\$162
T. Rowe Price Small Cap (active)	\$361
Fidelity Diversified International (active)	\$237
Vanguard Institutional Developed Markets (passive)	\$75
Dodge & Cox Balanced Fund (active)	\$265
Vanguard Balanced Fund (passive)	\$169
Dodge & Cox Income Fund (active)	\$131
Vanguard Total Bond Market Fund (passive)	\$104
SIF Money Market Account	\$85
SIF Fixed Interest Account	\$1,112

EAFE index.

#### DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE CAP EQUITY		-	Danied E	din - 2/24	/2010
Vanguard Institutional Index (passive)     A passive domestic stock portfolio that tracks the		,	Period En	Annua	
S&P 500.	Fund S&P 500	Qtr. 5.4% 5.4	1 Yr. 49.9% 49.8	3 Yr. -4.1% -4.2	5 Yr. 2.0% 1.9
Janus Twenty (active)  • A concentrated fund of large cap stocks which is		1	Period En	ding 3/31	
expected to outperform the S&P 500, over time.	Fund S&P 500	Qtr. 3.9% 5.4	1 Yr. 48.5% 49.8	3 Yr. 4.6% -4.2	5 Yr. 9.2% 1.9
Legg Mason Partners Appreciation Y (active)  • A diversified fund of large cap stocks which is		1	Period En	ding 3/31	
expected to outperform the S&P 500, over time.	Fund S&P 500	Qtr. 4.6% 5.4	1 Yr. 41.6% 49.8	3 Yr. -0.4% -4.2	5 Yr. 3.5% 1.9
MID CAP EQUITY  Vanguard Mid Cap Index (passive)  • A fund that passively invests in companies with		1	Period En	ding 3/31	
medium market capitalizations that tracks the Morgan Stanley Capital International (MSCI) U.S. Midcap 450 index.	Fund MSCI US Mid-Cap 450	Qtr. 8.7% 8.7	1 Yr. 66.6% 66.7	3 Yr. -3.3% -3.4	5 Yr. 4.2% 4.2
SMALL CAP EQUITY					
T. Rowe Price Small Cap (active)		I	Period En	-	
<ul> <li>A fund that invests primarily in companies with small market capitalizations and is expected to outperform the Russell 2000.</li> </ul>	Fund Russell 2000	Qtr. 9.6% 8.9	1 Yr. 67.7% 62.8	Annua 3 Yr. -1.1% -4.0	5 Yr. 4.7% 3.4
INTERNATIONAL EQUITY					
Fidelity Diversified International (active)  • A fund that invests primarily in stocks of companies		F	Period En	ding 3/31 Annua	
located outside the United States and is expected to outperform the MSCI index of Europe, Australasia and the Far East (EAFE), over time.	Fund MSCI EAFE	<b>Qtr. 0.6%</b> 0.9	1 Yr. 50.4% 54.4	3 Yr. -6.5% -7.0	5 Yr. 3.9% 3.7
Vanguard Institutional Developed Markets (passive)  • A fund that passively invests in stocks of companies located outside the United States that tracks the MSCI			Period En	Annua	lized
located outside the United States that tracks the MSCI		Qtr.	1 Yr.	3 Yr.	5 Yr.

Fund

MSCI EAFE

2.2% 55.5% -6.6%

-7.0

54.4

0.9

4.1%

3.7

## **DEFERRED COMPENSATION PLAN ACCOUNTS**

#### BALANCED

Dodge & Cox Balanced Fund (active)		I	Period En	ding 3/31	/2010
A fund that invests in a mix of stock and bonds. The				Annua	
fund invests in mid-to large-cap stocks and in high		Qtr.	1 Yr.	3 Yr.	5 Yr.
quality bonds, and is expected to outperform a	Fund	5.6%	51.2%	-3.4%	2.1%
weighted benchmark of 60% S&P 500/40% Barclays Capital Aggregate, over time.	Benchmark	4.0	31.7	0.2	3.6
Vanguard Balanced Fund (passive)		1	Period En		
• A fund that passively invests in a mix of domestic				Annua	
stocks and bonds. The fund is expected to track a		Qtr.	1 Yr.	3 Yr.	
weighted benchmark of 60% MSCI US Broad Market	Fund	4.4%	33.4%		4.2%
Index/40% Barclays Capital Aggregate.	Benchmark	4.4	33.3	0.6	4.1
FIXED INCOME					
Dodge & Cox Income Fund (active)		Pe	riod Endi		
• A fund that invests primarily in investment grade				Annua	
securities in the U.S. bond market which is expected to		Qtr.	1 Yr.	3 Yr.	5 Yr.
outperform the Barclays Capital Aggregate, over time.	Fund	2.2%	18.4%	6.9%	6.0%
	Barclays Capital				
	Aggregate	1.8	7.7	6.1	5.4
Vanguard Total Bond Market Fund (passive)		1	Period En	ding 3/3	1/2010
• A fund that passively invests in a broad, market-				Annua	
weighted bond index that is expected to track the		Qtr.	1 Yr.	3 Yr.	5 Yr.
Lehman Aggregate.	Fund	1.7%	7.5%	6.2%	5.5%
Lennan Aggregate.	Barclays Capital				
	Aggregate	1.8	7.7	6.1	5.4
		,	Period Er	ding 3/3	1/2010
Money Market Account			r eriou Ei	Annua	
• A fund that invests in short-term debt instruments		Qtr.	1 Yr.	3 Yr.	5 Yr.
which is expected to outperform the return on 3-month	Fund	0.0%	0.2%	2.4%	3.1%
U.S. Treasury Bills.	3-Mo. Treas.	0.0	0.1	1.7	2.7
	3-1410. Treas.	0.0	0.1		
FIXED INTEREST ACCOUNT					
		]	Period Er	nding 3/3	1/2010
A portfolio composed of stable value instruments		]	Period Er	nding 3/3 Annua	
<ul> <li>A portfolio composed of stable value instruments which are primarily investment contracts and security</li> </ul>			Period Er	_	
A portfolio composed of stable value instruments	Fund	Qtr. 1.0%	1 Yr.	Annua	lized

#### MINNEAPOLIS EMPLOYEES RETIREMENT FUND

#### **Investment Objectives**

On October 1, 2008 the MERF Board appointed the SBI to be the investment manager of all MERF assets as authorized by Minnesota Statutes, Chapter 422A.05. The MERF Board retains the responsibility for all administrative issues and establishes the Funds's investment objectives and asset allocation policy. On December 31, 2009, the market value of the Fund was \$922 million.

#### **Asset Allocation**

As noted above, the MERF Board is responsible for setting the asset allocation policy for the Fund. The target allocation and actual allocation information as of December 31, 2009 is shown below.

#### Asset Mix 3/31/10

	\$ Thousands	% Target Allocation	% Actual Allocation
U.S. Equities	433,316	45.0	47.1
Non-U.S. Equities	182,445	20.0	19.8
Bonds	282,299	30.0	30.7
Cash	21,437	5.0	2.3
Total	919,496	100.0	100.0

#### **Investment Management**

The SBI serves as an investment manager for the Fund. MERF participates in the same investment pools that are used by the Combined Funds, with the exception of the alternative investment pool. State law does not allow MERF to invest in the alternative investment pool. The bond and equity segments are managed to add incremental value through sector and security selection.

#### Performance

	Period Ending 3/31/			
	Qtr.	1 Year		
Fund	4.0%	40.9%		
Benchmark	3.6%	38.2%		

#### ASSIGNED RISK PLAN

#### **Investment Objectives**

The Assigned Risk Plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of on-going claims and operating expenses.

#### **Asset Mix**

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The actual asset mix will fluctuate in response to changes in the Plan's liability stream.

	3/31/2010	
	Target	Actual
Stocks	20.0%	19.7%
Bonds	80.0	80.3
Total	100.0%	100.0%

#### **Investment Management**

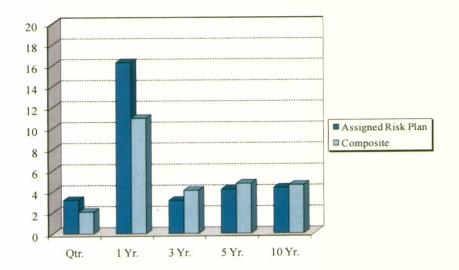
Voyageur Asset Management manages the bond segment of the Fund. GE Investment Management manages the equity segment.

#### Performance Benchmarks

A custom benchmark has been established for the fixed income portfolio. It reflects the duration of the liability stream and the long-term sector allocation of Voyageur Asset Management. Since July 1, 1994, the equity benchmark has been the S&P 500 index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets.

#### Market Value

On March 31, 2010 the market value of the Assigned Risk Plan was \$323 million.



#### Period Ending 3/31/2010

	I CITO Elland						
			Annualized				
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Total Fund*	3.2%	16.3%	3.2%	4.2%	4.3%		
Composite	2.1	11.0	4.1	4.7	4.6		
Equity Segment*	5.0	49.3	-1.0	3.4	1.0		
Benchmark	5.4	49.8	-4.2	1.9	<del>-0</del> .7		
Bond Segment*	2.8	10.6	4.2	4.3	4.9		
Benchmark	1.2	1.7	5.9	5.2	5.7		

\* Actual returns are calculated net of fees.

#### PERMANENT SCHOOL FUND

#### **Investment Objectives**

The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is used to offset expenditures on school aid payments to local school districts.

#### Asset Mix

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

	3/31/2010	3/31/2010
	Target	Actual
Stocks	50.0%	50.9%
Bond	48.0	47.7
Cash	2.0	1.4
Total	100.0%	100.0%

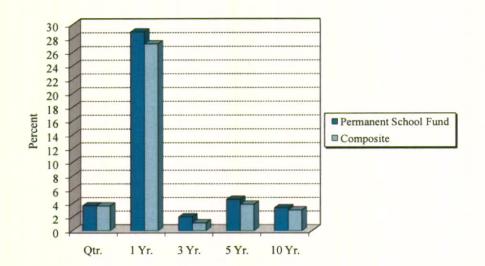
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

#### **Investment Management**

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

#### Market Value

On March 31, 2010 the market value of the Permanent School Fund was \$706 million.



#### Period Ending 3/31/2010

			Annualized			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Total Fund*	3.6%	28.9%	2.0%	4.6%	3.3%	
Composite	3.6	27.2	1.1	3.9	3.0	
Equity Segment*	5.4	49.5	-4.1	2.0	-0.6	
S&P 500	5.4	49.8	-4.2	1.9	<del>-</del> 0.7	
Bond Segment*	1.8	11.2	7.3	6.4	6.8	
Barclays Capital Agg.	1.8	7.7	6.1	5.4	6.3	

\* Actual returns are calculated net of fees.

#### **ENVIRONMENTAL TRUST FUND**

#### **Investment Objective**

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

#### Asset Mix

The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. As of July 1, 1999, the asset

	3/31/2010	3/31/2010
	Target	Actual
Stocks	70.0%	70.8%
Bonds	28.0	27.6
Cash	2.0	1.6
Total	100.0%	100.0%

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

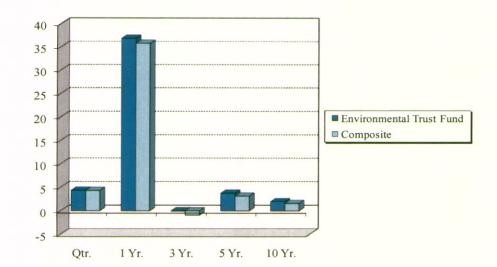
#### **Investment Management**

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

#### Market Value

On March 31, 2010 the market value of the Environmental Trust Fund was \$501 million.

of fees.



#### Period Ending 3/31/2010

	10110	, a Linding	Annual			
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Total Fund*	4.3%	36.9%	-0.1%	3.7%	2.0%	* Actual returns are calculated net
Composite	4.3	35.8	-0.9	3.1	1.6	
Equity Segment*	5.4	49.5	-4.0	2.0	-0.5	
S&P 500	5.4	49.8	-4.2	1.9	-0.7	
Bond Segment*	1.8	11.2	7.2	6.4	6.9	
Barclays Capital Agg.	1.8	7.7	6.1	5.4	6.3	

#### CLOSED LANDFILL INVESTMENT FUND

#### **Investment Objectives**

The investment objective of the Closed Landfill Investment Fund is to generate high returns from capital appreciation. The Fund will be used by the Commissioner of the PCA (Pollution Control Agency) to pay for the long-term costs of maintaining the integrity of landfills in Minnesota once they are closed. However, by statute, the assets of the Fund are unavailable for expenditure until after fiscal year 2020.

#### Asset Mix

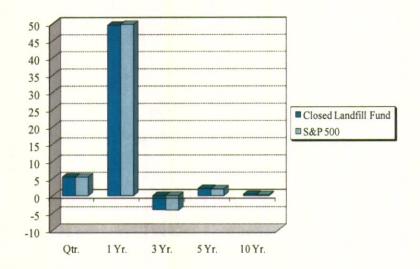
Effective July 1999, the Closed Landfill Investment Fund is invested entirely in common stock. Given the long time horizon of this Fund and the lack of need for any short or mid-term withdrawals, this strategy will maximize the long-term gain of the Fund.

#### **Investment Management**

SBI staff manage all assets of the Closed Landfill Investment Fund. The assets are managed to passively track the performance of the S&P 500 index.

#### Market Value

On March 31, 2010, the market value of the Closed Landfill Investment Fund was \$48.6 million.



#### Period Ending 3/31/2010

	Annualized					
	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	
Total Fund (1)	5.4%	49.5%	-4.0%	2.0%	-0.5%	
S&P 500	5.4	49.8	-4.2	1.9	-0.7	

(1) 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 range in size from \$5,000 to over \$400 million.

Most accounts are invested by SBI staff through two short-term pooled funds:

- Trust Fund Pool contains the temporary cash balances of certain trusts and retirement-related accounts.
- Treasurer's Cash Pool 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 the 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.

**Competitive Rate of Return.** To provide a high level of current income.

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

#### **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 the SBI investment staff. As noted above, most of the assets of the cash accounts are invested through two large commingled investment pools.

		Period End	ding 3/31/201	0		
	Market Value		-	Anr	nualized	
	(Millions)	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Treasurer's Cash Pool*	\$4,314	0.2%	2.8%	3.3%	3.8%	3.5%
Custom Benchmark**		0.0	0.1	1.9	2.7	2.7
Trust Fund Cash Pool*	\$134	0.1	1.2	2.2	3.1	3.0
Custom Benchmark		0.0	0.1	1.9	2.7	2.5
3 month T-Bills		0.0	0.1	1.7	2.7	2.7

- 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.

# MINNESOTA STATE BOARD OF INVESTMENT

## Composition of State Investment Portfolios By Type of Investment Market Value March 31, 2010 (in Thousands)

COMPINED DETIDEMENT WINDS	Cash & ST	<b>Bonds Int</b>	<b>Bonds Ext</b>	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	245,135	0	3,411,821	0	7,697,345	2,401,637	2,241,195	15,997,133
	1.53%		21.33%		48.12%	15.01%	14.01%	100%
Public Employees Retirement Fund	183,815	0	2,560,066	0	5,775,715	1,802,072	1,681,684	12,003,352
	1.53%		21.33%		48.12%	15.01%	14.01%	100%
State Employees Retirement Fund	103,699	0	1,742,870	0	3,932,046	1,226,836	1,144,869	8,150,320
	1.27%		21.38%		48.25%	15.05%	14.05%	100%
Public Employees Police & Fire	72,365	0	1,007,862	0	2,273,817	709,451	662,055	4,725,550
	1.53%		21.33%		48.12%	15.01%	14.01%	100%
Highway Patrol Retirement Fund	5,178	0	111,565	0	251,700	78,532	73,286	520,261
	1.00%		21.44%		48.38%	15.09%	14.09%	100%
Judges Retirement Fund	1,576	0	28,564	0	64,443	20,107	18,764	133,454
	1.18%		21.40%		48.29%	15.07%	14.06%	100%
Correctional Employees Retirement	8,143	0	117,718	0	265,581	82,863	77,328	551,633
	1.48%		21.34%		48.14%	15.02%	14.02%	100%
Public Employees Correctional	3,310	0	46,094	0	103,993	32,446	30,279	216,122
	1.53%		21.33%		48.12%	15.01%	14.01%	100%
Legislative Retirement Fund	7	0	4,656	0	10,514	3,276	3,065	21,518
	0.03%		21.64%		48.86%	15.23%	14.24%	100%
TOTAL COMBINED FUNDS	623,228	0	9,031,216	0	20,375,154	6 257 220	5 022 525	42 210 242
TO THE STATE OF TH	1.47%	U	21.34%	U		6,357,220	5,932,525	42,319,343
	1.4//0		21.34%		48.15%	15.02%	14.02%	100%

Mpls EE Retirement Plan	Cash & ST 18,318 2.24%	Bonds Int	Bonds Ext 251,056 30.78%	Stock Int	Stock Ext 383,491 47.02%	Ext Intl 162,775 19.96%	Alternative 0	<b>Total</b> 815,640 100%
Mpls EE Retirement Active	3,119 3.00%	0	31,243 30.08%	0	49,825 47.98%	19,670 18.94%	0	103,857 100%
Mpls EE Retirement Deposit Acct	1,439 100.00%	0	0	0	0	0	0	1,439 100%
TOTAL MERF FUNDS	22,876 2.49%	0	282,299 30.65%	0	433,316 47.05%	182,445 19.81%	0	920,936 100%
MINNESOTA SUPPLEMENTAL FUNDS Income Share Account	9,104 3.92%	82,121 35.31%	0	0	141,334 60.77%	0	0	232,559 100%
Growth Share Account	0	0	0	0	111,757 100.00%	0	0	111,757 100%
Money Market Account	160,055 100.00%	0	0	0	0	0	0	160,055 100%
Common Stock Index	0	0	0	0	226,273 100.00%	0	0	226,273 100%
Bond Market Account	0	0	122,672 100.00%	0	0	0	0	122,672 100%
International Share Account	0	0	0	0	0	120,009 100.00%	0	120,009 100%
Stable Value Fund	0	0	115,828 100.00%	0	0	0	0	115,828 100%
Volunteer Firefighters Account	26 3.24%	0	365 45.45%	0	291 36.24%	121 15.07%	0	803 100%
TOTAL SUPPLEMENTAL FUNDS	169,185 15.52%	82,121 7.53%	238,865 21.92%	0	479,655 44.01%	120,130 11.02%	0	1,089,956 100%

		Cash & ST	<b>Bonds Int</b>	<b>Bonds Ext</b>	Stock Int	Stock Ext	Ext Intl	Alternative	Total
	MN DEFERRED COMP PLAN	93,753	0	1,476,465	0	1,775,272	312,031	0	3,657,521
		2.56%		40.37%		48.54%	8.53%		100%
	TOTAL RETIREMENT FUNDS	909,042	82,121	11,028,845	0	23,063,397	6,971,826	5,932,525	47,987,756
		1.90%	0.17%	22.98%		48.06%	14.53%	12.36%	100%
	ASSIGNED RISK PLAN	853	0	258,872	0	63,165	0	0	322,890
		0.27%		80.17%		19.56%			100%
	ENVIRONMENTAL FUND	8,054	138,199	0	354,673	0	0	0	500,926
		1.61%	27.59%		70.80%				100%
	PERMANENT SCHOOL FUND	9,997	336,465	0	359,490	0	0	0	705,952
		1.42%	47.66%		50.92%		v	v	100%
<b>L</b>	CLOSED LANDFILL INVESTMENT	0	0	0	48,642	0	0	0	48,642
5					100.00%				100%
	TREASURERS CASH	4,311,577	0	0	0	0	0	0	4,311,577
		100.00%							100%
	HOUSING FINANCE AGENCY	0	107,879	0	0	0	0	0	107,879
			100.00%						100%
	MINNESOTA DEBT SERVICE FUND	0	51,874	0	0	0	0	0	51,874
			100.00%						100%
	MISCELLANEOUS ACCOUNTS	170,824	251,418	0	184,261	0	0	0	606,503
		28.17%	41.45%		30.38%				100%
	TOTAL CASH AND NON-RETIREMENT	4,501,305	885,835	258,872	947,066	63,165	0	0	6,656,243
		67.62%	13.31%	3.89%	14.23%	0.95%			100%
	GRAND TOTAL	5,410,347	967,956	11,287,717	947,066	23,126,562	6,971,826	5,932,525	54,643,999
		9.90%	1.77%	20.66%	1.73%	42.32%	12.76%	10.86%	100%

# Tab B

#### EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE:

May 11, 2010

TO:

Members, State Board of Investment

FROM:

**Howard Bicker** 

#### 1. Reports on Budget and Travel

A report on the SBI's administrative budget for the period ending April 30, 2009 is included as **Attachment A**.

A report on travel for the period from February 5, 2009 – May 4, 2009 is included as **Attachment B**.

#### 2. Legislative Update

A summary of legislative activity of interest to the SBI is in Attachment C.

#### 3. Update on Sudan

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.243 that requires SBI actions concerning companies with operations in Sudan.

Staff has received periodic reports from the Sudan Divestment Task Force about the status of companies with operations in Sudan. The Sudan Divestment Task Force was recently reorganized as part of the Conflict Risk Network (CRN). The reports staff has received from the Task Force now come from the Conflict Risk Network in somewhat different form. Until further notice, staff will continue to receive the reports free of charge.

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.

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

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

There was no divestment activity required in the first quarter of 2010.

**Attachment D** is a copy of the March 18, 2010 letter sent to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested.

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

#### 4. Update on Iran

Each quarter, staff provides a report to the Board on steps taken to implement Laws of Minnesota 2009, Chapter 90, codified as *Minnesota Statutes*, section 11A.244, that requires SBI actions concerning companies with operations in Iran.

SBI subscribes to the Iran service provided by RiskMetrics and regularly receives a list of companies with operations in Iran. SBI received a new list of scrutinized companies for April 2010. See **Attachment F** for this list. Staff sent a letter dated April 28, 2010 (see **Attachment G**) to each domestic and international equity manager and fixed income manager with instructions that the managers may not purchase additional publicly traded securities of the companies.

Staff also wrote to the companies new to the list. The letters requested a written response within 90 days. Staff will review the responses in order to determine if any of these companies new to the list must be placed on the divestment list. The first divestments of holdings must be made by July 31, 2010.

According to the law, if after 90 days from the SBI's communication with the company, the company continues to have scrutinized business operations, the SBI must divest all publicly traded securities of the company according to 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.

As required by the law, the SBI provided a status report in January 2010 to the legislative committees having jurisdiction over the SBI.

#### 5. Update on Cash Management

For years, the SBI has utilized repurchase agreements (repo) with several dealer counterparties as a low risk means of meeting the State's short term liquidity needs. Existing repo documents date back as far as 1988. As a matter of good business practice and to ensure compliance with current State statutes, staff has attempted to update the existing repo documents with the dealer counterparties and their respective custodian banks.

Staff has focused on completing the documents for certain dealer counterparties as a means of establishing a template with which to start negotiating with the other dealers. Of the counterparties contacted, all dealers and/or their respective custodial banks have balked at the State's updated terms or have demanded terms to which the State cannot legally agree. Two of the contacted dealers no longer allow the State to enter repo transactions with them due to the outdated agreements.

Staff is exploring options to address the state's liquidity needs. This may require the services of an external vendor. Staff will keep the Board informed related to this matter.

#### 6. Litigation Update

SBI legal counsel will give the Board a verbal update on the status of the litigation at the Board meeting on June 2, 2010.

#### ATTACHMENT A

# STATE BOARD OF INVESTMENT FISCAL YEAR 2010 ADMINISTRATIVE BUDGET REPORT FISCAL YEAR TO DATE THROUGH APRIL 30, 2010

	FISCAL YEAR	FISCAL YEAR	
	2010	2010	
ITEM	BUDGET	4/30/2010	
PERSONAL SERVICES			
FULL TIME EMPLOYEES	\$ 2,923,000	\$ 2,351,376	
PART TIME EMPLOYEES	\$ 75,000	\$ 57,284	
SEVERENCE PAYOFF	20,000	C	
WORKERS COMPENSATION INSURANCE	1,000	568	
MISCELLANEOUS PAYROLL	4,000	C	
SUBTOTAL	\$ 3,023,000	\$ 2,409,228	
STATE OPERATIONS			
RENTS & LEASES	205,000	166,028	
REPAIRS/ALTERATIONS/MAINTENANCE	10,000	7,635	
PRINTING & BINDING	10,000	2,739	
PROFESSIONAL/TECHNICAL SERVICES	0	(	
COMPUTER SYSTEMS SERVICES	20,000	16,232	
COMMUNICATIONS	30,000	22,430	
TRAVEL, IN-STATE	3,000	172	
TRAVEL, OUT-STATE	60,000	31,779	
SUPPLIES	40,000	21,772	
EQUIPMENT	25,000	1,711	
EMPLOYEE DEVELOPMENT	20,000	3,670	
OTHER OPERATING COSTS	10,000	8,279	
SUBTOTAL	\$ 433,000	\$ 282,447	
TOTAL ADMINISTRATIVE BUDGET	\$ 3,456,000	\$ 2,691,675	

### ATTACHMENT B

# STATE BOARD OF INVESTMENT

# Travel Summary by Date SBI Travel February 5, 2010 – May 4, 2010

Purpose	Name(s)	Destination and Date	Total Cost
Conference: Investment Education Symposium sponsored by: Opal Financial Group	H. Bicker	New Orleans, LA 2/8-2/10	\$523.89
Manager Monitoring: Fixed Income Managers: Dodge & Cox; PIMCO; Western Asset Mgmt. Manager Search: Fixed Income Manager: BGI (BlackRock)	M. Menssen J. J. Kirby	San Francisco, CA Pasadena, CA Newport Beach, CA 2/23-2/26	3,107.64
Manager Monitoring: Alternative Investment Manager: Diamond Castle	M. McGirr	New York, NY 2/25-2/26	571.33
Manager Monitoring: Master Custodian: State Street Bank & Trust Co. Accounting Services: Financial Control Systems	T. Richardson S. Schugel	Boston, MA Philadelphia, PA 3/1-3/2	1,622.30
Manager Monitoring: Domestic Equity Managers: Sands Capital Mgmt; Turner Investment Partners	T. Brusehaver Patricia Ammann	Philadelphia, PA Washington, D.C. 3/17-3/19	1,941.68
Manager Monitoring: Master Custodian: State Street's Institutional Investor Services (IIS) Client Advisory Council Meeting	H. Bicker	Boston, MA 4/7-4/9	1,182.40

Purpose	Name(s)	Destination and Date	Total Cost
Conference: Wilshire Compass 2010 Investment Technology Seminar	S. Gleeson	Hilton Head, SC 4/12-4/14	\$1,432.02
Manager Monitoring: Alternative Investment Managers: EnCap Investments; Sheridan Production Partners	M. McGirr	Houston, TX 4/12-4/13	1,365.02
Manager Monitoring: Alternative Investment Manager: Warburg Pincus Manager Search: Alternative Investment Manager: Energy Capital Partners	M. McGirr	New York, NY Short Hills, NJ 4/20-4/22	1,449.27
Manager Monitoring: Alternative Investment Manager: Merit Energy	T. Richardson	Dallas, TX 4/21-4/22	536.53
Manager Monitoring: Alternative Investment Manager: Banc Fund; GTCR Annual Meeting	J. Griebenow	Chicago, IL 4/27-4/28	508.18

Purpose	Name(s)	Destination and Date	Total Cost
Conference: National Association of State Investment Professionals (NASIP)	M. Menssen	Seattle, WA 4/27-4/30	\$1,798.40
Conference: National Association of State Investment Professionals (NASIP) Manager Monitoring: Domestic Equity Manager: Zevenbergen Capital Investments	T. Brusehaver	Seattle, WA 4/27-4/30	2,004.15

#### ATTACHMENT C

## Bills of Interest to the Minnesota State Board of Investment 2010 Legislative Session Includes Action Through May 5

Description of Bill	HF/SF # and Author	Current Status
Pension Funds' Financial Sustainability Bill	HF 2952 (Murphy, M.)	Referred to Finance
	SF 2573 (Betzold)	4/28 Amended and Passed; Referred to Floor
Omnibus Pension Bill - contains pensions funds' financial sustainability measures	HF 3281 (Murphy, M.)  SF 2918 (Betzold)	Senate File substituted on General Register 5/5 Senate amended and passed
MERF Consolidation Bill	HF 2922 (Thissen)	Referred to Finance; Hearing 5/10
	SF 2644 (Betzold)	4/28 Finance Amended and Passed; Referred to Floor
SBI Budget - in Supplemental Budget Bill See Article 12, Sec. 9	HF 1671 (Carlson)	Signed by Governor Chapter 215
Assigned Risk Plan Withdrawal See Article 4, Sec. 7	HF 1671 (Carlson)	Signed by Governor Chapter 215

#### ATTACHMENT D

Letter to SBI International Equity Managers

March 18, 2010

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 domestic equity portfolios managed by your organization and replaces all prior communications. This communication also applies to ADR's of any of the listed companies.

Laws of Minnesota 2007, Chapter 117, codified as *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. Please note that the attached List makes changes to the List of Restricted Sudan Stocks that was attached to the December 8, 2009 letter you received. This new list is effective March 22, 2010.

- The following company has been added to the restricted list:
  - Nippon Oil Corporation

Attachment 2 is the List of Sudan Stocks Requiring Divestment.

- The following companies have been added to the divestment list:
  - PTT Public Company Limited
  - Seadrill Limited

If you own securities of companies on the List of Sudan Stocks Requiring Divestment in the SBI portfolio that your organization manages, then you must <u>divest</u> those holdings according to the schedules provided in the Attachment:

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

Attachment 3 is a list of security identifiers for the companies on the List of Restricted Sudan Stocks (Attachment 1) that your organization may use. Please note that the list of security identifiers has information on companies not on the restricted list.

If you have any questions about this matter, please contact Stephanie Gleeson, Manager, International Equities; or James E. Heidelberg, Manager, Public Programs.

Sincerely,

Teresa J. Richardson Assistant Executive Director

**Enclosures** 

cc: James E. Heidelberg, Manager, Public Programs Stephanie Gleeson, Manager, International Equities Letter to SBI Domestic Equity Managers

March 18, 2010

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 international equity portfolios managed by your organization and replaces all prior communications. This communication also applies to depository receipts of any of the listed companies.

Laws of Minnesota 2007, Chapter 117, codified as *Minnesota Statutes*, section 11A.243, requires the SBI to implement a Sudan restriction.

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

Sincerely,

Teresa J. Richardson Assistant Executive Director

Enclosures

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

# ATTACHMENT 1

Restricted Sudan Stocks	
Company Name	Country of Origin
AviChina Industry & Technology Company Limited	China
Daqing Huake Group Company Limited	China
Dongfeng Automotive Company Limited	China
Hafei Aviation Industry Company	China
Harbin Dongan Auto Engine Company	China
Jiangxi Changhe Automobile Company Limited	China
Jiangxi Hongdu Aviation AKA Hongdu Aviation	China
Jinan Diesel Company Limited	China
PetroChina	China
Sinopec Corporation AKA China Petroleum and Chemical Corporation	China
Sinopec Shanghai Petrochemical Company Limited	China
Sinopec Yizheng Chemical Fibre Company Limited	China
Wuhan Boiler Company.	China
China North Industries Group Corporation AKA CNGC/Norinco	China
Norinco International Cooperation Limited	China
CNPC Hong Kong	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Bongaigaon Refinery & Petrochemicals Limited AKA BRPL	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Indian Oil Corporation Ltd. AKA IOCL	India
Lanka IOC Limited	India
Mangalore Refinery and Petrochemical Limited	India
Mercator Lines	India
Oil and Natural Gas Company AKA ONGC	India
Alstom Projects India Limited	India
Oil India Limited	India
Egypt Kuwaiti Holding Company	Egypt
Kingdream PLC	Egypt/China
AREF Energy Holding Company	Kuwait
ONA S.A.	Morocco
Managem	Morocco
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Muhibbah Engineering Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia
Ranhill Berhad	Malaysia
Scomi Group Berhad	Malaysia

### **ATTACHMENT 1**

Restricted Sudan Stocks				
Company Name	Country of Origin			
Scomi Engineering Berhad	Malaysia			
Electricity Generating PCL AKA EGCO	Thailand			
PTT Public Company AKA PTT	Thailand			
Mercator Lines Singapore	Singapore			
Alstom	France			
Areva SA	France			
Seadrill Limited	Bermuda			
Nippon Oil Corporation	Japan			

Note: List contains parent companies and subsidiaries publicly traded.

AKA means "Also Known As"

Source: Genocide Intervention Network March 17, 2010

#### **ATTACHMENT 2**

#### **Sudan Stocks Requiring Divestment Divest 50 Percent Divest 100 Percent** Company Name **Country of Origin** By this Date By this date China Petroleum and Chemical Corporation AKA Sinopec Corp China April 30, 2008 October 31, 2008 PetroChina Company China April 30, 2008 October 31, 2008 Oil and Natural Gas Corp AKA **ONGC** India April 30, 2008 October 31, 2008 Malaysia International Shipping Company AKA MISC Berhad Malaysia April 30, 2008 October 31, 2008 Alstom France October 31, 2008 April 30, 2008 PTT Public Company Limited Thailand August 31, 2010 February 28, 2011 Seadrill Limited Bermuda August 31, 2010 February 28, 2011

Note: AKA means "Also Known As"

Source: Genocide Intervention Network

March 17, 2010

Sudan Company Report Security Identifiers (Stocks)
The following security Identifiers correlate with the February 28, 2010 issue of the Sudan Company Report
ALL DATA IS FEMM BLOOMBERG IS UNIVERSE OTHERWISE NOTED.

CKS ADDED FROM LAST REPORT ARE HIGHLIGHTED  Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name		/PK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS F	ondscode CATS
OM (FRANCE)	ALSTOM	EN Paris (XPAR)	Common Stock	ALSTOM ALSTOM	ALO FP AOMFF US	A0F7BK	BODJBQ5 FR BOGLY93 US			FR0010220475 FR0010220475	022581074		
OM (FRANCE) OM (FRANCE)	ALSTOM ALSTOM	OTC US (XOTC)	Common Stock Common Stock	ALSTOM S.A.	ALS LI	914815	BUGL Y93 US			FR0010220475 FR0000120198	022581074	FU258M475	
OM (FRANCE)	ALSTOM		Common Stock	ALSTOM+	ALS ES	914815	7163906			FR0000120198	008792569		
OM (FRANCE)	ALSTOM		Common Stock	ALSTOM RGPT	ALS LN	AOF7BK				FR0010220475	022581074		
OM (FRANCE)	ALSTOM ALSTOM		Common Stock	ALSTOM ALSTOM	ALON FP	914815	5474978 FR			FR0000120198	008792569		
OM (FRANCE)	ALSTOM		Common Stock	ALSTOM - NEW	2747754QFP	AOMVTR	B1X01KO FR			FR0010412361	029937141		
OM (FRANCE)	ALSTOM		Common Stock	ALSTOM - NEW	3148920QFP	A0Q29k	B2QN7F0 FR			FR0010567693	035638237		
OM (FRANCE)	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GR	A0F7BK	B0G0412 DE			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	PLUS Miket Grp (XPLU)	Common Stock	ALSTOM ALSTOM	ALS VX ALO PZ	A0F7BK	BODJ8Q5 FR BOYLTQ7 GB			FR0010220475 FR0010220475	022581074		
OM (FRANCE)	ALSTOM ALSTOM	Euro Comp (XLON)	Common Stock Common Stock	ALSTOM	ALO EU	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Edio Colla DECITI	Common Stock	ALSTOM	AOMG IX	A0F7BK	B0G0412 DE			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Chi-X Alt TS (CHIX)	Common Stock	ALSTOM	ALSP IX	A0F7BK	BODJ8Q5 FR			FR0010220475	022581074		
OM (FRANCE)	ALSTOM ALSTOM	Euro Comp (XLON)  Euro OTC (XLON)	Common Stock Common Stock	ALSTOM ALSTOM	ALOGBX EU ALOGBX EO	A0F7BK	BOYLTQ7 GB			FR0010220475 FR0010220475	022581074		
'OM (FRANCE) 'OM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOGBA EO	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOUSD EU	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOUSD EO	A0F7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Turquoise (TRQX)	Common Stock	ALSTOM	ALO TO	AOF7BK	BODJ8Q5 FR			FR0010220475	022581074		
OM (FRANCE)	ALSTOM ALSTOM	NSDQ OMX Eur (NURO) Equiduet (XEQT)	Common Stock Common Stock	ALSTOM ALSTOM	ALO NQ ALO BQ	A0F7BK A0F7BK	BODJ8Q5 FR BODJ8Q5 FR			FR0010220475 FR0010220475	022581074		
TOM (FRANCE)	ALSTOM	BATS Europe (BATE)	Common Stock	ALSTOM	ALO EB	A0F7BK	BODJ8Q5 FR			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO EO	A0F7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOCHF EO	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOCHF EU	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM ALSTOM	Euro OTC (XLON) Euro Comp (XLON)	Common Stock Common Stock	ALSTOM	ALONOK EU	AOF7BK	BOYLTQ7 GB			FR0010220475 FR0010220475	022581074		
TOM (FRANCE) TOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOAUD EO	AOF7BK	BOYLTQ7 GB			FR0010220475	022581074		
TOM (FRANCE)	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALOAUD EU	AOF7BK	BOYLTO7 GB			FR0010220475	022581074		
OM (FRANCE)	ALSTOM	EN Paris (XPAR)	Common Stock	ALSTOM - NEW	ALONV FP		B3KRWQ1 FR			FR0010697375	042043141		
OM PROJECTS INDIA LTD (INDIA)	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ABBAP IN	AOEAYM	6230834 IN			INE878A01011			
AN BOILER CO (CHINA)	ALSTOM ANDRITZ GROUP	Shenzhen (XSHE) Vienna (WBAH)	Common Stock	WUHAN BOILER CO-B ANDRITZ AG	200770 CH ANDR AV	913669 632305	6111928 CN B1WVF68 AT		-	CNE000000VM7 AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	Frankfurt (XFRA)	Common Stock	ANDRITZ AG	AZ2 GR	632305	B1X9FH2 DE			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	Chi-X alt TS (CHIX)	Common Stock	ANDRITZ AG	ANDR IX	632305	B1WVF68 AT			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR EO	632305	B28F3F6 GB			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP ANDRITZ GROUP	Euro Comp (XLON)  Euro Comp (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR EU ANDRGBX EU	632305 632305	B28F3F6 GB B28F3F6 GB			AT000730007 AT000730007	013042748		
RITZ AG (AUSTRIA) RITZ AG (AUSTRIA)	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDRGBX EO	632305	828F3F6 GB			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	PLUS Mid Grp (XPLU)	Common Stock	ANDRITZ AG	ANDR PZ	632305				AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDRUSD EO	632305	100000000000000000000000000000000000000			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	Eure OTC (XLON)	Common Stock	ANDRITZ AG ANDRITZ AG	ANDR TO	632305 632305	B28F3F6 GB B1WVF68 AT			AT000730007 AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP ANDRITZ GROUP	NSDQ OMX EUR (NURO)	Common Stock	ANDRITZ AG	ANDR NO	632305	B1WVF68 AT			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	BATS Europe (BATE)	Common Stock	ANDRITZ AG	ANDR EB	632305	B1WVF68 AT			AT000730007	013042748		
RITZ AG (AUSTRIA)	ANDRITZ GROUP	OTC US (OOTC)	Common Stock	ANDRITZ AG	ADRZF US	632305	B1XBL36 US			AT0000730007	013042748	A11123105	
RITZ AG (AUSTRIA)	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG	ANRZY US		B3DY4P2 US			US0345221024			
RITZ AG (AUSTRIA)	ANDRITZ GROUP ANDRITZ GROUP	NYSE ARCA Eu (XHFT) Euro OTC (XLON)	Common Stock Common Stock	ANDRITZ AG ANDRITZ AG	ANDR NR ANDRGBP EO	632305 632305	B1WVF68 AT B28F3F6 GB			AT0000730007 AT000730007	013042748 013042748		
RITZ AG (AUSTRIA) F ENERGY HOLDING COMPANY (KUWAIT)	AREF ENERGY HOLDING COMPANY	Kuwait (XKUW)	Common Stock	AREF ENERGY HOLDING CO KSCC	AREFENRGKK	A0KD4C	B13BW99 KW			KW0EQ0601801			
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Burgundy (BURG)	Common Stock	ATLAS COPCO AB-A SHS	ATCOA BY	858209	B1QGR41 SE		907483	SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Burgundy (BURG)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB BY	877481	B1QGR74 SE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Stockholm (XSTO) OTC US (XOTC)	Common Stock	ATLAS COPCO AB-A SHS ATLAS COPCO AB-A SHS	ATCOA SS ATLKF US	858209	B1QGR41 SE B1XJL63 US		907483	8E0000101032 SE0000101032	001180053	W10020118	
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Frankfurt (XFRA)	Common Stock	ATLAS COPCO AB-A SHS	ACOA GR	858209	B1XHL89 DE		907483	SE0000101032	001180053	**10020110	
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Chi-X Alt TS (CHIX)	Common Stock	ATLAS COPCO AB-A SHS	ATCA IX	858209	B1QGR41 SE		907483	SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro Comp (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOA EU ATCO/A PZ	858209	B28F6M4 GB		907483	SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB ATLAS COPCO AB	PLUS Mkt Grp (XPLU) Stockholm (XSTO)	Common Stock	ATLAS COPCO AB-A SHS ATLAS COPCO AB-B SHS	ATCOR SS	858209 877481	B1QGR74 SE		907483	SE0000101032 SE0000122467	001180053 001205480		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Berlin (XBER)	Common Stock	ATLAS COPCO AB-B SHS	ACOB GR	877481	B1XHM19 DE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	OTC US (XOTC)	Common Stock	ATLAS COPCO AB-B SHS	ATLCF US	877481	B1XJLF2 US		907485	SE0000122467	001205480	W10020134	
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Chi-X Alt TS (CHIX)	Common Stock	ATLAS COPCO AB-B SHS	ATCB IX	877481	B1QGR74 SE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro Comp (XLON)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB EU	877481	B1VVDH6 GB		007405	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	PLUS Mkt Grp (XPLU) OTC US (XOTC)	Common Stock	ATLAS COPCO AB-B SHS ATLAS COPCO AB-SPONS ADR A	ATCO/B PZ ATLKY US	877481 920783	2061997 US		907485	SE0000122467 US0492557063	001205480		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	OTC US (XOTC)	ADR	ATLAS COPCO AB-SPON ADR "B"	ATLCY US	920784	2062019 US	04925580	5	US0492558053			
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOA EO	858209	B28F6M4 GB			SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro Comp (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOAEUREU	858209	B28F6M4 G8			SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOAEUREO ATCOAGBXEU	858209 858209	B28F6M4 GB B28F6M4 GB			SE0000101032 SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB ATLAS COPCO AB	Euro Comp (XLON)  Euro OTC (XLON)	Common Stock Common Stock	ATLAS COPCO AB-A SHS	ATCOAGBXEO	858209	B28F6M4 GB			SE0000101032	001180053		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOAUSDEO	858209	B28F6M4 GB			SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro Comp (XLON)	Common Stock	ATLAS COPCO AB-A SHS	ATCOAUSDEU	858209	B28F6M4 GB		70000000	SE0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Turquoise (TRQX)	Common Stock	ATLAS COPCO AB-A SHS	ATCOA TO	858209 858209	B1QGR41 SE B1QGR41 SE		907483	8E0000101032	001180053		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	NSDQ OMX Eur (NURO)  BATS Furone (BATE)	Common Stock	ATLAS COPCO AB-A SHS ATLAS COPCO AB-A SHS	ATCOA NO ATCOA EB	858209 858209	B1QGR41 SE B1QGR41 SE		907483	SE0000101032 SE0000101032	001180053		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB EO	877481	B1VVDH6 GB		807403	SE0000101032	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro Comp (XLON)	Common Stock	ATLAS COPCO AB-B SHS	ATCOBEUREU	877481	B1VVDH6 GB			SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-B SHS	ATCOBEUREO	877481	B1VVDH6 GB			SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-B SHS ATLAS COPCO AB-B SHS	ATCOBGBXEU ATCOBGBXEO	877481 877481	B1VVDH6 GB B1VVDH6 GB			SE0000122467 SE0000122467	001205480		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB ATLAS COPCO AB	Euro OTC (XLON)	Common Stock	ATLAS COPCO AB-B SHS	ATCOBGBREO	877481				SE0000122467 SE0000122467	001205480		
AS COPCO AB (SWEDEN) AS COPCO AB (SWEDEN)	ATLAS COPCO AB	Turquoise (TRQX)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB TO	877481	B1QGR74 SE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	NSDQ OMX Eur (NURO)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB NO	877481	B1QGR74 SE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	BATS Europe (BATE)	Common Stock	ATLAS COPCO AB-B SHS	ATCOB EB	877481	B1QGR74 SE B1QGR74 SE		907485	SE0000122467	001205480		
AS COPCO AB (SWEDEN)	ATLAS COPCO AB	NYSE ARCA Eu (XHFT) NYSE ARCA Eu (XHFT)	Common Stock	ATLAS COPCO AB-8 SHS ATLAS COPCO AB-A SHS	ATCOB NR ATCOA NR	877481	B1QGR74 SE B1QGR41 SE		907485	SE0000122467 SE0000101032	001205480		
AS COPCO AB (SWEDEN) AS COPCO (INDIA) LTD	ATLAS COPCO AB ATLAS COPCO AB	Mumbai (XBOM)	Common Stock	ATLAS COPCO (INDIA) LIMITED	ATCOA NR	030209	6374624 IN		90/403	INE445A01019	001180003		
AS COPCO (INDIA) LTD AS COPCO (INDIA) LTD	ATLAS COPCO AB	OTC US (OOTC)	Common Stock	ATLAS COPCO (INDIA) LIMITED	ACPPF US					INE445A01019		Y0434W116	
CHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Hong Kong (XHKG)	Common Stock	AVICHINA INDUSTRY & TECH-H	2357 HK	A0M4WY	6707899 HK			CNE1000001Y8			
CHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Frankfurt (XFRA)	Common Stock	AVICHINA INDUSTRY & TECH-H	AVT GR	A0M4WY	B1BJK68 DE			CNE1000001Y8			
CHINA INDUSTRY & TECHNOLOGY LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	OTC US (XOTC) Shanghai (XSHG)	Common Stock	AVICHINA INDUSTRY & TECH-H HAFEI AVIATION INDUSTRY CO	AVIJF US 600038 CH	AOM4VVY AOM4ER	801W4B3 US 6306586 CN			CNE1000001Y8 CNE0000015V6		Y0485Q109	
EI AVIATION INDUSTRY CO (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD  AVICHINA INDUSTRY & TECHNOLOGY LTD	Shanghai (XSHG) Shanghai (XSHG)	Common Stock	HARBIN DONGAN AUTO ENGINE-A	600038 CH 600178 CH	AOM4ER AOM369	6306586 CN 6128519 CN			CNE0000015V6 CNE000000XJ9			
BIN DONGAN AUTO ENGINE CO (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Shanghai (XSHG)	Common Stock	CHINA AVIC AVIONICS EQUIPMENT	600372 CH	A0M4G1	6371896 CN			CNE0000018CO			
GXI CHANGDU AVIATION INDUSTRY CO LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CH	A0M4EK	6304375 CN			CNE0000015N3			
IGXI HONGDU AVIATION INDUSTRY CO LTD (CHINA)	AVICHINA INDUSTRY & TECHNOLOGY LTD	OTC US (XOTC)	Common Stock	JIANGXI HONGDU AVIATION-A	JNXIF US	A0M4EK	B1MT2Q1 US			CNE0000015N3		Y4445M109	
RAT ELECTRONICS LIMITED (INDIA)	BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS	Mumbai (XBOM) Nati India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED BHARAT HEAVY ELECTRICALS	BHE IN	120304 946065	6139715 IN 6129523 IN			INE263A01016 INE257A01018			
RAT HEAVY ELECTRICALS (INDIA) RAT HEAVY ELECTRICALS (INDIA)	BHARAT HEAVY ELECTRICALS BHARAT HEAVY ELECTRICALS	OTC US (OOTC)	Common Stock		BHHEF US	946065	B1N31W1 US			INE257A01018		Y0882L117	
	DESCRIPTION OF THE PROPERTY OF			The second second second second									
C HONG KONG LTD (BERMUDA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	CNPC HONG KONG LIMITED	135 HK	AOYEBL	6340078 HK		952131	BMG2237F1260	046890027		

COMPANY COMPAN	Primary Company (Affiliate/Parent) CHINA NATIONAL PETROLEUM CORP aka CNPC	Exchange	Security Type	Security Name		NPK Number	SEDOL	CUSIP Sicovam	ISIN	COMMON	CINS Fondscode	CATS
DAGING HUAKE GROUP CO LTD (CHINA) JINAN DIESEL ENGINE CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC) Shenzhen (XSHE)	ADR Common Stock	CNPC HONG KONG LTD-UNSP ADR DAQING HUAKE GROUP CO-A	CKKHY US 000985 CH	AOM4C2	B3L2812 US		US12620P1093		- windstood	-
PETROCHINA GO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CH	AOM4C2 AOM3ZT	6277949 CN 6486109 CN		CNE000001402 CNE000000MS3			
PETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG) Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H PETROCHINA CO LTD	857 HK	A0M4YQ	6226576 HK		CNE1000003w6	011014674		
ETROCHINA GO LTD (CHINA) ETROCHINA GO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (XOTC)	Common Stock	PETROCHINA CO LTD	PC6 GR PCCYF US	A0M4YQ A0M4YQ	5939507 DE B01DNL9 US		CNE1000003w8 CNE1000003w8	011014674	Y6883Q104	
ETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP 8kg CNPC CHINA NATIONAL PETROLEUM CORP 8kg CNPC	Shanghai (XSHG) London Intl (XLON)	Common Stock	PETROCHINA CO LTD	601857 CH		B28SLD9 CN		CNE1000007Q1	011014674	Y6883Q104	
ETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Chi-X Alt TS (CHIX)	Common Stock	PETROCHINA CO LTD-H PETROCHINA CO LTD	PCA LI PCGG IX	A0M4YQ -	B17H0R7 GB 5939507 DE		CNE1000003w8	011014674		
ETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US		CNE1000003w8 US71646E1001	011014674		
ETROCHINA GO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA) Buenos Floor (XBUE)	ADR Receipt	PETROCHINA CO LTD -ADR PETROCHINA CO LTD-CEDEAR	PC6A GR	936983	4633327 DE		US71646E1001	011511449		
TROCHINA CO LTD (CHINA) TROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR BLK	PTR AR		B1C58R2 AR		ARDEUT113958 ARDEUT113958			
ETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC CHINA NATIONAL PETROLEUM CORP aka CNPC	Chi-X Alt TS (CHIX)	Receipt	PETROCHINA CO LTD-CEDEAR C/E	PTRC AR				ARDEUT113958			
ETROCHINA CO LTD (CHINA) ETROCHINA CO LTD (CHINA)	CHINA NATIONAL PETROLEUM CORP aka CNPC	Chi-X Alt TS (CHIX)	Common Stock	PETROCHINA CO LTD-ADR PETROCHINA CO LTD-H	PRTY1 IX LO857 IX	936983 A0M4YQ	4633327 DE B17H0R7 GB	71646E100	US71646E1001			
	CHINA NATIONAL PETROLEUM CORP BNa CNPC CHINA NORTH INDUSTRIES GROUP CORPORATION	Buenos Floor (XBUE)	Receipt	PETROCHINA CO LTD-CEDEAR \$	PTRD AR	April 1	BI/HUR/ GB		CNE1000003W8 ARDEUT113958	011014674		
DRINCO INTERNATIONAL COOPERATION LTD	(CNGC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTI COORERATION A	***************************************							
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP		Common Glock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE000000VZ9			
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	386 HK	A0M4XN	6291819 HK		CNE1000002Q2	012150504		
HINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL -H	CHU GR	A0M4XN	7027756 DE					
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	272 U.S. 0122			one on	Authority	7027756 DE		CNE1000002Q2	012150504		
	CHIRAL FETACOREMICAL CORP MR SINOPEC GROUP	OTC US (XOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	SNPMF US	A0M4XN	B01XKR4 US		CNE1000002Q2	012150504	Y15010104	
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CH	AOM4G4	6373728 CN		CNE1000002Q2			
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US OVERS	-			AOMAGA	03/3/20 CM		CNE100000202			
		OTC US (XOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	SNPAF US	AOM4G4			CNE0000018G1		Y15010112	
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP US	578971	2639189 US		US16941R1086	011899374		
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR									
INA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)				CHINA PETROLEUM & CHEMICAL-ADR	CHUA GR	578971	BORSWOO DE		US16941R1086	011899374		
The state of the s	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	London Intl (XLON)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP LI		2654375 GB		US16941R1086	011899374		
NA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEMICAL-CEDEA	SNP AR		Buccoun					
NA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)					ONP AR		B1C5SX8		ARDEUT114071			
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEMICAL-CEDBL	SNPB AR				ARDEUT114071			
NA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP sks SINOPEC GROUP	Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEM-C C/E	SNPC AR							
NA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Busine C. Com.							ARDEUT114071			
		Buenos Floor (XBUE)	Receipt	CHINA PETROLEUM & CHEM-CED \$	SNPD AR				ARDEUT114071			
GDREAM PLC (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED-A	000852 US	A0M37A	6136385 CN		CNE000000XK7			
OPEC KANTON HOLDINGS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Here Kees (VIIII 0)			7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.				CHEGOOOGAKI			
OREG MANIFONI MON DOMEST THE COMMAN		Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 HK	923923	6162692 HK		BMG8165U1009	011563384		
OPEC KANTON HOLDINGS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GR	923923	4601197 DE		BMG8165U1009	011563384		
OPEC KANTON HOLDINGS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC KANTONS HOLDINGS					BMG616561665	011003304		
OPEC KANTON HOLDINGS LTD (CHINA)	NATIONAL SERVICE STATE OF THE SERVICE STATE STATE OF THE SERVICE STATE S		Currentum Stock	SINOPEC KANTONS HOLDINGS	SKNHF US	923923	B3KSVC3 US		BMG8165U1009	011563384	G8165U100	
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	ADR	SINOPEC KANTONS-UNSPON ADR	SPKOY US		B3KRT60 US		US82934W2070			
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHEM	600688 CH	AOM3RA						
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA DETROCHEMON CORD I ANICOS			Salar read and to detail the particular and the salar and	000000 CH	AUMISKA	6802794 CN		CNE000000882			
A CONTRACTOR OF THE CONTRACTOR	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	London Intl (XLON)	Common Stock	SHANGHAI PETROCHEMICAL-H SHR	SNH LI	A0M4Y5	B17KWS1 GB		CN1000004C8	005096162		
IOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM	SGJH GR	A0M4Y5	5888632 DE	908303				
IOPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	H H 041000				700,410	3000032 DE	308303	CNE1000004C8	005096162		
		Hong Kong (XHKG)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	338 HK	A0M4Y5	6797458 HK	908303	CNE1000004C8	005096162		
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (XOTC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SPTJF US	A0M4Y5	B01XTG6 US		CNE1000004C8	005096162	Y80373106	
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (VADVE)	400						CHE IDODODACE	003096162	160373106	
IODEC CHANGUA DETROCUERA A TOTAL		New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI US	887169	2800059 US	908289	U882935M1099	012248750		
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GR	887169	5734638 DE	908289	US82935M1099	012248750		
OPEC SHANGHAI PETROCHEMICALS LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC SHANGHAI PETROCHEM	*****					0.22.07.00		
OPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)			Corremon Giges	SINCEC SHANGHAI PETROCHEM	SINFF US	AOM3RA	80376V0 US		CNE1000004C8		Y80373114	
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK	917709	CNE1000004D6	008069662		
OPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFF US	ACMADIA	Boarder					
OPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)						A0M4Y6	B01XVL5 US		CNE1000004D6	008069662	Y9841W106	
	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YIZH GR	AOM4Y6	4303675 DE	917709	CNE1000004D6	008069662		
OPEC YIZHENG CHEMICAL FIBRE CO LTD (CHINA)	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	600871 CH	A0M3V6	5085740 CV					
Y (HONG KONG) INVESTMENT LIMITED Y (HONG KONG) INVESTMENT LIMITED	CHINA POLY GROUP CORPORATION CHINA POLY GROUP CORPORATION	Hong Kong (XHKG)	Common Stock	POLY HONG KONG INVESTMENT LTD	119 HK	885546	6986740 CN 6220987 HK		CNE000000HS3 HK0119000674	004580702		
Y (HONG KONG) INVESTMENT LIMITED	CHINA POLY GROUP CORPORATION CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock Common Stock	POLY HONG KONG INVESTMENT LTD	CMJ GR	885546	B1HJJS7 DE		HK0119000674	004580702		
IDEL CAPITAL CORP GFENG AUTOMOBILE CO LTD (CHINA)	CITADEL CAPITAL CORP	Eqvpt (EGX)	Common Stock	POLY HONG KONG INVESTMENT LTD CITADEL CAPITAL CORP/CAIRO	PHKIF US CCAP EY	885546	B23CST1 US B40TX61 EG		HK0119000674	004580702	Y70820102	
PTIAN KUWAIT HOLDING CO (EGYPT)	DONGFENG AUTOMOBILE CO LTD EGYPTIAN KUWAITI HOLDING CO (EGYPT)	Shanghai (XSHG)	Common Stock	DONGFENG AUTOMOBILE CO LTD-A	600006 CH	A0M39C	6163833 CN		EG873541C012 CNE000000ZT3			
PTIAN KUWAIT HOLDING CO (EGYPT)	EGYPTIAN KUWAITI HOLDING CO (EGYPT)	Cairo (XCAI) Kuwait (XKUW)	Common Stock Common Stock	EGYPTIAN KUWAITI HOLDING CO EGYPTIAN KUWAITI HOLDING CO	EKHO EY EKHOLDINKK	AOH1G7	BOQMDOO					
CTRICITY GENERATING PCL, aka EGCO (THAILAND) CTRICITY GENERATING PCL, aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Bangkok (XBKK)	Common Stock	ELECTRICITY GENERATING PCL	EGCO TB	A0H1G7 893182	6304632 TH	929726	EG69082C013 TH0465010005	006148590		
CTRICITY GENERATING PCL. aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO) ELECTRICITY GENERATING CO (EGCO)	OTC US (XOTC) Bangkok (XBKK)	Common Stock	ELECTRICITY GENERATING PCL ELECTRICITY GEN PUB CO-FOR R	EYGGF US	893182		929726	TH0465010005	006148590	Y22834108	
CTRICITY GENERATING PCL, aka EGCO (THAILAND) CTRICITY GENERATING PCL, aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	Frankfurt (XFRA)	Common Stock	ELECTRICITY GEN PUB CO-FOR R ELECTRICITY GEN PUB CO-FOR R	EGCO/F TB EGCF GR	893183 893183	6304643 TH 5336799 DE	930467 930467	TH0465010013 TH0465010013	006149839		
TRICITY GENERATING PCL. aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	OTC US (XOTC) Bangkok (XBKK)	Common Stock	ELECTRICITY GEN PUB CO-FOR R	EYGPF US	893183		930467	TH0465010013	006149839	Y22834116	
CTRICITY GENERATING PCL. aka EGCO (THAILAND)	ELECTRICITY GENERATING CO (EGCO)	OTC US (XOTC)	Receipt	ELECTRICITY GENERA PCL-NVDR ELECTRICITY GENERA PCL-NVDR	EGCO-R TB EYUUF US	676043 676043	6368553 TH 805PBX9 US		TH0465010R13	015662883		
CTRICITY GENERATING PCL, aka EGCO (THAILAND)  AR OIL (INDIA)	ELECTRICITY GENERATING CO (EGCO)	Munich (XMUN)	Receipt	ELECTRICITY GENERA PCL-NVDR	NVAE GR	676043	BOILYC1 DE		TH0465010R13	015662883 015662883	Y22834124	
AR OIL (INDIA)	ESSAR OIL ESSAR OIL	Natl India (XNSE) OTC US (OOTC)	Common Stock	ESSAR OIL LIMITED	ESOIL IN	AOMWKL	6152217 IN		INE011A01019	319956993	900 1500 40 80 c	
AUTO PLANT (RUSSIA) AUTO PLANT (RUSSIA)	GAZ GROUP	RTS (RTSX)	Common Stock	GAZ-CLS	ESRLF US GAZA* RU	903426	B134YC5 US 4392253 RU	950579	RU0009034268		Y2297G113	
AUTO PLANT (RUSSIA)	GAZ GROUP GAZ GROUP	RTS (RTSX)	Common Stock	GAZ-CLS	GAZA RU	903426	4392253 RU	950579	RU0009034268			
AUTO PLANT (RUSSIA) AUTO PLANT (RUSSIA)	GAZ GROUP	OTC US (OOTC)	Common Stock	GAZ-T+0 GAZ	GAZAG RU GZAPF US	903426	BSBKBJ9	950579	RU0009034268		VALALILIAN	
AUTO PLANT (RUSSIA) AUTO PLANT (RUSSIA)	GAZ GROUP	RTS (RTSX)	Preference	GAZ-CLS-PFD	GAZAP RU	910283	5081312 RU	950579	RU0009034268 RU0009102834		X3121U105	
AUTO PLANT (RUSSIA)	GAZ GROUP GAZ GROUP	RTS (RTSX)	Preference Preference	GAZ-CLS-PFD	GAZAP* RU	910283	5061312 RU		RU0009102834			
DDIZEL DAD (RUSSIA) DDIZEL DAD (RUSSIA)	GAZ GROUP	RTS (RTSX)	Common Stock	QAZ-GTS PFD AVTODIZEL-\$BOARD	GAZAPG RU AVDZ RU	910283 909056	85BKC29 4039312 RU		RU0009102834 RU0009090567			
OVSKY BUS PLANT (RUSSIA)	GAZ GROUP GAZ GROUP	RTS (RTSX)	Common Stock	AVTODIZEL-BOARD	AVDZ* RU	909056	4039312 RU		RU0009090567			
OVSKY BUS PLANT (RUSSIA)	GAZ GROUP	RTS (RTSX) RTS (RTSX)	Common Stock Common Stock	PAVLOVSKY BUS PLANT PAVLOVSKY BUS-SUS	PAZA* RU PAZA RU	908324	5269895 RU		RU0009083240			
RSKOY EXCAVATOR CJSC (RUSSIA) BIN POWER EQUIPMENT CO LTD (CHINA)	GAZ GROUP	RTS (RTSX)	Common Stock	TVERSKOY EXCAVATOR - RTS	TVET RU	908324	5269895 RU B3CJL57 RU		RU0009083240 RU000A0JNLL2			
BIN POWER EQUIPMENT CO LTD (CHINA)	HARBIN POWER EQUIPMENT CO LTD HARBIN POWER EQUIPMENT CO LTD	Hong Kong (XHKG)	Common Stock	HARBIN POWER EQUIPMENT CO-H	1133 HK	A0M4X8	6422761 HK	930709	CNE10000003C0	011043780		-
BIN POWER EQUIPMENT CO LTD (CHINA)	HARBIN POWER EQUIPMENT CO LTD	Frankfurt (XFRA) OTC US (OOTC)	Common Stock Common Stock		HP6H GR HBPWF US	AOM4X8 AOM4X8	B1HJDX0 DE B3BHKK0 US	930709	CNE10000003C0	011043780		
BIN POWER EQUIPMENT CO LTD (CHINA) BAIGAON REFINERY & PETROCHEMICALS LTD (INDIA)	HARBIN POWER EQUIPMENT CO LTD	OTC US (OOTC)	ADR	HARBIN PWR EQUIPMENT-ADR 144	HBPWY US		2407665 US	930709	CNE10000003C0 US4114591005	011043780	Y30683109	
IAIGAON REFINERY & PETROCHEMICALS LTD (INDIA)	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Nati India (XNSA)	Common Stock Common Stock	BONGAIGAON REFINERY & PETRO	BRPL IN NBRPL IN	AODKQE	6313939 IN 6313939 IN		INE241A01012			
BAIGAON REFINERY & PETROCHEMICALS LTD (INDIA)						AODKOE			INE241A01012			

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name		VPK Number		CUSIP Sicovam	ISIN	COMMON	CINS	Fondscode	CATS C
HENNAI PETROLEUM CORPORATION LIMITED (INDIA) HENNAI PETROLEUM CORPORATION LIMITED (INDIA)	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM) Natl India (XNSE)	Common Stock Common Stock	CHENNAI PETROLEUM CORP LTD CHENNAI PETROLEUM CORP LTD	MRL IN NMRL IN	A08968 A08968	6121563 IN 6121563 IN		INE178A01016				
HENNAI PETROLEUM CORPORATION LIMITED (INDIA)	INDIAN OIL CORP LTD aka IOCL	OTC US (OOTC)	Common Stock	CHENNAI PETROLEUM CORP LTD	CNIPF US	A08968	805P883 US		INE178A01016		Y53733104		
IDIAN OIL CORP LTD (INDIA)	INDIAN OIL CORP LTD aka IOCL INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE) OTC US (OOTC)	Common Stock Common Stock	INDIAN OIL CORPORATION LTD INDIAN OIL CORPORATION LTD	IOCL IN	AOB9FM AOB9FM	6253767 IN		INE242A01010 INE242A01010				
ANKA IOC LTD (INDIA)	INDIAN OIL CORP LTD aka IOCL	Colombo (XCOL)	Common Stock	LANKA IOC LTD	LIOC SL	AOD83L	B0591G4 LK		LK0345N00005		Y3925Y112		
AMAZ (RUSSIA)	KAMAZ KAMAZ	RTS (RTSX) MICEX Main (XMIC)	Common Stock Common Stock	KAMAZ-\$ US KAMAZ	KMAZ RU KMAZ RM	895958 895958	4537270 RU	951112	RU0008959580	006692125			
AMAZ (RUSSIA) AMAZ (RUSSIA)	KAMAZ	OTC US (OOTC)	Common Stock	KAMAZ	KMAZF US	895958	B55XCQ8	951112	RU0008959580 RU0008959580	006692125	X41801105		
AMAZ (RUSSIA)	KAMAZ KAMAZ	RTS (RTSX)	Common Stock Common Stock	KAMAZ	KMAZ* RU	895958	4537270 RU	951112	RU0008959580	006692125			
EFTEKAMSKY AVTOZAVOD aka NEFAZ EFTEKAMSKY AVTOZAVOD aka NEFAZ	KAMAZ	RTS (RTSX)	Common Stock	NEFTEKAMSKY AVTOZAVOD-BRD NEFTEKAMSKY AVTOZAVOD-BRD	NFAZ RU NFAZ* RU		7345005 RU 7345005 RU		RU009115604 RU009115604				
EJURUTERAAN SAMUDRA TIMUR BHD (MALAYSIA)	KEJURUTERAAN SAMUDRA TIMUR BERHAD (KSTB)	Kuala Lumpur (XKLS)	Common Stock	KEJURUTERAAN SAMUDRA TIMUR	KSTB MK		BOM9M97 MY		MYL718500001			7185	
ENCANA PETROLEUM BHD (MALAYSIA) A MANCHA RESOURCES (CANADA)	KENCANA PETROLEUM BERHAD  LA MANCHA RESOURCES	Kuala Lumpur (XKL5) Toronto (XTSE)	Common Stock	KENCANA PETROLEUM BHD LA MANCHA RESOURCES INC	KEPB MK LMA CN	A0MVSV 482587	B1L72X3 MY 2584290 CA		MYL512200006 CA5035481095			5122	
A MANCHA RESOURCES (CANADA)	LA MANCHA RESOURCES	OTC US (OOTC)	Common Stock	LA MANCHA RESOURCES INC	LACHF US	482587	B04NPR6	503548109	CA5035481095				
A MANCHA RESOURCES (CANADA) AN SE (GERMANY)	LA MANCHA RESOURCES MAN SE	Frankfurt (XFRA) Xetra (XETR)	Common Stock	LA MANCHA RESOURCES INC MAN SE	LMA GR MAN GR	482587 593700	5563520 DE	944020	CA5035481095 DE0005937007	004447054			
AN SE (GERMANY)	MAN SE	SIX Swiss EX (XSWX)	Common Stock	MAN SE	MAN SW	593700	5628883 CH	944020	DE0005937007	001117254			
AN SE (GERMANY)	MAN SE MAN SE	OTC US (OOTC)	Common Stock Common Stock	MAN SE MAN SE	MAGOF US	593700	B0318P0 US	944020	DE0005937007	001117254	D51716104		
AN SE (GERMANY)	MAN SE	SWX EuropeLt (XVTX) Chi-x Alt TS (CHIX)	Common Stock	MAN SE	MAN VX MANG IX	593700 593700	5563520 DE 5563520 DE	944020 944020	DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	PLUS Mkt Grp	Common Stock	MAN SE	MANG PZ	593700		944020	DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE MAN SE	Euro Comp (XLON) Turquoise (TRQX)	Common Stock Common Stock	MAN SE MAN SE	MAN EU MAN TQ	593700 593700	B10LRX1 GB 5563520 DE	944020	DE0005937007 DE0005837007	001117254			
AN SE (GERMANY)	MAN SE	NSDDQ OMX Eur (NURO)	Common Stock	MAN SE	MAN NO	593700	5563520 DE	944020	DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE MAN SE	Equiduct (XEQT) BATS Europe (BATE)	Common Stock	MAN SE MAN SE	MAN BQ MAN EB	593700 583700	5563520 DE 5563520 DE	944020	DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN EO	593700	B10LRX1 GB	944020	DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MANGBX EU	593700	B10LRX1 GB		DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE MAN SE	Euro OTC (XLON) Euro Comp (XLON)	Common Stock	MAN SE MAN SE	MANGBX EO MANCHF EU	593700	B10LRX1 GB		DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MANCHF EO	583700	B10LRX1 GB		DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE MAN SE	Euro OTC (XLON)	Common Stock	MAN SE MAN SE	MANUSD EU	593700	B10LRX1 GB B10LRX1 GB		DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MANGBP EO	593700			DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE	Euro OTC (XLON) Euro Comp (XLON)	Common Stock	MAN SE	MANAUD EU	593700 593700	B10LRX1 GB		DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MANNOK EO	593700	B10LRX1 GB B10LRX1 GB		DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MANNOK EU	593700	B10LRX1 GB		DE0005937007	001117254			
AN SE (GERMANY) AN SE (GERMANY)	MAN SE MAN SE	Euro OTC (XLON) Euro Comp (XLON)	Common Stock Common Stock	MAN SE MAN SE	MANPLN EO MANPLN EU	593700 593700	B10LRX1 GB		DE0005937007 DE0005937007	001117254			
AN SE (GERMANY)	MAN SE	OTC US (OOTC)	ADR	MAN AG-UNSPONSORED ADR	MAGOY US		B3DY656 US		US5616411014	001117234			
AN SE (GERMANY) ENK AG (GERMANY)	MAN SE MAN SE	NYSE ARCA Eu (XHFT) Frankfurt (XFRA)	Common Stock	MAN SE RENK AG	MAN NR ZAR GR	593700 784000	5563520 DE 5555969 DE	944020	DE0005937007	001117254			
ENK AG (GERMANY)	MAN SE	OTC US (OOTC)	Common Stock	RENK AG	RENKF US	795000	BOSMMB4 US	916291 916291	DE0007850000 DE0007850000	001121936	D64142108		
ENK AG (GERMANY)	MAN SE	Euro OTC (XLON)	Common Stock	RENK AG	ZAR EO	785000	B28LK31 GB		DE0007850000	001121936			
ENK AG (GERMANY) ENK AG (GERMANY)	MAN SE MAN SE	PLUS Mkt Grp (XPLU)	Common Stock	RENK AG RENK AG	ZAR EU ZAR PZ	785000 785000	B28LK31 GB	916291	DE0007850000 DE0007850000	001121936			
NA S.A. (MORROCO)	MANAGEM	EN Paris (XPAR)	Common Stock	ONA SA	ONA FP	808173	4658386 FR	049869	MA0000010316	015107839			
NA S.A. (MORROCO) NA S.A. (MORROCO)	MANAGEM MANAGEM	Casablanca (XCAS)  Euro OTC (XLON)	Common Stock	ONA SA ONA SA	ONA MC	808173	6393209 MA		MA0000010316	015107839			
NA S.A. (MORROCO)	MANAGEM	Euro Comp (XLON)	Common Stock	ONA SA	ONA EU	808173	B290YG8 G8 B290YG8 G8		MA0000010316 MA0000010316	015107839			
NA S.A. (MORROCO)	MANAGEM MANAGEM	Euro Comp (XLON)	Common Stock	ONA SA	ONAEUR EU ONA PZ	808173	B290YG8 GB		MA0000010316	015107839			
NA S.A. (MORROCO) NA S.A. (MORROCO)	MANAGEM	PLUS Mid Grp (XPLU)  Euro OTC (XLON)	Common Stock	ONA SA	ONAEUR EO	808173			MA0000010316 MA0000010316	015107839			
IANAGEM (MORROCO)	MANAGEM	Casablanca (XCAS)	Common Stock	MANAGEM	MNG MC	165414	6287454 MA		MA0000011058				
IANAGEM (MORROCO) OCIETE METALLURGIQUE D'IMITER (MORROCO)	MANAGEM MANAGEM	OTC US (OOTC) Casablance (XCAS)	Common Stock	MANAGEM SOCIETE METALLURGI D'IMITER	MNAGF US SMI MC	165414 256307	6007759 MA		MA0000011058 MA0000010068		V5871S109		
MERCATOR LINES (INDIA)	MERCATOR LINES	Nati India (XNSE)	Common Stock	MERCATOR LINES LIMITED	MRLN IN	AOLGOH	BOSH3TS IN		INE934801028				
MERCATOR LINES (INDIA) MERCATOR LINES SINGAPORE (SINGAPORE)	MERCATOR LINES MERCATOR LINES	OTC US (OOTC) Berlin (XBER)	Common Stock Common Stock	MERCATOR LINES LIMITED MERCATOR LINES SINGAPORE LTD	MCTLF US 3KD GR	ADLGOH ADM91H	B131QQ4 US B2NBMJ6 DE		INE934B01028 SG1W39939069	033670079	Y60061101		
RECATOR LINES SINGAPORE (SINGAPORE)	MERCATOR LINES	Singapore (XSES)	Common Stock	MERCATOR LINES SINGAPORE LTD	MRLN SP	AOM91H	B29Y4W6 SG		SG1W39939069				
AVELLE PAVCO BHD (MALAYSIA)	MUHIBBAH ENGINEERING BHD MUHIBBAH ENGINEERING BHD	Kuala Lumpur (XKLS) Kuala Lumpur (XKLS)	Common Stock Common Stock	FAVELLE FAVCO BHD MUHIBBAH ENGINEERING (M) BHD	FFB MK MUHI MK	894787	B188WD9 MY		MYL7229OO007			7229	
IUHIBBAH ENGINEERING (M) BHD (MALAYSIA) IUHIBBAH ENGINEERING (M) BHD (MALAYSIA)	MUHIBBAH ENGINEERING BHO	OTC US (XOTC)	Common Stock		MUHBF US	894787	6609304 MY B1MYQD1 US		MYL5703OO003 MYL5703OO003		Y6151L100	5703	
AM FATT CORP BHD (MALAYSIA)	NAM FATT CORP BHD	Kuala Lumpur (XKLS)	Common Stock	NAM FATT CORPORATION BERHAD	NAF MK	885047	6621159 MY	920375	MYL490100004				49
AM FATT CORP BHD (MALAYSIA) IPPON OIL CORPORATION (JAPAN)	NAM FATT CORP BHD NIPPON OIL CORPORATION	OTC US (OOTC) Tokye (XTKS)	Common Stock	NAM FATT CORPORATION BERHAD NIPPON OIL CORP	NAMAF US 5001 JP	885047 859572	6641403 JP	920375 968513	MYL4901OO004 JP3679700009	006141277	Y6199H103		
IPPON OIL CORPORATION (JAPAN)	NIPPON OIL CORPORATION	Frankfurt (XFRA)	Common Stock	NIPPON MITSUBISHI OIL	NIO GR	859572	5445101 DE	968513	JP3679700009	009614834			
IPPON OIL CORPORATION (JAPAN) IPPON OIL CORPORATION (JAPAN)	NIPPON OIL CORPORATION NIPPON OIL CORPORATION	OTC US (OOTC)	Common Stock ADR	NIPPON OIL CORP-UNSPON ADR	NPOIF US	859572	BOGNQX7 US B3DTNM7 US	968513	JP3679700009 US76546131086	009614834	J548F100		
IPPO CORP (JAPAN)	NIPPON OIL CORPORATION	Tokyo (XTKS)	Common Stock	NIPPO CORP	1881 JP	857846	6640789 JP	968503	JP3750200002	001227858			
IPPO CORP (JAPAN) ANGALORE REFINERY & PETROCHEMICALS LIMITED (INDIA)	NIPPON OIL CORPORATION OIL & NATURAL GAS CORP	OTC US (OOTC) Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETRO	MRPL IN	857846 AONANW	B3BJ749 US	968503	JP3750200002	001227858	J53935102		
ANGALORE REFINERY & PETROCHEMICALS LIMITED (INDIA)	OIL & NATURAL GAS CORP	Nati India (XNSE)	Common Stock	MANGALORE REFINERY & PETRO	NMRPL IN	AONANW	6121530 IN 6121530 IN		INE103A01014 INE103A01014				
ANGALORE REFINERY & PETROCHEMICALS LIMITED (INDIA)	OIL & NATURAL GAS CORP	OTC US (OOTC)	Common Stock	MANGALORE REFINERY & PETRO	MGFYF US	ADNANW	B05P872 US		INE103A01014		Y5763P137		
IL & NATURAL GAS CORP LTD (INDIA) IL & NATURAL GAS CORP LTD (INDIA)	OIL & NATURAL GAS CORP OIL & NATURAL GAS CORP	Mumbai (XBOM) Natl India (XNSE)	Common Stock Common Stock	OIL & NATURAL GAS CORP LTD OIL & NATURAL GAS CORP LTD	ONGC IN NONGC IN	779547 779547	6139362 IN 6139362 IN		INE213A01011 INE213A01011				
IL & NATURAL GAS CORP LTD (INDIA)	OIL & NATURAL GAS CORP	OTC US (OOTC)	Common Stock	OIL & NATURAL GAS CORP LTD	ONGCF US	779547	BOJQOD1 US		INE213A01011		Y64606117		
IL INDIA LTD (INDIA) ETROFAC LTD (UK)	OIL INDIA LTD PETROFAC LTD	Natl India (XNSE) London (XLON)	Common Stock	OIL INDIA LTD PETROFAC LTD	OINL IN PFC LN	A0X9PF A0HF9Y	B409HQ9 IN B0H2K53 GB		INE274J01014 GB00B0H2K534	0232002-			
ETROFAC LTD (UK)	PETROFAC LTD	Frankfurt (XFRA)	Common Stock	PETROFAC LTD	PZF GR	AOHF9Y	BOLWHB4 DE		GB00B0H2K534 GB00B0H2K534				
ETROFAC LTD (UK)	PETROFAC LTD PETROFAC LTD	SWX EuropeLt (XVTX)	Common Stock	PETROFAC LTD	PFC VX	AOHFBY	BOH2K53 GB		GB00B0H2K534	023209284			
ETROFAC LTD (UK) ETROFAC LTD (UK)	PETROFAC LTD PETROFAC LTD	OTC US (OOTC)	Common Stock Common Stock	PETROFAC LTD PETROFAC LTD	PFC EU POFCF US	AOHF9Y	B0H2K53 GB B11B6G6 US		GB00B0H2K534 GB00B0H2K534		G7052T101		
ETROFAC LTD (UK)	PETROFAC LTD	CH-X AIL TS (CHIX)	Common Stock	PETROFAC LTD	PFC IX	AOHF9Y	BOH2K53 GB		GB00B0H2K534	023209284	0,0021101		
ETROFAC LTD (UK) ETROFAC LTD (UK)	PETROFAC LTD	PLUS Mid Grp (XPLU) Turquoise (TRQX)	Common Stock	PETROFAC LTD PETROFAC LTD	PFC PZ PFC TQ	AOHFSY	B0H2K53 GB		GB00B0H2K534 GB00B0H2K534	023209284			
ETROFAC LTD (UK)	PETROFAC LTD	NSDQ OMX Eur (NURO)	Common Stock	PETROFAC LTD	PFC NQ	AOHF9Y	80H2K53 GB		GB00B0H2K534	023209284			
ETROFAC LTD (UK)	PETROFAC LTD	BATS Europe (BATE)	Common Stock	PETROFAC LTD	PEC BQ	AOHF9Y	BOH2K53 GB BOH2K53 GB		GB00B0H2K534	023209284			
ETROFAC LTD (UK)	PETROFAC LTD	Euro Comp (XLON)	Common Stock	PETROFAC LTD	PFCEUR EU	AOHFSY	BOH2K53 GB BOH2K53 GB		GB00B0H2K534 GB00B0H2K534	023209284 023209284			
ETROFAC LTD (UK)	PETROFAC LTD	Euro OTC (XLON)	Common Stock	PETROFAC LTD	PFC EO PFCGBP EO	AOHF9Y	B0H2K53 GB		GB00B0H2K534	023209284			
ETROFAC LTD (UK) ETROFAC LTD (UK)	PETROFAC LTD PETROFAC LTD	Euro OTC (XLON)	Common Stock Common Stock	PETROFAC LTD	PECUSD EO	AOHF9Y	B0H2K53 GB		GB00B0H2K534 GB00B0H2K534	023209284			
ETROFAC LTD (UK)	PETROFAC LTD	Euro Comp (XLON)	Common Stock	PETROFAC LTD	PFCUSD EU	AOHF9Y	BOHZK53 GB		GB00B0H2K534	023209284			
ETROFAC LTD (UK) ETROFAC LTD (UK)	PETROFAC LTD PETROFAC LTD	Euro Comp (XLON)	Common Stock Common Stock		PFCEUR EO PFCEUR EU	AOHFBY	BOH2K53 GB BOH2K53 GB		GB00B0H2K534	023209284			
LCC PROPERTY HOLDINGS BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS	OTC US (OOTC)	Common Stock	KLCC PROPERTY HOLDINGS BHD	KPYHF US	AODJ6E	BOBHSK8 US		GB00B0H2K534 MYL5089OO007		Y4804V104		
LCC PROPERTY HOLDINGS BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS PETROLIAM NASIONAL BERHAD aka PETRONAS	Kuala Lumpur (XKLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD	KLCC MK	ADDJEE	B02FW17		MYL5089OO007			5089	
ALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD (MALAYSIA) IALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS	Kuala Lumpur (XKLS) Kuala Lumpur (XKLS)	Common Stock Common Stock	MISC BHD MISC BHD-FRGN	MISC MK MISF MK	880504 883081	6557997 MY 6558031 MY	905279 908550	MYL3816O0005 MYF3816O1005			3816F	
IALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS	OTC US (OOTC)	Common Stock	MISC BHD	MIHDF US	880504	BO2GT53 US	905279	MYF3816O1005	003527883	Y6080H105		
ETRONAS DAGANGAN BHD (MALAYSIA) ETRONAS DAGANGAN BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS PETROLIAM NASIONAL BERHAD aka PETRONAS	Kuala Lumpur (XKLS) OTC US (OOTC)	Common Stock		PETD MK PNASF US	895131 895131	6695938 MY		MYL568100001		VERREALCT	5681	
ETRONAS GAS BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS	Kuala Lumpur (XKLS)	Common Stock	PETRONAS GAS BHD	PTG MK	896633	6703972 MY		MYL568100001 MYL603300004		Y6885A107	6033	
ETRONAS GAS BHD (MALAYSIA)	PETROLIAM NASIONAL BERHAD aka PETRONAS PETROLIAM NASIONAL BERHAD aka PETRONAS	Munich (XMUN) OTC US (OOTC)	Common Stock	PETRONAS GAS BERHAD	PTR GR	896633	5330694 DE		MYL6033OO004				
ETRONAS GAS BHD (MALAYSIA) TT PCL (THAILAND)	PTT PCL	Bangkok (XBKK)	Common Stock		PNAGF US	896633 983094	802H3P4 US 6420389 TH		MYL6033OO004 TH0646010007		Y6885J116		
TT PCL (THAILAND) TT PCL (THAILAND)	PTT PCL	OTC US (OOTC)	Common Stock Common Stock	PTT PCL	PETTF PETFF US	983094 811982	BOSPCHO US B1G40G8 US		TH0646010007 TH0646010015				

PTT PCL THAILANDS	Primary Company (Affiliate/Parent)	Exchange	Security Type	San with Mary		Manual No.	****		-					
PTT PCL (THAILAND) PTT PCL (THAILAND)	PTT PCL	Frankfurt (XFRA)	Common Stock		PTOF GR	WPK Number 811962	B1BDGH3 DE	CUSIP	Sicovam	ISIN TH0646010015	COMMON 013973369	CINS	Fondscode	CATS Code
PTT PCL (THAILAND)	PTT PCL PTT PCL	Bangkok (XBKK) OTC US (OOTC)	Receipt	PTT PCL-NVDR PTT PCL-NVDR	PTT-R TB PUTRF US	754704	6420408 TH			TH0646010R18	016320307			
PTT PCL (THAILAND) RANHILL BERHAD (MALAYSIA)	PTT PCL RANHILL BERHAD	Frankfurt (XFRA)	Receipt	PTT PCL-NVDR	NVA3 GR	754704 754704	B0305R8 US B01LYK9 DE			TH0646010R18 TH0646010R18	016320307	Y6883U121		
RANHILL BERHAD (MALAYSIA) SARAS SPA (ITALY)	RANHILL BERHAD	Kuala Lumpur (XKLS) OTC US (OOTC)	Common Stock	RANHILL BHD RANHILL BHD	RANH MK RNLLF US	A0B9G6	6328717 MY			MYL503000001	010020001		5030	
SARAS SPA (ITALY)	SARAS SPA SARAS SPA	Brsaltaliana (MTAA)	Common Stock	SARAS SPA	SRS IM	A0B9G6 A0JL4P	B02HKV9 US B04F679 IT			MYL503000001 IT0000433307	025251687	Y7189A108		
SARAS SPA (ITALY) SARAS SPA (ITALY)	SARAS SPA	Munich (XMUN) Euro Comp (XLON)	Common Stock Common Stock	SARAS SPA SARAS SPA	S7A GR SRS EU	A0JL4P	B156429 DE			IT0000433307	025251687			
SARAS SPA (ITALY)	SARAS SPA SARAS SPA	PLUS Mkt Grp (XPLU)	Common Stock	SARAS SPA	SRS1 PZ	AOJL4P AOJL4P	828LQ22 GB			IT0000433307	025251687			
SARAS SPA (ITALY)	SARAS SPA	OTC US (DOTC) Euro OTC (XLON)	Common Stock Common Stock	SARAS SPA SARAS SPA	SAAFF US SRS EO	AOJL4P	B18R1J5 US			IT0000433307	025251687	T83058106		
SARAS SPA (ITALY) SARAS SPA (ITALY)	SARAS SPA SARAS SPA	Eurocomp (XLON)	Common Stock	SARAS SPA	SRSGBX EU	AOJL4P AOJL4P	828LQ22 GB 828LQ22 GB			T0000433307	025251687			
SARAS SPA (ITALY) SARAS SPA (ITALY)	SARAS SPA	Euro OTC (XLON)	Common Stock Common Stock	SARAS SPA SARAS SPA	SRSGBX EO SRSGBP EO	AOJL4P	<b>B28LQ22 GB</b>			1T0000433307	025251687			
SARAS SPA (ITALY)	SARAS SPA	Turquoise (TRQX)	Common Stock	SARAS SPA	SRS TQ	AOJL4P	828LQ22 GB 804F679 IT			IT0000433307 IT0000433307	025251687 025251687			
SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	NYSE ARCA Eu (XHFT) New York (XNYS)	Common Stock	SARAS SPA SCHLUMBERGER LTD	SRS NR SLB US	A0JL4P	B04F679 IT		44174	IT0000433307	025251687			
SCHLUMBERGER LTD (NETHERLAND ANITLLES) SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD SCHLUMBERGER LTD	EN Amsterdam (XAMS)	Common Stock	SCHLUMBERGER LTD	SLBA NA	853390 853390	2779201 US 4779232 NL		981783 981783	AN8068571086 AN8068571086	010104491		45433	
SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	Frankfurt (XFRA) EN Paris (XPAR)	Common Stock Common Stock	SCHLUMBERGER LTD SCHLUMBERGER LTD	SCL GR SLB FP	853390	4779351 DE		981783	AN8068571086	010104491		45455	
SCHLUMBERGER LTD (NETHERLAND ANITLLES) SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD SCHLUMBERGER LTD	Mexico (XMEX)	Common Stock	SCHLUMBERGER LTD	SLBN MM	853390 853390	4779209 FR B043L56 MX		012936 981783	AN8068571086 AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	Euro Comp (XLON) Buenos Floor (XBUE)	Common Stock Receipt	SCHLUMBERGER LTD SCHLUMBERGER LTD-CEDEAR C/E	SLB EU SLBC AR	853390	779203			AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES) SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	SIX Swiss Ee (XSWX)	Common Stock	SCHLUMBERGER LTD	SLB SW	853390	4532651 CH		981783	ARDEUT111515 AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD SCHLUMBERGER LTD	Euro Comp (XLON) Buenos Floor (XBUE)	Common Stock Receipt	SCHLUMBERGER LTD - CEDEAR	SLBEUR EU	853390	0779203 GB		341743	AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES) SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	London Intl (XLON)	Common Stock	SCHLUMBERGER LTD	SLB AR SCL LI	853390	2564991 AR 0779203 GB		981783	ARDEUT111515 AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD SCHLUMBERGER LTD	PLUS Mkt Grp (XPLU)	Common Stock Common Stock	SCHLUMBERGER LTD SCHLUMBERGER LTD	SLB EO	853390	0779203 GB			AN8068571086	010104491			
SCHLUMBERGER LTD (NETHERLAND ANITLLES) SCHLUMBERGER LTD (NETHERLAND ANITLLES)	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SCL PZ SLBEUR EO	853390 853390	0779203 GB 0779203 GB		981783	AN8068571086 AN8068571086	010104491			
SCOMI ENGINEERING BERHAD (MALAYSIA)	SCHLUMBERGER LTD SCOMI GROUP BERHAD	OTC US (OOTC)	Receipt Common Stock	SCHLUMBERGER LTD - CEDEAR \$US	SLBD AR					ARDEUT111515	010104491			
SCOMI ENGINEERING BERHAD (MALAYSIA) SCOMI ENGINEERING BERHAD (MALAYSIA)	SCOMI GROUP BERHAD	Kuala Lumpur (XKLS)	Common Stock	SCOMI GROUP BHD SCOMI ENGINEERING BHD	SM1JF US SEB MK	120745 903056	805PR31 US 6098452 MY			MYL715800008 MYL7366OO007	024633128	Y7677t106	7000	
SCOMI GROUP BERHAD (MALAYSIA)	SCOMI GROUP BERHAD SCOMI GROUP BERHAD	OTC US (OOTC)	Common Stock	SCOMI ENGINEERING BHD	BLORF US	903056				MYL736600007		Y7541G108	7366	
SEADRILL LTD SEADRILL LTD	SEADRILL LTD	Kuala Lumpur (XKLS) OSLO (XOSL)	Common Stock	SCOMI GROUP BHD SEADRILL LTD	SGB MK SDRL NO	120745 AOERZO	BOOPKJ3 MY BOORMQ1 NO			MYL715800008	022416162		7158	-12-
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	OTC US (OOTC)	Common Stock	SEADRILL LTD	SDRLF US	AOERZO	BOHWHV8			BMG79455E1057 BMG79455E1057		G7945E105		
SEADRILL LTD SEADRILL LTD	SEADRILL LTD	Frankfurt (XFRA) Chi-X Alt T8 (CHIX)	Common Stock Common Stock	SEADRILL LTD SEADRILL LTD	S9A GR SDRL IX	AOERZO AOERZO	BOTBDS2 DE BOSRMQ1 NO			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	EURO OTC (XLON)	Common Stock	SEADRILL LTD	SDRL EO	AOERZO	<b>BZBZVNO GB</b>			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD SEADRILL LTD	SEADRILL LTD	Euro Comp (XLON) Euro Comp (XLON)	Common Stock Common Stock	SEADRILL LTD SEADRILL LTD	SDRL EU SDRLEUR EU	AOERZO	B28ZVNO GB B28ZVNO GB			BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	EURO OTC (XLON)	Cemmon Stock	SEADRILL LTD	SDRLEUR EO	AOERZO	828ZVNO GB			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD	EURO OTC (XLON)	Common Stock	SEADRILL LTD SEADRILL LTD	SDRLGBX EU SDRLGBX EO	AOERZO	B28ZVNO GB B28ZVNO GB			BMG78455E1057	022416162			
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	PLUS Mid Gra (XPLU)	Common Stock	SEADRILL LTD	SDRL PZ	AOERZO	B28ZVNO GB			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD	Euro Comp (XLON) EURO OTC (XLON)	Common Stock	SEADRILL LTD SEADRILL LTD	SDRLUSD EU SDRLUSD EO	AOERZO	B28ZVNO GB B28ZVNO GB			BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	NSDQ OMX EUR (NURO)	Common Stock	SEADRILL LTD	SDRL NQ	AOERZO	B09RMQ1 NO			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD	BATS Europe (BATE)	Common Stock Common Stock	SEADRILL LTD SEADRILL LTD	SDRLGBP EO SDRL EB	AOERZO	B28ZVNO GB			BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD	NYSE ARCA Eu (XHFT)	Common Stock	SEADRILL LTD	SORL NR	AOERZO	B09RMQ1 NO B09RMQ1 NO			BMG79455E1057 BMG79455E1057	022416162 022416162			
SEADRILL LTD	SEADRILL LTD	Stockholm (XSTO) Turguoise (TRQX)	Common Stock Common Stock	SEADRILL LTD SEADRILL LTD	SDRL SS	AOERZO	8648Q51 SE			BMG79455E1057	022416162			
SEADRILL LTD SEADRILL LTD	SEADRILL LTD	Burgundy (BURG)	Common Stock	SEADRILL LTD	SDRL TO SDRL BY	AOERZO	B09RMQ1 NO B09RMQ1 NO			BMG79455E1057 BMG79455E1057	022416162			
SEADRILL LTD	SEADRILL LTD SEADRILL LTD	QUOTE MTF (QMTF) LSE EuropeQS (XLON)	Common Stock Common Stock	SEADRILL LTD SEADRILL LTD	SDRL QM SDRL LI	AOERZO	B09RMQ1 NO			BMG79455E1057	022416162			
SEADRILL LTD SHANGHAI ELECTRIC GROUP CO LTD (CHINA)	SEADRILL LTD	OTC US (OOTC)	ADR	SEADRILL LTD	SDRLY US	AOERZO	B28ZVNO GB B57HYK6 US			8MG79455E1057 US8117271069	022416162			
SHANGHAI ELECTRIC GROUP CO LTD (CHINA)	SHANGHAI ELECTRIC GROUP CO LTD SHANGHAI ELECTRIC GROUP CO LTD	Hong Kong (XHKG) Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H SHANGHAI ELECTRIC GRP CO L-H	2727 HK	A0M4YX	B07J656 HK			CNE100000437	021854387			
SHANGHAI ELECTRIC GROUP CO LTD (CHINA) SHANGHAI ELECTRIC GROUP CO LTD (CHINA)	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GR SIELF US	ADM4YX ADM4YX	B07ZG10 DE B0XNVS0 US			CNE100000437 CNE100000437	021854387	Y76824104		
SHANGHAI ELECTRIC GROUP CO LTD (CHINA)	SHANGHAI ELECTRIC GROUP CO LTD SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG) OTC US (OOTC)	Common Stock	SHANGHAI ELECTRIC GRP CO L-A SHANGHAI ELECTRIC-UNSP ADR	601727 CH		B3FJ9X8 CN			CNE100000D55	021034307	170024104		
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD (CHINA) SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD (CHINA)	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	SHANGHAI MECHANICAL AND EL-B	SIELY US 900925 CH	A0M3UQ	6797436 CN			U581943J1088 CNE000000G39				
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO. LTD (CHINA)	SHANGHAI ELECTRIC GROUP CO LTD SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC) Shanghai (XSHG)	Common Stock Common Stock	SHANGHAI MECHANICAL AND EL-B SHANGHAI MECHANICAL AND ELEC	5HEBF US 600835 CH	A0M3UQ	B0J2MG6 US		916599	CNE000000G39		Y7691T108		
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD (CHINA) TANJUNG OFFSHORE BERHAD (MALAYSIA)	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTC)	Common Stock	SHANGHAI MECHANICAL AND ELEC	SHEZF US	AOM654 AOM654	6785851 CN			CNE000000891 CNE000000891		Y7691T116		
TOTAL SA (FRANCE)	TANJUNG OFFSHORE SERVICES SON BHD TOTAL SA	Kuala Lumpur (XKLS) EN Paris (XPAR)	Common Stock Common Stock	TANJUNG OFFSHORE BHD TOTAL SA	TOFF MK	AOMNAS	воямено му			MYL722800009		170011110		7228
TOTAL SA (FRANCE) TOTAL SA (FRANCE)	TOTAL SA	Xtra EU Strs (XETR)	Common Stock	TOTAL SA	TOTE GR	850727 850727	82NBXB5 FR B15C5P7 DE		012027	FR0000120271 FR0000120271	001179616		00532	
TOTAL SA (FRANCE)	TOTAL SA TOTAL SA	EN Brussels (XBRU) EN Amsterdam (XAMS)	Common Stock Common Stock	TOTAL SA TOTAL SA	FPB BB	850727 850727	B15C580 BE		012027	FR0000120271	001179616		00532	
TOTAL SA (FRANCE)	TOTAL SA TOTAL SA	OTC US (XOTC)	Common Stock	TOTAL SA	TTFNF US	850727	815C7G2 NL B15CVJ3 US		012027	FR0000120271 FR0000120271	001179616	F92124100	00532	
OTAL SA (FRANCE)	TOTAL SA	Milan (MTAA) Chi-X AR TS (CHIX)	Common Stock Common Stock	TOTAL SA TOTAL SA	TOT IM	850727	B19GK61 IT		012027	FR0000120271	001179616	. 52124165	00532	
OTAL SA (FRANCE)	TOTAL SA	SWX Elec (XSWX)	Common Stock	TOTAL SA	TOTF SW	850727 850727	B15C557 FR B1YYWP3 CH		012027	FR0000120271 FR0000120271	001179616		00532	
TOTAL SA (FRANCE)	TOTAL SA TOTAL SA	Euro Comp (XLON) EN Brussels (XBRU)	Common Stock Misc.	TOTAL SA TOTAL SA-STRIP VVPR	FP EU TOTS BB	850727 946112	B128WJ1 GB			FR0000120271	001179616		00532	
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	New York (XNYS)	ADR	TOTAL SA-SPON ADR	TOT US	882930	815CLJ3 BE 2898032 US	89151E109	916490	BE0005554259 US89151E1091	010107385			
OTAL SA (FRANCE)	TOTAL SA TOTAL SA	Frankfurt (XFRA) Buenos Floor (XBUE)	ADR Receipt	TOTAL SA-SPON ADR TOTAL SA-CEDEAR	TOTA GR	882930	4247632 DE	89151E109		US89151E1091	010107385			
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	Buenos Floor (XBUE)	Receipt	TOTAL SA-C/E	TOT AR		2646220 AR 2646220 AR			ARDEUT112075 ARDEUT112075				
OTAL SA (FRANCE)	TOTAL SA TOTAL SA	Mexico (XMEX) BATS Europe (BATE)	ADR Common Stock	TOTAL SA-SPON ADR TOTAL SA	TOTN MM	882930	2195119 MX		916490	US89151E1091	010107385			
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	Equiduct (XEQT)	Common Stock	TOTAL SA	FP EB FP BQ	850727 850727	B15C557 FR B15C557 FR		012927	FR0000120271 FR0000120271	001179616		00532	
OTAL SA (FRANCE)	TOTAL SA TOTAL SA	EN Paris (XPAR) Euro OTC (XLON)	Common Stock Common Stock	TOTAL SA	FPNV FP		B3KRXG8 FR		012021	FR0010697359	040736883		00032	
OTAL SA (FRANCE)	TOTAL SA	Euro Comp (XLON)	Common Stock	TOTAL SA	FP EO FPGBX EU	850727 850727	8128WJ1 GB 8128WJ1 GB			FR0000120271 FR0000120271	001179616			
OTAL SA (FRANCE)	TOTAL SA TOTAL SA	Euro OTC (XLON)	Common Stock	TOTAL SA	FPGBX EO	850727	8128WJ1 GB			FR0000120271 FR0000120271	001179616			
TAL SA (FRANCE)	TOTAL SA	PLUS Mkt Grp (XPLU) Euro OTC (XLON)	Common Stock Common Stock	TOTAL SA TOTAL SA	FPF PZ FPGBP EO	850727 850727			012027	FR0000120271	001179616			
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	Euro Comp (XLON)	Common Stock	TOTAL SA	FPUSD EU	850727	B128WJ1 GB			FR0000120271 FR0000120271	001179616			
VTAL SA (FRANCE)	TOTAL SA	Euro OTC (OOTC)  London Intl (XLON)	Common Stock Common Stock	TOTAL SA	FPUSD EO	850727 850727	B128WJ1 GB		042007	FR0000120271	001179616			
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	Turquoise (TRQX)	Common Stock	TOTAL SA	FP TO	850727	B128WJ1 GB B15C557 FR		012027	FR0000120271 FR0000120271	001179616			
TAL SA (FRANCE)	TOTAL SA TOTAL SA	NSDQ OMX EUR (NURO) Euro OTC (XLON)	Common Stock Common Stock	TOTAL SA	FP NQ	850727	B15C557 FR		012027	FR0000120271	001179616			
OTAL SA (FRANCE) OTAL SA (FRANCE)	TOTAL SA	Euro Comp (XLON)	Common Stock	TOTAL SA	FPCHF EU	850727 850727	8128WJ1 GB 8128WJ1 GB			FR0000120271 FR0000120271	001179616			
	TOTAL SA TOTAL SA	Euro OTC (XLON)  Euro Comp (XLON)	Common Stock Common Stock	TOTAL SA	FPNOK EO	850727	B128WJ1 GB			FR0000120271	001179616			
		Euro OTC (XLON)	Common Stock	TOTAL SA TOTAL SA	FPNOK EU FPAUD EO	850727 850727	B128WJ1 GB B128WJ1 GB			FR0000120271 FR0000120271	001179616			
OTAL SA (FRANCE)	TOTAL SA		Common Stock	TOTAL SA	FPAUD EU	850727	B128WJ1 GB			FR0000120271	001179616			
OTAL SA (FRANCE)  OTAL SA (FRANCE)  OTAL SA (FRANCE)	TOTAL SA TOTAL SA TOTAL SA	Euro Comp (XLON)		TOTAL DA OTRIDIA DE										
OTAL SA (FRANCE)  OTAL SA (FRANCE)  OTAL SA (FRANCE)  OTAL SA (FRANCE)	TOTAL SA TOTAL SA TOTAL SA	Euro Comp (XLON) Euro OTC (XLON) Buenos Floor (XBUE)	Misc. Receipt	TOTAL SA-STRIP VVPR TOTAL SA-SUS	TOTS EO	946112				BE0005554259	009855475			
OTAL SA (FRANCE)	TOTAL SA TOTAL SA TOTAL SA TOTAL SA	Euro OTC (XLON) Buenos Floor (XBUE) Euro OTC (XLON)	Misc. Receipt Common Stock	TOTAL SA-\$US TOTAL SA	TOTS EO TOTD AR FPZAR EO	850727	2646220 AR							
OTAL SA (FRANCE)	TOTAL SA TOTAL SA TOTAL SA TOTAL SA TOTAL SA TOTAL SA	Eure OTC (XLON) Buenos Floor (XBUE)	Misc. Receipt Common Stock Common Stock	TOTAL SA-SUS TOTAL SA TOTAL SA	TOTS EO TOTD AR FPZAR EO FPZAR EU		2646220 AR			BE0005554259 ARDEUT112075 FR0000120271 FR0000120271	009855475			
OTAL SA (FRANCE) OTAL SEN (FRANCE) OTAL SEN (FRANCE) OTAL SEN (FRANCE) OTAL SEN (FRANCE)	TOTAL SA WARTBILA OVJ	Eure OTC (XLON) Buenes Floor (XBUE) Eure OTC (XLON) Eure Cornp (XLON) Nairobi (XNA) Burgundy (BURG)	Misc. Receipt Common Stock Common Stock Common Stock Common Stock	TOTAL SA-\$US TOTAL SA TOTAL SA TOTAL KENYA LTD WARTSILA OYJ	TOTS EO TOTD AR FPZAR EO FPZAR EU TKNL KN WRT1V BY	850727 850727 881050	2646220 AR 6893107 KE		980070	BE0005554259 ARDEUT112075 FR0000120271	009855475			
OTAL SA (FRANCE)  ARTSILA OYJ (FILAND)  ARTSILA OYJ (FILAND)	TOTAL SA TOTAL SA TOTAL SA TOTAL SA TOTAL SA TOTAL SA VOTEL SA WATEL SY WARTSILA OYJ WARTSILA OYJ	Euro OTC (XLON) Buenos Floor (XBUE) Euro OTC (XLON) Euro Comp (XLON) Nairobi (XNAI)	Misc. Receipt Common Stock Common Stock Common Stock	TOTAL SA-SUS TOTAL SA TOTAL SA TOTAL KENYA LTD WARTSILA OYJ WARTSILA OYJ	TOTS EO TOTD AR FPZAR EO FPZAR EU TKNL KN WRT1V BY WRT1V FH	850727 850727 881050 881050	2646220 AR 6893107 KE 4525189 FI		980070	BE0005554259 ARDEUT112075 FR0000120271 FR0000120271 KE0000000463 F8009003727 F10009003727	009855475 001179616 001179616 004174488 004174488			
OTAL SA (FRANCE)  AND SA (FRANCE)	TOTAL SA WARTSILA OYJ WARTSILA OYJ	Eure OTC (XLON) Buenes Floor (XBUE) Eure OTC (XLON) Eure Cormp (XLON) Nairobi (XNA) Burgundy (BURG) Helsinki (XHEL)	Misc. Receipt Common Stock Common Stock Common Stock Common Stock Common Stock Common Stock	TOTAL SA-\$US TOTAL SA TOTAL SA TOTAL KENYA LTD WARTSILA OYJ	TOTS EO TOTD AR FPZAR EO FPZAR EU TKNL KN WRT1V BY	850727 850727 881050	2646220 AR 6893107 KE			BE0005554259 ARDEUT112075 FR0000120271 FR0000120271 KE0000000463 Fi0009003727	009855475 001179616 001179616 004174488			

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL CUSIP	Sicovam	ISIN	COMMON	CINS Fondscode	CATS Code
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	OTC US (OOTC)	Common Stock	WARTSILA OYJ-A SHS	WRTAF US	888242	81JV851 US		F10009003719	003021416		ONTO CODE
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	OTC US (OOTC)	Common Stock	WARTSILA OYJ	WRTBF US	881050	BOSMMZS	980070	F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro OTC (XLON)	Common Stock	WARTSILA OYJ	WRT1V EO	881050	B28N651 GB		FI0009003727	004174488	7,001,001,00	
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro Comp (XLON)	Common Stock	WARTSILA OYJ	WRT1V EU	881050	828N651 GB		F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro Comp (XLON)	Common Stock	WARTSILA OYJ	WRT1VGBXEU	881050	B28N651 GB		F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro OTC (XLON)	Common Stock	WARTSILA OYJ	WRT1VGBXEC	881050	B28N6S1 GB		F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro OTC (XLON)	Common Stock	WARTSILA OYJ	WRT1VGBPEC		_		F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Turquoise (TRQX)	Common Stock	WARTSILA OYJ	WRT1V TQ	881050	4525189 FI	980070	F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	NSDQ OMX Eur (NURO)	Common Stock	WARTSILA OYJ	WRT1V NQ	881050	4525189 FI	980070	F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	BATS Europe (BATE)	Common Stock	WARTSILA OYJ	WRT1V EB	881050	4525189 FI	980070	F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	OTC US (OOTC)	ADR	WARTSILA OYJ-UNSPON ADR	WRTBY US		B3F0CN2 US	500070	US9365441057	004174408		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro OTC (XLON)	Common Stock	WARTSILA OYJ	WRT1VUSDEC	881050	20.20.200		F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	Euro Comp (XLON)	Common Stock		WRTIVUSDEL				F10009003727	004174488		
WARTSILA OYJ (FINLAND)	WARTSILA OYJ	NYSE ARCA EU (XHFT)			WRT1V NR	881050	4525189 FI	980070	F10009003727			

#### ATTACHMENT E

# Genocide Intervention Network List of "Highest Offenders" Companies in Sudan List Effective Through May 31, 2010

Company Name	Country of Origin
China National Petroleum Corporation AKA CNPC	China
Jinan Diesel Co. Ltd.	China
Daqing Huake Group Co. Ltd.	China
PetroChina	China
CNPC Hong Kong	Hong Kong
Petronas Gas Berhad	Malaysia
Petronas Dagangan	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Oil and Natural Gas Company, AKA ONGC	India
Mangalore Refinery and Petrochemicals Ltd.	India
Sinopec Group AKA China Petrochemical Corporation	China
Kingdream PLC	China
Sinopec Corporation AKA China Petroleum and Chemical Corporation	China
Sinopec Shanghai Petrochemical Co. Ltd.	China
Sinopec Kanton Holdings	China
Sinopec Yizheng Chemical Fibre Company, Ltd.	China
AREF Energy Holding Company	Kuwait
Egypt Kuwaiti Holding Company Ranhill Berhad	Egypt
	Malaysia
Muhibbah Engineering Berhad	Malaysia
China North Industries Corporation AKA Norinco	China
Norinco International Cooperation Ltd.	China
AviChina Industry & Technology Company, Ltd.	China
Jiangxi Hongdu Aviation AKA Hongdu Aviation	China
Hafei Aviation Industry	China
Jiangxi Changhe Automobile Co.	China
Harbin Dongan Auto Engine Co.	China
China Hydraulic and Hydroelectric Construction Group AKA Sinohydro	China
Mercator Lines	India
Mercator Lines Singapore	Singapore
Dongfeng Automotive Company Limited	China
ndian Oil Corporation Ltd. AKA IOCL	India
Lanka IOC Limited	India
Bongaigaon Refinery & Petrochemicals Limited AKA BRPL	India
Chennai Petroleum Corporation Limited AKA CPCL	India
Dil India Limited	India
Scomi Group Berhad	Malaysia
Scomi Engineering Berhad	Malaysia
Alstom	France
Alstom Projects India Ltd	India
Vuhan Boiler Company	France
Electricity Generating Company Limited AKA EGCO	Thailand
DNA S.A.	
	Morocco
Managem	Morocco
PTT Public Company, Limited AKA PTT	Thailand
Seadrill Limited	Bermuda
Nippon Oil Corporation	Japan

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

# Genocide Intervention Network List of Companies in Sudan for "Ongoing Engagement" <u>List Effective Through May 31, 2010</u>

Company Name	Country of Origin
Shanghai Electric Group Company, Ltd	China
Harbin Power Equipment Company Limited	China
China Poly Group Corporation	China
Bharat Electronics Limited	India
Bharat Heavy Electricals	India
Essar Oil	India
Citadel Capital	Egypt
Tanjung Offshore Services	Malaysia
Nam Fatt Corporation Berhad	Malaysia
Kencana Petroleum Berhad	Malaysia
Kejuruteraan Samundra Timur Bhd	Malaysia
Total SA	France
Lundin International SA	France
Saras S.p.A.	Italy
Atlas Copco AB	Sweden
Lundin Petroleum AB	Sweden
Andritz VA TECH HYDRO	Austria
Man SE	Germany
GAZ Group	Russia
Kamaz	Russia

# Genocide Intervention Network List of Companies in Sudan with No Publicly Traded Equity List Effective Through May 31, 2010

Company Name	Country of Origin
Africa Energy	Nigeria
Al-Qahtani & Sons Group of Companies	Saudi Arabia
Ansan Wikfs/Shaher Trading Company	Yemen
APS Engineering Company	Italy
Arcadia Petroleum	UK
Ascom Group SA	Moldova
China International Water & Electric Corp AKA CWE	China
China National Machinery and Equipment Import Export Corporation (CMEC)	China
China Petroleum Engineering Company AKA CPEC	China
Coyne et Bellier	France
Delta Petroleum	Turkey/Luxembourg
Dindir Petroleum International/Edgo Group	Jordan
Express Petroleum and Gas Company	Nigeria
GIAD Industrial City	Sudan
Glenmore International AG	Switzerland
H Oil Group	Spain
Harbin Power Engineering AKA HPE	China
Hi Tech Petroleum Group Co. Ltd.	Sudan
HTC Yemen International Limited	Yemen
K & K Capital Group AKA KKCG	Czech Republic
Kuwait Foreign Petroleum Exploration Company AKA Kufpec	Kuwait
Lahmeyer International	Germany
Mott MacDonald	UK
Peremba Construction	Malaysia
Peschaud & Cie International	France
Petrolin	Gabon
Petroneeds Service International Company	Sudan
PT Pertamina Persero AKA Pertamina	Indonesia
Shandong Electric Power Construction Corporation AKA Shandong Electric Power Group	China
Snowy Mountain Engineering Corporation	Australia
Star Petroleum	Spain
Sudan Petroleum Company AKA Sudapet	Sudan
Supiri Resources	Canada
Tamoil	Libya
Trafigura Beheer	Netherlands
Vitol Group	Switzerland
Zaver Petroleum Corporation Ltd.	Pakistan
Source: Genocide Intervention Network	March 2, 2010

### ATTACHMENT F

#### LIST OF SCRUTINIZED IRAN COMPANIES

COMPANY COUNTRY

BP PLC

Chevron Corporation

China Petroleum & Chemical Corporation

CNOOC Ltd

Costain Group PLC

DAELIM INDUSTRIAL CO.,LTD.

E.ON AG Edison SpA

GAIL (India) Limited Gazprom Neft Oao Gazprom Oao

Hyundai Engineering & Construction Co., Ltd.

Indian Oil Corporation Ltd. JGC CORPORATION

KANEMATSU CORPORATION

KunLun Energy Company Ltd (frmly CNPC Hong Kong Ltd.)

L'Air Liquide SA

Liquefied Natural Gas Ltd

Oil and Natural Gas Corporation Limited

OMV Aktiengesellschaft Persian Gold Plc

PetroChina Company Limited Petronas Dagangan Bhd Petronas Gas Berhad

PTT Exploration and Production Public Company Limited

PTT Public Company Limited

Royal Dutch Shell Plc Saipem S.p.A. Sasol Limited

Sinopec Kantons Holdings Ltd.

Sinopec Shanghai Petrochemical Company Limited

Statoil ASA Technip Total SA

The Siam Cement Public Company Limited

Trevi-Finanziaria Industriale S.p.A.

Union Resources Limited

Welspun Gujarat Stahl Rohren Limited

United Kingdom

US China Hong Kong

United Kingdom South Korea Germany Italy India Russia

Russia Russia South Korea India

India
Japan
Japan
Hong Kong
France
Australia
India
Austria

United Kingdom

China
Malaysia
Malaysia
Thailand
Thailand
Netherlands
Italy
South Africa
Hong Kong
China
Norway
France
France
Thailand
Italy

Australia India

April 28, 2010

#### ATTACHMENT G

Letter to SBI Equity Managers

April 28, 2010

#### Regarding: Iran Companies

Dear Manager:

Laws of Minnesota 2009, Chapter 90, codified as *Minnesota Statutes*, section 11A.244, requires the Minnesota State Board of Investment (SBI) to implement an Iran restriction. This communication applies to all SBI domestic equity portfolios managed by your organization. This communication also applies to ADR's of any of the listed companies.

Attachment 1 is the List of Restricted Iran Companies. Securities of these companies may not be purchased for the SBI portfolio that your organization manages. Please note that the attached List makes changes to the List of Restricted Iran Companies that was attached to the March 5, 2010 letter you received. This new list is effective April 30, 2010.

- The following companies have been added to the restricted list:
  - BP Plc
  - Chevron Corporation
  - E.ON AG
  - GAIL Limited
  - Hyundai Engineering & Construction Co., Ltd.
  - JGC Corporation
  - Kanematsu Corporation
  - KunLun Energy Company Ltd (formerly CNPC Hong Kong Ltd.)
  - Liquefied Natural Gas Ltd
  - Gazprom Neft Oao
  - Persian Gold Plc
  - Petronas Gas Berhad
  - PTT Exploration and Production Public Company Limited
  - PTT Public Company Limited
  - Saipem SpA
  - Sinopec Kantons Holdings Ltd.
  - Sinopec Shanghai Petrochemical Company Limited
  - Technir
  - The Siam Cement Public Company Limited
  - Trevi-Finanziaria Industriale SpA
  - Union Resources Limited
  - Welspun Gujarat Stahl Rohren Limited

- The following companies have been removed from the restricted list:
  - · Aker Solutions ASA
  - Dubai Islamic Bank Ltd.
  - ENI SpA
  - Finmeccanica SpA
  - GS Engineering & Construction Ltd
  - GS Holdings Corporation
  - Inpex Corporation
  - Lukoil Oao

**Attachment 1** has select company security identifiers that may help your organization identify prohibited securities. However, this list does not include all identifiers for the restricted companies. It is your organization's responsibility to identify all listings of the companies on the Restricted List and not to purchase any listing of these companies.

Attachment 2 is the List of Iran Companies Requiring Divestment.

- The following companies have been removed from the divestment list:
  - ENI SpA
  - Finmeccania SpA
  - GS Engineering & Construction Ltd
  - Inpex Corporation
  - Lukoil Oao

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

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

If you have any questions about this matter, please contact Stephanie Gleeson, Manager, International Equities; or James E. Heidelberg, Manager, Public Programs.

Sincerely,

Teresa J. Richardson Assistant Executive Director

Enclosures

cc: James E. Heidelberg, Manager, Public Programs Stephanie Gleeson, Manager, International Equities

# ATTACHMENT 1 RESTRICTED IRAN COMPANIES

COMPANY	TICKER	CUSIP	SEDOL	ISIN	COUNTRY
BP PLC	BP.		0798059	GB0007980591	United Kingdom
Chevron Corporation	CVX	166764100	2838555	US1667641005	US
China Petroleum & Chemical Corporation	600028	16941R108	6373728	CNE0000018G1	China
CNOOC Ltd	883	126132109	B00G0S5	HK0883013259	Hong Kong
Costain Group PLC	CSGFF	G24472162	0227218	GB0002272184	United Kingdom
DAELIM INDUSTRIAL CO.,LTD.	000210	Y1860N109	6249584	KR7000210005	South Korea
E.ON AG	EOAN		4942904	DE000ENAG999	Germany
Edison SpA	EDN	T3552V114	7513578	IT0003152417	Italy
GAIL (India) Limited	532155		6133405	INE129A01019	India
Gazprom Neft Oao	SIBN		B59L417	RU0009062467	Russia
Gazprom Oao	GAZP	X7204C106	B59L4L7	RU0007661625	Russia
Hyundai Engineering & Construction Co., Ltd.	000720		6450988	KR7000720003	South Korea
Indian Oil Corporation Ltd.	530965	Y3925Y112	6253767	INE242A01010	India
JGC CORPORATION	1963		6473468	JP3667600005	Japan
KANEMATSU CORPORATION	8020		6483467	JP3217100001	Japan
KunLun Energy Company Ltd (frmly CNPC Hong Kong Ltd.)	135	G2237F100	6340078	BMG5320C1082	Hong Kong
L'Air Liquide SA	AI	009126202	B1YXBJ7	FR0000120073	France
Liquefied Natural Gas Ltd	LNG		B02L5H2	AU000000LNG0	Australia
Oil and Natural Gas Corporation Limited	500312	Y64606117	6139362	INE213A01011	India
OMV Aktiengesellschaft	OMVKF		4651459	AT0000743059	Austria
Persian Gold Plc	PNG		B09WLX6	GB00B09WLX62	United Kingdom
PetroChina Company Limited	601857	71646E100	B28SLD9	CNE1000007Q1	China
Petronas Dagangan Bhd	PETDAG	Y6885A107	6695938	MYL568100001	Malaysia
Petronas Gas Berhad	6033s		6703972	MYL6033OO004	Malaysia
PTT Exploration and Production Public Company Limited	PTTEP-F		B1359K1	TH0355A10Z04	Thailand
PTT Public Company Limited	PTT-F		6420390	TH0646010015	Thailand
Royal Dutch Shell Plc	RDSB	780259206	B03MLX2	GB00B03MLX29	Netherlands
Saipem S.p.A.	SPMR		4768768	IT0000068525	Italy
Sasol Limited	SSL	803866300	6777450	ZAE000006896	South Africa
Sinopec Kantons Holdings Ltd.	934	G8165U100	6162692	BMG8165U1009	Hong Kong
Sinopec Shanghai Petrochemical Company Limited	600688		6802794	CNE000000BB2	China
Statoil ASA	STL	85771P102	7133608	NO0010096985	Norway
Technip	TEC		4874160	FR0000131708	France
The Siam Cement Public Company Limited	SCC-F		6609906	TH0003010Z12	Thailand
Trevi-Finanziaria Industriale S.p.A.	TFI		5731446	IT0001351383	Italy
Union Resources Limited	UCL		6913577	AU00000UCL4	Australia
Welspun Gujarat Stahl Rohren Limited	532144		B07PYG1	INE191B01025	India

# **ATTACHMENT 2**

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
CNOOC Ltd	China	July 31, 2010	January 31, 2011
Gazprom Oao	Russia	July 31, 2010	January 31, 2011
L'Air Liquide	France	July 31, 2010	January 31, 2011
OMV AG	Austria	July 31, 2010	January 31, 2011
Royal Dutch Shell PLC	U.K.	July 31, 2010	January 31, 2011
Sasol Ltd	South Africa	July 31, 2010	January 31, 2011
Statoil Hydro ASA	Norway	July 31, 2010	January 31, 2011

April 28, 2010

### Letter to SBI Fixed Income Managers

April 28, 2010

#### **Regarding Iran Companies**

#### Dear Manager:

Laws of Minnesota 2009, Chapter 90, codified as *Minnesota Statutes*, section 11A.244, required the Minnesota State Board of Investment (SBI) to implement an Iran restriction. This communication applies to the SBI fixed income portfolio managed by your organization.

Attachment 1 is the List of Restricted Iran Companies. Securities of these companies may not be purchased for the SBI portfolio that your organization manages. Please note that the attached List makes no changes to the List of Restricted Iran Companies that was attached to the March 5, 2010 letter you received. This new list is effective April 30, 2010.

- The following companies have been added to the restricted list:
  - BP Plc
  - Chevron Corporation
  - E.ON AG
  - GAIL Limited
  - Hyundai Engineering & Construction Co., Ltd.
  - JGC Corporation
  - Kanematsu Corporation
  - KunLun Energy Company Ltd (formerly CNPC Hong Kong Ltd.)
  - Liquefied Natural Gas Ltd
  - Gazprom Neft Oao
  - Persian Gold Plc
  - Petronas Gas Berhad
  - PTT Exploration and Production Public Company Limited
  - PTT Public Company Limited
  - Saipem SpA
  - Sinopec Kantons Holdings Ltd.
  - Sinopec Shanghai Petrochemical Company Limited
  - Technip
  - The Siam Cement Public Company Limited
  - Trevi-Finanziaria Industriale SpA
  - Union Resources Limited
  - Welspun Gujarat Stahl Rohren Limited

- The following companies have been removed from the restricted list:
  - Aker Solutions ASA
  - Dubai Islamic Bank Ltd.
  - ENI SpA
  - Finmeccanica SpA
  - GS Engineering & Construction Ltd
  - GS Holdings Corporation
  - Inpex Corporation
  - Lukoil Oao

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

- The following companies have been removed from the divestment list:
  - ENI SpA
  - Finmeccania SpA
  - GS Engineering & Construction Ltd
  - Inpex Corporation
  - Lukoil Oao

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

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

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

Sincerely,

Teresa J. Richardson Assistant Executive Director

**Enclosures** 

cc.: James E. Heidelberg, Manager, Public Programs J. J. Kirby, Portfolio Manager, Long-Term Debt

#### ATTACHMENT 1

#### RESTRICTED IRAN COMPANIES

#### **COMPANY**

BP PLC

Chevron Corporation

China Petroleum & Chemical Corporation

**CNOOC Ltd** 

Costain Group PLC

DAELIM INDUSTRIAL CO.,LTD.

E.ON AG Edison SpA

GAIL (India) Limited Gazprom Neft Oao

Gazprom Oao

Hyundai Engineering & Construction Co., Ltd.

Indian Oil Corporation Ltd. JGC CORPORATION

KANEMATSU CORPORATION

KunLun Energy Company Ltd (frmly CNPC Hong Kong Ltd.)

L'Air Liquide SA

Liquefied Natural Gas Ltd

Oil and Natural Gas Corporation Limited

**OMV** Aktiengesellschaft

Persian Gold Plc

PetroChina Company Limited Petronas Dagangan Bhd Petronas Gas Berhad

PTT Exploration and Production Public Company Limited

PTT Public Company Limited

Royal Dutch Shell Plc

Saipem S.p.A. Sasol Limited

Sinopec Kantons Holdings Ltd.

Sinopec Shanghai Petrochemical Company Limited

Statoil ASA Technip

The Siam Cement Public Company Limited

Trevi-Finanziaria Industriale S.p.A.

Union Resources Limited

Welspun Gujarat Stahl Rohren Limited

#### **COUNTRY**

United Kingdom

US China Hong Kong United Kingdom South Korea Germany Italy India Russia

Russia South Korea India Japan

Japan Hong Kong France Australia India Austria

United Kingdom

China Malaysia Malaysia Thailand Thailand Netherlands

Italy

South Africa Hong Kong China Norway France Thailand Italy Australia India

April 28, 2010

# **ATTACHMENT 2**

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
CNOOC Ltd	China	July 31, 2010	January 31, 2011
Gazprom Oao	Russia	July 31, 2010	January 31, 2011
L'Air Liquide	France	July 31, 2010	January 31, 2011
OMV AG	Austria	July 31, 2010	January 31, 2011
Royal Dutch Shell PLC	U.K.	July 31, 2010	January 31, 2011
Sasol Ltd	South Africa	July 31, 2010	January 31, 2011
Statoil Hydro ASA	Norway	July 31, 2010	January 31, 2011

April 28, 2010

# Tab C

#### SBI ADMINISTRATIVE COMMITTEE REPORT

DATE:

May 11, 2010

TO:

Members, State Board of Investment

FROM:

**SBI Administrative Committee** 

The Administrative Committee met on May 4, 2010 to consider the following agenda items:

- Review of Executive Director's Proposed Workplan for FY11
- Review of Budget Plan for FY11
- Review of Continuing Fiduciary Education Plan
- Review of Executive Director's Evaluation Process
- Update of Disaster Recovery Plan

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

## 1. Review of Executive Director's Proposed Workplan for FY11.

The Executive Director's Proposed Workplan for FY11 was presented. As in previous workplans, the FY11 plan follows the same category order found in the Executive Director's position description. The plan is a compilation of on-going responsibilities as well as the new initiatives the Executive Director will undertake during the next fiscal year.

A summary of the proposed plan is shown in **Attachment A** on **page 5** of this Tab. Supporting information was sent to each Board member in May 2010 as part of the FY11 Management and Budget Plan document.

#### RECOMMENDATION:

The Committee recommends that the SBI approve the FY11 Executive Director's Workplan. Further, the Committee recommends that the workplan serve as the basis for the Executive Director's performance evaluation for FY11.

#### 2. FY11 Administrative Budget Plan.

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

An overview of the budget is **Attachment B** on **page 9** of this tab. Supporting information was sent to each Board member in May 2010 as part of the FY11 Management and Budget Plan.

#### RECOMMENDATION:

The Committee recommends that the SBI approve the FY11 Administrative Budget Plan, as presented to the Committee, and that the Executive Director have the flexibility to reallocate funds between budget categories if the Executive Director deems necessary.

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

Minnesota Statutes Chapter, 356A requires each public pension plan to establish a continuing education plan for its fiduciaries. The plan approved by the Committee is in **Attachment C** on **page 11** of this Tab. Please note that the travel allocation policy for Board members and their designees is included in the plan.

#### **RECOMMENDATION:**

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

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

The Committee discussed the process that will be used by the Board to evaluate the Executive Director for FY10. The Committee members agreed that the performance reviews should be completed prior to the September 2010 meeting of the SBI and should follow the process used in the past.

#### RECOMMENDATION:

The Committee recommends that the SBI adopt the following process for the Executive Director's FY10 performance evaluation:

 The evaluation will be completed prior to the September 2010 meeting of the SBI and will be based on the results of the Executive Director's workplan for FY10.

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

# 5. Update of Disaster Recovery Plan.

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

# ATTACHMENT A

# STATE BOARD OF INVESTMENT Executive Director's Proposed Workplan

# **FY11**

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

A	. D	EVELOPMENT OF INVESTMENT POLICIES	Projected Time Frame
	1.	New Alternative Investment Asset Classes	Ongoing
	2.	Update SBI Policy Manual and Review/Rewrite Policy Papers	Jul – Nov
	3.	Review of Asset Class Targets	Jul – Oct
	4.	Conduct a Review of Derivatives Usage within the Fixed Income Program	Jul – Jun
	5.	Review of Transition Managers	Jul – Mar
	6.	State Auditor Investment Authority Review	
В.		IPLEMENTATION OF INVESTMENT POLICIES PPROVED BY THE SBI	
	1.	Meet or Exceed the Performance Objectives	Ongoing
	2.	Conduct Investment Manager Compliance Review of Guidelines and Contracts	Ongoing
	3.	Investments with New/Existing Alternative Asset Managers	Ongoing
	4.	Short Term Liquidity Review	Jul – Dec
	5.	Review Investment Options Structure in DCP	Jul – Jun
	6.	Manager Search Process	Ongoing
	7.	Implement State Law Concerning Iran	Ongoing
	8.	Implement State Law Concerning Sudan	Ongoing
	9.	Investment Commitment Modeling	Ongoing

# C. REVIEW AND CONTROL OF INVESTMENT **POLICIES**

	1.	Review the Domestic Equity Semi-Passive Program	Oct – Dec					
	2.	Review Proxy Services Vendor	Jul – Dec					
	3.	Review of Securities Lending Program	Jun – Sep					
	4.	Manager Guidelines	Ongoing					
	5.	Review Asset Allocation for Closed Landfill Investment Fund	Jul – Oct					
	6.	Provide Staff Support to Proxy Committee for Proxy Voting and Shareholder Initiatives	Jul – Jun					
	7.	Monitor Implementation of Northern Ireland Mandate	Oct – Mar					
D.		MINISTRATION AND MANAGEMENT STAFF OPERATIONS						
	1.	Coordinate Financial Audit by Legislative Auditor	Jul – Dec					
	2.	Prepare 2011 Legislative package	Jul – May					
	3.	Prepare FY11 Management and Budget Plan	Jul - Jun					
	4.	Annual Update of Disaster Recovery/Pandemic Plan Apr	– Jun					
E.	. COMMUNICATION AND REPORTING							
	1.	Prepare reports on investment results	Qtly					
	2.	Prepare status reports	As requested					
	3.	Meet with SBI and IAC	Qtly					
	4.	Meet with Board's designees	Qtly					
	5.	Prepare FY 2010 Annual Report	Jul - Jan					
	6.	Prepare Annual SIF Investment Options Prospectus and VSVF Plan Information Booklet	May – Sep					

7.	Coordinate Public Pension Plan Performance Reporting Disclosure	Ongoing
8.	Archive Performance Source Documents	Jul – Dec
9.	Document Performance Procedure	Jul – Aug
10.	Conduct Manager Round Tables	Periodic

#### ATTACHMENT B

## Administrative Budget FY 11 – 12 Budget Plan Overview

The FY 11 – 12 budget request is based on budget procedures instituted by Department of Minnesota Management and Budget.

New statutory authority was passed during the 2006 legislative session to establish a fixed amount from the General Fund and to have the balance of the MSBI's budget billed to organizations that use the MSBI's services. This authority was used to generate the fiscal year 2010 budget and also is the basis for the 2011 – 2012 budget projections.

Personnel Services Operating Expense	<b>FY10 Budget</b> \$3,023,000 433,000	\$2,910,568 367,000	<b>FY11 Request</b> \$2,914,600 357,900	FY12 Request \$2,914,600 357,900
	\$3,456,000	\$3,277,568	\$3,272,500	\$3,272,500

Personnel Services:

87% of the budget

Salaries, retirement, insurance, FICA, severance

**Operating Expenses:** 

13% of the budget

Rents, leases, printing, data processing

Professional/technical contracts

Communications, travel, employee development, misc. fees

Office equipment, furnishings, supplies

# STATE BOARD OF INVESTMENT FISCAL YEAR 2011 BUDGET PLAN

DESCRIPTION	1	FY2007 ACTUAL	 FY2008 ACTUAL	FY2009 ACTUAL	PF	FY2010 ROJECTED	FY2011 BUDGET
PERSONAL SERVICES							
FULL TIME EMPLOYEES	\$	1,892,995	\$ 1,989,699	\$ 2,653,441	\$	2,841,000	\$ 2,845,000
PART TIME EMPLOYEES		48,246	76,761	75,111		69,000	69,000
SEVERENCE PAYOFF		33,929	58,035	11,150		-	
WORKERS COMPENSATION INSURANCE		777	653	504		568	600
MISCELLANEOUS PAYROLL		-	-			-	
SUBTOTAL	\$	1,975,947	\$ 2,125,148	\$ 2,740,206	\$	2,910,568	\$ 2,914,600
STATE OPERATIONS							
RENTS & LEASES		202,087	186,859	194,138		200,000	200,000
REPAIRS/ALTERATIONS/MAINTENANCE		5,700	58,652	4,908		10,500	10,000
PRINTING & BINDING PROFESSIONAL/TECHNICAL SERVICES		6,693	2,788	11,625		4,000	4,000
PROFESSIONAL/TECHNICAL SERVICES		-	Ή.	-		-	_
COMPUTER SYSTEMS SERVICES		12,532	22,519	9,251		20,000	20,000
COMMUNICATIONS		23,628	25,689	27,811		29,000	29,000
TRAVEL, IN-STATE		365	910	1,540		500	900
TRAVEL, OUT-STATE		43,173	44,085	29,479		38,000	40,000
SUPPLIES		23,875	35,255	28,783		30,000	30,000
EQUIPMENT		46,334	87,556	5,762		20,000	10,000
EMPLOYEE DEVELOPMENT		10,797	15,983	15,748		5,000	5,000
OTHER OPERATING COSTS		8,642	11,288	13,912		10,000	9,000
SUBTOTAL	\$	383,826	\$ 491,584	\$ 342,957	\$	367,000	\$ 357,900
TOTAL GENERAL FUND	\$	2,359,773	\$ 2,616,732	\$ 3,083,163	\$	3,277,568	\$ 3,272,500
PERCENT INCREASE OVER PRIOR YEAR			10.9%	17.8%		6.3%	-0.2%

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#### ATTACHMENT C

# CONTINUING FIDUCIARY EDUCATION PLAN

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

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

# 1. Briefing for New Board/IAC Members

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

# 2. Development and Review of Investment Policies

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

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

# 3. Input from Board's Consultants

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

#### 4. Manager Round Tables

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

#### 5. Travel Allocation

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

Date: May, 2010

#### 2008 Minnesota Statutes

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

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

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

# Tab D



# STATE BOARD OF INVESTMENT

Domestic Equity Manager Evaluation Reports

First Quarter, 2010

### **Domestic Equity**

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# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC STOCK MANAGERS Periods Ending March, 2010

		arter	1 Y	ear	3 Ye	ars	5 Ye	ears		
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%		
Russell 1000 Core Aggregate	4.9	5.7	46.5	51.6	-6.5	-4.0	0.8	2.3		
Russell 1000 Growth Aggregate	4.2	4.6	54.6	49.8	-0.8	-0.8	2.8	3.4		
Russell 1000 Value Aggregate	7.1	6.8	5 <mark>5</mark> .0	53.6	-5.6	-7.3	1.3	1.0		
Russell 2000 Growth Aggregate	7.8	7.6	56.0	60.3	-3.8	-2.4	2.8	3.8		
Russell 2000 Value Aggregate	10.7	10.0	81.4	65.1	-6.4	-5.7	0.9	2.8		
Active Manager Aggregate	6.4	6.4	55.4	53.7	-4.4	-4.1	1.7	2.4		
Semi-Passive Aggregate	5.8	5.7	52.3	51.6	-4.6	-4.0	2.0	2.3		
Passive Manager (BlackRock)	6.0	5.9	52.5	52.4	-3.9	-4.0	2.5	2.4		
Total Domestic Equity Aggregate	6.0	6.0	53.4	52.5	-4.2	-4.0	2.1	2.4		
SBI DE Asset Class Target		5.9		52.4		-4.0		2.4		
Russell 3000 Index		5.9		52.4		-4.0		2.4		
	200	10	200	0	2000		200	_		
	200		200		200		200		200	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
Russell 1000 Core Aggregate	Actual	Bmk	Actual	Bmk %	Actual	Bmk	Actual	Bmk	Actual	Bmk
Russell 1000 Core Aggregate Russell 1000 Growth Aggregate	Actual %	Bmk % 28.4	Actual %	Bmk % -37.6	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %
	Actual % 27.6	Bmk % 28.4	Actual % -39.6	Bmk % -37.6 -38.4	Actual %	Bmk % 5.8	Actual % 15.8 2.2	Bmk % 15.5	Actual % 6.4	Bmk % 6.3
Russell 1000 Growth Aggregate	Actual % 27.6 44.5	Bmk % 28.4 37.2	Actual % -39.6 -42.7	Bmk % -37.6 -38.4 -36.8	Actual % 2.4 14.9	Bmk % 5.8 11.8	Actual % 15.8 2.2	Bmk % 15.5 9.1	Actual % 6.4 7.3	Bmk % 6.3 5.3
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate	Actual % 27.6 44.5 23.8	Bmk % 28.4 37.2 19.7	Actual % -39.6 -42.7 -38.0	Bmk % -37.6 -38.4 -36.8	Actual % 2.4 14.9 3.6	Bmk % 5.8 11.8 -0.2	Actual % 15.8 2.2 17.4	Bmk % 15.5 9.1 22.2 13.3	Actual % 6.4 7.3 6.0	Bmk % 6.3 5.3 7.1
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate Russell 2000 Growth Aggregate Russell 2000 Value Aggregate Active Manager Aggregate	Actual % 27.6 44.5 23.8 33.6	Bmk % 28.4 37.2 19.7 34.5	Actual % -39.6 -42.7 -38.0 -46.8 -36.1	Bmk % -37.6 -38.4 -36.8 -38.5	Actual % 2.4 14.9 3.6 21.6	Bmk % 5.8 11.8 -0.2 7.0	Actual % 15.8 2.2 17.4 10.0 13.1	Bmk % 15.5 9.1 22.2 13.3	Actual % 6.4 7.3 6.0 4.7	Bmk % 6.3 5.3 7.1 4.2
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate Russell 2000 Growth Aggregate Russell 2000 Value Aggregate Active Manager Aggregate Semi-Passive Aggregate	Actual % 27.6 44.5 23.8 33.6 36.3	Bmk % 28.4 37.2 19.7 34.5 20.6	Actual % -39.6 -42.7 -38.0 -46.8 -36.1	Bmk % -37.6 -38.4 -36.8 -38.5 -28.9 -36.9	Actual % 2.4 14.9 3.6 21.6 -13.4	Bmk % 5.8 11.8 -0.2 7.0 -9.8	Actual % 15.8 2.2 17.4 10.0 13.1	Bmk % 15.5 9.1 22.2 13.3 23.5 15.8	Actual % 6.4 7.3 6.0 4.7 7.7	Bmk % 6.3 5.3 7.1 4.2 4.7
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate Russell 2000 Growth Aggregate Russell 2000 Value Aggregate Active Manager Aggregate Semi-Passive Aggregate Passive Manager (BlackRock)	Actual % 27.6 44.5 23.8 33.6 36.3 32.3	Bmk % 28.4 37.2 19.7 34.5 20.6 27.9	-39.6 -42.7 -38.0 -46.8 -36.1 -40.5	Bmk % -37.6 -38.4 -36.8 -38.5 -28.9 -36.9 -37.6	Actual %  2.4  14.9  3.6  21.6  -13.4  6.3	Bmk % 5.8 11.8 -0.2 7.0 -9.8 4.2	Actual % 15.8 2.2 17.4 10.0 13.1 11.5 16.1	Bmk % 15.5 9.1 22.2 13.3 23.5 15.8	Actual % 6.4 7.3 6.0 4.7 7.7 6.5	Bmk % 6.3 5.3 7.1 4.2 4.7 6.0
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate Russell 2000 Growth Aggregate Russell 2000 Value Aggregate Active Manager Aggregate Semi-Passive Aggregate	Actual % 27.6 44.5 23.8 33.6 36.3 32.3 28.5	Bmk % 28.4 37.2 19.7 34.5 20.6 27.9 28.4	Actual % -39.6 -42.7 -38.0 -46.8 -36.1 -40.5 -37.2 -37.1	Bmk % -37.6 -38.4 -36.8 -38.5 -28.9 -36.9 -37.6	Actual % 2.4 14.9 3.6 21.6 -13.4 6.3 3.2	Bmk % 5.8 11.8 -0.2 7.0 -9.8 4.2 5.8	Actual % 15.8 2.2 17.4 10.0 13.1 11.5 16.1	Bmk % 15.5 9.1 22.2 13.3 23.5 15.8	Actual % 6.4 7.3 6.0 4.7 7.7 6.5 6.2	Bmk % 6.3 5.3 7.1 4.2 4.7 6.0 6.3
Russell 1000 Growth Aggregate Russell 1000 Value Aggregate Russell 2000 Growth Aggregate Russell 2000 Value Aggregate Active Manager Aggregate Semi-Passive Aggregate Passive Manager (BlackRock)	Actual % 27.6 44.5 23.8 33.6 36.3 32.3 28.5 28.2	Bmk % 28.4 37.2 19.7 34.5 20.6 27.9 28.4 28.3	Actual % -39.6 -42.7 -38.0 -46.8 -36.1 -40.5 -37.2 -37.1 -38.1	Bmk % -37.6 -38.4 -36.8 -38.5 -28.9 -36.9 -37.6 -37.3	Actual %  2.4  14.9  3.6  21.6  -13.4  6.3  3.2  5.1	Bmk % 5.8 11.8 -0.2 7.0 -9.8 4.2 5.8 5.1	Actual % 15.8 2.2 17.4 10.0 13.1 11.5 16.1 15.8	Bmk % 15.5 9.1 22.2 13.3 23.5 15.8 15.5	Actual % 6.4 7.3 6.0 4.7 7.7 6.5 6.2	Bmk % 6.3 5.3 7.1 4.2 4.7 6.0 6.3 6.1

### COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC STOCK MANAGERS

#### Periods Ending March, 2010

Performance versus Russell Style Benchmarks for All Periods

									Si	nce		
	Qua	arter	1 Y	ear	3 Y	ears	5 Y	ears	Incep	tion (1)	Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value	Pool
	%	%	%	%	%	%	%	%	%	%	(in millions)	%
LARGE CAP												
Russell 1000 Core												
New Amsterdam Partners	4.6	5.7	35.2	51.6	-5.1	-4.0	0.5	2.3	9.9	8.9	\$335.7	1.6%
UBS Global	5.3	5.7	67.6	51.6	-4.2	-4.0	2.8	2.3	8.5	8.0	\$343.2	1.6%
Aggregate	4.9	5.7	46.5	51.6	-6.5	-4.0	0.8	2.3			\$679.0	3.2%
Russell 1000 Growth												
Alliance Capital	2.9	4.6	46.7	49.8	-1.0	-0.8	3.5	3.4	12.3	9.5	\$268.2	1.3%
INTECH	4.8	4.6	47.4	49.8	-4.1	-0.8	1.1	3.4	0.7	2.4	\$289.0	1.4%
Jacobs Levy	6.2	4.6	54.8	49.8	-4.4	-0.8	0.4	3.4	-0.5	2.4	\$258.4	1.2%
Knelman Asset Mgmt.	3.8	4.6	42.7	49.8	-2.2	-0.8	2.8	3.4	1.9	2.4	\$55.4	0.3%
Sands Capital	3.3	4.6	69.0	49.8	2.0	-0.8	4.7	3.4	2.6	2.4	\$227.1	1.1%
Winslow-Large Cap	3.6	4.6	46.7	49.8	2.2	-0.8	6.3	3.4	5.0	2.4	\$121.5	0.6%
Zevenbergen Capital	4.0	4.6	67.0	49.8	3.2	-0.8	7.5	3.4	9.0	7.2	\$280.5	1.3%
Aggregate	4.2	4.6	54.6	49.8	-0.8	-0.8	2.8	3.4			\$1,500.2	7.0%
Russell 1000 Value												
Barrow, Hanley	5.7	6.8	53.2	53.6	-5.3	-7.3	1.5	1.0	4.0	3.0	\$408.9	1.9%
Earnest Partners	7.9	6.8	56.8	53.6	-3.5	-7.3	3.0	1.0	3.8	3.7	\$171.1	0.8%
Lord Abbett & Co.	8.6	6.8	54.6	53.6	-4.6	-7.3	1.8	1.0	2.9	3.0	\$291.9	1.4%
LSV Asset Mgmt.	6.8	6.8	58.0	53.6	-7.4	-7.3	1.9	1.0	4.2	3.0	\$376.1	1.8%
Systematic Financial Mgmt.	7.7	6.8	52.9	53.6	-6.2	-7.3	1.9	1.0	3.7	3.0	\$278.7	1.3%
Aggregate	7.1	6.8	55.0	53.6	-5.6	-7.3	1.3	1.0			\$1,526.8	7.2%
SMALL CAP												
Russell 2000 Growth												
McKinley Capital	7.0	7.6	46.2	60.3	-8.5	-2.4	0.0	3.8	0.4	4.1	\$183.7	0.9%
Next Century Growth	7.3	7.6	56.8	60.3	-1.7	-2.4	7.0	3.8	-1.1	-0.8	\$222.8	1.0%
Turner Investment Partners	8.8	7.6	63.8	60.3	-1.5	-2.4	5.2	3.8	4.8	4.1	\$231.9	1.1%
Aggregate	7.8	7.6	56.0	60.3	-3.8	-2.4	2.8	3.8			\$638.3	3.0%
Russell 2000 Value												
Goldman Sachs	9.4	10.0	60.4	65.1	-1.7	-5.7	4.6	2.8	5.9	4.9	\$133.7	0.6%
Hotchkis & Wiley	15.9	10.0	120.0	65.1	-6.0	-5.7	-0.4	2.8	3.4	4.9	\$115.6	0.5%
Martingale Asset Mgmt.	8.5	10.0	61.7	65.1	-10.7	-5.7	-2.3	2.8	2.1	4.9	\$106.5	0.5%
Peregrine Capital	9.7	10.0	95.6	65.1	-6.3	-5.7	1.5	2.8	9.4	8.9	\$187.2	0.8%
Aggregate	10.7	10.0	81.4	65.1	-6.4	-5.7	0.9	2.8			\$542.9	2.4%
Active Mgr. Aggregate (2)	6.4	6.4	55.4	53.7	-4.4	-4.1	1.7	2.4			\$4,887.2	22.8%

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

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

# COMBINED RETIREMENT FUNDS ACTIVE DOMESTIC STOCK MANAGERS Calendar Year Returns Versus

Russell Style Benchmarks for All Periods

	20	09	20	08	200	7	20	06	20	05
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
LARGE CAP										
Russell 1000 Core										
New Amsterdam Partners	24.8	28.4	-36.7	-37.6	5.0	5.8	9.3	15.5	7.6	6.3
UBS Global	41.3	28.4	-41.3	-37.6	0.8	5.8	16.8	15.5	8.6	6.3
Aggregate	27.6	28.4	-39.6	-37.6	2.4	5.8	15.8	15.5	6.4	6.3
Russell 1000 Growth										
Alliance Capital	38.4	37.2	-40.3	-38.4	15.4	11.8	-0.4	9.1	14.2	5.3
INTECH	34.0	37.2	-42.8	-38.4	11.4	11.8	7.4	9.1	7.8	5.3
Jacobs Levy	37.1	37.2	-44.9	-38.4	8.4	11.8	6.1	9.1	5.3	5.3
Knelman Asset Mgmt.	31.1	37.2	-39.9	-38.4	18.0	11.8	7.1	9.1	6.6	5.3
Sands Capital	71.6	37.2	-48.6	-38.4	19.5	11.8	-5.5	9.1	10.9	5.3
Winslow-Large Cap	40.9	37.2	-39.1	-38.4	22.0	11.8	7.6	9.1	10.5	5.3
Zevenbergen Capital	57.4	37.2	-43.2	-38.4	24.0	11.8	6.2	9.1	9.0	5.3
Aggregate	44.5	37.2	-42.7	-38.4	14.9	11.8	2.2	9.1	7.3	5.3
Russell 1000 Value										
Barrow, Hanley	23.2	19.7	-35.2	-36.8	2.6	-0.2	15.4	22.2	9.6	7.1
Earnest Partners	31.6	19.7	-39.8	-36.8	6.5	-0.2	13.8	22.2	15.6	7.1
Lord Abbett & Co.	20.5	19.7	-36.3	-36.8	4.4	-0.2	18.6	22.2	3.5	7.1
LSV Asset Mgmt.	24.0	19.7	-39.3	-36.8	1.3	-0.2	21.7	22.2	12.5	7.1
Systematic Financial Mgmt.	23.2	19.7	-40.6	-36.8	8.3	-0.2	17.9	22.2	10.3	7.1
Aggregate	23.8	19.7	-38.0	-36.8	3.6	-0.2	17.4	22.2	6.0	7.1
SMALL CAP										
Russell 2000 Growth										
McKinley Capital	28.0	34.5	-49.1	-38.5	16.2	7.0	12.5	13.3	0.2	4.2
Next Century Growth	35.0	34.5	-49.3	-38.5	34.2	7.0	12.4	13.3	25.2	4.2
Turner Investment Partners	36.9	34.5	-41.9	-38.5	14.8	7.0	13.6	13.3	6.2	4.2
Aggregate	33.6	34.5	-46.8	-38.5	21.6	7.0	10.0	13.3	4.7	4.2
Russell 2000 Value										
Goldman Sachs	27.8	20.6	-26.8	-28.9	-5.0	-9.8	17.8	23.5	4.1	4.7
Hotchkis & Wiley	62.5	20.6		-28.9	-18.8	-9.8	3.0	23.5	10.4	4.7
Martingale Asset Mgmt.	19.4	20.6		-28.9	-16.8	-9.8	14.8	23.5	6.2	4.7
Peregrine Capital	45.8	20.6	-39.4		-13.4	-9.8	14.3	23.5	10.1	4.7
Aggregate	36.3	20.6	-36.1		-13.4	-9.8	13.1	23.5	7.7	4.7
Active Mgr. Aggregate (1)	32.3	27.9	-40.5	-36.9	6.3	4.2	11.5	15.8	6.5	6.0

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

Note: Includes full-year returns only. Performance of managers hired during a calendar year are reported beginning with the following calendar year.

#### COMBINED RETIREMENT FUNDS DOMESTIC STOCK MANAGERS

Periods Ending March, 2010 Versus Manager Benchmarks

									Si	nce		
	Qua	rter	1 Y	ear	3 Y	ears	5 Ye	ears	Incept	tion (1)	Market	
	Actual	Bmk	Value	Pool								
	%	%	%	%	%	%	%	%	%	%	(in millions)	%
SEMI-PASSIVE MANAGER	RS (2)											
BlackRock Institutional	5.3	5.7	50.7	51.6	-5.1	-4.0	1.7	2.3	8.0	7.7	\$2,878.0	10.6%
JP Morgan	6.2	5.7	55.3	51.6	-3.0	-4.0	3.0	2.3	7.9	7.7	\$2,649.1	12.4%
Mellon Capital (3)	5.9	5.7	50.8	51.6	-5.7	-4.0	1.3	2.3	7.1	7.7	\$2,249.6	13.5%
Semi-Passive Aggregate (R1000)	5.8	5.7	52.3	51.6	-4.6	-4.0	2.0	2.3			\$7,776.7	36.5%
PASSIVE MANAGER (R300	00)											
BlackRock Institutional	6.0	5.9	52.5	52.4	-3.9	-4.0	2.5	2.4	7.3	7.1	\$8,624.2	40.5%
									Since	1/1/84		
Historical Aggregate (4)	6.0	6.0	53.4	52.5	-4.2	-4.0	2.1	2.4	9.7	10.0	\$21,288.1	100.0%
SBI DE Asset Class Target (5)		5.9		52.4		-4.0		2.4		9.9		
Russell 3000		5.9		52.4		-4.0		2.4		10.3		
Russell 1000		5.7		51.6		-4.0		2.3		10.5		
Russell 2000		8.9		62.8		-4.0		3.4		8.8		

- (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) Includes approximately \$1B that was being transitioned out of the account during the last four days of the quarter. The assets were transferred to INTECH's new account on April 1, 2010.
- (4) Includes the performance of terminated managers. The aggregate benchmark is the weighted average of the manager benchmarks and is not the Russell 3000.
- (5) 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. From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/93, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

#### COMBINED RETIREMENT FUNDS DOMESTIC STOCK MANAGERS Calendar Year Returns Versus Manager Benchmarks

	20	2009 2008		200	7	20	06	200	05	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
SEMI-PASSIVE MANAGERS										
BlackRock Institutional	27.6	28.4	-37.1	-37.6	2.2	5.8	15.6	15.5	7.6	6.3
JP Morgan	32.1	28.4	-37.1	-37.6	5.1	5.8	16.5	15.5	4.7	6.3
Mellon Capital	25.6	28.4	-37.6	-37.6	2.5	5.8	16.5	15.5	6.1	6.3
Semi-Passive Aggregate (R1000)	28.5	28.4	-37.2	-37.6	3.2	5.8	16.1	15.5	6.2	6.3
PASSIVE MANAGER (R3000)										
BlackRock Institutional	28.2	28.3	-37.1	-37.3	5.1	5.1	15.8	15.7	6.2	6.1
Historical Aggregate (1)	29.6	28.3	-38.1	-37.3	4.9	5.1	14.5	15.7	6.4	6.1
SBI DE Asset Class Target		28.3		-37.3		5.1		15.7		6.1
Russell 3000		28.3		-37.3		5.1		15.7		6.1
Russell 1000		28.4		-37.6		5.8		15.5		6.3
Russell 2000		27.2		-33.8		-1.6		18.4		4.6

<sup>(1)</sup> Includes the performance of terminated managers.

Note: Includes full-year returns only. Performance of managers hired during a calendar year are reported beginning with the following calendar year.

Large Cap Core (R1000)

### Large Cap Core (R1000)

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#### NEW AMSTERDAM PARTNERS Periods Ending March, 2010

Portfolio Manager: Michelle Clayman Assets Under Management: \$335,730,088

#### **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**

No comment at this time.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 4.6%	Russell Index 5.7%
Last 1 year	35.2	51.6
Last 2 years	-3.5	-3.3
Last 3 years	-5.1	-4.0
Last 4 years	-1.9	-0.2
Last 5 years	0.5	2.3
Since Inception (1) (4/94)	9.9	8.9

#### Calendar Year Returns

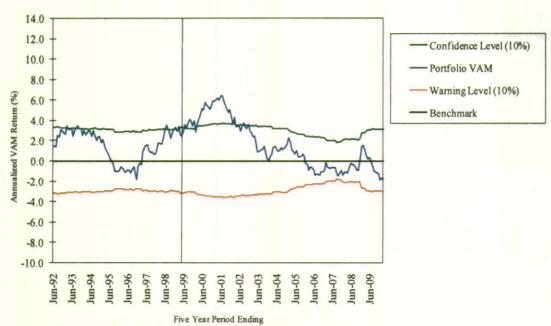
		Russell
	Actual	Index (1)
2009	24.8%	28.4%
2008	-36.7	-37.6
2007	5.0	5.8
2006	9.3	15.5
2005	7.6	6.3

<sup>(1)</sup> 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 Periods Ending March, 2010

Portfolio Manager: Michelle Clayman Assets Under Management: \$335,730,088

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



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

#### UBS GLOBAL ASSET MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: John Leonard Assets Under Management: \$343,237,699

#### **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**

UBS underperformed for the quarter and outperformed for the year. Stock selection in the Utilities and Materials and Processing sectors contributed to the quarterly underperformance. Sector allocation and stock selection, particularly in the Technology sector, had positive effects for the year.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Core
Last Quarter	5.3%	5.7%
Last 1 year	67.6	51.6
Last 2 years	-0.8	-3.3
Last 3 years	-4.2	-4.0
Last 4 years	-0.4	-0.2
Last 5 years	2.8	2.3
Since Inception (7/93)	8.5	8.0

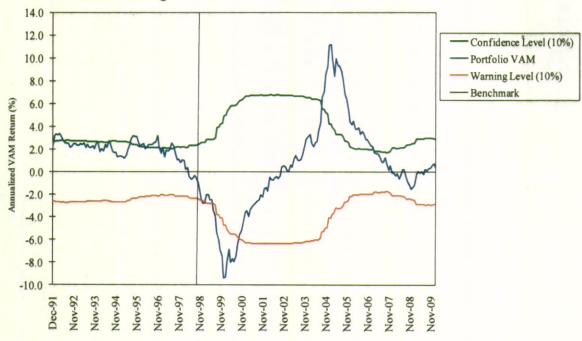
#### Calendar Year Returns

		Russell 1000
	Actual	Core
2009	41.3%	28.4%
2008	-41.3	-37.6
2007	0.8	5.8
2006	16.8	15.5
2005	8.6	6.3

## UBS GLOBAL ASSET MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: John Leonard Assets Under Management: \$343,237,699

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



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 Growth (R1000 Growth)

### Large Cap Growth (R1000 Growth)

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#### ALLIANCE CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Stephanie Simon

Assets Under Management: \$268,248,297

#### **Investment Philosophy**

Alliance searches for companies likely to experience high rates of earnings growth, on either a cyclical or secular basis. Alliance invests in a range of medium to large growth and cyclically sensitive companies. There is no clear distinction on the part of the firm as to an emphasis on one particular type of growth company over another. However, the firm's decision-making process appears to be much more oriented toward macroeconomic considerations than is the case with most other growth managers. Accordingly, cyclical earnings prospects, rather than secular, appear to play a larger role in terms of stock selection. Alliance is not an active market timer, rarely raising cash above minimal levels.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 2.9%	Russell 1000 Growth 4.6%
Salvatorio Salvatorio S	46.7	49.8
Last 1 year		3.6.75
Last 2 years	-0.8	-0.8
Last 3 years	-1.0	-0.8
Last 4 years	-0.7	1.1
Last 5 years	3.5	3.4
Since Inception (1/84)	12.3	9.5

#### Calendar Year Returns

	Actual	Russell 1000 Growth
2009	38.4%	37.2%
2008	-40.3	-38.4
2007	15.4	11.8
2006	-0.4	9.1
2005	14.2	5.3

#### **Staff Comments**

No comment at this time.

#### Recommendation

No action required.

#### ALLIANCE CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Stephanie Simon

Assets Under Management: \$268,248,297

#### ALLIANCE CAPITAL MANAGEMENT Rolling Five Year VAM vs. Russell 1000 Growth



#### INTECH INVESTMENT MANAGEMENT LLC Periods Ending March, 2010

Portfolio Manager: Robert Fernholz Assets Under Management: \$289,021,882

#### **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. specific sector or security selection decisions based on fundamentals are required. Risk parameters include: 1) minimize absolute standard deviation or maximize information ratio, 2) security positions limited to lesser of 2.5% or 10 times maximum index security weight, and 3) beta equal to or less than benchmark beta. Target security positions are established using an optimization routine designed to build a portfolio that will outperform a passive benchmark over the long term. Rebalancing to target proportions occurs every six (6) business days, and partial re-optimization occurs weekly.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 4.8%	Russell 1000 Growth 4.6%
Last 1 year	47.4	49.8
Last 2 years	-3.9	-0.8
Last 3 years	-4.1	-0.8
Last 4 years	-1.9	1.1
Last 5 years	1.1	3.4
Since Inception (1/05)	0.7	2.4

#### Calendar Year Returns

	Actual	Russell 1000 Growth
2009	34.0%	37.2%
2008	-42.8	-38.4
2007	11.4	11.8
2006	7.4	9.1
2005	7.8	5.3

#### **Staff Comments**

No comment at this time.

#### Recommendation

No action required.

# INTECH INVESTMENT MANAGEMENT LLC Periods Ending March, 2010

Portfolio Manager: Robert Fernholz Assets Under Management: \$289,021,882

#### 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 Periods Ending March, 2010

Portfolio Manager: Bruce Jacobs and Ken Levy Assets Under Management: \$258,366,812

#### **Investment Philosophy**

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

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 6.2%	Russell 1000 Growth 4.6%
Last 1 year	54.8	49.8
Last 2 years	-3.3	-0.8
Last 3 years	-4.4	-0.8
Last 4 years	-2.5	1.1
Last 5 years	0.4	3.4
Since Inception (1/05)	-0.5	2.4

#### Calendar Year Returns

		Russell 1000
2009	Actual 37.1%	Growth 37.2%
2008	-44.9	-38.4
2007	8.4	11.8
2006	6.1	9.1
2005	5.3	5.3

#### **Staff Comments**

Jacobs Levy outperformed for the quarter and for the year. Overall sector allocation and stock selection helped both periods.

#### Recommendation

No action required.

#### JACOBS LEVY EQUITY MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Bruce Jacobs and Ken Levy

Assets Under Management: \$258,366,812

#### 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, LLC Periods Ending March, 2010

Portfolio Manager: Kip Knelman Assets Under Management: \$55,448,140

#### **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**

No comment at this time.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Growth
Last Quarter	3.8%	4.6%
Last 1 year	42.7	49.8
Last 2 years	-3.5	-0.8
Last 3 years	-2.2	-0.8
Last 4 years	-0.4	1.1
Last 5 years	2.8	3.4
Since Inception (1/05)	1.9	2.4

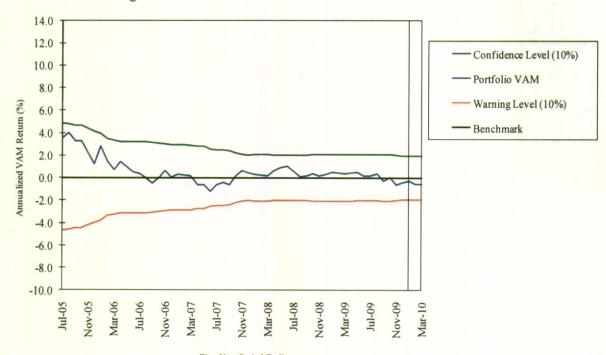
#### Calendar Year Returns

		Russell 1000
	Actual	Growth
2009	31.1%	37.2%
2008	-39.9	-38.4
2007	18.0	11.8
2006	7.1	9.1
2005	6.6	5.3

#### KNELMAN ASSET MANAGEMENT, LLC Periods Ending March, 2010

Portfolio Manager: Kip Knelman Assets Under Management: \$55,448,140

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



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

#### SANDS CAPITAL MANAGEMENT LLC Periods Ending March, 2010

Portfolio Manager: Frank Sands, Jr. Assets Under Management: \$227,134,896

#### **Investment Philosophy**

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

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Growth
Last Quarter	3.3%	4.6%
Last 1 year	69.0	49.8
Last 2 years	3.6	-0.8
Last 3 years	2.0	-0.8
Last 4 years	1.1	1.1
Last 5 years	4.7	3.4
Since Inception (1/05)	2.6	2.4

#### Calendar Year Returns

		Russell 1000
	Actual	Growth
2009	71.6%	37.2%
2008	-48.6	-38.4
2007	19.5	11.8
2006	-5.5	9.1
2005	10.9	5.3

#### **Staff Comments**

Sands lagged the quarterly benchmark and outperformed for the year. The portfolio trailed the quarterly benchmark due to sector allocation and overall stock selection. The one-year return was helped by strong stock selection across most sectors, especially Consumer Discretionary.

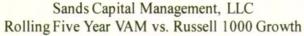
#### Recommendation

No action required.

#### SANDS CAPITAL MANAGEMENT LLC Periods Ending March, 2010

Portfolio Manager: Frank Sands, Jr.

Assets Under Management: \$227,134,896





Five Year Period Ending

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

#### WINSLOW CAPITAL MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: Bart Wear and Justin Kelly

Assets Under Management: \$121,454,607

#### **Investment Philosophy**

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

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 3.6%	Russell 1000 Growth 4.6%
Last 1 year	46.7	49.8
Last 2 years	-0.2	-0.8
Last 3 years	2.2	-0.8
Last 4 years	2.7	1.1
Last 5 years	6.3	3.4
Since Inception (1/05)	5.0	2.4

#### Calendar Year Returns

Actual	Russell 1000 Growth
40.9%	37.2%
-39.1	-38.4
22.0	11.8
7.6	9.1
10.5	5.3
	40.9% -39.1 22.0 7.6

#### **Staff Comments**

No comment at this time.

#### Recommendation

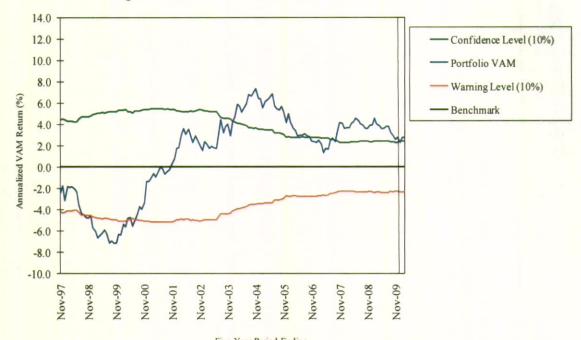
No action required.

#### WINSLOW CAPITAL MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: Bart Wear and Justin Kelly

Assets Under Management: \$121,454,607

## WINSLOW CAPITAL MANAGEMENT, INC. 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 INC. Periods Ending March, 2010

Portfolio Manager: Nancy Zevenbergen Assets Under Management: \$280,535,017

#### **Investment Philosophy**

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

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 4.0%	Russell 1000 Growth 4.6%
Last 1 year	67.0	49.8
Last 2 years	5.6	-0.8
Last 3 years	3.2	-0.8
Last 4 years	3.4	1.1
Last 5 years	7.5	3.4
Since Inception (4/94)	9.0	7.2

#### Calendar Year Returns

	Actual	Russell 1000 Growth
2009	57.4%	37.2%
2008	-43.2	-38.4
2007	24.0	11.8
2006	6.2	9.1
2005	9.0	5.3

#### **Staff Comments**

Zevenbergen trailed the quarterly benchmark and outperformed for the year. An overweight to the Utilities sector and stock selection in the Consumer Discretionary sector hurt the quarterly return. The one-year return was helped by strong stock selection, particularly in the Consumer Discretionary and Technology sectors.

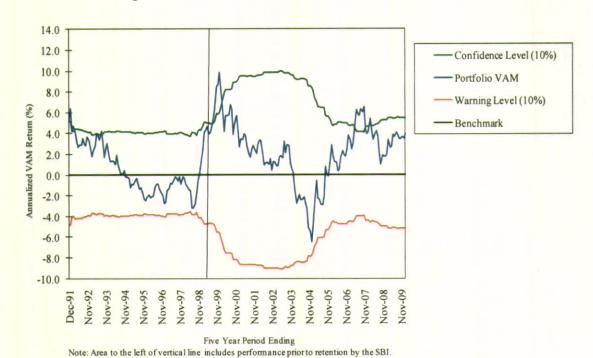
#### Recommendation

No action required.

#### ZEVENBERGEN CAPITAL INC. Periods Ending March, 2010

Portfolio Manager: Nancy Zevenbergen Assets Under Management: \$280,535,017

Zevenbergen Capital Management Rolling Five Year VAM vs. Russell 1000 Growth



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Large Cap Value (R1000 Value)

# Large Cap Value (R1000 Value)

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### BARROW, HANLEY, MEWHINNEY & STRAUSS, INC. Periods Ending March 2010

Portfolio Manager: Tim Culler Assets Under Management: \$408,906,779

### **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.

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Value
Last Quarter	5.7%	6.8%
Last 1 year	53.2	53.6
Last 2 years	-2.2	-6.0
Last 3 years	-5.3	-7.3
Last 4 years	-0.9	-1.8
Last 5 years	1.5	1.0
Since Inception (4/04)	4.0	3.0

#### Calendar Year Returns

		Russell 1000
	Actual	Value
2009	23.2%	19.7%
2008	-35.2	-36.8
2007	2.6	-0.2
2006	15.4	22.2
2005	9.6	7.1

### **Staff Comments**

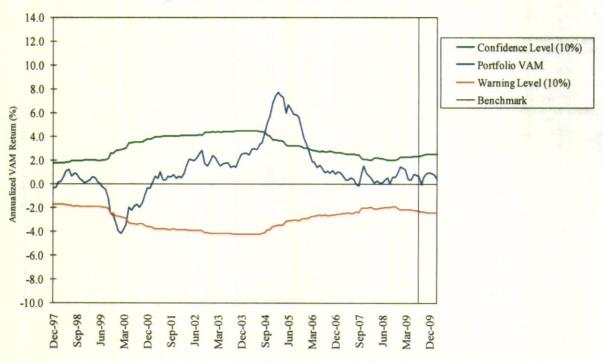
Barrow Hanley trailed the quarterly and one-year benchmark. An underweight and weak stock selection in the Financial sector was the biggest detractor for the quarter. The underweight to Financial Services had the largest negative impact to the one-year return.

#### Recommendation

### BARROW, HANLEY, MEWHINNEY & STRAUSS, INC. Periods Ending March, 2010

Portfolio Manager: Tim Culler Assets Under Management: \$408,906,779

## 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 inleudes performance prior to retention by the SBI.

### EARNEST PARTNERS, LLC Periods Ending March, 2010

Portfolio Manager: Paul Viera

## Assets Under Management: \$171,089,700

### **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, measures, profitability measures and growth Extensive research is macroeconomic measures. conducted to determine which combination of performance drivers, or return patterns, precede outperformance for stocks in each sector. They select stocks whose return patterns suggest favorable performance and control risk using a statistical program designed to measure and control the prospects of substantially under-performing the benchmark. The portfolio is diversified across industry groups.

### **Staff Comments**

No comment at this time.

#### Recommendation

No action required.

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

		Russell 1000
	Actual	Value
Last Quarter	7.9%	6.8%
Last 1 year	56.8	53.6
Last 2 years	-2.0	-6.0
Last 3 years	-3.5	-7.3
Last 4 years	-0.3	-1.8
Last 5 years	3.0	1.0
Since Inception (7/00)	3.8	3.7

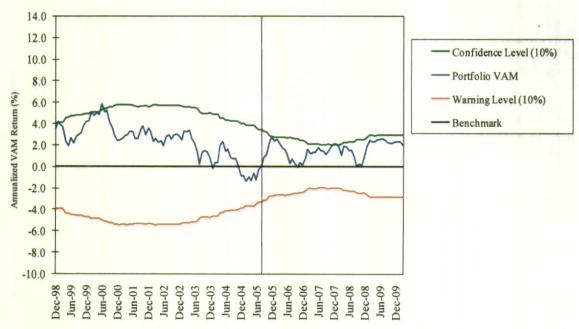
#### Calendar Year Returns

		Russell 1000
	Actual	Value
2009	31.6%	19.7%
2008	-39.8	-36.8
2007	6.5	-0.2
2006	13.8	22.2
2005	15.6	7.1

Portfolio Manager: Paul Viera

Assets Under Management: \$171,089,700

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.

### LORD ABBETT & CO. LLC Periods Ending March, 2010

Portfolio Manager: Eli Salzmann

Assets Under Management: \$291,935,898

### **Investment Philosophy**

Utilizing a value-based, disciplined investment process that employs both informed judgment and quantitative analysis, Lord Abbett seeks to invest in companies with improving business fundamentals that are attractively valued. This process is implemented via a traditional fundamental active stock selection approach.

As a value manager, Lord Abbett believes that the market systematically misprices stocks. By coupling valuation criteria with thorough research of corporate and industry fundamentals, informed judgments can be made about where the market would price these stocks at fair value. The portfolio is constructed to exploit pricing discrepancies where it is perceived that: 1) these price differences will be closed over a reasonable period of time, or 2) there may be a catalyst for price appreciation. This process is implemented while maintaining sensitivity to both benchmark and macroeconomic risk exposures.

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Value
Last Quarter	8.6%	6.8%
Last 1 year	54.6	53.6
Last 2 years	-4.4	-6.0
Last 3 years	-4.6	-7.3
Last 4 years	-0.6	-1.8
Last 5 years	1.8	1.0
Since Inception (4/04)	2.9	3.0

#### Calendar Year Returns

		Russell 1000
	Actual	Value
2009	20.5%	19.7%
2008	-36.3	-36.8
2007	4.4	-0.2
2006	18.6	22.2
2005	3.5	7.1

#### **Staff Comments**

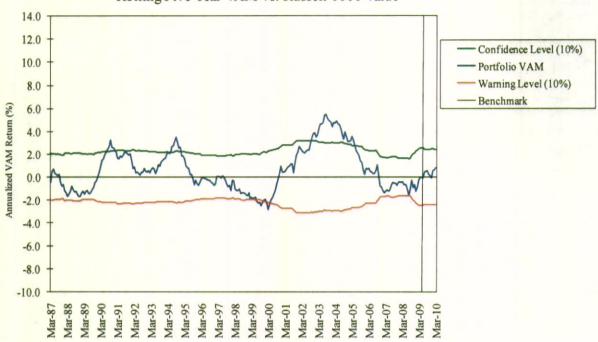
No comment at this time.

#### Recommendation

Portfolio Manager: Eli Salzmann

Assets Under Management: \$291,935,898

## LORD ABBETT & CO. LLC 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.

### LSV ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Josef Lakonishok Assets Under Management: \$376,122,888

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

# Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 6.8%	Russell 1000 Value 6.8%
Last 1 year	58.0	53.6
Last 2 years	-5.6	-6.0
Last 3 years	-7.4	-7.3
Last 4 years	-1.9	-1.8
Last 5 years	1.9	1.0
Since Inception (4/04)	4.2	3.0

### Calendar Year Returns

		Russell 1000
	Actual	Value
2009	24.0%	19.7%
2008	-39.3	-36.8
2007	1.3	-0.2
2006	21.7	22.2
2005	12.5	7.1

### **Staff Comments**

No comment at this time.

#### Recommendation

### LSV ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Josef Lakonishok Assets Under Management: \$376,122,888

## 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 March, 2010

Portfolio Manager: Kevin McCreesh Assets Under Management: \$278,736,648

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

	Actual	Russell 1000 Value
Last Quarter	7.7%	6.8%
Last 1 year	52.9	53.6
Last 2 years	-5.5	-6.0
Last 3 years	-6.2	-7.3
Last 4 years	-1.2	-1.8
Last 5 years	1.9	1.0
Since Inception (4/04)	3.7	3.0

#### Calendar Year Returns

	F	Russell 1000
	Actual	Value
2009	23.2%	19.7%
2008	-40.6	-36.8
2007	8.3	-0.2
2006	17.9	22.2
2005	10.3	7.1

#### **Staff Comments**

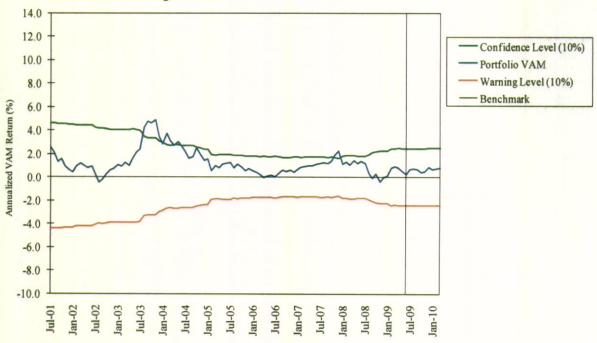
No comment at this time.

#### Recommendation

# SYSTEMATIC FINANCIAL MANAGEMENT, L.P. Periods Ending March, 2010

Portfolio Manager: Kevin McCreesh Assets Under Management: \$278,736,648

# 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)

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### MCKINLEY CAPITAL MANAGEMENT

Periods Ending March, 2010

Portfolio Manager: Robert A. Gillam Assets Under Management: \$183,708,810

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 7.0%	Russell 2000 Growth 7.6%
Last 1 year	46.2	60.3
Last 2 years	-8.6	1.0
Last 3 years	-8.5	-2.4
Last 4 years	-6.2	-1.4
Last 5 years	0.0	3.8
Since Inception (1/04)	0.4	4.1

### Calendar Year Returns

	Actual	Russell 2000 Growth
2009	28.0%	34.5%
2008	-49.1	-38.5
2007	16.2	7.0
2006	12.5	13.3
2005	0.2	4.2

### **Staff Comments**

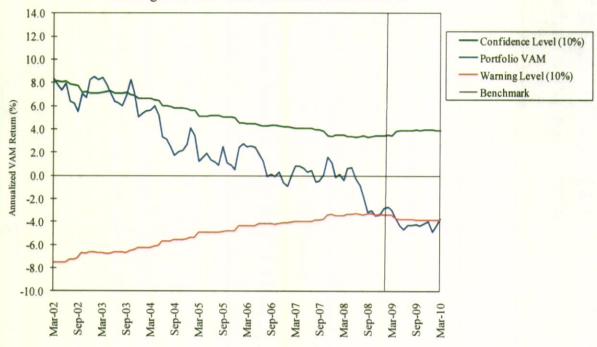
McKinley trailed the benchmark for the quarter and for the year. Overall sector allocation and stock selection in the Materials and Processing sector hurt the quarterly return. For the year, negative stock selection across several sectors hurt performance.

#### Recommendation

## MCKINLEY CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Robert A. Gillam Assets Under Management: \$183,708,810

### 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 March, 2010

Portfolio Manager: Thomas Press and Don Longlet Assets Under Management: \$222,751,618

### **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 outperformance. 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**

No comment at this time.

#### Recommendation

No action required.

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

	Actual	Russell 2000 Growth
Last Quarter	7.3%	7.6%
Last 1 year	56.8	60.3
Last 2 years	-4.4	1.0
Last 3 years	-1.7	-2.4
Last 4 years	-1.8	-1.4
Last 5 years	7.0	3.8
Since Inception (7/00)	-1.1	-0.8

### Calendar Year Returns

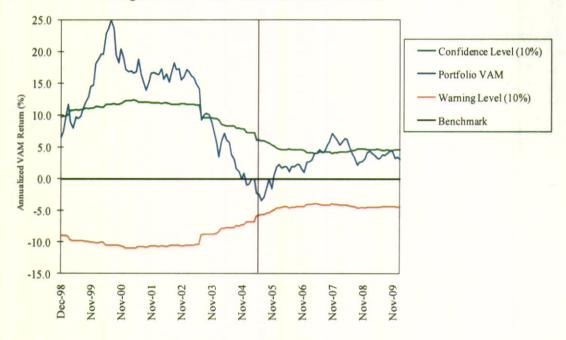
		Russell 2000
	Actual	Growth
2009	35.0%	34.5%
2008	-49.3	-38.5
2007	34.2	7.0
2006	12.4	13.3
2005	25.2	4.2

## NEXT CENTURY GROWTH INVESTORS, LLC Periods Ending March, 2010

Portfolio Manager: Thomas Press and Don Longlet

Assets Under Management: \$222,751,618

### Next Century Growth Investors 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 Periods Ending March, 2010

Portfolio Manager: William McVail Assets Under Management: \$231,874,792

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 8.8%	Russell 2000 Growth 7.6%
Last 1 year	63.8	60.3
Last 2 years	0.6	1.0
Last 3 years	-1.5	-2.4
Last 4 years	-0.9	-1.4
Last 5 years	5.2	3.8
Since Inception (1/04)	4.8	4.1

### Calendar Year Returns

2000	Actual	Russell 2000 Growth 34.5%
2009	36.9%	34.370
2008	-41.9	-38.5
2007	14.8	7.0
2006	13.6	13.3
2005	6.2	4.2

### **Staff Comments**

No comment at this time.

#### Recommendation

# TURNER INVESTMENT PARTNERS Periods Ending March, 2010

Portfolio Manager: William McVail Assets Under Management: \$231,874,792

## TURNER INVESTMENT PARTNERS 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.

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Small Cap Value (R2000 Value)

## Small Cap Value (R2000 Value)

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## GOLDMAN SACHS ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Chip Otness Assets Under Management: \$133,668,003

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 9.4%	Russell 2000 Value 10.0%
Last 1 year	60.4	65.1
Last 2 years	2.9	0.4
Last 3 years	-1.7	-5.7
Last 4 years	0.8	-1.9
Last 5 years	4.6	2.8
Since Inception (1/04)	5.9	4.9

#### Calendar Year Returns

		Russell 2000
	Actual	Value
2009	27.8%	20.6%
2008	-26.8	-28.9
2007	-5.0	-9.8
2006	17.8	23.5
2005	4.1	4.7

### **Staff Comments**

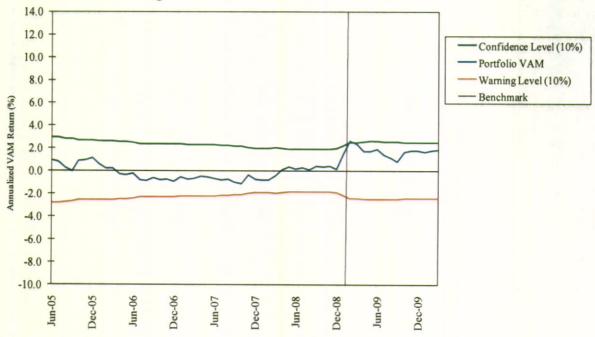
No comment at this time.

#### Recommendation

## GOLDMAN SACHS ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Chip Otness Assets Under Management: \$133,668,003

## GOLDMAN SACHS ASSET MANAGEMENT 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 March, 2010

Portfolio Manager: Jim Miles and David Green Assets Under Management: \$115,575,635

### **Investment Philosophy**

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

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

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

	Actual	Russell 2000 Value
Last Quarter	15.9%	10.0%
Last 1 year	120.0	65.1
Last 2 years	4.6	0.4
Last 3 years	-6.0	-5.7
Last 4 years	-4.8	-1.9
Last 5 years	-0.4	2.8
Since Inception (1/04)	3.4	4.9

### Calendar Year Returns

		Russell 2000
	Actual	Value
2009	62.5%	20.6%
2008	-44.1	-28.9
2007	-18.8	-9.8
2006	3.0	23.5
2005	10.4	4.7

### **Staff Comments**

Hotchkis & Wiley exceeded the benchmark for the quarter and for the year. Overall stock selection helped both periods. The overweight and strong stock selection in the Consumer Discretionary sector, primarily media and retail companies, was the largest contributor to the return for the year.

### Recommendation

## HOTCHKIS & WILEY CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Jim Miles and David Green

Assets Under Management: \$115,575,635

## HOTCHKIS & WILEY CAPITAL MANAGEMENT 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.

### MARTINGALE ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: William Jacques

Assets Under Management: \$106,494,562

### **Investment Philosophy**

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

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

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

### **Quantitative Evaluation**

# Period Returns (Annualized for multi-year periods)

		Russell 2000
	Actual	Value
Last Quarter	8.5%	10.0%
Last 1 year	61.7	65.1
Last 2 years	-4.2	0.4
Last 3 years	-10.7	-5.7
Last 4 years	-7.2	-1.9
Last 5 years	-2.3	2.8
Since Inception (1/04)	2.1	4.9

#### Calendar Year Returns

		Russell 2000
	Actual	Value
2009	19.4%	20.6%
2008	-33.8	-28.9
2007	-16.8	-9.8
2006	14.8	23.5
2005	6.2	4.7

### **Staff Comments**

Martingale lagged the benchmark for the quarter and for the year. The quarterly performance was hurt by overall stock selection. Martingale's model avoided the low-priced, high-risk companies that performed well in 2009. This resulted in negative stock selection across several sectors for the past twelve months.

### Recommendation

## MARTINGALE ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: William Jacques Assets Under Management: \$106,494,562

## MARTINGALE ASSET MANAGEMENT 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 Periods Ending March, 2010

Portfolio Manager: Doug Pugh and Tasso Coin Assets Under Management: \$187,189,355

### **Investment Philosophy**

Peregrine's Small Cap Value investment process begins with the style's proprietary valuation analysis, which is designed to identify the small cap value stocks most likely to outperform. The valuation analysis identifies the most under-priced securities on a sector-by-sector Drawing on thirty years of data, the analysis 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. portfolio is diversified and sector weights are aligned closely with the benchmark. This allows stock selection to drive performance.

### **Quantitative Evaluation**

## Period Returns (Annualized for multi-year periods)

		Russell 2000
Last Quarter	Actual 9.7%	Value 10.0%
Last 1 year	95.6	65.1
Last 2 years	2.9	0.4
Last 3 years	-6.3	-5.7
Last 4 years	-3.5	-1.9
Last 5 years	1.5	2.8
Since Inception (7/00)	9.4	8.9

### Calendar Year Returns

		Russell 2000
	Actual	Value
2009	45.8%	20.6%
2008	-39.4	-28.9
2007	-13.4	-9.8
2006	14.3	23.5
2005	10.1	4.7

### **Staff Comments**

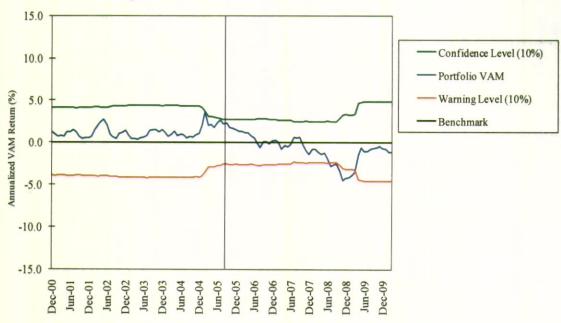
Peregrine trailed the quarterly benchmark and outperformed for the year. Stock selection within the Technology sector was the largest detractor for the quarter. The one-year return benefited from strong stock selection across most sectors, especially the Financial Services sector.

### Recommendation

## PEREGRINE CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Doug Pugh and Tasso Coin Assets Under Management: \$187,189,355

## Peregrine Capital Management 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** 

### **Semi-Passive and Passive**

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# BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2010

Portfolio Manager: Russ Koesterich Assets Under Management: \$2,877,981,182

#### Investment Philosophy - Semi-Passive Style

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

### Staff Comments

No comment at this time.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 5.3%	Manager Benchmark* 5.7%
Last 1 year	50.7	51.6
Last 2 years	-3.4	-3.3
Last 3 years	-5.1	-4.0
Last 4 years	-1.2	-0.2
Last 5 years	1.7	2.3
Since Inception (1/95)	8.0	7.7

#### Calendar Year Returns

2009	Actual 27.6%	Benchmark 28.4%
2008	-37.1	-37.6
2007	2.2	5.8
2006	15.6	15.5
2005	7.6	6.3

<sup>\*</sup>Russell 1000 since 1/1/04, Completeness Fund through 12/31/03.

# BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2010

Portfolio Manager: Russ Koesterich Assets Under Management: \$2,877,981,182

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



#### J.P. MORGAN INVESTMENT MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: Ralph Zingone and Scott Blasdell Assets Under Management: \$2,649,054,557

#### Investment Philosophy - Semi-Passive Style

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

#### **Staff Comments**

JP Morgan outperformed for the quarter and for the year. Both periods were helped by positive stock selection across most sectors. The one-year return had the biggest impact from stock selection in the Materials and Processing sector.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 6.2%	Manager Benchmark* 5.7%
Last 1 year	55.3	51.6
Last 2 years	-1.4	-3.3
Last 3 years	-3.0	-4.0
Last 4 years	0.8	-0.2
Last 5 years	3.0	2.3
Since Inception (1/95)	7.9	7.7

#### Calendar Year Returns

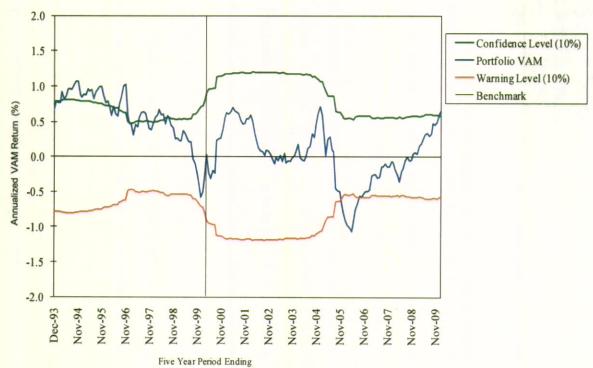
	Actual	Manager Benchmark
2009	32.1%	28.4%
2008	-37.1	-37.6
2007	5.1	5.8
2006	16.5	15.5
2005	4.7	6.3

<sup>\*</sup>Russell 1000 since 1/1/04, Completeness Fund through 12/31/03.

#### J.P. MORGAN INVESTMENT MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: Ralph Zingone and Scott Blasdell Assets Under Management: \$2,649,054,557

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



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

#### MELLON CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Tony Garvin Assets Under Management: \$2,249,647,420

#### 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.

#### **Ouantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 5.9%	Manager Benchmark* 5.7%
Last 1 year	50.8	51.6
Last 2 years	-4.3	-3.3
Last 3 years	-5.7	-4.0
Last 4 years	-1.3	-0.2
Last 5 years	1.3	2.3
Since Inception (1/95)	7.1	7.7

#### Calendar Year Returns

2009	Actual 25.6%	Manager Benchmark 28.4%
2008	-37.6 2.5	-37.6 5.8
2007 2006	16.5	15.5
2005	6.1	6.3

<sup>\*</sup>Russell 1000 since 1/1/04, Completeness Fund through 12/31/03.

#### **Staff Comments**

Mellon outperformed for the quarter and underperformed for the year. The quarterly performance was helped by stock selection in the Consumer Staples and Consumer Discretionary sectors. The one-year return was hurt by overall sector allocation.

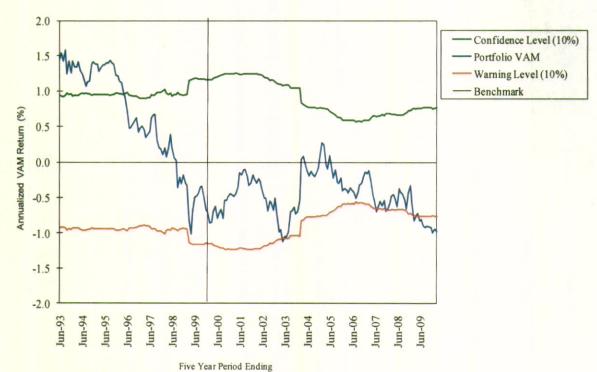
#### Recommendation

No action required.

#### MELLON CAPITAL MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Tony Garvin Assets Under Management: \$2,249,647,420

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



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

# BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2010

Portfolio Manager: Amy Schioldager Assets Under Management: \$8,624,207,194

#### 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**

No comment at this time.

#### Recommendation

No action required.

#### **Quantitative Evaluation**

### Period Returns (Annualized for multi-year periods)

Last Quarter	Actual 6.0%	Manager Benchmark* 5.9%
Last 1 year	52.5	52.4
Last 2 years	-2.8	-2.9
Last 3 years	-3.9	-4.0
Last 4 years	-0.3	-0.4
Last 5 years	2.5	2.4
Since Inception (7/95)	7.3	7.1

#### Calendar Year Returns

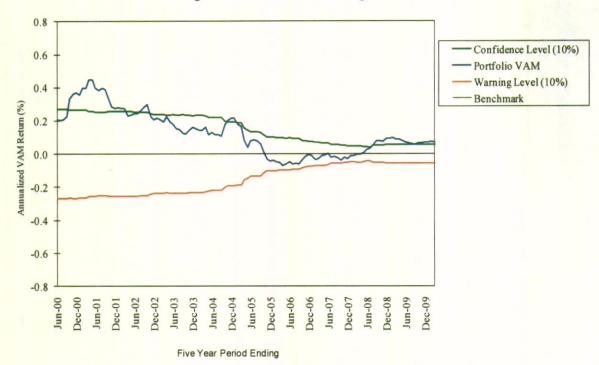
	Manager
Actual	Benchmark
28.2%	28.3%
-37.1	-37.3
5.1	5.1
15.8	15.7
6.2	6.1
	28.2% -37.1 5.1 15.8

<sup>\*</sup> The Domestic Equity Asset Class Target is the Russell 3000 Index effective 10/1/03. From Account inception to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments.

# BLACKROCK INSTITUTIONAL TRUST CO., N.A. Periods Ending March, 2010

Portfolio Manager: Amy Schioldager Assets Under Management: \$8,624,207,194

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



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# STATE BOARD OF INVESTMENT

Bond Manager Evaluation Reports

First Quarter, 2010

### **Bond Managers**

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# COMBINED RETIREMENT FUNDS BOND MANAGERS Periods Ending March, 2010

									Sin	ce (1)		
	Qua	uarter 1 Year 3		3 Y	ears 5 Years			Inception		Market		
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (in millions)	Pool
Active Managers												
Aberdeen	3.5	1.8	21.4	7.7	2.8	6.1	3.6	5.4	5.7	6.4	\$924.1	9.8%
Dodge & Cox	2.4	1.8	19.7	7.7	7.4	6.1	6.4	5.4	7.5	6.4	\$956.6	10.1%
PIMCO	3.7	1.8	19.2	7.7					13.1	8.3	\$838.9	8.9%
RiverSource	2.4	1.8	14.0	7.7	5.2	6.1	5.0	5.4	5.9	6.2	\$790.7	8.4%
Western	3.1	1.8	19.1	7.7	5.4	6.1	5.4	5.4	9.6	8.5	\$1,239.8	13.1%
Active Mgr. Aggregate	3.0	1.8	18.8	7.7	5.0	6.1	5.0	5.4			\$4,750.2	50.3%
Semi-Passive Managers												
BlackRock	1.8	1.8	11.2	7.7	5.2	6.1	4.9	5.4	6.3	6.3	\$1,559.6	16.5%
Goldman	2.4	1.8	13.5	7.7	6.1	6.1	5.5	5.4	6.4	6.2	\$1,588.1	16.8%
Neuberger	2.9	1.8	17.4	7.7	6.5	6.1	5.7	5.4	7.5	7.3	\$1,538.7	16.3%
Semi-Passive Mgr. Aggregate	2.4	1.8	14.0	7.7	5.9	6.1	5.4	5.4			\$4,686.4	49.7%
									Since	7/1/84		
Historical Aggregate (2)	2.7	1.8	16.4	7.7	5.6	6.1	5.2	5.4	8.6	8.6	\$9,436.55	100.0%
Barclays Capital Aggregate (3	5)	1.8		7.7		6.1		5.4		8.5		

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

<sup>(2)</sup> Includes performance of terminated managers.

<sup>(3)</sup> Prior to July 1994, this index reflects the Salomon BIG.

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

	200	)9	2008		200	7	200	16	2005	
	Actual %	Bmk	Actual %	Bmk %						
Active Managers										
Aberdeen	18.4	5.9	-14.7	5.2	5.6	7.0	4.8	4.3	2.7	2.4
Dodge & Cox	16.5	5.9	0.1	5.2	5.3	7.0	5.5	4.3	2.5	2.4
RiverSource	14.0	5.9	-4.9	5.2	6.6	7.0	4.7	4.3	2.6	2.4
Western	17.5	5.9	-6.8	5.2	5.4	7.0	5.4	4.3	2.7	2.4
Active Mgr. Aggregate	16.5	5.9	-7.3	5.2	5.8	7.0	5.0	4.3	2.9	2.4
Semi-Passive Managers										
BlackRock	9.6	5.9	-1.1	5.2	6.8	7.0	4.3	4.3	2.7	2.4
Goldman	12.0	5.9	-1.2	5.2	7.0	7.0	4.5	4.3	2.8	2.4
Neuberger	14.3	5.9	-1.9	5.2	6.3	7.0	4.5	4.3	2.5	2.4
Semi-Passive Mgr. Aggregate	12.0	5.9	-1.4	5.2	6.7	7.0	4.5	4.3	2.6	2.4
Historical Aggregate	14.3	5.9	-4.2	5.2	6.3	7.0	4.7	4.3	2.8	2.4
Barclays Capital Aggregate		5.9		5.2		7.0		4.3		2.4

#### ABERDEEN ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Neil Moriarty Assets Under Management: \$924,097,610

#### **Investment Philosophy**

Aberdeen (formerly Deutsche) believes there are significant 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 out performance versus the benchmark over time. 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 outperformed the benchmark by 170 bps in 1Q10 and by 1,370 bps over the last 12 months. Corporate bond security selection/sector overweight and non-Agency MBS holdings were the main drivers of 1Q10 excess return. Over the last year, outperformance was driven by allocations to non-Agency MBS, security selection in CMBS and ABS, and a corporate bond sector overweight.

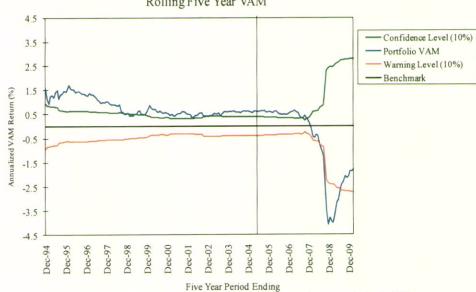
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	3.5%	1.8%
Last 1 year	21.4	7.7
Last 2 years	2.8	5.4
Last 3 years	2.8	6.1
Last 4 years	3.8	6.3
Last 5 years	3.6	5.4
Since Inception	5.7	6.4

#### Recommendations

No action required.

#### ABERDEEN ASSET MANAGEMENT Rolling Five Year VAM



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

#### DODGE & COX INVESTMENT MANAGERS Periods Ending March, 2010

Portfolio Manager: Dana Emery

Assets Under Management: \$956,593,339

#### **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**

Dodge & Cox outperformed the benchmark by 60 bps in 1Q10 and by 1,200 bps over the last 12 months. The portfolio's significant corporate bond sector overweight was the main driver of returns in 1010 and over the last 12 months. Agency MBS holdings also contributed to returns in 1Q10 and over the last 12 months.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.4%	1.8%
Last 1 year	19.7	7.7
Last 2 years	8.9	5.4
Last 3 years	7.4	6.1
Last 4 years	7.3	6.3
Last 5 years	6.4	5.4
Since Inception (2/00)	7.5	6.4

#### Recommendations

No action required.

### DODGE & COX INVESTMENT MANAGERS



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

### PACIFIC INVESTMENT MANAGEMENT CO. LLC (PIMCO) Periods Ending March, 2010

Portfolio Manager: Bill Gross Assets Under Management: \$838,863,768

#### **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.

#### **Staff Comments**

PIMCO outperformed the benchmark by 190 bps in 1Q10 and by 1,150 bps over the last 12 months. Legacy non-Agency MBS added to excess returns, as did an overweight to the corporate bond sector in 1Q10. An overweight to the CMBS sector generated excess returns throughout the last 12 months, as did corporate bond overweight/security selection and non-Agency MBS legacy holdings.

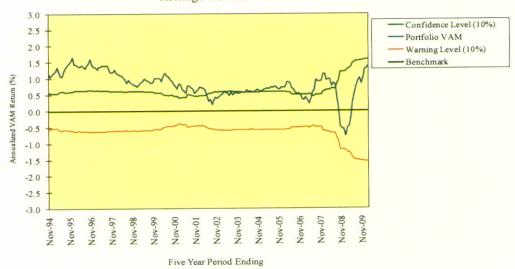
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	3.7%	1.8%
Last 1 year	19.2	7.7
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception	13.1	8.3
(9/08)		

#### Recommendations

No action required.

### PACIFIC INVESTMENT MANAGEMENT CO. Rolling Five Year VAM



Portfolio Manager: Colin Lundgren

Assets Under Management: \$790,749,647

#### **Investment Philosophy**

RiverSource (formerly American Express) 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. RiverSource was retained by the SBI in July 1993.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.4%	1.8%
Last 1 year	14.0	7.7
Last 2 years	5.3	5.4
Last 3 years	5.2	6.1
Last 4 years	5.6	6.3
Last 5 years	5.0	5.4
Since Inception (7/93)	5.9	6.2

#### **Staff Comments**

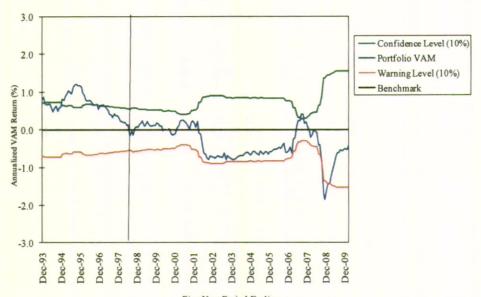
RiverSource outperformed the benchmark by 60 bps in 1Q10 and by 630 bps over the last 12 months. Quarterly and one year performance was driven by overweights to investment grade and high yield corporate bond sectors as well as the CMBS sector.

On April 30, 2010, Ameriprise Financial finalized its purchase of Columbia Investment Management. Additionally, the combined firm has assumed the name Columbia Management Investment Advisers, LLC. SBI's portfolio manager at RiverSource, Colin Lundgren, has been promoted to Head of Fixed Income of the combined firm. Lundgren will remain heavily involved with the SBI portfolio.

#### Recommendations

No action required.

### RIVERSOURCE INVESTMENTS - FIXED INCOME 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.

#### WESTERN ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Steve Walsh Assets Under Management: \$1,239,849,582

#### **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**

Western outperformed the benchmark by 130 bps in 1Q10 and by 1,140 bps over the last 12 months. Quarterly and one year performance were driven by non-Agency MBS holdings, while an underweight to Agency MBS was a slight detractor from quarterly performance as the Fed continued to support this part of the market. An overweight to Corporate bonds was also a significant contributor to performance during 1Q10 and the last 12 months.

#### Quantitative Evaluation

	Actual	Benchmark
Last Quarter	3.1%	1.8%
Last 1 year	19.1	7.7
Last 2 years	6.2	5.4
Last 3 years	5.4	6.1
Last 4 years	5.9	6.3
Last 5 years	5.4	5.4
Since Inception	9.6	8.5

#### Recommendations

No action required.

#### WESTERN ASSET MANAGEMENT Rolling Five Year VAM



#### **Investment Philosophy**

BlackRock manages an enhanced index portfolio closely tracking the Lehman Aggregate. 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/subsector 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 Advanced risk analytics measure the managers. potential impact of various sector and security strategies to ensure consistent value added and controlled volatility. BlackRock was retained by the SBI in April 1996.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.8%	1.8%
Last 1 year	11.2	7.7
Last 2 years	4.6	5.4
Last 3 years	5.2	6.1
Last 4 years	5.5	6.3
Last 5 years	4.9	5.4
Since Inception	6.3	6.3
(4/96)		

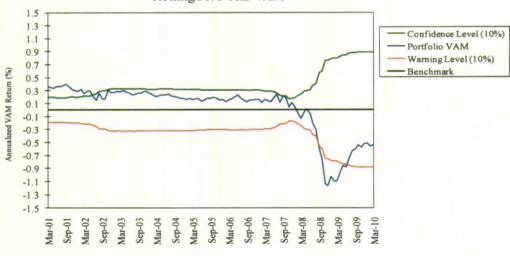
#### **Staff Comments**

Blackrock was even with the benchmark in 1Q10 and outperformed by 350 bps over the last 12 months. Non-Agency MBS holdings contributed to excess returns, as did overweights to the CMBS, ABS and financial corporate bond sectors during the quarter and last 12 months. An underweight to Agency MBS was a slight detractor during 1Q10.

#### Recommendation

No action required.

#### BLACKROCK, INC. Rolling Five Year VAM



#### GOLDMAN SACHS ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Jonathon Beinner

Assets Under Management: \$1,588,081,136

#### **Investment Philosophy**

Goldman manages an enhanced index portfolio closely tracking the Lehman Aggregate. Goldman's process can be viewed as active management within a very riskcontrolled 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 shortterm tactical trading opportunities. Strategic tilts are based on fundamental and quantitative sector research and seek to optimize the long-term risk/return profile of Tactical trades between sectors and portfolios. 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 outperformed the benchmark by 60 bps in 1Q10 and by 580 bps over the last 12 months. Non-Agency mortgage holdings performed well in 1Q10 and for the year, generating significant excess returns for both periods. Corporate bond security selection also added to 1Q10 and one year excess returns.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.4%	1.8%
Last 1 year	13.5	7.7
Last 2 years	6.3	5.4
Last 3 years	6.1	6.1
Last 4 years	6.2	6.3
Last 5 years	5.5	5.4
Since Inception (7/93)	6.4	6.2

#### Recommendations

No action required.

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



#### NEUBERGER INVESTMENT MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Andrew Johnson

Assets Under Management: \$1,538,682,030

#### **Investment Philosophy**

Neuberger (formerly Lincoln) manages an enhanced index portfolio closely tracking the Barclay's Capital Aggregate. 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 25 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 preestablished 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**

Neuberger outperformed the benchmark by 110 bps in 1Q10 and by 970 bps over the last 12 months. Corporate bond and CMBS sector overweights drove performance during 1Q10 and the last 12 months. Investments in non-Agency Hybrid ARM MBS also contributed to returns in both periods.

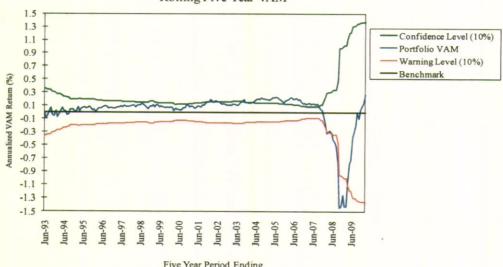
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.9%	1.8%
Last 1 year	17.4	7.7
Last 2 years	7.3	5.4
Last 3 years	6.5	6.1
Last 4 years	6.6	6.3
Last 5 years	5.7	5.4
Since Inception	7.5	7.3

#### Recommendations

No action required.

#### NEUBERGER INVESTMENT MANAGEMENT Rolling Five Year VAM



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# STATE BOARD OF INVESTMENT

International Manager Evaluation Reports

First Quarter, 2010

### **International Managers**

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#### COMBINED RETIREMENT FUNDS INTERNATIONAL STOCK MANAGERS Periods Ending March, 2010

	-	arter		'ear		ears	7.0	ears	Since	otion	Market	
	Actual %	Bmk %	Actual %	Bmk	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk	Value	Pool
Active Developed Markets (2)	70	/0	70	70	70	/0	70	70	70	70	(in millions)	%
Acadian	2.2	1.3	53.5	55.9	-11.6	-6.1			2.9	4.8	\$309.1	4.6%
Invesco	1.7	1.3	54.3	55.9	-4.9	-6.1	4.4	4.4	4.0	2.0	\$280.4	4.2%
J.P. Morgan	0.3	1.3	56.9	55.9	-4.9	-6.1			4.5	4.8	\$224.9	3.4%
Marathon	4.4	1.3	55.6	55.9	-2.9	-6.1	7.2	4.4	8.5	5.1	\$499.8	7.5%
McKinley	1.2	1.3	43.3	55.9	-9.9	-6.1			2.9	4.8	\$218.8	3.3%
Pyramis (Fidelity)	1.6	1.3	55.1	55.9	-3.5	-6.1			6.1	4.8	\$246.1	3.7%
RiverSource	2.2	1.3	47.9	55.9	-5.3	-6.1	4.6	4.4	-0.4	2.0	\$244.6	3.7%
Aggregate	2.3	1.3	53.5	55.9	-5.7	-6.1	4.5	4.4			\$2,023.7	30.4%
Active Emerging Markets (3)												
AllianceBernstein	1.0	2.4	79.3	81.1	2.2	5.4	13.4	15.8	13.0	14.3	\$167.2	2.5%
Capital International	1.6	2.4	80.3	81.1	8.0	5.4	19.4	15.8	13.8	14.3	\$675.4	10.1%
Morgan Stanley	0.8	2.4	78.6	81.1	3.1	5.4	15.5	15.8	14.1	14.3	\$621.3	9.3%
Aggregate	1.2	2.4	79.0	81.1	4.6	5.4	16.1	15.8			\$1,464.0	22.0%
Semi-Passive Developed Marke	ts (2)											
AQR	1.6	1.3	59.0	55.9	-6.4	-6.1			4.6	4.8	\$247.3	3.7%
Pyramis (Fidelity)	1.2	1.3	51.3	55.9	-5.8	-6.1			5.3	4.8	\$255.3	3.8%
State Street	1.7	1.3	57.7	55.9	-7.6	-6.1			4.0	4.8	\$240.0	3.6%
Aggregate	1.5	1.3	55.9	55.9	-6.6	-6.1					\$742.5	11.1%
Passive Developed Markets (2)												
State Street	1.4	1.3	56.5	55.9	-5.8	-6.1	4.6	4.4	6.6	6.4	\$2,429.4	36.5%
									Since	e 10/1/92	2	
Equity Only (4) (6)	1.6	1.6	60.4	60.9	-4.0	-4.1	6.3	6.2	7.2	6.8	\$6,659.8	100.0%
Total Program (5) (6)	1.6	1.6	60.4	60.9	-4.0	-4.1	6.3	6.2	7.4	6.8	\$6,659.8	100.0%
SBI Int'l Equity Target (6)		1.6		60.9		-4.1		6.2		6.8		
MSCI ACWI Free ex. U.S. (7)		1.6		60.9		-4.2		6.1		7.1		
MSCI World ex U.S. (net)		1.3		55.9		-6.2		4.3		6.5		
MSCI EAFE Free (net)		0.9		54.4		-7.0		3.7		6.1		
MSCI Emerging Markets Free (8)		2.4		81.1		5.2		15.6		9.6		

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

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

	20	09	20	08	20	07	20	06	20	05
	Actual		Actual	No. of the last of	Actual		Actual		Actual	
	%	%	%	%	%	%	%	%	%	%
Active Developed Markets (1)										
Acadian	28.8	33.7	-50.5		10.0	12.6	31.9	25.7		
Invesco	32.0	33.7		-43.5	8.4	12.6	26.0	25.7	10.6	14.5
J.P. Morgan	37.5	33.7		-43.5	8.8	12.6	23.1	25.7		
Marathon	29.8	33.7	-38.0	-43.5	15.4	12.6	27.5	25.7	16.4	14.5
McKinley	24.1	33.7		-43.5	20.4	12.6	25.4	25.7		
Pyramis (Fidelity)	35.1	33.7	-42.9		17.7	12.6	22.7	25.7		
RiverSource	29.3	33.7		-43.5	12.4	12.6	23.6	25.7	14.2	14.5
Aggregate	31.9	33.7	-42.8	-43.5	13.0	12.6	25.8	25.7	13.6	14.5
Active Emerging Markets (2)										
AllianceBernstein	78.4	78.5	-56.0	-53.2	38.8	39.9	30.4	32.2	32.7	34.0
Capital International	83.1	78.5	-48.9	-53.2	38.4	39.9	35.6	32.2	38.4	34.0
Morgan Stanley	71.7	78.5	-54.5	-53.2	43.0	39.9	37.6	32.2	34.3	34.0
Aggregate	77.3	78.5	-53.0	-53.2	40.0	39.9	34.4	32.2	34.9	34.0
Semi-Passive Developed Market	ts (1)									
AQR	36.0	33.7	-44.0	-43.5	9.0	12.6	25.2	25.7		
Pyramis (Fidelity)	30.2	33.7	-44.0	-43.5	18.2	12.6	26.8	25.7		
State Street	34.9	33.7	-45.3	-43.5	9.1	12.6	27.1	25.7		
Aggregate	33.6	33.7	-44.4	-43.5	12.1	12.6	26.4	25.7		
Passive Developed Markets (1)										
State Street	34.0	33.7	-43.4	-43.5	12.9	12.6	26.0	25.7	14.6	14.5
Equity Only (3) (5)	41.2	41.5	-45.3	-45.5	17.1	16.9	27.0	26.7	16.4	16.6
Total Program (4) (5)	41.2	41.5	-45.3	-45.5	17.1	16.9	27.0	26.7	16.4	16.6
SBI Int'l Equity Target (5)		41.5		-45.5		16.9		26.7		16.6
MSCI ACWI Free ex. U.S. (6)		41.5		-45.5		16.7		26.7		16.6
MSCI World ex U.S. (net)		33.7		-43.6		12.4		25.7		14.5
MSCI EAFE Free (net)		31.8		-43.4		11.2		26.3		13.5
MSCI Emerging Markets Free (7)		78.5		-53.3		39.4		32.2		34.0

- (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). 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).
- (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). 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).
- (3) Equity managers only. Includes impact of terminated managers.
- (4) Includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00.
- (5) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). 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.
- (6) MSCI ACWI Free ex U.S. (gross) through 12/31/00. MSCI ACWI Free ex U.S. (net) thereafter.
- (7) MSCI Emerging Markets Free (gross) through 12/31/00. MSCI Emerging Markets Free (net) thereafter.

#### ACADIAN ASSET MANAGEMENT LLC Periods Ending March, 2010

Portfolio Manager: John Chisholm Assets Under Management: \$309,065,496

#### **Investment Philosophy**

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

#### **Staff Comments**

Over the quarter, the portfolio added value relative to the index return. An underweight position in Spain, and an overweight position in Japan together with stock selection in that market contributed positively to performance. Over the year, the portfolio trailed the index as the junk rally of 2009 outperformed the portfolio's higher quality positions.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.2%	1.3%
Last 1 year	53.5	55.9
Last 2 years	-15.0	-8.4
Last 3 years	-11.6	-6.1
Last 4 years	-3.9	-0.2
Last 5 years	N/A	N/A
Since Inception	2.9	4.8
(7/05)		

#### Recommendations

No action required.

#### ACADIAN ASSET MANAGEMENT Rolling Five Rolling VAM



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

#### INVESCO GLOBAL ASSET MANAGMENT Periods Ending March, 2010

Portfolio Manager: Erik Granade Assets Under Management: \$280,352,836

#### **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 fundamental investment professionals enhances 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**

Stock selection in Japan, Canada and Hong Kong, together with weighting decisions in those markets contributed to the portfolio's outperformance during the quarter. For the year, stock selection in the United Kingdom contributed significantly to the portfolio's underperformance relative to the index return.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.7%	1.3%
Last 1 year	54.3	55.9
Last 2 years	-4.2	-8.4
Last 3 years	-4.9	-6.1
Last 4 years	0.7	-0.2
Last 5 years	4.4	4.4
Since Inception	4.0	2.0
(3/00)		

#### 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 March, 2010

Portfolio Manager: James Fisher Assets Under Management: \$224,908,524

#### **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**

The portfolio underperformed during the quarter. Stock selection in the financials, energy and healthcare sectors detracted from returns. Over the year, the portfolio added value in large part due to strong stock selection in the consumer discretionary sector.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	0.3%	1.3%
Last 1 year	56.9	55.9
Last 2 years	-5.7	-8.4
Last 3 years	-4.9	-6.1
Last 4 years	-0.4	-0.2
Last 5 years	N/A	N/A
Since Inception	4.5	4.8
(7/05)		

#### Recommendations

No action required.

### J.P. MORGAN INVESTMENT MANAGEMENT, INC. Rolling Five Rolling VAM



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

#### MARATHON ASSET MANAGEMENT Periods Ending March, 2010

Portfolio Manager: William Arah Assets Under Management: \$499,842,404

#### **Investment Philosophy**

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

#### **Quantitative Evaluation**

	Custom	
	Actual	Benchmark
Last Quarter	4.4%	1.3%
Last 1 year	55.6	55.9
Last 2 years	-4.9	-8.4
Last 3 years	-2.9	-6.1
Last 4 years	2.9	-0.2
Last 5 years	7.2	4.4
Since Inception	8.5	5.1
(11/93)		

#### **Staff Comments**

The portfolio outperformed over the quarter and narrowly underperformed for the year. During the quarter, an overweight position to the industrials sector and stock selection in the consumer discretionary and energy sectors added value. Over the year, the portfolio's overweight position in Japan and stock selection within that market detracted from returns.

#### Recommendations

No action required.

#### MARATHON ASSET MANAGEMENT Rolling Five Rolling VAM



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

### MCKINLEY CAPITAL MANAGEMENT, INC. Periods Ending March, 2010

Portfolio Manager: Robert A. Gillam Assets Under Management: \$218,827,584

#### **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. 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**

The portfolio underperformed over the quarter and the year. Stock selection in Japan and in the consumer discretionary and consumer staples sectors negatively impacted returns for the quarter. An underweight to and stock selection in the financials sector detracted from returns for the year.

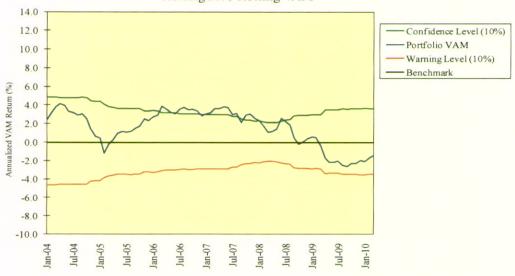
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.2%	1.3%
Last 1 year	43.3	55.9
Last 2 years	-14.7	-8.4
Last 3 years	-9.9	-6.1
Last 4 years	-3.2	-0.2
Last 5 years	N/A	N/A
Since Inception	2.9	4.8
(7/05)		

#### Recommendations

No action required.

### McKINLEY CAPITAL MANAGEMENT, INC. Rolling Five Rolling VAM



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

#### PYRAMIS GLOBAL ADVISORS TRUST COMPANY (Formerly Fidelity Management Trust Company) Periods Ending March, 2010

Portfolio Manager:

**Michael Strong** 

Assets Under Management: \$246,133,463

#### **Investment Philosophy**

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

#### Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.6%	1.3%
Last 1 year	55.1	55.9
Last 2 years	-6.8	-8.4
Last 3 years	-3.5	-6.1
Last 4 years	0.9	-0.2
Last 5 years	N/A	N/A
Since Inception (7/05)	6.1	4.8

#### **Staff Comments**

Over the quarter stock selection in the consumer discretionary, healthcare and industrials sectors contributed to the portfolio's outperformance. During the year, stock selection in the financials and telecommunications sectors detracted from returns.

#### Recommendations

No action required.

#### PYRAMIS GLOBAL ADVISORS TRUST Co. - INTL GROWTH Rolling Five Rolling VAM



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

#### RIVERSOURCE INVESTMENTS Periods Ending March, 2010

Portfolio Manager: Esther Perkins Assets Under Management: \$244,573,370

#### **Investment Philosophy**

RiverSource's 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**

Stock selection in the industrials, consumer discretionary and healthcare sectors contributed to the portfolio's outperformance over the quarter. For the year, stock selection in Japan and in the financials sector detracted from returns.

#### Quantitative Evaluation

	Actual	Benchmark
Last Quarter	2.2%	1.3%
Last 1 year	47.9	55.9
Last 2 years	-7.2	-8.4
Last 3 years	-5.3	-6.1
Last 4 years	-0.4	-0.2
Last 5 years	4.6	4.4
Since Inception	-0.4	2.0
(3/00)		

#### Recommendations

No action required.

#### RIVERSOURCE INVESTMENTS Rolling Five Year VAM



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

# ALLIANCEBERNSTEIN L.P. Periods Ending March, 2010

Portfolio Manager: Steve Beinhacker Assets Under Management: \$167,246,831

#### **Investment Philosophy**

Alliance employs a growth style of investment management. They believe that fundamental research-driven stock selection, structured by industries within regions, will produce superior investment performance. Their strategy emphasizes bottom-up, large capitalization stock selection. Country and industry exposures are a by-product of stock selection. Alliance looks for companies with the best combination of forward-looking growth and valuation attractiveness.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.0%	2.4%
Last 1 year	79.3	81.1
Last 2 years	-5.5	-2.0
Last 3 years	2.2	5.4
Last 4 years	6.2	9.0
Last 5 years	13.4	15.8
Since Inception	13.0	14.3
(3/01)		

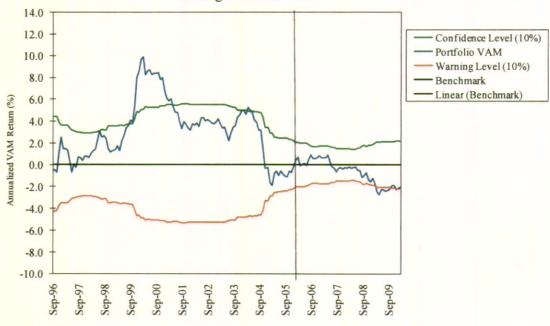
#### **Staff Comments**

Stock selection in Taiwan, Russia as well as in the financials and information technology sectors contributed to the portfolio's underperformance over the quarter and the year.

#### Recommendations

No action required.

#### ALLIANCEBERNSTEIN L.P. 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 March, 2010

Portfolio Manager: Victor Kohn Assets Under Management: \$675,421,426

#### **Investment Philosophy**

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

#### **Staff Comments**

Stock selection in South Africa, India and Russia contributed to the portfolio's underperformance over both the quarter and the year.

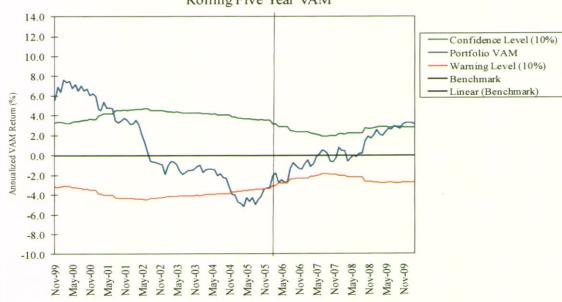
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.6%	2.4%
Last 1 year	80.3	81.1
Last 2 years	1.4	-2.0
Last 3 years	8.0	5.4
Last 4 years	12.3	9.0
Last 5 years	19.4	15.8
Since Inception	13.8	14.3
(3/01)		

#### Recommendations

No action required.

# CAPITAL INTERNATIONAL, 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.

#### MORGAN STANLEY INVESTMENT MANAGEMENT Periods Ending March, 2010

Portfolio Manager: Ruchir Sharma Assets Under Management: \$621,298,036

#### **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**

The portfolio's underweight position in Russia, and stock selection in that market, contributed significantly to the portfolio's underperformance for the quarter and the year.

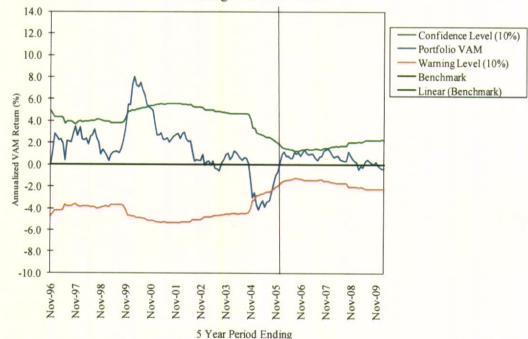
#### Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0.8%	2.4%
Last 1 year	78.6	81.1
Last 2 years	-3.7	-2.0
Last 3 years	3.1	5.4
Last 4 years	8.1	9.0
Last 5 years	15.5	15.8
Since Inception	14.1	14.3
(3/01)		

#### Recommendations

No action required.

# MORGAN STANLEY INVESTMENT MANAGEMENT Rolling Five Year VAM



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

#### AQR CAPITAL MANAGEMENT, LLC Periods Ending March, 2010

Portfolio Manager: Cliff Asness Assets Under Management: \$247,287,583

#### **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**

Stock selection in Continental Europe and in Canada contributed to the portfolio's outperformance over both the quarter and the year.

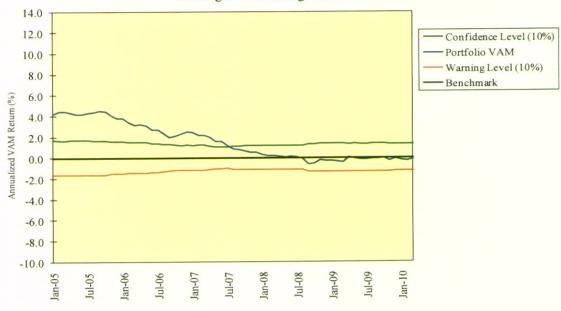
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.6%	1.3%
Last 1 year	59.0	55.9
Last 2 years	-7.4	-8.4
Last 3 years	-6.4	-6.1
Last 4 years	-0.8	-0.2
Last 5 years	N/A	N/A
Since Inception	4.6	4.8
(7/05)		

#### Recommendations

No action required.

# AQR CAPITAL MANAGEMENT, LLC Rolling Five Rolling VAM



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

## PYRAMIS GLOBAL ADVISORS TRUST COMPANY

(Formerly Fidelity Management Trust Company)
Periods Ending March, 2010

Portfolio Manager: Cesar Hernandez

Assets Under Management: \$255,252,866

#### **Investment Philosophy**

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

#### **Staff Comments**

Negative stock selection in the United Kingdom, Greece and in the information technology sector contributed to the portfolio's underperformance over the quarter and the year.

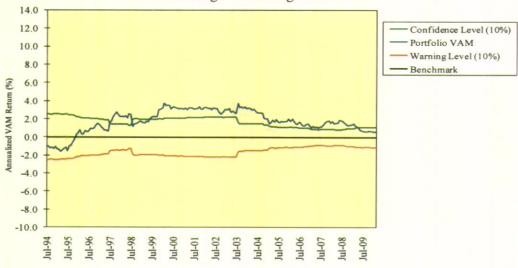
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.2%	1.3%
Last 1 year	51.3	55.9
Last 2 years	-10.2	-8.4
Last 3 years	-5.8	-6.1
Last 4 years	0.2	-0.2
Last 5 years	N/A	N/A
Since Inception	5.3	4.8
(7/05)		

#### Recommendations

No action required.

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



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

#### STATE STREET GLOBAL ADVISORS Periods Ending March, 2010

Portfolio Manager: Didier Rosenfeld Assets Under Management: \$239,961,243

#### **Investment Philosophy**

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

#### **Staff Comments**

The portfolio added value relative to the benchmark index return over the quarter and the year. Stock selection in the United Kingdom and in the financials and materials sectors contributed positively over both periods.

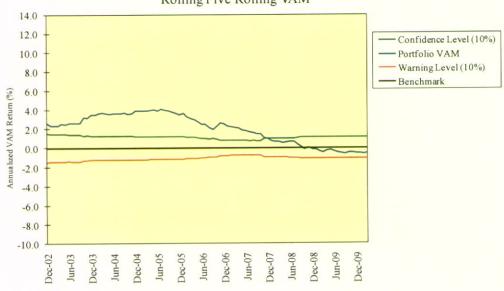
#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	1.7%	1.3%
Last 1 year	57.7	55.9
Last 2 years	-9.1	-8.4
Last 3 years	-7.6	-6.1
Last 4 years	-1.4	-0.2
Last 5 years	N/A	N/A
Since Inception	4.0	4.8
(7/05)		

#### Recommendations

No action required.

#### STATE STREET GLOBAL ADVISORS - ALPHA Rolling Five Rolling VAM



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

#### STATE STREET GLOBAL ADVISORS Periods Ending March, 2010

Portfolio Manager: Lynn Blake Assets Under Management: \$2,429,408,762

#### **Investment Philosophy**

State Street Global Advisors passively manages the portfolio against the Morgan Stanley Capital International (MSCI) World ex U.S. index of 22 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**

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

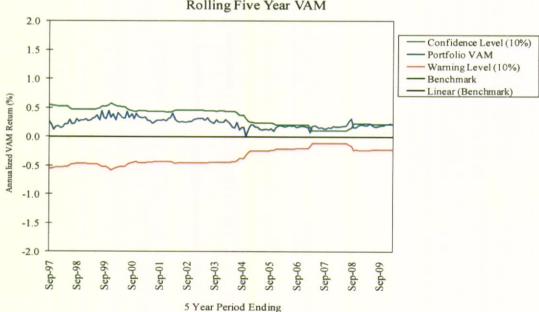
#### **Quantitative Evaluation**

Last Overton	Actual	Benchmark
Last Quarter	1.4%	1.3%
Last 1 year	56.5	55.9
Last 2 years	-8.2	-8.4
Last 3 years	-5.8	-6.1
Last 4 years	0.0	-0.2
Last 5 years	4.6	4.4
Since Inception	6.6	6.4
(10/92)		

#### Recommendation

No action required.

# STATE STREET GLOBAL ADVISORS - PASSIVE Rolling Five Year VAM



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# STATE BOARD OF INVESTMENT

Non-Retirement Manager Evaluation Reports

First Quarter, 2010

# Non-Retirement Managers

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#### NON - RETIREMENT MANAGERS Periods Ending March, 2010

									Since	(1)	
	Qu	arter	1 Y	ear	3 Ye	ars	5 Ye	ars	Incepti	on	Market
	Actual %	Bmk %	Value (in millions)								
GE Asset Management (S&P 500 Index)	5.0	5,4	49.3	49.8	-1.0	-4.2	3.4	1.9	9.3	8.3	\$63.7
RBC Global Asset Management (Custom Benchmark)	2.8	1.2	10.6	1.7	4.2	5.9	4.3	5.2	6.0	6.3	\$259.1
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	1.0	0.5	4.5	1.9	4.7	2.8	4.6	3.6	5.5	4.6	\$1,227.3
Internal Stock Pool (S&P 500 Index)	5.4	5.4	49.5	49.8	-4.0	-4.2	2.0	1.9	8.0	7.9	\$945.8
Internal Bond Pool - Income Share (Barclays Capital Aggregate) (2)	2.1	1.8	12.8	7.7	6.9	6.1	6.1	5.4	7.7	7.3	\$82.1
Internal Bond Pool - Trust (Barclays Capital Aggregate)	1.8	1.8	11.2	7.7	7.3	6.1	6.4	5.4	7.2	6.6	\$588.8

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

<sup>(2)</sup> Prior to July 1994, the benchmark was the Salomon BIG.

#### NON - RETIREMENT MANAGERS Calendar Year Returns

	20	09	200	08	200	07	200	06	200	05
	Actual %	Bmk %								
GE Asset Management (S&P 500 Index)	32.3	26.5	-35.6	-37.0	8.5	5.5	16.4	15.8	2.6	4.9
RBC Global Asset Management (Custom Benchmark)	8.3	0.9	-2.4	9.5	5.8	7.9	4.5	4.3	2.5	2.1
Galliard Capital Management (3 yr. Constant Maturity Treasury + 45 bp)	4.7	1.9	4.7	2.6	4.8	4.7	4.6	5.2	4.3	4.4
Internal Stock Pool (S&P 500 Index)	26.3	26.5	-36.7	-37.0	5.5	5.5	15.9	15.8	4.9	4.9
Internal Bond Pool - Income Share (Barclays Capital Aggregate)	12.9	5.9	1.3	5.2	6.4	7.0	5.0	4.3	2.7	2.4
Internal Bond Pool - Trust (Barclays Capital Aggregate)	12.2	5.9	2.6	5.2	7.1	7.0	5.1	4.3	2.8	2.4

#### GE ASSET MANAGEMENT - Assigned Risk Plan Periods Ending March, 2010

Portfolio Manager: Dave Carlson Assets Under Management: \$63,740,555

#### 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**

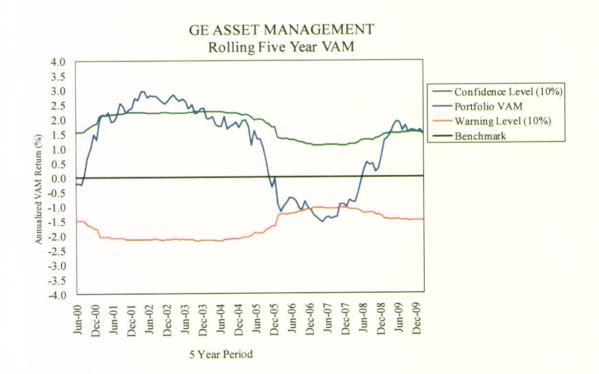
No comment at this time.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	5.0%	5.4%
Last 1 year	49.3	49.8
Last 2 years	-0.8	-3.7
Last 3 years	-1.0	-4.2
Last 4 years	2.0	-0.4
Last 5 years	3.4	1.9
Since Inception	9.3	8.3
(1/95)		

#### Recommendation

No action required.



#### RBC GLOBAL ASSET MANAGEMENT (U.S.) - Assigned Risk Plan Periods Ending March, 2010

Portfolio Manager: John Huber Assets Under Management: \$259,149,816

#### 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 comment at this time.

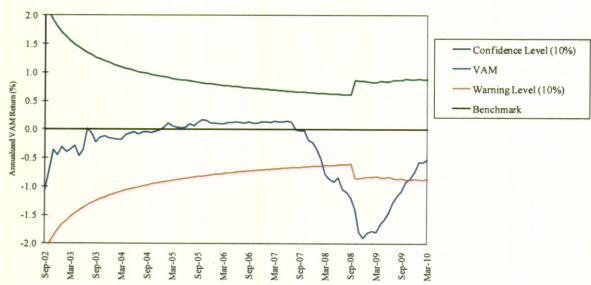
#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	2.8%	1.2%
Last 1 year	10.6	1.7
Last 2 years	4.2	4.0
Last 3 years	4.2	5.9
Last 4 years	4.8	6.0
Last 5 years	4.3	5.2
Since Inception (7/91)	6.0	6.3

#### Recommendation

No action required.

#### RBC GLOBAL ASSET MANAGEMENT Cumulative VAM



<sup>\*</sup> Effective 4/1/02 blended benchmark consists 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.

#### GALLIARD CAPITAL MANAGEMENT Periods Ending July, 2009

Portfolio Manager: Karl Tourville Assets Under Management: \$1,227,339,684

#### **Investment Philosophy**

#### **Staff Comments**

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

No comment at this time.

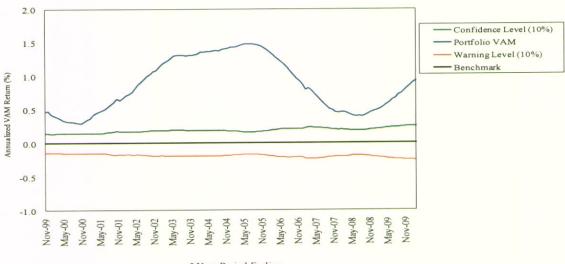
#### **Quantitative Evaluation**

#### Recommendation

	Actual	Benchmark
Last Quarter	1.0%	0.5%
Last 1 year	4.5	1.9
Last 2 years	4.6	2.2
Last 3 years	4.7	2.8
Last 4 years	4.7	3.4
Last 5 years	4.6	3.6
Since Inception	5.5	4.6
(11/94)		

No action required.

#### GALLIARD CAPITAL MANAGEMENT Rolling Five Year VAM



#### INTERNAL STOCK POOL - Trust/Non-Retirement Assets Periods Ending March, 2010

Portfolio Manager: Mike Menssen Assets Under Management: \$945,813,281

#### 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 comment at this time.

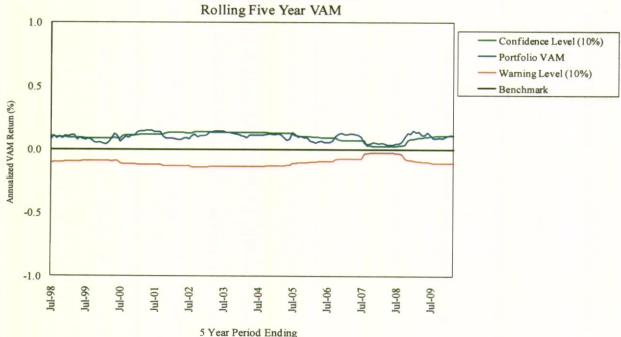
#### Quantitative Evaluation

#### Recommendation

	Actual	Benchmark
Last Quarter	5.4%	5.4%
Last 1 year	49.5	49.8
Last 2 years	-3.5	-3.7
Last 3 years	-4.0	-4.2
Last 4 years	-0.3	-0.4
Last 5 years	2.0	1.9
Since Inception (7/93)	8.0	7.9

No action required.

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



#### INTERNAL BOND POOL - Income Share Account Periods Ending March, 2010

Portfolio Manager: Mike Menssen Assets Under Management: \$82,120,579

# **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 comment at this time.

#### **Quantitative Evaluation**

	Actual	Benchmark
Last Quarter	2.1%	1.8%
Last 1 year	12.8	7.7
Last 2 years	7.6	5.4
Last 3 years	6.9	6.1
Last 4 years	6.9	6.3
Last 5 years	6.1	5.4
Since Inception	7.7	7.3
(7/86)		

#### Recommendation

No action required.

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



#### INTERNAL BOND POOL - Trust/Non-Retirement Assets Periods Ending March, 2010

Portfolio Manager: Mike Menssen Assets Under Management: \$588,785,956

# Investment Philosophy Environmental Trust Fund Permanent School Trust Fund

No comment at this time.

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

#### Quantitative Evaluation

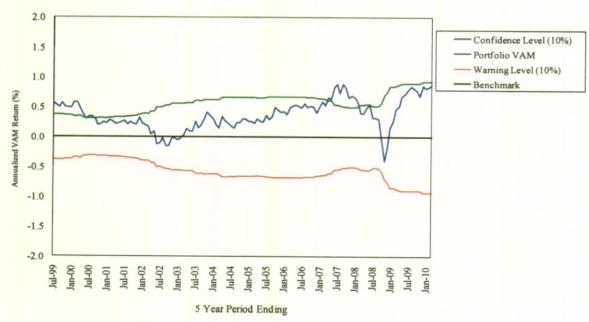
	Actual	Benchmark
Last Quarter	1.8%	1.8%
Last 1 year	11.2	7.7
Last 2 years	7.7	5.4
Last 3 years	7.3	6.1
Last 4 years	7.2	6.3
Last 5 years	6.4	5.4
Since Inception	7.2	6.6
(7/94)*		

#### Recommendation

**Staff Comments** 

No action required.

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



<sup>\*</sup> Date started managing the pool against the Barclays Capital Aggregate.

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# STATE BOARD OF INVESTMENT

Deferred Compensation Plan Evaluation Reports

First Quarter, 2010

# **Mutual Fund Managers**

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# MN STATE 457 DEFERRED COMPENSATION PLAN MUTUAL FUND MANAGERS Periods Ending March, 2010

	Qua	arter	1 Ye	ar	3 Ye	ars	5 Y	ears	Sino Reten		State's Participation
457 Mutual Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	by SI	BI *	In Fund
	%	%	%	%	%	%	%	%	%	%	(\$ millions)
Large Cap Equity:											
Janus Twenty	3.9	5.4	48.5	49.8	4.6	-4.2	9.2	1.9	1.2	0.3	\$446.0
(S&P 500)											
Legg Mason Partners Appr I	4.6	5.4	41.6	49.8	-0.4	-4.2	3.5	1.9	4.9	3.7	\$118.9
(S&P 500)											
Vanguard Institutional Index Plus (S&P 500)	5.4	5.4	49.9	49.8	-4.1	-4.2	2.0	1.9	0.4	0.3	\$391.0
Mid Cap Equity:											
Vanguard Mid-Cap Index	8.7	8.7	66.6	66.7	-3.3	-3.4	4.2	4.2	6.4	6.4	\$162.4
(MSCI US Mid-Cap 450)											
Small Cap Equity:											
T. Rowe Price Small-Cap Stock	9.6	8.9	67.7	62.8	-1.1	-4.0	4.7	3.4	7.9	5.1	\$361.3
(Russell 2000)											
Balanced:	-				27.1						
Dodge & Cox Balanced Fund	5.6	4.0	51.2	31.7	-3.4	0.2	2.1	3.6	5.1	4.9	\$265.3
(60% S&P 500/40% Barclays Capital Agg) Vanguard Balanced Index Inst. Fund	4.4	4.4	33.4	33.3	0.8	0.6	4.2	4.1	5.0	4.9	\$169.0
(60% MSCI US Broad Market,	4.4	4.4	33.4	33.3	0.8	0.0	7.2	7.1	3.0	4.5	\$105.0
40% Barclays Capital Agg)											
Bond:											
Dodge & Cox Income Fund	2.2	1.8	18.4	7.7	6.9	6.1	6.0	5.4	6.6	6.1	\$130.7
(Barclays Capital Aggregate)											
Vanguard Total Bond Market Index Inst.	1.7	1.8	7.5	7.7	6.2	6.1	5.5	5.4	5.1	5.1	\$104.4
(Barclays Capital Aggregate)											
International:	0.6	0.9	50.4	54.4	-6.5	-7.0	3.9	3.7	6.8	3.1	\$237.2
Fidelity Diversified International (MSCI EAFE-Free)	0.6	0.9	30.4	34.4	-0.3	-/.0	3.9	3.1	0.0	3.1	\$4J1.Z
Vanguard Inst. Dev. Mkts. Index (MSCI EAFE)	2.2	0.9	55.5	54.4	-6.6	-7.0	4.1	3.7	7.5	7.2	\$74.8

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

<sup>\*</sup> Vanguard Mid-Cap Index Fund retained January 2004; Legg Mason, Vanguard Inst. Dev. Mkt., Vanguard Balanced, Vanguard Total Bond Mkt. retained December 2003; Dodge & Cox Balanced Fund retained in October 2003; all others, July 1999.

# MN STATE 457 DEFERRED COMPENSATION PLAN MUTUAL FUND MANAGERS Calendar Year Returns

	200	09	20	08	200	07	200	06	20	05
457 Mutual Funds	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk
	%	%	%	%	%	%	%	%	%	%
Large Cap Equity:										
Janus Twenty	43.3	26.5	-42.0	-37.0	35.9	5.5	12.3	15.8	9.4	4.9
(S&P 500)										
Legg Mason Partners Appr I	21.8	26.5	-28.8	-37.0	8.6	5.5	15.0	15.8	4.6	4.9
(S&P 500)										
Vanguard Institutional Index Plus (S&P 500)	26.7	26.5	-36.9	-37.0	5.5	5.5	15.8	15.8	5.0	4.9
Mid Cap Equity:										
Vanguard Mid-Cap Index	40.5	40.5	-41.8	-41.8	6.2	6.2	13.8	13.7	14.1	13.9
(MSCI US Mid-Cap 450)										
Small Cap Equity:										
T. Rowe Price Small-Cap Stock	38.5	27.2	-33.4	-33.8	-1.7	-1.6	12.8	18.4	8.4	4.6
(Russell 2000)										
Balanced:										
Dodge & Cox Balanced Fund	28.4	18.4	-33.6	-22.4	1.7	6.2	13.8	11.1	6.6	4.0
(60% S&P 500/40% Barclays Capital Agg)										
Vanguard Balanced Index Inst. Fund	20.2	19.7	-22.1	-22.4	6.3	6.3	11.1	11.1	4.8	4.8
(60% MSCI US Broad Market, 40% Barclays Capital Agg)										
Bond:										
Dodge & Cox Income Fund	16.1	5.9	-0.3	5.2	4.7	7.0	5.3	4.3	2.0	2.4
(Barclays Capital Aggregate)				0.2	,	7.0	3.5	7.5	2.0	2.4
Vanguard Total Bond Market Index Inst.	6.1	5.9	5.2	5.2	7.0	7.0	4.4	4.3	2.5	2.4
(Barclays Capital Aggregate)										
International:										
Fidelity Diversified International (MSCI EAFE-Free)	31.8	31.8	-45.2	-43.4	16.0	11.2	22.5	26.3	17.2	13.5
Vanguard Inst. Dev. Mkts. Index (MSCI EAFE)	28.2	31.8	-41.5	-43.4	11.0	11.2	26.3	26.3	13.6	13.5

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

# MN STATE 457 DEFERRED COMPENSATION PLAN LARGE CAP EQUITY – JANUS TWENTY

Periods Ending March, 2010

Portfolio Manager: Ron Sachs

State's Participation in Fund: \$446,038,133

Total Assets in Fund: \$9,900,000,000

# 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 comment at this time.

No action required.

#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	3.9%	5.4%
Last 1 year	48.5	49.8
Last 2 years	-4.2	-3.7
Last 3 years	4.6	-4.2
Last 4 years	6.4	-0.4
Last 5 years	9.2	1.9
Since Retention	1.2	0.3
by SBI (7/99)		

Recommendation

#### Rolling Five Year VAM 20.0 Confidence Level (10%) 15.0 Portfolio VAM Warning Level (10%) 10.0 Benchmark Annualized VAM Return (%) 5.0 0.0 -5.0 -10.0 -15.0 Apr-00 Apr-94 Apr-97 Apr-99 Apr-02 Apr-96 Apr-98 Apr-01 Apr-95

LARGE CAP EQUITY - JANUS TWENTY

<sup>\*</sup>Benchmark is the S&P 500.

## MN STATE 457 DEFERRED COMPENSATION PLAN LARGE CAP EQUITY - LEGG MASON PARTNERS APPRECIATION I

Periods Ending March, 2010

State's Participation in Fund:

\$118,876,723 \$4,332,602,314

Portfolio Manager: Scott Glasser

**Total Assets in Fund:** 

## **Staff Comments**

The Fund invests in U.S. growth and value stocks, primarily blue-chip companies that are dominant in their industries. Investments are selected from among a core base of stocks with a strong financial history, recognized industry leadership, and management teams that strive to earn consistent returns for shareholders. The portfolio manager looks for companies that he believes are undervalued with the belief that a catalyst will occur to unlock these values.

**Investment Philosophy** Legg Mason Partners Appreciation I

No comment at this time.

#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	4.6%	5.4%
Last 1 year	41.6	49.8
Last 2 years	-2.4	-3.7
Last 3 years	-0.4	-4.2
Last 4 years	2.1	-0.4
Last 5 years	3.5	1.9
Since Retention	4.9	3.7
by SBI (12/03)		

#### Recommendation

No action required.

#### LARGE CAP EQUITY - LEGG MASON PARTNERS APPRECIATION I Rolling Five Year VAM



<sup>\*</sup>Benchmark is the S&P 500.

# MN STATE 457 DEFERRED COMPENSATION PLAN EQUITY INDEX – VANGUARD INSTITUTIONAL INDEX PLUS Periods Ending March, 2010

State's Participation in Fund:

\$390,973,598

Portfolio Manager: Donald Butler

Total Assets in Fund:

\$26,416,000,000

#### 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**

No comment at this time.

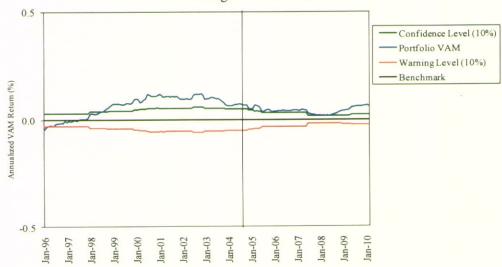
#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	5.4%	5.4%
Last 1 year	49.9	49.8
Last 2 years	-3.6	-3.7
Last 3 years	-4.1	-4.2
Last 4 years	-0.3	-0.4
Last 5 years	2.0	1.9
Since Retention	0.4	0.3
by SBI (7/99)		

Recommendation

No action required.

# EQUITY INDEX - VANGUARD INSTITUTIONAL INDEX PLUS Rolling Five Year VAM



<sup>\*</sup>Benchmark is the S&P 500.

## MN STATE 457 DEFERRED COMPENSATION PLAN MID CAP EQUITY - VANGUARD MID-CAP INDEX

Periods Ending March, 2010

State's Participation in Fund:

**Staff Comments** 

\$162,401,512

Portfolio Manager: Donald Butler

**Total Assets in Fund:** 

\$6,617,000,000

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

# No comment at this time.

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

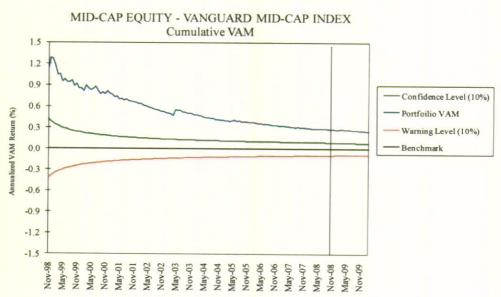
#### Quantitative Evaluation

#### Recommendation

	Actual	Benchmark*
Last Quarter	8.7%	8.7%
Last 1 year	66.6	66.7
Last 2 years	-0.3	-0.4
Last 3 years	-3.3	-3.4
Last 4 years	0.0	-0.1
Last 5 years	4.2	4.2
Since Retention	6.4	6.4
by SBI (1/04)		

No action required.

<sup>\*</sup>Benchmark is the MSCI US Mid Cap 450.



# MN STATE 457 DEFERRED COMPENSATION PLAN SMALL CAP EQUITY – T. ROWE PRICE SMALL CAP STOCK FUND Periods Ending March, 2010

Portfolio Manager: Gregory A. McCrickard State's Participation in Fund: \$361,268,233

Total Assets in Fund: \$5,707,639,750

# Investment Philosophy T. Rowe Price Small Cap Equity Fund

Staff Comments

The strategy of this fund is to invest primarily in stocks of small to medium-sized companies that are believed to offer either superior earnings growth or appear undervalued. The fund normally invests at least 80% of assets in equities traded in the U.S over-the-counter market. 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.

No comment at this time.

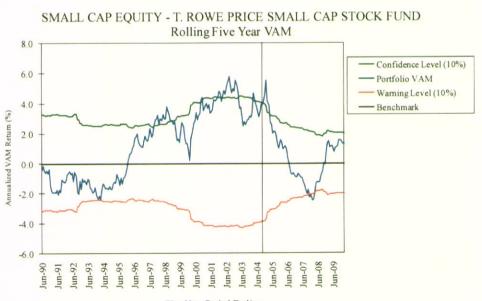
#### **Quantitative Evaluation**

#### Recommendation

	Actual	Benchmark*
Last Quarter	9.6%	8.9%
Last 1 year	67.7	62.8
Last 2 years	6.5	0.9
Last 3 years	-1.1	-4.0
Last 4 years	0.2	-1.6
Last 5 years	4.7	3.4
Since Retention	7.9	5.1
by SBI (7/99)		

No action required.

<sup>\*</sup>Benchmark is the Russell 2000.



# STATE 457 DEFERRED COMPENSATION PLAN BALANCED – DODGE & COX BALANCED FUND

Periods Ending March, 2010

State's Participation in Fund:

\$265,254,863

Portfolio Manager: John Gunn

Total Assets in Fund:

\$15,739,874,375

# Investment Philosophy Dodge & Cox Balanced Fund

The Fund seeks regular income, conservation of principal and an opportunity for long-term growth of principal and income. The Fund invests in a diversified portfolio of common stocks preferred stocks and fixed

income securities.

#### **Staff Comments**

No comment at this time.

No action required.

#### **Quantitative Evaluation**

#### Recommendation

	Actual	Benchmark*
Last Quarter	5.6%	4.0%
Last 1 year	51.2	31.7
Last 2 years	-1.1	0.2
Last 3 years	-3.4	0.2
Last 4 years	0.2	2.5
Last 5 years	2.1	3.6
Since Retention	5.1	4.9
By SBI (10/03)		

<sup>\*</sup>Benchmark is 60% S&P 500, 40% Barclays Capital Aggregate.

#### BALANCED - DODGE & COX BALANCED FUND Rolling Five Year VAM



## MN STATE 457 DEFERRED COMPENSATION PLAN BALANCED - VANGUARD BALANCED INDEX INSTITUTIONAL FUND

Periods Ending March, 2010

State's Participation in Fund:

\$169,041,683

**Total Assets in Fund:** 

\$3,313,000,000

#### Investment Philosophy Vanguard Balanced Index Fund

Portfolio Manager: Michael Perre

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

#### **Staff Comments**

No comment at this time.

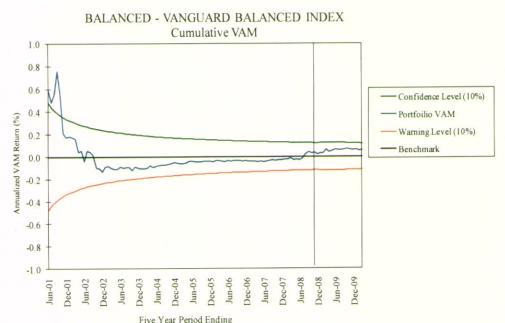
#### **Quantitative Evaluation**

#### Benchmark\* Actual Last Quarter 4.4% 4.4% 33.4 33.3 Last 1 year 1.0 Last 2 years 1.3 0.6 0.8 Last 3 years Last 4 years 2.9 2.7 Last 5 years 4.2 4.1 4.9 5.0 Since Retention by SBI (12/03)

#### Recommendation

No action required.

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



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

#### MN STATE 457 DEFERRED COMPENSATION PLAN BOND – DODGE & COX INCOME FUND

Periods Ending March, 2010

Portfolio Manager: Dana Emery

State's Participation in Fund: \$130,726,562 Total Assets in Fund: \$20,653,568,465

**Staff Comments** 

# Investment Philosophy Dodge & Cox Income Fund

and stable rate of No comment at this time. Ciation being a folio is invested tent grade quality.

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

#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	2.2%	1.8%
Last 1 year	18.4	7.7
Last 2 years	8.5	5.4
Last 3 years	6.9	6.1
Last 4 years	6.8	6.3
Last 5 years	6.0	5.4
Since Retention	6.6	6.1
By SBI (7/99)		

## \*Benchmark is the Barclays Capital Aggregate.

#### Recommendation

No action required.

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



## MN STATE 457 DEFERRED COMPENSATION PLAN BOND - VANGUARD TOTAL BOND MARKET INDEX INSTITUTIONAL

Periods Ending March, 2010

State's Participation in Fund:

\$104,428,869

Portfolio Manager: Kenneth Volpert

**Total Assets in Fund:** \$4,361,000,000

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

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 5,000 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, investmentgrade corporate bonds and a lower percentage in shortterm Treasury securities.

#### **Staff Comments**

No comment at this time.

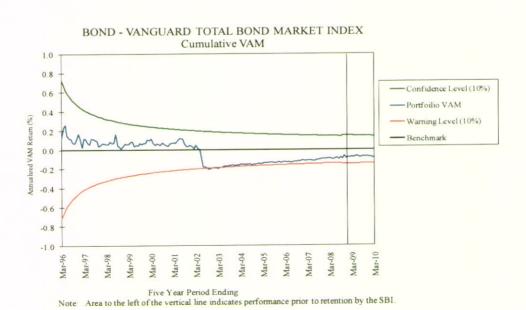
#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	1.7%	1.8%
Last 1 year	7.5	7.7
Last 2 years	5.4	5.4
Last 3 years	6.2	6.1
Last 4 years	6.3	6.3
Last 5 years	5.5	5.4
Since Retention	5.1	5.1
by SBI (12/03)		

Recommendation

No action required.

<sup>\*</sup>Benchmark is the Barclays Capital Aggregate.



# MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL – FIDELITY DIVERSIFIED INTERNATIONAL

Periods Ending March, 2010

Portfolio Manager: William Bower

State's Participation in Fund:

\$237,233,645

**Total Assets in Fund:** 

\$37,776,370,000

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

#### **Staff Comments**

No comment at this time.

#### Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	0.6%	0.9%
Last 1 year	50.4	54.4
Last 2 years	-10.3	-9.1
Last 3 years	-6.5	-7.0
Last 4 years	-1.5	-0.9
Last 5 years	3.9	3.7
Since Retention	6.8	3.1
By SBI (7/99)		

No action required.

# INTERNATIONAL - FIDELITY DIVERSIFIED INTERNATIONAL Rolling Five Year VAM



Recommendation

<sup>\*</sup>Benchmark is the MSCI EAFE-Free.

# MN STATE 457 DEFERRED COMPENSATION PLAN INTERNATIONAL – VANGUARD INSTITUTIONAL DEVELOPED MARKETS INDEX Periods Ending March, 2010

Portfolio Manager: Duane Kelly and Michael Buek

State's Participation in Fund:

\$74,797,310

**Total Assets in Fund:** 

\$6,184,000,000

# Investment Philosophy Vanguard Institutional Developed Market Index

The fund seeks to track the performance of the MSCI EAFE Index by passively investing in two other Vanguard funds—the European Stock Index Fund and the Pacific Stock Index Fund. The combination of the two underlying index funds, in turn, seeks to track the investment results of the Morgan Stanley Capital International (MSCI) Europe, Australasia, Far East (EAFE) Index. The MSCI EAFE Index includes approximately 1,000 common stocks of companies located in Europe, Australia, Asia, and the Far East.

#### **Staff Comments**

Recommendation

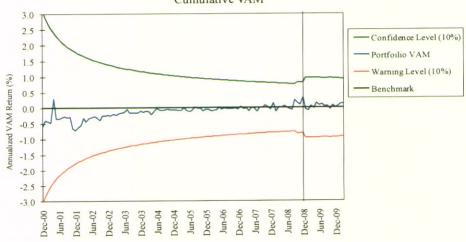
No comment at this time.

#### **Quantitative Evaluation**

	Actual	Benchmark*
Last Quarter	2.2%	0.9%
Last 1 year	55.5	54.4
Last 2 years	-8.6	-9.1
Last 3 years	-6.6	-7.0
Last 4 years	-0.4	-0.9
Last 5 years	4.1	3.7
Since Retention	7.5	7.2
by SBI (12/03)		

Actual Benchmark\* No action required.

# INTERNATIONAL - VANGUARD DEVELOPED MARKET INDEX Cumulative VAM



<sup>\*</sup>Benchmark is the MSCI EAFE International

# Tab E

DATE: May 11, 2010

TO: Members, Investment Advisory Council

FROM: Howard Bicker

Attached are reviews of semi-passive investments for the Fixed Income (page 3), International Equity (page 13), and Domestic Equity (page 37) programs. This has been done as part of the Board's on-going review of its overall investment program. At this time, there are no recommendations to alter the programs.

## Minnesota State Board of Investment

Fixed Income Semi-Passive Management Review

May 2010

#### I. Introduction

Since July 1988, the SBI's Fixed Income Program has employed the use of semi-passive management to compliment the actively managed portion of the program. The current policy is to maintain a balanced allocation between active and semi-passive management. *At least* half of the assets in the Fixed Income Program must be managed semi-passively at all times. This paper includes a review of the features, benefits, and goals of semi-passive management, along with an analysis of the effectiveness of semi-passive management in the SBI's Fixed Income Program since its inception in July 1988, and recommended changes, if any, to the Fixed Income Program.

#### II. Description of the Current Program

#### Background

There are two primary goals of the SBI's Fixed Income Program:

- 1) Serve as a diversifier to offset the volatility generated by the equity programs
- 2) Serve as a deflation hedge in times of falling asset prices within the constraints of the asset class target

The risk level of the Fixed Income Program is managed by setting an allocation among the active and semi-passive management styles, and by controlling the degree of active risk in the managers' portfolios through the use of investment guidelines. Passive management is not currently employed in the program because it is reasonable to expect that the bond market's structural inefficiencies will persist and provide opportunity for the continued relative outperformance of the semi-passive management style compared to a passive approach. Staff

continues to favor these strategies over passive management given the long-term success of more active, risk-controlled styles in adding value to the asset class target with low tracking error.

#### **Active Management**

The SBI's group of *active* bond managers is retained for its blend of investment styles. There are structural inefficiencies within the bond market that can be exploited by active managers. These inefficiencies include the lack of transparency, a diversity of investment objectives among market participants, and the vast number of unique investable securities available. Each active manager has the goal of adding value relative to the Program's benchmark, the Barclays Capital Aggregate Bond Index (BC Agg), by focusing on high quality fixed income securities across all sectors of the market. The managers vary, however, on the emphasis they place on interest rate anticipation and in the manner in which they make security selection and sector weighting decisions. The active bond managers focus on high quality (rated BBB or better) U.S. Dollar denominated bonds. Some managers have been granted authority to invest up to 15% of their portfolios in BB and B rated dollar denominated corporate bond issues, as well as up to 15% in non-dollar denominated, investment-grade issues. The total exposure to these sectors is limited to 20% of the portfolio. The managers use this authority on a tactical basis.

#### **Semi-Passive Management**

Semi-passive management, or Enhanced Indexing, has many of the same aspects as a passive management (or indexing) strategy. In a passive strategy, the portfolio manager tries to match the return of the index by either fully replicating it or by using a stratified sampling process. A semi-passive strategy adds an incremental amount of risk by allowing the portfolio

manager to overweight or underweight securities and sectors in the portfolio in order to add value relative to the index.

Like the Active managers, the SBI's *semi-passive* managers attempt add incremental value to the BC Agg through superior bond selection and sector allocation. Unlike the Active managers, they do not seek to add value with interest rate forecasts and the semi-passive managers' are constrained to limit risk relative to the benchmark. The following are the constraints for the Semi-Passive managers:

- Maintain portfolio duration within +/- 0.20 years of the benchmark's total duration
- Remain within +/- 50% of the benchmark's contribution to duration in the Treasury/Agency, Mortgage, and Corporate bond sectors
- Remain within +/- 75% of the benchmark's AAA/AA credit quality spread (on a contribution to duration basis)
- Remain within +/- 50% of the benchmark's A/BBB credit quality spread (on a contribution to duration basis).

These restrictions are to ensure that the semi-passive managers do not deviate excessively from the benchmark's sector and credit quality weightings. One manager has been granted authority to invest up to 5% of their portfolio in BB and B rated dollar denominated debt and up to 5% of the portfolio in non-dollar denominated, investment grade issues. The total exposure to these sectors is limited to 10% of the portfolio. The manager uses this additional authority on a tactical basis.

Another aspect of semi-passive management is the fee structure. Semi-passive managers charge lower fees than active managers because the alpha targets are lower (corresponding with a

lower risk budget). While this is a secondary feature of semi-passive management, it should be recognized when considering passive, semi-passive, and active management strategies.

#### III. Analysis of Fixed Income Program Results

The goals of semi-passive management are to diversify the management style and risk generated in a fixed income portfolio and to add value to an asset class target. The following is an evaluation the effectiveness of the SBI's Semi-Passive Fixed Income Program in achieving the strategy's stated objectives. This will be done by providing a statistical analysis of the Fixed Income Program's Active and Semi-Passive component's risk-adjusted returns and correlations in relation to the asset class target.

#### **Excess Returns and Tracking Error**

For the purposes of our analysis, we will use July 1988 as the inception of the Current Fixed Income Program. The Program's aggregate return series, which includes current and terminated bond managers, has outperformed the benchmark by 13 basis points per year with 125 basis points of tracking error. The actively managed portion added 20 bps of alpha while generating 173 bps of tracking error. The semi-passive portion added 11 bps of alpha since inception while generating 93 bps of tracking error. The results of each style are presented in Figure 1a.

Figure 1a, SBI bond program results 7/1/88 - 12/31/09.

Style	Excess Return Objective	Maximum Tracking Error	Actual Excess Return	Actual Tracking Error
Active	25 bps	250 bps	20 bps	173 bps
Semi-Passive	10 bps	50 bps	11 bps	93 bps
Total Program*	_		13 bps	125 bps

#### \*Includes the performance of terminated managers

Figure 1b. SBI bond program 19-year results 7/1/88 - 6/30/07.

Style	Excess Return Objective	Maximum Tracking Error	Actual Excess Return	Actual Tracking Error
Active	25 bps	250 bps	46 bps	106 bps
Semi-Passive	10 bps	50 bps	18 bps	36 bps
Total Program*			30 bps	60 bps

<sup>\*</sup>Includes the performance of terminated managers

Figure 1b shows the Fixed Income Program's 19-year performance through June 2007, which was just prior to the sub-prime crisis that began in July 2007. This data, when compared to Figure 1b, highlights the material impact of the sub-prime crisis of 2007 (and impending financial crisis of 2008) on the Fixed Income Program's long-term results, particularly in terms of tracking error. From 1988 to 2007, the Total Program generated 30 bps of excess return and 60 bps of tracking error. The Actively managed portion generated 46 bps of excess return and 106 bps of tracking error. The Semi-Passively managed portion generated 18 bps of excess return and 36 bps of tracking error. As Figure 1b also shows, the Fixed Income Program's 19-year results were well within its tracking error targets and achieved the excess return goals.

As figures 1a and 1b show, even with the 2008 financial crisis, the active program almost met the excess return objective while maintaining tracking error within expectations. The semi-passive program also met its excess return expectations, but with tracking error that exceeded expectations.

#### Effectiveness of the Program as a Diversifier

The primary goal of the Fixed Income Program is to diversify the mix of Total Plan Assets. In order to quantify the Fixed Income Program's diversification, a correlation matrix has been produced. The various correlations will show the effectiveness of the following three alternative fixed income options to accomplish the goals set for the Fixed Income asset class target.

- 1) 100% of the Fixed Income Program weighted to Passive management—for the purposes of this analysis, the Blackrock Fixed Income Index Fund A will be used as a proxy, since SBI has never used Passive management.
- 2) 100% of the Fixed Income Program weighted to Semi-Passive management—in our analysis, we will use the returns (starting in July 1988) of the SBI's Semi-Passive fixed income manager aggregate. Currently, this includes three (3) semi-passive managers.
- 3) 100% of the Fixed Income Program weighted to Active management—in our analysis, we will use the returns (starting in July 1988) of the SBI's Active fixed income manager aggregate. Currently, this includes five (5) active managers.

Figure 2. Correlations to the Asset Class Target

Correlation Coefficients to the Asso	et Class Target
July 1988 to December 2009	
	Fixed Income Asset Class Target
100% Passive Fixed Income*	1.000
100% Semi-Passive Fixed Income	0.972
Current Fixed Income Program	0.950
100% Active Fixed Income	0.914

<sup>\*</sup>Blackrock's Fixed Income Index Fund A used as a proxy for Passive Fixed Income

The three scenarios show that as active risk increases, the correlation with the asset class target decreases. The next step is to determine if the increase in active risk and lower correlation to the asset class target adds value relative to the Program's benchmark.

Figure 3. Return and Risk-adjusted return information (July 1988 - December 2009)

	Return (%)	Excess Return (%)	Annualized Tracking Error (%)	Information Ratio
100% Active	7.55	0.20	1.73	0.116
100% Semi-Passive	7.45	0.10	0.93	0.108
Current Fixed Income Program	7.48	0.14	1.25	0.112
100% Passive*	7.36	0.02	0.12	0.167

<sup>\*</sup>Blackrock's Fixed Income Index Fund A used as a proxy for a Passive Fund

On a risk-adjusted basis, the performance of the current Fixed Income Program is comparable to the alternative scenarios. This can be determined by comparing the Information Ratio of the various options to that of the Current Program. The Information Ratio is the Excess Return divided by the Annualized Standard Deviation of the excess returns (tracking error). This ratio illustrates the risk-adjusted return profile of each option. Figure 3 shows that the three options generate nearly identical risk-adjusted returns to that of the current Fixed Income Program. Therefore, a shift in strategy to any one of the three alternatives would yield no material improvement in risk-adjusted returns.

#### IV. Conclusions

The current Program relative to the three alternative options presented in this paper show that there is minimal difference between them on a correlation and risk-adjusted return basis.

One must also consider the survivorship bias that is inherent in these figures. The Current Fixed

Income Program's return history includes that of terminated managers, while the three hypothetical scenarios do not. They are the aggregates of the Current Program's Active and Semi-Passive managers and the Passive scenario is a third-party index fund. This skews the Current Program's return figures downward, while having no effect on the three hypothetical scenarios.

Based on this information, Staff concludes that the current Fixed Income Program reflects the Fixed Income Asset Class Target, while providing an acceptable risk-adjusted return profile when compared to the hypothetical scenarios. Staff further concludes that because of the reduced tracking error and comparable risk-adjusted return profile, the Semi-passive portion of the Fixed Income Program is operating efficiently and meeting the goals of reducing the volatility of the Fixed Income Program while providing risk-adjusted returns comparable to those of the Active manager aggregate. Additionally, Staff maintains its preference of risk-controlled, actively managed styles to passive styles based on the belief that structural inefficiencies will continue to exist in the bond market which should allow these styles to outperform passive styles.

#### Recommendation

Given the information presented and the stated goals of the Fixed Income Program, Staff concludes that the Program is operating efficiently and recommends no changes at this time.

## Minnesota State Board of Investment

International Equity Semi-Passive Management Review

May 2010

#### Background of International Equity Program & Semi-Passive Mandates

The SBI approved the addition of international equities as an asset class in the retirement funds in September 1991. It was felt that the case for international investing lay in three areas: increased investment opportunity, greater diversification, and potential for higher return. The first international equity manager, a passive developed markets portfolio (State Street Global Advisors) was funded in October 1992. Active developed markets mandates were funded in 1993, with the purpose of enhancing returns. The Board initially approved an allocation of 10% of the Basic Funds to international equity. In October 1995, the Board increased its long term international equity allocation from 10% to 15% of the Combined Funds, where it stands today.

In October 1995, the SBI approved an allocation of 2% of the Combined Funds to emerging markets. It was argued that the emerging markets offered the potential for higher growth and returns, with the diversification benefits of low correlation to the developed markets. Today, the SBI maintains a market cap weight in emerging markets as they are represented in the International Equity Program's asset class target, the MSCI All Country World ex US index (ACWI ex US). As of March 31, 2010, emerging markets represented approximately 22.7% of the MSCI ACWI ex US index (which equates to approximately 3.4% of the Combined Funds).

At inception in 1992, to gain the broadest market exposure while controlling the active risk of the overall program, the SBI's International Equity Program was created with a structure that required at least 50% passive management and up to 50% active management. In 1995, when emerging markets equity investments were added to the Program, it was decided that they should be entirely actively managed based on the belief that the inefficiencies in these markets should allow opportunities for active managers to add value. In 1999, due to the success to date of the SBI's developed and emerging markets active managers in adding value relative to their respective benchmark indexes, the Program's policy weights changed to at least 33% active management and at least 33% passive management. The SBI has sought to mitigate the risk of the active manager program by hiring a set of managers that are diversified by process (fundamental vs. quantitative) and by style (growth tilt vs. value tilt). Certain active managers will also take market capitalization bets relative to the index when they view that small, mid, or large capitalization securities offer better investment potential. All managers are permitted to hedge currency risk, but are not required to do so.

In September 2003, the SBI approved a policy allocation of up to 10% to semi-passive management for the International Equity Program, following a recommendation of the 2003 Asset Allocation Committee. While semi-passive management had been used for some time in both the Domestic Equity and Fixed Income Programs to add incremental value over passive management at lower levels of risk than active management, it was a new allocation to the International Equity Program. Previously, there had been few institutional product offerings in the international equity semi-passive, or enhanced index, space. Staff updated product information in 2003 and determined that, due to increased interest in international equity enhanced index mandates, there were now a sufficient number of product offerings with established track records and appropriate levels of asset under management.

In 2003, an optimization study, which proposed an allocation of 10% to semi-passive mandates (together with 65% to active mandates, and 25% to passive mandates), resulted in a modest increase in total program expected returns with a corresponding modest decrease in total program expected risk versus the expected return/risk profile of the total program's then current allocation of 66.7% to active mandates and 33.3% to passive mandates (see APPENDIX 1). The analysis was based on the historical performance of the SBI's active and passive managers and the track record of a potential semi-passive mandate. The 10% allocation was recommended as a starting point, with a view to possibly increasing the policy allocation in the future based on the success of the actual track record. Following the completion of several Domestic Equity Program searches, the SBI conducted a search and in June 2005 hired the following three semi-passive managers in the International Equity Program: AQR Capital Management LLC, Pyramis Global Advisors Trust Company (formerly Fidelity), State Street Global Advisors. These three managers remain current today, with an SBI portfolio inception date of July 2005.

In March 2007, based on the successful performance to date of the SBI's international equity semi-passive managers, an updated optimization study (see APPENDIX 2) and a need for program rebalancing flexibility, the Board established the current policy range for semi-passive, passive, and active management in the International Equity Program, as follows:

"No more than 33% to semi-passive management. At least 25% of the program will be passively managed and at least 33% will be actively managed."

As of March 31, 2010 the SBI's International Equity Program had an actual weight of 52.37% in active mandates (developed and emerging markets), 36.48% in passive mandates (developed markets), and 11.15% in semi-passive mandates (developed markets).

#### Analysis of International Equity Semi-Passive Mandates

# International Equity Semi-Passive Objectives: Enhance Program returns / Decrease Program risk

Background

Semi-passive mandates were added to the SBI's International Equity Program with the objective of adding incremental value over passive management at a slightly lower risk level than active management, thereby improving the total program's risk/return profile. The semi-passive inception date of July 2005 provides a relatively short time frame (4 <sup>3</sup>/<sub>4</sub> years, or 19 quarters) over which to conduct a meaningful analysis. In addition, this period of time includes the global financial crisis of 2008. Returns from July 2007 through December 2008 are significantly influenced by the series of market crises which unfolded over this time frame, further challenging a short-term analysis of the semi-passive program. It should also be noted that the performance of quantitative strategies was particularly hard hit by the rapid deleveraging in the fall of 2007 and the flight to quality in the fall of 2008. Two of the SBI's semi-passive managers employ quantitative strategies, and did not escape the consequences of these market environments. It may be instructive to examine the semi-passive program's returns over three distinct periods, pre financial crisis (July 2005-June 2007), during the financial crisis (July 2007-December 2008), and during the junk rally following the financial crisis (January 2009-December 2009), in addition to since inception, so that the analysis is not overwhelmed by the effects on returns of the unprecedented market events and their undue negative impact on quantitative strategies.

The targeted portfolio tracking error ranges and information ratio expectations for the international equity semi-passive portfolios, indicated in **Figure 6** below, are stated in the investment guidelines of each manager's account. Every portfolio has its own targeted tracking error range based on the historical range realized by the product in which the SBI is invested. The value of active management (vam), or excess return relative to the benchmark, expectations

indicated below are not explicitly stated in the guidelines, but are a product of the tracking error and information ratio expectations. The information ratio is the excess return (vam) divided by the standard deviation of the excess return (tracking error). The expectations for the international equity semi-passive managers (and the passive and active mandates) are as follows:

Figure 6.

	SBI Manager Investment Guidelines			
	Vam Expectations	Tracking Error	Info Ratio	
AQR	0.4 - 0.8	2-4%	> 0.2	
Pyramis	0.2 - 0.6	1-3%	> 0.2	
SSgA	0.2 - 0.8	1-4%	> 0.2	
Passive (Dev Mkt)	NA	< 0.60	Annual excess return >0.10%	
Active (Dev Mkt)	0.6 - 1.8	Varies by mgr (3-9%)	> 0.2	
Active (Emg Mkt)	1 - 2	5-10%	> 0.2	

While there is some overlap of vam expectations and targeted tracking error ranges between the active and semi-passive managers, on the whole, the SBI's semi-passive mandates take a different approach to portfolio management than the active mandates. The SBI's active portfolios are typically concentrated in a small number of holdings and take large bets across a fewer number of names, whereas the semi-passive portfolios hold many more stocks and take small bets across a large number of names. Active portfolios typically have broad risk controls in place (ex. plus or minus two times the benchmark weight for any country or sector, maximum individual position sizes, etc) allowing greater flexibility for active bets while ensuring diversification, whereas semi-passive portfolios tend to be close to benchmark neutral at the region, country, sector, market capitalization and/or fundamental characteristics level.

The SBI has a diverse set of semi-passive managers. Two are quantitative managers (AQR and SSgA), and one is a fundamental manager (Pyramis). Figure 7 shows the correlation of each manager's excess return (vam) over the longest time period over which they have return history in common. While AQR and SSgA's excess return shows a significant positive correlation, Pyramis' excess return has a low correlation to each of the other two managers, and therefore provides diversification benefits.

Figure 7. Correlation of VAM Matrix: From 2/2000 to 3/2010

Correlations are statistically significant at the 95% level when they are greater than 0.14962.

	AQR vam	Pyramis-Select vam	SSgA-Alpha vam
AQR vam	1		
Pyramis-Select			
vam	0.019	1	
SSgA-Alpha vam	0.627	0.185	1

#### Semi-Passive Program Historical Performance Analysis

The performance of the SBI's semi-passive managers has been mixed over the since inception time frame (July 2005 – March 2010). Therefore, we will examine the performance over distinct market environments during this period. We will seek to answer two questions to ensure that the semi-passive mandates have met their objectives: in aggregate, were the semi-passive mandates within the tracking error and information ratio expectations of the investment guidelines, and did they add incremental value over passive management at a slightly lower risk level than active management.

#### Pre-Financial Crisis (July 2005-June 2007)

The international equity markets saw strong returns in the second half of 2005 through mid-2007 (3Q05-2Q07). For the eight quarters ending June 2007, the MSCI Emerging Markets index returned 40.1%, the MSCI World ex US index (developed markets) returned 27.0%, and the MSCI ACWI ex US index (developed & emerging markets) returned 28.8%. As indicated in Figure 8, in aggregate, the semi-passive managers met their investment guidelines. They far exceeded their information ratio expectation at 0.95 vs. 0.20 and did so with a tracking error of 0.84%, below the range of 1-4% established for these mandates. These mandates added incremental value over passive, at a marginally higher risk level (tracking error) than the active developed markets managers, but at a significantly lower risk level than the active emerging markets managers. In other words, during this time frame, the SBI would have enjoyed the best risk/return trade-off by having all of its developed markets international equity investments in semi-passive mandates.

Figure 8.

Pre-Financial Crisis

7/05 - 6/07	VAM	Tracking Error	Information Ratio
Semi-Passive	0.95	0.84	1.14
Passive	0.15	0.14	1.09
Active Dev Mkt	0.30	0.72	0.42
Active Emg Mkt	1.44	1.91	0.75
Total	0.36	0.48	0.75

Financial Crisis (July 2007-December 2008)

After four years of strong returns, the second half of 2007 marked a turning point for both U.S. and international markets. Equity performance was strong at the beginning of the year, but concerns about the weakness of mortgage-related fixed income securities led to a liquidity crisis beginning in August 2007. Equities were sold en mass to raise liquidity to compensate for losses in fixed income investments. Value was suddenly seen as being too vulnerable to deteriorating credit and economic conditions. Stocks that were ranked highly by various valuation metrics performed poorly. Quantitative managers suffered from the rapid deleveraging and panic selling of highly levered quantitative equity hedge funds and broker proprietary trading desks. While the SBI's portfolios were not levered, they were impacted by the forced sell-off of equities. In 2007, two of the SBI's three semi-passive managers (AQR & SSgA), both quantitative managers with an emphasis on valuation factors, experienced their worst relative performance in any calendar year since inception (see APPENDIX 4 & 6) and to date. Their performance was almost fully offset by the third semi-passive manager (Pyramis), who has an investment process based on fundamental growth-oriented research and quantitatively optimized portfolio construction.

Over 2008, as the uncertainty around complex and highly illiquid mortgage assets increased making reasonable business transactions by many firms impossible, there was an unprecedented series of takeovers, bankruptcies, and government interventions followed by economic recession. These events represented the most significant financial dislocation since the Great Depression. Following the bankruptcy of Lehman Brothers in the fall of 2008, there was a flight to quality market environment that left value managers exposed. Investors dumped equities outright, without regard for price, growth, etc. One of the few things that did well was quality stocks and

high dividends. However, for most quantitative managers, the strength of their growth or quality factors could not offset the underperformance of valuation signals over this time. All three of the semi-passive managers underperformed somewhat during 2008 (see APPENDIX 4, 5 & 6).

The market declined significantly from July 2007 through December of 2008. For the six quarters ending December 2008, the MSCI Emerging Markets index returned -32.6%, the MSCI World ex US index (developed markets) returned -31.2%, and the MSCI ACWI ex US index (developed & emerging markets) returned -31.6%. As indicated in Figure 9, in aggregate, the semi-passive managers did not meet their information ratio expectation at -0.79 vs. 0.20, but, at 2.14%, remained within the targeted tracking error range of 1-4%. These mandates added significantly less value than passive (and every other category as well) at a higher risk level (tracking error) than the active developed markets managers, but at a lower risk level than the active emerging markets managers. The semi-passive mandates had the worst information ratio of all categories. During this time frame, the SBI would have enjoyed the best risk/return trade-off by having all of its developed markets international equity investments in passive and active mandates.

Figure 9.

Financial Crisis

7/07 - 12/08	VAM	Tracking Error	Information Ratio
Semi-Passive	-1.69	2.14	-0.79
Passive	0.24	0.68	0.36
Active Dev Mkt	0.55	1.46	0.38
Active Emg Mkt	-0.04	4.16	-0.01
Total	-0.05	0.88	-0.06

Junk Rally (January 2009-December 2009)

After six consecutive quarters of loss, where long-term equity valuations reached quarter-century lows, markets rebounded in the second quarter of 2008. Improving economic data and corporate earnings suggested an emergence from recession, tempered by high unemployment and the tentative flow of credit. The equity rally was led by low-quality, previously beaten-down stocks with poor fundamentals. Any focus on quality, earnings, or momentum was not rewarded. Investors referred to this period as the "dash for trash". In 2009, one of the SBI's fundamental semi-passive managers (Pyramis) experienced its worst relative performance in any calendar

year since inception (see APPENDIX 5) and to date. The portfolio's focus on quality growth and longer-term fundamentals was penalized, but was almost fully offset by the relative outperformance of the SBI's other two semi-passive managers – a reversal of the performance of the second half of 2007.

For the four quarters ending December 2009, the MSCI Emerging Markets index returned 78.5%, the MSCI World ex US index (developed markets) returned 33.7%, and the MSCI ACWI ex US index (developed & emerging markets) returned 41.5%. As indicated in **Figure 10**, in aggregate, the semi-passive managers did not meet their information ratio expectation at -0.05 vs. 0.20, but, at 1.13%, remained within the targeted tracking error range of 1-4%. These mandates added less value than passive (but lost less than active managers), but at a lower risk level than the active developed and emerging markets managers. From an information ratio perspective, the semi-passive mandates were less attractive than the passive option, but offered a better risk/return trade-off than active developed and emerging markets managers.

Figure 10.

Junk Rally

Active Emg Mkt

Julik Rally	ik Runy				
1/09 - 12/09	VAM	Tracking Error	Information Ratio		
Semi-Passive	-0.05	1.13	-0.05		
Passive	0.28	0.13	2.13		
Active Dev Mkt	-1.35	2.32	-0.58		

-0.69

Since Inception of Semi-Passive Mandates (July 2005 - March 2010)

3.19

-0.22

Total -0.21 1.28 -0.17

For the nineteen full quarters since inception of the international equity semi-passive program, the MSCI Emerging Markets index returned 15.5%, the MSCI World ex US index (developed markets) returned 4.7%, and the MSCI ACWI ex US index (developed & emerging markets) returned 6.5%. It is not surprising that over this time, a period of extreme market volatility and rotation, that the passive mandate has offered the highest excess return (vam) and the most attractive information ratio as seen in **Figure 11**. A passive portfolio seeks to own the market, taking no bets and expressing no biases. The performance of the semi-passive mandates since inception is not compelling – in fact it is the least attractive category from a risk/return, or

information ratio, perspective. However, in breaking down this performance over the market environments that occurred during this time frame, we have shown that the effects of the unprecedented financial crisis and resulting sell-off in equities overwhelmingly influenced these returns. Looking at the performance of the semi-passive managers in a less volatile time period, pre-financial crisis, one draws a different conclusion – they offered the best risk/return trade-off. Over this entire time period, the semi-passive program operated within its established risk range, however it did not achieve its intended excess return and information ratio objectives. It would be premature for the SBI to draw long-term conclusions regarding the international equity semi-passive program from such a short and volatile period of return history. As markets begin to normalize, over time the SBI should expect to see a contribution from the semi-passive program that is in line with its previously-demonstrated record of adding value in excess of the passive mandate at a lower risk level than the active (developed and emerging) mandates.

Figure 11.

Since Inception: Semi-Passive

7/05 - 3/10	VAM	Tracking Error	Information Ratio
Semi-Passive	-0.13	1.44	-0.09
Passive	0.22	0.39	0.56
Active Dev Mkt	0.21	1.47	0.14
Active Emg Mkt	0.19	2.99	0.06
Total	0.10	0.82	0.12

## Semi-Passive Program Optimal Policy Weight Range

As of March 31, 2010, the SBI's actual weight in semi-passive mandates was 11.15%. The current policy range, established in March 2007, allows for no more than 33% of the International Equity Program to be invested in semi-passive mandates, at least 25% in passive mandates, and at least 33% in active mandates. In addition, the program maintains a benchmark weight in developed and emerging markets as they are represented in the MSCI ACWI ex US (net) index. Given that the emerging markets mandates are actively managed only, what are the optimal policy ranges for active, semi-passive, and passive (developed markets) mandates within the SBI's International Equity Program?

In **Figure 11**, we have already established that over the time period since inception of the international equity semi-passive program (4 <sup>3</sup>/<sub>4</sub> years, beginning July 2005), passive management offered both the highest excess return (vam) as well as the best risk-return trade-off (information ratio). To look over a slightly longer period, we can use the history of the semi-passive managers prior to inception of the SBI's accounts to create a slightly longer return history for the semi-passive manager aggregate. If we combine the representative account return history plus the actual history of the SBI's semi-passive mandates, to create an equal-weighted combined return of these three portfolios, we get an aggregate (combined) return history going back almost nine years to February 2000 (the earliest time frame these manager's return histories have in common). Using this as a new semi-passive aggregate, **Figure 12** shows a comparison of the returns, vams (excess returns), tracking errors and information ratios of different active, semi-passive, and passive options.

Figure 12.

2/2000 - 3/2010	Return	VAM	Tracking Error	Information Ratio
100% Active (DM)	2.48	0.23	1.54	0.15
50% Active / 50% Passive	2.48	0.29	0.86	0.34
Actual: (52.4% Act / 35.5% Pass / 11.1% SP)	2.63	0.44	0.95	0.47
100% Passive (DM)	2.47	0.22	0.40	0.54
Current Policy: (25% Pass / 33% SP / 42% Act)	2.93	0.74	1.01	0.73
50% Active / 50% Semi-Passive	3.16	0.97	1.32	0.73
33.3% Active / 33.4% Semi-Passive / 33.3% Passive	2.93	0.74	0.91	0.81
100% Semi-Passive (DM)	3.84	1.63	1.64	0.99
50% Semi-Passive / 50% Passive	3.16	0.96	0.86	1.11

Over the time period of February 2000-March 2010 (approximately 9 years), semi-passive mandates have more attractive realized vam (excess return) and risk-return (information ratio) characteristics than either active or passive mandates on their own. However, this semi-passive return history includes performance that the SBI's accounts did not actually experience. In addition, they are returns of accounts that were not subject to the SBI's tobacco, Iran and Sudan restrictions, which are now in place. The results for the current actual SBI weights appear to be at the lower end of the information ratio scale, and the results for the current policy ranges, while better than the results for the actual weights, are not the most optimal. The category that has the highest realized excess return (vam) is the 100% Semi-Passive option, whereas the category that

realized the highest risk-return trade-off (information ratio) is the 50% Semi-Passive / 50% Passive option. Clearly, based on this data over this time period, including a higher weight to semi-passive mandates appears to be better.

#### **Conclusions & Recommendations**

The time period over which one measures performance and risk has a very significant impact on results. It is difficult to draw conclusions from either of the relatively short periods of returns that have been examined (July 2005-March 2010 and February 2000-March 2010), other than to say that over a longer market cycle, semi-passive mandates have historically looked attractive, on an absolute and risk-adjusted basis, relative to the active and passive options. In terms of the actual performance of the SBI's international semi-passive program since inception (July 2005 – March 2010), it has not achieved its objectives of adding incremental value over passive management at a slightly lower risk level than active management and thereby improving the risk-return profile of the SBI's International Equity Program. However, looking at the least volatile market environment during that since inception time period (Pre-Financial Crisis: July 2005-June 2007), the program met and exceeded those expectations.

The current International Equity Program's policy ranges for active, passive and semi-passive mandates allow sufficient flexibility to increase the semi-passive allocation from its current actual weight of 11.15% (as of 3/31/10) to up to 33%, which longer-term history in normal market environments suggests would be a more optimal weighting. However, the returns and risk of the International Equity Program's semi-passive mandates should be observed over a longer time period before recommending any changes to the semi-passive program such as new policy weight ranges. No other changes to the SBI's International Equity Program's semi-passive mandates are recommended at this time.

#### APPENDIX 1

#### 2003 ASSET ALLOCATION REVIEW - OPTIMIZATION

Staff conducted an optimization exercise to construct a quantitative basis for a recommendation to add enhanced EAFE management to the Program. As inputs, Staff used the historical excess returns (vam) and risk of excess returns (tracking error) for the Program's aggregate active and passive developed markets managers, along with the actual excess returns and risk of excess returns of one of the enhanced index managers (BGI) as a proxy for enhanced EAFE. In the "Portfolio Statistics" chart below, the optimization results show that the Program would be expected to gain 5 basis points of return, and lower the tracking error by 8 basis points, by adding a 10% allocation to Enhanced EAFE management.

Portfolio Statistics: Historical Data (cap Enhanced at 10%)					
	Proposed	Current			
Active EAFE (SBI Agg)	65.0%	66.7%			
Enhanced EAFE (BGI)	10%	0%			
Passive EAFE (SSgA)	25.0%	33.3%			
Expected Return	1.47	1.42			
Standard Deviation	2.32	2.4			

Inputs: Long Run Historical Returns, Risk, and Correlations							
	Vam	Tracking	Correlation	Correlation	Correlation		
		Error	w/Active	w/Enh	w/Passive		
Active EAFE Aggregate	2.01	3.45	1				
Enhanced EAFE (BGI)	1.06	1.49	0.04	1			
Passive EAFE (SSgA)	0.25	0.86	0.287	-0.012	1		

The correlations outlined in the previous "Inputs" chart demonstrate that over this time period, the Enhanced EAFE vam process was uncorrelated with the active and passive EAFE vam process. Vam correlations of zero are good. They indicate that when one set of managers added value, another set did not and vice versa. This gives program structure diversification. Adding Enhanced EAFE should therefore increase the risk/reward relationship, or information ratio, of the FE Program.

#### APPENDIX 2

#### 2007 SBI INTERNATIONAL EQUITY PROGRAM - OPTIMIZATION

Staff has developed an updated analysis through December 2006. The semi-passive input to the updated analysis was based upon an equal weighted composite of return histories of the three SBI semi-passive managers which included the SBI's actual performance and manager performance prior to being hired by the SBI. The analysis reveals that increasing the allocation to semi-passive could result in an increase expected return and decrease overall risk for the International Equity Program.

Optimization Inputs: Long-Run Historical Vam, Tracking Error, & Correlation of Vam							
	VAM	Trackin g Error	Vam Corr. w/ Active	Vam Corr. w/ Semi- Passive	Vam Corr. w/ Passive	Inception Date	
SBI Active DM Mgr Aggr	1.06	2.96	1			Nov-93	
SBI Semi-Passive DM Mgr Aggr (History + Actual)	2.59	1.53	0.301	1		Feb-00	
SBI Passive DM Mgr	0.22	0.73	0.008	-0.077	1	Oct-92	

Optimization Results: Based on Historical Monthly Return Data							
	Current	Proposed	Unconstrained				
Constraints:	Max 10% Semi-Passive / Min 25% Passive	Max 33% Semi-Passive / Min 25% Passive	None				
SBI Active DM Mgr Aggr.	41%	25.5%	0%				
SBI Semi-Passive DM Mgr Aggr. (History + Actual)	10%	33%	70.5%				
SBI Passive DM Mgr	49%	41.5%	29.5%				
Expected Vam	0.80	1.22	1.89				
Expected Tracking Error	1.32	1.06	1.08				

**APPENDIX 3** 

Periods Ending March, 2010

Name	3Q05 & 4Q05	CY 2006	CY 2007	CY 2008	CY 2009	av.		200			Since	
ACTIVE DEVELOPED MARKETS AGGREGATE	14.95	25.80	12.96	-42.76		1Y	2Y	3Y	4Y	5Y	inception	Inception date
ACTIVE DEVELOPED MARKETS AGGREGATE BENCHMARK	15.29	25.70	12.61		31.86	53.54	-7.73	-5.71	-0.04	4.53	6.05	October, 1993
	13.23	23.70	12.61	-43.52	33.66	55.94	-8.45	-6.08	-0.23	4.38	5.09	October, 1993
ACTIVE EMERGING MARKETS AGGREGATE	27.14	34.36	40.05	-52.99	77.26	70.04						
ACTIVE EMERGING MARKETS AGGREGATE BENCHMARK	26.42	32.17	39.89		1	79.04	-2.45	4.56	8.89	16.12	7.72	April, 1996
	20.42	32.17	39.89	-53.21	78.50	81.06	-1.98	5.37	9.00	15.79	7.77	April, 1996
SEMI-PASSIVE AGGREGATE	16.23	26.38	12.15	-44.41	33.59	55.00						
SEMI-PASSIVE AGGREGATE BENCHMARK	15.29	25.70	12.61		and desirable	55.86	-8.94	-6.62	-0.68		4.65	June, 2005
		25.70	12.01	-43.52	33.66	55.94	-8.45	-6.08	-0.23		4.79	June, 2005
PASSIVE AGGREGATE (SSgA)	15.23	25.96	12.90	-43.38	34.04	56.49	0.21	F 04				
PASSIVE AGGREGATE (SSgA) BENCHMARK	15.29	25.70	12.61	-43.52	33.66		-8.21	-5.81	0.05	4.61	6.60	September, 1992
		23.70	12.01	-43.32	33.00	55.94	-8.45	-6.08	-0.23	4.38	6.36	September, 1992
TOTAL INTERNATIONAL EQUITY	16.58	26.95	17.10	-45.34	41.17	60.36	-6.94	4.02	4.46		4	
TOTAL INTERNATIONAL EQUITY BENCHMARK	16.61	26.65	16.89	-45.47	41.47			-4.02	1.46	6.28	7.44	September, 1992
			10.05	43.47	41.47	60.93	-7.11	-4.07	1.41	6.18	6.78	September, 1992
MSCI ACWI ex-US FREE (GD thru 12/00, then ND)	16.61	26.65	16.66	-45.52	41.47	50.00		10000				
MSCI WORLD EX US (ND)	15.29	25.70	12.44		19	60.93	-7.18	-4.16	1.34	6.12	7.11	September, 1992
MSCI EMERGING MARKETS - FREE	26.42			-43.56	33.66	55.94	-8.49	-6.16	-0.29	4.33	6.50	September, 1992
	20.42	32.17	39.38	-53.33	78.50	81.06	-2.10	5.16	8.83	15.65	9.65	September, 1992

APPENDIX 4

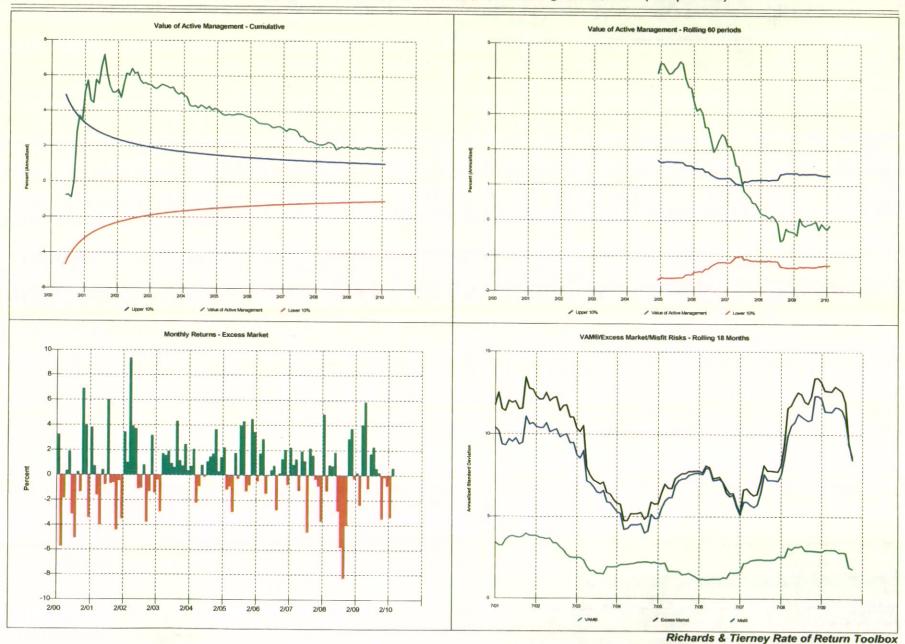
	Investment Manager: AQR CAPITAL MANAGEMENT						
			WORLD ex U				
	PORTF	OLIO	BENCH	TART TO STATE OF	VA	27	
	Quarterly	Annual	Quarterly	Annual	Quarterly	Annual	
	Return	Return	Return	Return	Return	Return	
2005 Q3	12.1		10.9		1.0		
Q4	4.5	17.1	3.9	15.3	0.5	1.6	
2006 Q1	9.2		9.3		-0.1		
Q2	-0.1		0.7	_	-0.8		
Q3	3.9		3.7		0.2		
Q4	10.5	25.2	10.1	25.7	0.3	-0.4	
2007 Q1	2.9		4.0		-1.0		
Q2	8.4		7.0		1.4		
Q3	0.6		2.7		-2.0		
Q4	-2.9	9.0	-1.5	12.6	-1.5	-3.2	
2008 Q1	-9.6	_	-8.7		-1.0		
Q2	0.7		-1.1		1.8		
Q3	-23.0		-20.7		-2.9		
Q4	-20.0	-44.0	-21.1	-43.5	1.5	-0.8	
2009 Q1	-13.1		-13.1		0.0		
Q2	26.4		25.9		0.4		
Q3	20.9		19.4		1.3		
Q4	2.5	36.0	2.4	33.7	0.0	1.7	
2010 Q1	1.6		1.3		0.2		

	PORTFOLIO	BENCHMARK	VAM
1 yr	59.0	55.9	2.0
2 yr	-7.4	-8.4	1.1
3 yr	-6.4	-6.1	-0.3
4 yr	-0.8	-0.2	-0.6
Since Inception	4.6	4.8	-0.2
STD. DEV.	21.5	21.2	

## **VAM® Graphs - MINNESOTA STATE BOARD OF INVESTMENT**

AQR ACTUAL vs AQR BMARK

Monthly from period ending February, 2000 to period ending March, 2010 (122 periods)



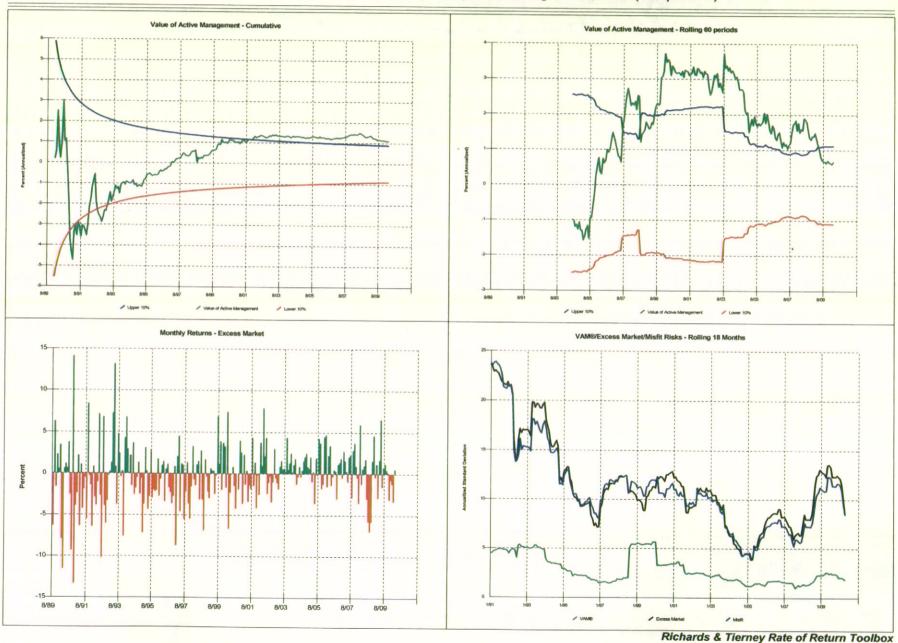
### APPENDIX 5

Invest	Investment Manager: PYRAMIS GLOBAL ADVISORS (Select Int'I)  Benchmark: MSCI WORLD ex U.S. Index (net)						
	PORTE		BENCH		VA	M	
	Quarterly	Annual	Quarterly	Annual	Quarterly	Annual	
	Return	Return	Return	Return	Return	Return	
2005 Q3	11.9		10.9		0.9		
Q4	3.5	15.8	3.9	15.3	-0.5	0.4	
2006 Q1	9.9		9.3		0.5		
Q2	0.2		0.7		-0.4		
Q3	3.3		3.7		-0.4		
Q4	11.5	26.8	10.1	25.7	1.2	0.9	
2007 Q1	4.5		4.0		0.5		
Q2	7.7		7.0		0.7		
Q3	4.2		2.7		1.5		
Q4	0.8	18.2	-1.5	12.6	2.3	5.0	
2008 Q1	-8.6		-8.7		0.1		
Q2	0.6		-1.1		1.7		
Q3	-22.0		-20.7		-1.7		
Q4	-21.9	-44.0	-21.1	-43.5	-0.9	-0.9	
2009 Q1	-12.9		-13.1		0.2		
Q2	23.6		25.9		-1.8		
Q3	18.4		19.4		-0.8		
Q4	2.2	30.2	2.4	33.7	-0.2	-2.6	
2010 Q1	1.2		1.3		-0.2		

	PORTFOLIO	BENCHMARK	VAM
1 yr	51.3	55.9	-3.0
2 yr 3 yr 4 yr	-10.2	-8.4	-1.9
3 yr	-5.8	-6.1	0.3
4 yr	0.2	-0.2	0.4
Since Inception	5.3	4.8	0.5
STD. DEV.	21.5	21.2	

## **VAM® Graphs - MINNESOTA STATE BOARD OF INVESTMENT**

PYRAMIS-SELECT ACTUAL vs PYRAMIS-SELECT BMARK
Monthly from period ending August, 1989 to period ending March, 2010 (248 periods)



APPENDIX 6

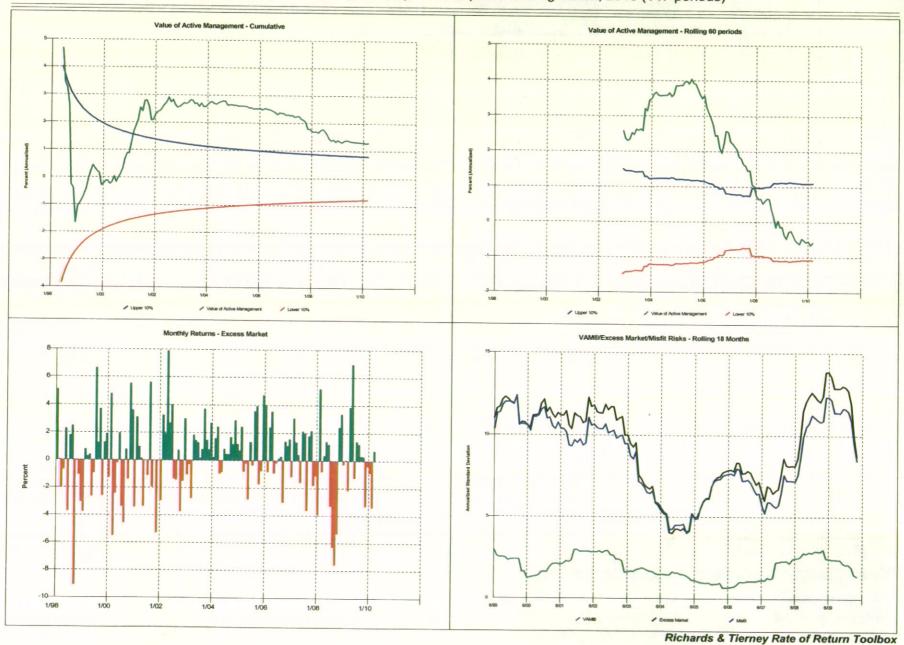
Investme	Investment Manager: STATE STREET GLOBAL ADVISORS (Int'l Alpha) Benchmark: MSCI WORLD ex U.S. Index (net)						
		PORTFOLIO BENCHMARK					
	Quarterly	Annual	Quarterly	Annual	VA Quarterly	Annual	
	Return	Return	Return	Return	Return	Return	
2005 Q3	11.2		10.9		0.2		
Q4	4.3	15.9	The second secon	15.3	0.3	0.6	
2006 Q1	10.1		9.3		0.7		
Q2	0.9		0.7		0.3		
Q3	2.9		3.7		-0.8		
Q4	11.1	27.1	10.1	25.7	0.9	1.1	
2007 Q1	3.9		4.0		-0.1		
Q2	7.3		7.0		0.3		
Q3	2.1		2.7	10.0	-0.6		
Q4	-4.1	9.1	-1.5	12.6	-2.7	-3.1	
2008 Q1	-9.2		-8.7		-0.5	_	
Q2	0.2		-1.1		1.3		
Q3	-23.2	45.0	-20.7	40.5	-3.2	0.0	
Q4 2009 Q1	-21.8	-45.3	-21.1	-43.5	-0.8	-3.2	
	-13.1 27.2		-13.1 25.9		0.1 1.1		
Q2 Q3	19.0		19.4		-0.3		
Q4	2.5	34.9	2.4	33.7	0.1	0.9	
2010 Q1	1.7	34.9	1.3	33.7	0.1	0.5	

	PORTFOLIO	BENCHMARK	VAM
1 yr	57.7	55.9	1.1
2 yr	-9.1	-8.4	-0.7
3 yr	-7.6	-6.1	-1.7
4 yr	-1.4	-0.2	-1.2
Since Inception	4.0	4.8	-0.7
STD. DEV.	21.9	21.2	

## **VAM® Graphs - MINNESOTA STATE BOARD OF INVESTMENT**

SSGA-ALPHA ACTUAL vs SSGA-ALPHA BMARK

Monthly from period ending January, 1998 to period ending March, 2010 (147 periods)



### APPENDIX 7

Investme	ent Manager					ΓE
			WORLD ex U			
	PORTE	1000	BENCH		VA	1000
	Quarterly	Annual	Quarterly	Annual	Quarterly	Annual
	Return	Return	Return	Return	Return	Return
2005 Q3	11.7		10.9		0.7	
Q4	4.1	16.2	3.9	15.3	0.1	0.8
2006 Q1	9.7		9.3		0.4	
Q2	0.4		0.7		-0.3	
Q3	3.4		3.7		-0.3	
Q4	11.0	26.4	10.1	25.7	0.8	0.5
2007 Q1	3.8		4.0		-0.2	
Q2	7.8		7.0		0.8	
Q3	2.3		2.7		-0.4	-
Q4	-2.0	12.1	-1.5	12.6	-0.6	-0.4
2008 Q1	-9.1		-8.7		-0.5	
Q2	0.5		-1.1		1.6	
Q3	-22.7		-20.7		-2.6	
Q4	-21.2	-44.4	-21.1	-43.5	-0.1	-1.6
2009 Q1	-13.0		-13.1		0.1	
Q2	25.7		25.9		-0.2	
Q3	19.4		19.4		0.0	
Q4	2.4	33.6	2.4	33.7	0.0	-0.1
2010 Q1	1.5		1.3		0.1	

	PORTFOLIO	BENCHMARK	VAM
1 yr	55.9	55.9	-0.1
2 yr	-8.9	-8.4	-0.5
3 yr	-6.6	-6.1	-0.6
4 yr	-0.7	-0.2	-0.4
Since Inception	4.7	4.8	-0.1
STD. DEV.	21.6	21.2	

# Minnesota State Board of Investment

Domestic Equity Semi-Passive Management Review

May 2010

#### Introduction

The Domestic Equity Program began in 1984 with an allocation to active management. Allocations to passive and semi-passive management were added to the Domestic Equity Program in 1995. Over time, there have been changes to the program, including its Asset Class Target and its overall range allocations for the three mandates. Today, the program continues to have allocations to active, passive and semi-passive management. This paper will review the role and purpose of semi-passive management and recommend changes, if any, for the domestic equity program.

#### **Domestic Equity Portfolio**

When the program was implemented in 1984, the only viable options were passive management and active management. Rather than managing to add value relative to a benchmark, passive management involves buying and holding securities that will closely follow the returns of a specified benchmark. The passive manager's primary job is to manage the tradeoff between transaction costs, tracking error and management fees. Active management entails buying and selling securities in an asset class with the intention of outperforming a specified benchmark. The State Board of Investment (SBI) expects to earn incremental return from active management as it offers the potential to outperform the asset class target at a higher level of risk. To outperform the benchmark, the securities held in an active portfolio may differ substantially from the composition of the benchmark. Active management offers the potential to outperform the specified benchmark, but the plan sponsor also assumes the risk that an active manager may underperform the benchmark. The program was 100% active in 1984.

From 1984 through June 1999, the program was benchmarked to the Wilshire 5000. In 1990, the Dynamic Completeness Fund (DCF) benchmark approach was incorporated into the domestic equity program to manage dispersion between the active manager portfolios and the asset class target. Each manager had a custom benchmark based on their investment style. The Semi-passive management allocation was added to the Domestic Equity Program in 1995 to manage assets to the DCF benchmark. Each quarter, the semi-passive managers would be given a list of stocks to "complete" the Wilshire 5000 benchmark to help control misfit risk. In late 2003, the Domestic Equity Program transitioned from the Wilshire 5000 benchmark to the Russell 3000 benchmark and discontinued the DCF benchmark approach. Since January 2004, the semi-passive managers have been benchmarked against the Russell 1000 Index.

#### Semi-Passive management overview

Semi-passive management strategies, also referred to as enhanced indexing, are designed to consistently achieve modest levels of excess return, by specifically addressing the risk of that excess return. They do not attempt to achieve excess return levels as high as those in traditional active strategies, but they are generally more consistent at generating modest excess returns.

The State Board of Investment (SBI) incorporated the active/semi-passive/passive strategy in 1995 taking into consideration the amount of assets in the domestic equity portfolio, return objectives, risk tolerance, and cost of active management and expense of trading. The total domestic equity program is expected to earn the market return.

#### Role/Expectations of Semi Passive Strategy

The active, semi-passive, and passive strategies are expected to provide diversification so that one manager segment does not determine the performance of the whole program. Currently, the program is structured with the following allocation and expectations:

Table 1. Total Domestic Equity Policy Allocation, Return and Risk Expectations as of March 31, 2010.

Mandate	Policy Range Allocation	3/31/10 Actual Allocation	Target Excess Return <sup>1</sup>	5 Year Target Tracking Error Ranges <sup>2</sup>
Active	0-50%	25%	+0.50 to 1.0%	2-13%
Semi-Passive	0-50%	33%	+0.15 to 0.30%	1-3%
Passive	25-100%	42%	-0.10%	0.1%
<b>Total DE Portfolio</b>		100%	+0.16 to 0.46%	

<sup>&</sup>lt;sup>1</sup>Nuveen analysis

The current policy range allocation for the Domestic Equity Program is wide to allow for long-term flexibility. At one time, the policy was one-third active, one-third semi-passive, one-third passive, and it was difficult to keep policy weights within a tight range. The current semi-passive allocation is approximately 33% of the overall program. The target excess return for the semi-passive managers is in between active and passive management. The top of its target excess return range is below the start of the range for the active managers.

The SBI's semi-passive aggregate matched the performance of its asset class target since inception of the strategy, and slightly underperformed the asset class target for five years ending March 31, 2010. From 1995-2004 a custom benchmark was used as the asset class target for each manager due to the role semi-passive managers had in the DCF program to control misfit risk. Since January 2004, the Russell 1000 has been the semi-passive aggregate's asset class

<sup>&</sup>lt;sup>2</sup> Tracking Error is the annualized standard deviation of excess return. Tracking error ranges vary by manager and depend on the manager's investment process and published Russell style mandate.

target. The tracking error for the semi-passive management group since inception is in line with the target range of 1-3%, but is slightly under the range for five years ending March 31, 2010. A low tracking error range reflects the goal to moderately outperform the Russell 1000 net of fees and expenses over long time periods.

Table 2. Total Domestic Equity Relative Return Net of Fees and Portfolio Risk as of March 31, 2010

Manager Segment	3 Yr Relative Return	3Yr Tracking Error	5 Yr Relative Return	5 Year Tracking Error	Since Inception Relative Return	Since Inception Tracking Error	Inception Dates
Active	-0.3	2.2	-0.7	1.9	-0.7	1.8	10/2003
Semi-Passive	-0.6	0.8	-0.3	0.7	0.0	1.1	1/1995
Passive	0.1	0.1	0.1	0.1	0.2	0.3	7/1995
Total DE Portfolio	-0.2	0.7	-0.3	0.6	-0.3	0.9	1/1984

As shown in Table 3 below, the semi passive segment has shown lower risk than active management, 0.67 versus 1.77, yet higher risk than passive management with a 0.09 standard deviation. This is to be expected as semi-passive management is a hybrid approach that incorporates characteristics from both passive and active management. In addition, there is low correlation between the semi-passive excess returns and active (0.08) and passive (0.03) excess returns.

Table 3. Total Domestic Equity Portfolio Correlation Matrix of Monthly Excess
Returns for the Period October 2003-March 2010

	Active Aggregate	Semi- Passive Aggregate	Passive Aggregate	Domestic Equity Portfolio
Active	1.00			
Semi-Passive	0.08	1.00		
Passive	-0.13	0.03	1.00	
Total Domestic Equity Portfolio	0.91	0.47	-0.06	
<b>Annualized Standard Deviation</b>	1.77	0.67	0.09	0.57

Performance has been in line with expectations. Recent markets have been challenging for all managers across all mandates. Calendar 2007 performance was an exceptionally poor year for the SBI's semi-passive managers, which underperformed the Russell 1000 by 2.6%. Quantitative fund managers, who use computer models to pick stocks, found the economic environment extremely difficult. There was massive de-leveraging of risk by investors which forced hedge funds and quantitative managers to sell their long positions to cover their short positions. Portfolios with investment themes such as value and quality, which have a record of paying off over the long term, suffered losses as investors liquidated similar portfolios.

Table 4. Semi-Passive Managers Calendar and Since Inception Returns Net of Fees

			Calend	ar Year		Since	
Portfolio	2004	2005	2006	2007	2008	2009	Inception <sup>1</sup>
BlackRock	11.7	7.6	15.6	2.2	-37.1	27.6	8.0
JPMorgan	11.7	4.7	16.5	5.1	-37.1	32.1	7.9
Mellon	11.7	6.1	16.5	2.5	-37.6	25.6	7.1
Semi Passive Aggregate	11.7	6.2	16.1	3.2	-37.2	28.5	7.7
Semi-Passive							
Benchmark	11.4	6.3	15.5	5.8	-37.6	28.4	7.7

<sup>&</sup>lt;sup>1</sup> Inception date: January 1, 1995

Table 5. Total Domestic Equity Portfolio Calendar Returns Net of Fees

		Calendar Year							
Portfolio	2004	2005	2006	2007	2008	2009			
Active Manager Aggregate	12.5	6.5	11.5	6.3	-40.5	32.3			
Active Manager Benchmark	12.3	6.0	15.8	4.2	-36.9	27.9			
Semi Passive Manager Aggregate	11.7	6.2	16.1	3.2	-37.2	28.5			
Semi Passive Manager Benchmark	11.4	6.3	15.5	5.8	-37.6	28.4			
Passive Aggregate	12.0	6.2	15.8	5.1	-37.1	28.2			
Passive Manager Benchmark	11.9	6.1	15.7	5.1	-37.3	28.3			
<b>Total Domestic Equity Portfolio</b>	12.2	6.4	14.5	4.9	-38.1	29.6			
Total Domestic Equity Portfolio Benchmark	11.9	6.1	15.7	5.1	-37.3	28.3			

#### Style Bias

The active and semi-passive benchmarks are plotted on the style graph, Attachment A. Combined, the style coordinate of the active and semi-passive segment match up with the style coordinate of the asset class target. This would be expected as the domestic equity portfolio is structured to minimize unwanted style bias (misfit risk) relative to its asset class target and maintain overall return potential.

#### **Current Semi-Passive Program**

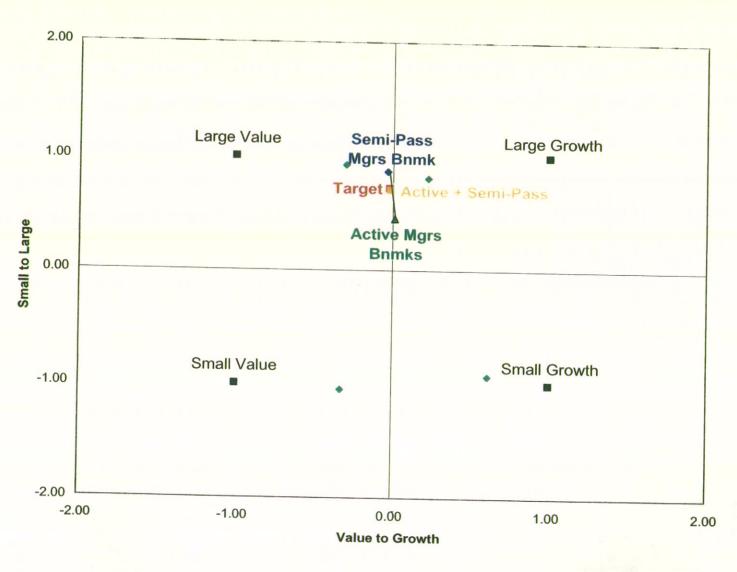
When the semi-passive mandate was funded in 1995, three managers were hired. They were BlackRock Institutional Trust Co., N.A. (formerly Barclay's Global Investors), J. P. Morgan Investment Management, and Mellon Capital Management (formerly Franklin Portfolio Associates). All three managers remain in the semi-passive program. As the assets under management increased and two managers experienced organizational changes, staff reviewed the opportunities to add diversification, capacity, and flexibility to the program. As a result of the evaluation, staff recommended hiring a fourth manager for the program. The recommendation was approved and INTECH Investment Management was added to the program on April 1, 2010.

The inclusion of a semi-passive strategy in the domestic equity portfolio has successfully provided asset class return net of fees to the domestic equity portfolio since inception with low tracking error. The allocation to this strategy continues to be within its policy range and has been successful in managing and controlling style bias or misfit risk.

#### Recommendation

Staff recommends to continue with the current semi-passive management strategy and structure at this time.

# Domestic Equity Managers Benchmark Style Coordinates at 12/31/2009



# Tab F

DATE: May 11, 2010

TO: Members, Investment Advisory Council

FROM: Stephanie Gleeson

SUBJECT: Consideration of implementing customized MSCI benchmarks in the

International Equity Program.

The retirement assets under the control of the SBI are subject to certain Board-mandated or legislatively-mandated investment restrictions including tobacco companies, and companies with activities in Sudan and Iran. In some cases, these companies represent large percentages of indexes against which the performance of the SBI's asset class investments and the individual investment managers are being benchmarked/measured, but in which the SBI may not invest. The SBI staff is considering whether or not to recommend the use of customized market indices as the asset class target, and as individual investment manager benchmarks.

The asset class target for the SBI's International Equity Program is the Morgan Stanley Capital International All Country World Index (MSCI ACWI) ex U.S. (net), which includes both developed and emerging markets outside of the United States. The SBI's active, semi-passive and passive developed markets managers are benchmarked to the MSCI World ex US index (net), which includes all developed markets outside of the United States. The SBI's active emerging markets managers are benchmarked to the MSCI Emerging Market index (net), which includes all emerging markets outside of the United States.

The SBI's Sudan and Iran restrictions disproportionately impact the international equity benchmarks since the vast majority of the restricted companies are foreign. The SBI's tobacco restrictions impact both the U.S. equity and international equity benchmarks. The Iran restrictions represent the largest proportion of the international equity indexes and these restrictions are concentrated in the Energy sector. The concentration of the Iran restrictions leaves managers with fewer options to replace a restricted stock with an un-restricted one in the same sector. Companies are added to or removed from the lists of restricted securities (tobacco, Iran, & Sudan) based on updated research the SBI frequently receives from its third-party vendors (RiskMetrics-Iran & tobacco lists, Genocide Intervention Network-Sudan list). Currently, managers may not purchase any Iran-restricted stocks. They will have to divest 50% of the names by July 31, 2010 and the remaining 50% by January 31, 2011. Additions to the Iran-restricted list, provided they remain on the list, will be divested according to a different schedule defined in the legislation. Therefore, managers have not yet felt the full impact of the Iran restrictions. The Sudan and tobacco restrictions have been fully implemented.

Over the one-year period ending March 31, 2010, the SBI's tobacco, Sudan and Iran restrictions represented on average approximately 6.6% of the market capitalization of the developed markets MSCI World ex US index (see **Appendix 1**), of which 5.3% were the Iran restrictions, 1.0% were the tobacco restrictions and 0.3% were the Sudan restrictions. Over the same time frame, these restrictions represented on average an additional 6.7% of the market capitalization of the emerging markets MSCI Emerging Markets index (see **Appendix 2**), of which 6.1% were the Iran restrictions, 0.6% were the tobacco restrictions and 0.04% were the Sudan restrictions. Over the one-year period ending March 31, 2010, these restrictions contributed approximately 2.9% to the MSCI World ex U.S. index 55.9% return, and contributed approximately 4.4% to the MSCI Emerging Markets index 81.1% return, per Factset attribution. A summary of the weight of these restrictions and their contribution to the index return in the developed and emerging markets indexes annually over the last ten years is included in **Appendix 3 & 4**, respectively.

#### Several issues need to be considered:

- 1.) The third-party provider of the Iran and tobacco restricted lists, RiskMetrics, recently merged with KLD, another provider of this type of research. The two entities are in the process of merging their research platforms. The most recent Iran-restricted list received by the SBI reflected a <u>dramatic</u> number of changes as a result of this merger. The RiskMetrics list included 24 names. The combined list has 37 names. In addition, the SBI has received questions from its investment managers about certain Iran-restricted securities, which to their knowledge do not have operations in Iran. The SBI would like to resolve what we view to be serious questions about RiskMetrics' research, such as what inclusion criteria are used, and how does RiskMetrics substantiate a company's business activities in Iran.
- 2.) Do the SBI's international equity investment managers want to be officially measured against an MSCI index customized for the SBI's investment restrictions?

#### Active Developed & Emerging Markets Managers

None of the ten active developed and emerging markets managers have a preference for being measured against a custom MSCI index. Several explicitly stated they did not want to be benchmarked to a custom MSCI index.

#### Semi-Passive Developed Markets Managers

Two of the three semi-passive developed markets managers expressed a preference for being benchmarked to a custom MSCI index. One manager indicated that in a low tracking error strategy, these restrictions will use a lot of the tracking error "budget". The second manager manages the portfolio regionally and would have fewer substitutions for the Iran restrictions in the energy sector which are highly concentrated in the European region. However, the third semi-passive manager explicitly stated that they did not want to be measured against a custom MSCI index. They feel that given the breadth of their research, alpha generation will not be impaired by the restrictions.

Passive Developed Markets Manager

The passive portfolio manager (SSgA) did not express a preference to manage the portfolio against a custom MSCI index. SSgA indicated that this is a policy decision for the SBI. If the portfolio is benchmarked to a standard (non-restricted) index, an unoptimized portfolio will have a predicted tracking error of +/-70 bps, and an optimized portfolio will have a predicted tracking error of +/- 40 bps (before consideration of withholding tax differences).

3.) The cost of MSCI custom indexes and the administrative issues involved have been investigated by the SBI, but need to be further clarified. MSCI would give the SBI a 50% reduction in price versus what an asset manager would be charged for custom indexes, however, the SBI would not be entitled to share that index data with its managers. If the SBI mandated the use of MSCI custom indexes, each manager would have to purchase the MSCI custom index data at twice the price, and almost every manager has indicated that they would bill the SBI for the cost. This would be a significant expense (potentially in excess of \$350,000). The SBI feels that at the very least, having the MSCI custom index data (while not necessarily mandating custom indexes as manager benchmarks) would provide the SBI with returns against which to evaluate manager and program performance in the event that these restrictions begin to have a significantly adverse effect on performance.

#### RECOMMENDATION:

The SBI staff recommends further analysis before recommending the use of custom MSCI indexes. The SBI staff would like to first clarify its concerns related to the research of RiskMetrics and its list of Iran-restricted securities, the largest SBI restriction by market capitalization. The SBI staff will also further clarify the costs and administrative issues associated with MSCI custom indexes. At this time, the Iran divestment schedule does not mandate full divestment of restricted securities until January 31, 2011 and therefore the SBI has some time to gain further clarity on these issues.

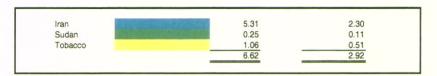
#### **APPENDIX 1**

Performance Attribution
MSCI World Ex-United States vs. MSCI World Ex-United States, U.S. Dollar
3/31/2009 to 3/31/2010

	Average	Total	Contribution	Contribution To Return
MNSBI Sector  Consumer Discretionary	Weight		To Return -USD	(Local)
Consumer Staples	9.31 9.30	54.44 54.18	5.29 4.82	4.35 3.88
Beverages	1.65	71.06	1.05	0.91
Food & Staples Retailing	2.40	43.71	1.11	0.72
Food Products	3.30	55.47	1.71	1.44
Household Products Personal Products	0.56	55.67	0.29	0.25
Tobacco	0.33 1.06	52.63 50.81	0.16	0.15
JAPAN	0.14	42.83	0.51 0.05	0.42
Japan Tobacco Inc.	0.14	42.83	0.05	0.04
SWEDEN	0.05	70.53	0.03	0.02
Swedish Match AB UNITED KINGDOM	0.05	70.53	0.03	0.02
British American Tobacco	0.88	51.17 56.11	0.43	0.36
Imperial Tobacco Group P	0.39	41.13	0.32	0.27
Energy	10.08	42.86	4.63	3.06
Energy Equipment & Services	0.49	114.60	0.42	0.38
AUSTRALIA CANADA	0.03	93.02	0.03	0.01
FRANCE	0.03	109.23	0.03	0.02
CGG Veritas	0.03	144.71	0.09	0.09
Technip S.A.	0.06	136.95	0.06	0.03
ITALY	0.08	122.86	0.07	0.07
Saipem S.p.A.	0.08	122.86	0.07	0.07
NETHERLANDS NORWAY	0.06	87.07	0.04	0.04
UNITED KINGDOM	0.06	40.18 82.04	0.01	0.00
[Unassigned]	0.13	129.27	0.03	0.03
Tenaris S.A.	0.08	117.25	0.07	0.07
Seadrill Ltd.	0.05	150.31	0.05	0.04
Oil & Gas	0.10	56.24	0.16	0.10
Oil Gas & Consumable Fuels AUSTRALIA	9.50	39.33	4.05	2.58
AUSTRIA	0.46	51.35 15.70	0.22	0.06
OMV AG	0.06	15.70	0.01	0.01
CANADA	2.35	56.79	1.34	0.68
FINLAND	0.02	38.96	0.01	0.01
FRANCE GREECE	1.21	21.91	0.33	0.27
HONG KONG	0.01	27.11 59.96	0.00	0.00
ITALY	0.62	27.19	0.23	0.01
JAPAN	0.22	1.23	0.01	-0.01
Idemitsu Kosan Co. Ltd.	0.02	3.33	0.00	-0.00
Cosmo Oil Co. Ltd.	0.02	-17.12	-0.00	-0.01
Showa Shell Sekiyu K.K. TonenGeneral Sekiyu K.K	0.02	-22.59	-0.00	-0.00
NIPPON OIL CORP NPV	0.03	-9.87 #N/A	-0.00 0.01	-0.01
Japan Petroleum Explorat	0.01	27.22	0.00	0.00
Inpex Corp.	0.06	6.85	0.01	-0.00
NORWAY	0.25	37.49	0.12	0.07
Statoil ASA Frontline Ltd.	0.25	37.09	0.11	0.06
PORTUGAL PORTUGAL	0.00	78.86 48.37	0.01	0.00
SPAIN	0.02	43.66	0.01	0.01
SWEDEN	0.02	57.14	0.01	0.00
UNITED KINGDOM	4.06	39.21	1.66	1.21
Tullow Oil PLC	0.14	65.94	0.08	0.07
Caim Energy PLC BG Group PLC	0.06	102.90	0.05	0.04
BP PLC	0.58 1.61	15.78 49.28	0.13	0.06
Royal Dutch Shell PLC (C	0.96	35.82	0.78 0.35	0.61 0.25
Royal Dutch Shell PLC (C	0.71	33.96	0.26	0.23
nancials	26.02	74.88	18.13	14.49
ealth Care dustrials	7.61	36.24	2.73	2.12
Aerospace & Defense	10.87	63.77	6.72	5.58
Air Freight & Logistics	0.67	62.04 66.83	0.42	0.34
Airlines	0.23	44.70	0.19	0.17
Building Products	0.52	82.14	0.37	0.08
Commercial Services & Supplies	0.47	49.12	0.25	0.17
Construction & Engineering	0.87	55.07	0.52	0.42
AUSTRALIA AUSTRIA	0.04	175.42	0.04	0.03
CANADA	0.00	13.89 93.85	0.00	0.00
DENMARK	0.00	93.85 45.19	0.05	0.03
FRANCE	0.35	54.97	0.21	0.01
GERMANY	0.03	128.63	0.03	0.03
JAPAN Chinada C	0.14	15.33	0.03	0.02
Chiyoda Corp.	0.00	88.21	0.00	0.00
Shimizu Corp.  JGC Corp.	0.02	2.54 59.93	0.00	-0.00 0.02

	Average   Weight   Return   To Return - USD   (Label No. 1)	Contribution		
MNSBI Sector				To Return (Local)
				0.00
		10.01	0.00	0.00
Obayashi Corp.	0.03	-6.54	-0.00	-0.01
NETHERLANDS			0.01	0.01
SPAIN				0.06
SWEDEN				0.04
				0.00
Electrical Equipment DENMARK	1000			0.64
FRANCE				0.04
10 Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				0.02
Alstom S.A.	0.14	23.12	0.05	0.02
Schneider Electric S.A.	0.22	84.85	0.16	0.15
GERMANY	0.02	-30.67	0.01	0.00
ITALY JAPAN	0.02	105.04	0.02	0.01
NORWAY	0.34	72.83	-0.01	0.19
SPAIN	0.02	8.38	0.01	-0.02 0.01
SWITZERLAND	0.39	60.59	0.23	0.01
Industrial Conglomerates	1.41	79.41	1.03	0.19
Machinery	1.90	82.17	1.37	1.16
Marine	0.32	56.26	0.19	0.16
Professional Services	0.34	56.94	0.19	0.16
Road & Rail	1.15	37.88	0.47	0.31
Trading Companies & Distributors	1.00	78.74	0.66	0.58
Transportation Infrastructure	0.34	44.82	0.16	0.12
Information Technology	4.97	52.91	2.69	2.14
Materials	10.57	76.30	7.15	5.56
Chemicals	3.10	64.13	1.89	1.56
AUSTRALIA	0.12	112.26	0.10	0.06
BELGIUM	0.09	66.49	0.06	0.05
CANADA	0.38	57.42	0.22	0.11
DENMARK FRANCE	0.04	54.67	0.02	0.02
Air Liquide S.A.	0.26	51.94	0.13 0.13	0.12
GERMANY	0.72	96.68	0.59	0.56
JAPAN	0.90	47.04	0.43	0.34
NETHERLANDS	0.18	62.04	0.11	0.10
NORWAY	0.06	102.78	0.05	0.04
SWITZERLAND	0.29	47.25	0.14	0.11
UNITED KINGDOM	0.05	80.50	0.04	0.03
Construction Materials Containers & Packaging	0.65	62.56	0.37	0.31
Metals & Mining	6.45	84.32	4.61	3.47
Paper & Forest Products	0.43	83.27	0.21	0.17
Telecommunication Services	5.63	31.76	1.97	1.47
Utilities	5.62	26.82	1.83	1.39
Electric Utilities	3.31	21.93	0.92	0.69
AUSTRALIA	0.01	47.20	0.00	0.00
AUSTRIA	0.03	7.71	0.01	0.00
CANADA	0.04	66.94	0.02	0.01
FINLAND	0.11	40.90	0.05	0.04
FRANCE	0.12	42.73	0.05	0.04
GERMANY	0.70	39.41	0.36	0.30
GREECE E.ON AG	0.70	39.41	0.36	0.30
HONG KONG	0.23	7.02	0.01	0.01
ITALY	0.39	42.93	0.17	0.15
JAPAN	0.99	6.50	0.05	-0.03
NEW ZEALAND	0.01	45.36	0.01	0.00
PORTUGAL	0.07	19.36	0.02	0.02
SPAIN	0.40	25.22	0.14	0.12
OLIVETTED! ALID	0.01	5.08	0.00	-0.00
SWITZERLAND	0.16	11.58	0.03	0.01
UNITED KINGDOM			0.16	0.13
UNITED KINGDOM Gas Utilities	0.41	35.59		
UNITED KINGDOM  Gas Utilities Independent Power Producers & Energy Traders	0.41 0.23	25.50	0.08	0.05
UNITED KINGDOM  Gas Utilities Independent Power Producers & Energy Traders Multi-Utilities	0.41 0.23 1.63	25.50 35.01	0.08 0.65	0.05 0.51
UNITED KINGDOM Gas Utilities Independent Power Producers & Energy Traders Multi-Utilities Water Utilities	0.41 0.23 1.63 0.04	25.50 35.01 35.96	0.08 0.65 0.02	0.05 0.51 0.01
UNITED KINGDOM Gas Utilities Independent Power Producers & Energy Traders Multi-Utilities	0.41 0.23 1.63	25.50 35.01	0.08 0.65	0.05 0.51

Holdings Data As Of MSCI World Ex-United States 4/01/2009 through 3/31/2010



SOURCE: FACTSET

#### **APPENDIX 2**

Performance Attribution
MSCI Emerging Markets vs. MSCI Emerging Markets, U.S. Dollar
3/31/2009 to 3/31/2010

		120 030		Contribution
MNSBI Sector	Average Weight	Total	Contribution To Return -USD	To Return (Local)
Consumer Discretionary	5.20	115.55	5.25	3.87
Consumer Staples	5.44	87.06	4.36	3.11
Beverages Food & Staples Retailing	1.18	92.61	1.01	0.70
Food Products	1.70	104.09	1.19 1.45	0.86 1.13
Household Products	0.38	58.63	0.23	0.15
Personal Products	0.32	91.90	0.25	0.19
Tobacco BRAZIL	0.58	33.44	0.22	0.08
Souza Cruz S.A.	0.09	96.95 96.95	0.08	0.05
INDIA	0.19	63.64	0.08	0.05
ITC Ltd.	0.19	63.64	0.12	0.09
KOREA KT&G Corp.	0.23	3.92	0.00	-0.06
MALAYSIA	0.23	3.92 14.51	0.00	-0.06
British American Tobacco (Malaysia) Bhd	0.07	14.51	0.01	0.00
Energy	15.35	69.95	11.89	7.82
Energy Equipment & Services Oil & Gas	0.09	134.67	0.09	0.09
Oil Gas & Consumable Fuels	0.05 15.21	42.64 69.69	0.07 11.73	0.06 7.68
BRAZIL	4.28	65.09	3.30	1.50
CHINA	2.19	66.83	1.65	1.54
Inner Mongolia Yitai Coal Co. Ltd. China Coal Energy Co. Ltd.	0.07	101.28	0.05	0.05
PetroChina Co. Ltd.	0.17	115.30 51.39	0.17	0.16
Yanzhou Coal Mining Co. Ltd.	0.11	248.92	0.55	0.51
China Shenhua Energy Co. Ltd.	0.47	95.60	0.44	0.15
China Petroleum & Chemical Corp.	0.48	31.37	0.28	0.26
HONG KONG	0.18	82.83 80.42	0.16	0.08
CNOOC Ltd.	0.89	72.06	0.72	0.69
Kunlun Energy Co. Ltd.	0.08	244.96	0.10	0.10
HUNGARY	0.15	129.65	0.16	0.12
Oil & Natural Gas Corp. Ltd.	1.31	61.93	0.98	0.69
Reliance Industries Ltd.	1.01	63.53	0.17	0.13
Bharat Petroleum Corp. Ltd.	0.03	57.86	0.75	0.01
Cairn India Ltd.	0.05	87.62	0.04	0.03
INDONESIA ISRAEL-DOMESTIC	0.22	273.45	0.28	0.21
KOREA	0.00	10.64 58.27	0.00	0.00
MALAYSIA	0.02	33.51	0.01	0.00
Petronas Dagangan Bhd POLAND	0.02	33.51	0.01	0.00
RUSSIA	0.19	81.82	0.16	0.09
Transnett	3.86 0.01	69.01 325.55	2.96	1.99
Tatneft	0.21	117.41	0.01	0.00
Rosneft	0.32	85.30	0.27	0.19
Lukoil Holdings Gazprom OAO	0.89	56.29	0.64	0.41
Gazprom Nett	1.90 0.05	56.64 121.76	1.32	0.82
Surgutneftegaz JSC	0.21	60.16	0.05	0.04
Surgutneftegaz Prf	0.10	154.96	0.12	0.09
NOVATEK JT STK CO SPON GDR REG S SOUTH AFRICA	0.17	224.96	0.21	0.20
Sasol Ltd.	0.79	46.82	0.46	0.11
TAIWAN	0.11	46.82 38.86	0.46	0.11
THAILAND	0.55	110.25	0.54	0.44
Banpu PCL	0.07	223.14	0.09	0.08
Thai Oil PCL IRPC PCL	0.04	127.11	0.04	0.03
PTT Aromatics & Refining PCL	0.04	182.93 257.27	0.05	0.04
PTT Exploration & Production PCL.	0.17	70.42	0.04	0.04
TURKEY	0.21	94.57	0.20	0.16
Financials	0.07 23.92	157.39 96.11	0.08	0.07
Banks	0.05	28.89	<b>21.61</b> 0.09	1 <b>6.52</b> 0.07
Capital Markets	0.79	41.45	0.48	0.28
EGYPT	0.08	112.86	0.07	0.07
EFG Hermes Holding S.A.E. Egypt Kuwait Holding Co. S.A.E.	0.04	118.33	0.04	0.03
KOREA	0.04	107.55 24.62	0.04	0.03
SOUTH AFRICA	0.05	114.71	0.05	0.03
TAIWAN Commercial Banks	0.28	40.83	0.18	0.13
Consumer Finance	16.57	111.02	16.15	12.40
Diversified Financial Services	0.06 1.56	96.34 118.39	0.07 1.67	0.05
Insurance	2.65	59.27	1.72	1.16
Real Estate Management & Development	1.84	46.57	0.99	0.79
Thrifts & Mortgage Finance Health Care	0.39	120.21	0.43	0.34
Industrials	7.00	57.17	1.32	0.84
Aerospace & Defense	0.14	<b>70.87</b> 63.27	<b>5.40</b> 0.12	3.86 0.06
Air Freight & Logistics	0.02	-16.96	0.01	-0.00
Airlines Building Control	0.28	89.39	0.24	0.19
			0.09	0.05
Building Products Commercial Services & Supplies	0.09	62.42		
Commercial Services & Supplies Construction & Engineering	0.04	21.98	0.01	0.01
Commercial Services & Supplies Construction & Engineering CHINA		21.98 54.71	0.01 1.09	0.01 0.74
Commercial Services & Supplies Construction & Engineering CHINA EGYPT	0.04 1.57 0.40 0.13	21.98	0.01	0.01
Commercial Services & Supplies Construction & Engineering CHINA	0.04 1.57 0.40 0.13	21.98 54.71 -3.02	0.01 1.09 0.06	0.01 0.74 0.05

INSBI Sector		Average Weight	Total Return	Contribution To Return -USD	To Ret
	ineering & Construction Co. Ltd.	0.05	40.13	0.03	0
Hyundai Engi Kumho Indus	ineering & Construction Co. Ltd.	0.10	29.64 -53.83	0.04	0
Daelim Indus		0.06	74.83	0.04	0
	gineering Co. Ltd.	0.09	150.87	0.11	0
	y Industries & Construction Co. Ltd		63.65	0.05	0.
	ing & Construction Corp.	0.10	96.83	0.08	0.
Hyundai Devi	elopment Co.	0.07	21.19	0.04	0
MALAYSIA MEXICO		0.10	76.09	0.08	0
POLAND		0.01	13.58	0.01	0
SOUTH AFRICA		0.14	69.50	0.13	0
TURKEY		0.01	92.26	0.01	0
Electrical Equipment		0.61	69.02	0.46	0
Industrial Conglomerates		1.93	89.94	1.71	1
Machinery		0.89	69.14	0.63	0
Marine		0.49	58.19	0.35	0
CHINA		0.22	102.40	0.22	0
KOREA		0.07	63.18	0.05	0.
MALAYSIA		0.10	19.11	0.03	0
MISC Bhd		0.00	#N/A	0.00	0
MISC (F)		0.10	#N/A 37.18	0.03 0.05	0.
Road & Rail		0.14	80.29	0.11	0.
Trading Companies & Distributors		0.27	86.61	0.22	0
Transportation Infrastructure		0.53	66.07	0.38	0
ormation Technology		12.91	79.70	9.92	7
terials		14.37	107.12	13.51	9.
Chemicals		2.34	87.99	1.97	1.
BRAZIL		0.07	128.24	0.08	0.
CHILE		0.12	44.89	0.08	0.
CHINA China BlueCh	namical I td	0.07	39.44 21.86	0.03	0.
	anghai Petrochemical Co. Ltd.	0.03	60.95	0.03	0
CZECH REPUBLIC	angine i circonomota co. Lia	0.00	5.24	0.00	0.
EGYPT		0.02	83.43	0.01	0
HONG KONG		0.08	43.53	0.03	0.
INDIA		0.02	-3.61	-0.00	-0.
ISRAEL-DOMESTIC		0.31	72.38	0.22	0.
KOREA		0.59	121.52	0.63	0.
MEXICO RUSSIA		0.05	338.56	0.09	0.
TAIWAN		0.10	78.86 78.32	0.07	0.
THAILAND		0.02	268.00	0.04	0.
TURKEY		0.01	74.28	0.01	0.
Construction Materials		1.17	71.88	0.93	0.
CHINA		0.20	23.03	0.11	0.
COLOMBIA		0.13	168.91	0.15	0.
INDIA		0.12	97.01	0.12	0.
INDONESIA		0.08	206.64	0.10	0.
MALAYSIA		0.02	87.73	0.02	0.
MEXICO SOUTH AFRICA		0.32	69.96 49.84	0.24	0.
TAIWAN		0.17	18.93	0.08	0.
THAILAND		0.06	203.06	0.08	0.
Siam Cement	(F)	0.06	203.06	0.08	0.
Containers & Packaging		0.03	156.69	0.04	0.
Metals & Mining		10.45	114.77	10.17	6.
Paper & Forest Products		0.38	153.01	0.39	0.
ecommunication Services		9.75	40.70	5.31	3.
lities Electric Utilities		3.74	60.09	2.51	1.
Gas Utilities		2.16 0.35	73.33 88.98	1.67 0.28	1.
HONG KONG		0.02	1.35	0.00	0.
INDIA		0.10	91.59	0.09	0.
GAIL (India) L	ld.	0.10	91.59	0.09	0.
INDONESIA		0.14	154.01	0.16	0.
KOREA		0.03	46.45	0.02	0.
MALAYSIA	CL I	0.05	18.56	0.01	0.
Petronas Gas		0.05	18.56	0.01	0.
Independent Power Producers & E	nergy Traders	1.00	31.60	0.45	0.
Multi-Utilities Water Utilities		0.06 0.16	23.96 48.40	0.02	0.0
dings Data As Of		100.00	81.08	81.08	58.
ISCI Emerging Markets 4/01/2009 through	1 3/31/2010				
	only & blue-green)	6.08		4.16	
Iran (includes blue Sudan (includes gree Tobacco		6.08 0.04 0.58		4.16 0.04 0.22	

SOURCE: FACTSET

Contribution to Return
MSCI World Ex-United States, U.S. Dollar
Holdings Data As Of: MSCI World Ex-United States 4/30/2003 through 4/27/2010

			12/31/1999 to 12/2	9/2000		12/29/2000 to 12/31/2001 12/31/2001 to 12/31/2				1/2002					
Ticker	MNSBi Sector Total	Average Weight 100.00	Total Contribution Return To Return -11.93 -11.93	Port. Total Return		Average Weight		Contribution To Return -21.18		Cumulative Port. Contribution To Return -30.58		Total Return -16.18	Contribution To Return -16.18	Cumulative Port. Total Return -41.81	Cumulative Por Contributio To Retur -41.8
	Iran Sudan Tobacco	3.50 0.15 0.27 3.92	-0.33 -0.01 0.07 -0.27		-0.33 -0.01 0.07 -0.27	4.38 0.19 0.42 4.98		-0.34 -0.10 0.05 -0.39		-0.60 -0.11 0.11 -0.60	4.83 0.14 0.65 5.62		-0.30 -0.02 0.13 -0.19		-0.8 -0.1 0.2 -0.6

	12/31/	2002 to 12/31	2003			12/31/	2003 to 12/31	/2004			12/31/2	2004 to 12/30	/2005			12/30/2	2005 to 12/29	/2006	
Average Weight 100.00	Total Return 40.15	Contribution To Return 40.15	Port.	Cumulative Port. Contribution To Return -18.45		Total Return 20.99	Contribution To Return 20.99	Port.		Average	Total Return 15.07	Contribution To Return 15.07	Cumulative Port. Total Return 13.53	Cumulative Port. Contribution To Return 13.53		Total	Contribution To Return 26.21	Cumulative Port. Total Return 43.29	Cumulativ Po Contribution To Retu
4.37 0.11 0.68 5.17		1.21 -0.02 0.21 1.40		0.08 -0.17 0.51 0.43	4.35 0.12 0.70 5.17		1.18 0.01 0.28 1.47		1.28 -0.19 0.90 1.99	5.18 0.15 0.85 6.17		1.02 0.05 0.17 1.24		2.49 -0.17 1.20 3.53	5.20 0.17 0.88 6.26		1.05 0.07 0.32 1.45		4. -0, 1. 5.

	12/29/2	2006 to 12/31/	2007			12/31/	2007 to 12/31	/2008	1		12/31/2	2008 to 12/31	/2009	1			Total		
Average Weight 100.00	Total Return 13.01	Contribution To Return 13.01	Port.	Cumulative Port. Contribution To Return 61.93		Total Return -43.23	Contribution To Return -43.23	Port. Total Return	Cumulative Port. Contribution To Return -8.07	Average	Total Return 34.26	Contribution To Return 34.26	Cumulative Port. Total Return 23.42	Cumulative Port. Contribution To Return 23.42		Total Return 23.42	Contribution To Return 23,42	Cumulative Port. Total Return 23.42	Cumulative Port. Contribution To Return 23.42
4.72 0.23 0.89 5.84		1.23 0.09 0.30 1.62	THE STREET	5.97 -0.08 2.38 8.28	5.53 0.27 0.94 6.74		-1.82 -0.12 -0.31 -2.25		1.57 -0.16 1.04 2.45	5.50 0.26 1.09 6.85		1.67 0.13 0.21 2.01		3.78 -0.09 1.60 5.29	4.76 0.18 0.74 5.67		3.78 -0.09 1.60 5.29		3.78 -0.09 1.60 5.29

MSCI Emerging Markets, U.S. Dollar Holdings Data As Of: MSCI Emerging Markets 4/30/2003 through 4/27/2010

				12/31/1	999 to 12/29/	2000			12/29/	2000 to 12/31/	2001			12/31/	2001 to 12/31/2	2002	
Ticker	MNSBI Sector Total		Average Weight 100.00	Total Return -25.19	Contribution To Return -25.19	Port.	Cumulative Port. Contribution To Return -25.19	Average Weight 100.00	Total Return -6.53	Contribution To Return -6.53	Port.	Cumulative Port. Contribution To Return -30.07		Total Return -10.76	Contribution To Return -10.76	Port.	Cumulative Port. Contribution To Return -37.59
	<b>有的人也有可能是</b> 由何 \$6	Iran Sudan Tobacco	0.85 0.05 0.66 1.55		-0.17 -0.01 -0.08 -0.26		-0.17 -0.01 -0.08 -0.26	1.78 0.08 0.80 2.66		0.21 -0.01 0.01 0.21		0.05 -0.02 -0.06 -0.03	2.38 0.07 0.89 3.35		0.60 0.00 0.04 0.64		0.64 -0.02 -0.01 0.61

	12/31/2	2002 to 12/31/	2003			12/31/2	003 to 12/31	/2004			12/31/	2004 to 12/30/2	2005			12/30/	2005 to 12/29/	2006	1
Average Weight 100.00	Total Return 52.41	Contribution To Return 52.41	Port.	Cumulative Port. Contribution To Return -4.89	Average Weight 100.00	Total Return 27.13	Contribution To Return 27.13	Port.	Cumulative Port. Contribution To Return 20.92	Average Weight 100.00	Total Return 30.56	Contribution To Return 30.56	Port. Total Return 57.87	Cumulative Port. Contribution To Return 57.87	Average Weight 100.00	Total Return 31.94	Contribution To Return 31.94	Port.	Cumulative Port. Contribution To Return 108.29
2.84 0.09 0.98		2.49 0.07 0.52		3.47 0.03 0.50	3.86 0.09 0.99		0.85 -0.04 0.38		5.26 0.00 1.02	4.01 0.06 0.86		1.96 -0.01 0.39		8.83 -0.01	6.27 0.05 0.74		1.81 0.01 0.24		13.46 0.00
3.90		3.08		4.01	4.94		1.18		6.28	4.93		2.34		10.54	7.06	-	2.06		15.97

	12/29/	2006 to 12/31/	2007	1		12/31/2	007 to 12/31/	/2008	1		12/31/	2008 to 12/31/	2009				Total		
Average Weight 100.00	Total Return 40.23	Contribution To Return 40.23	Cumulative Port. Total Return 192.10	Cumulative Port. Contribution To Return 192.10	Average Weight 100.00	Total Return -52.47	Contribution To Return -52.47	Port.	Cumulative Port. Contribution To Return 38.85	Average Weight 100.00	Total Return 78.37	Contribution	Port. Total ( Return 147.65	Cumulative Port. Contribution To Return 147.65	Average Weight 100.00	Total Return 147.65	Contribution To Return 147.65	Port.	Cumulative Port. Contribution To Return 147.65
7.30 0.06		2.05 0.03 0.22		20.93 0.03 3.74	7.24 0.01 0.64		-4.60 0.00 -0.17		5.35 0.01	4.51 0.00 0.68		1.93 0.00 0.11		11.47 0.02 2.97	4.11 0.06		11.47 0.02		11.47 0.02
7.96		2.29		24.69	7.90		-4.78		6.96	5.19		2.05		14.46	0.78 4.95		2.97 14.46		2.97 14.46

SOURCE: FACTSET

# Tab G

DATE: May 11, 2010

TO: Members, Investment Advisory Council

FROM: John Griebenow Michael McGirr

Staff has reviewed the following information and action agenda items:

1. Review of current strategy.

2. New investments with one existing private equity manager, CarVal, two existing resource managers, Encap and Sheridan, and one new resource manager, Energy Capital.

IAC action is required on the last item.

#### **INFORMATION ITEMS:**

#### 1) Review of Current Strategy.

To increase overall portfolio diversification, 20% of the Combined Funds are 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 will target funds that typically provide a current return and may have an equity component such as subordinated debt or mezzanine investments. Yield-oriented investments will provide diversification by including investments in the private equity, resource and real estate categories.

#### **ACTION ITEMS:**

1) Investment with an existing private equity manager, CarVal, in CVI Credit Value Fund A LP.

CarVal is seeking investors for a new \$2.0 billion private equity fund, the CVI Credit Value Fund A LP. This fund is a successor to one other private equity fund managed by CarVal, the CarVal Global Value Fund (the Global Value Fund was a successor to a proprietary pool of investment capital managed by CarVal for Cargill Inc.) The SBI has invested in the Global Value Fund. Like the other fund, this fund will seek to earn attractive returns through a portfolio of public and private investments.

In addition to reviewing the attractiveness of the CVI Credit Value Fund A LP. investment offering, staff has conducted reference checks, a literature database search and reviewed the potential investor base for the fund.

More information on CVI Credit Value Fund A LP. is included as **Attachment C**.

#### RECOMMENDATION:

Staff recommends a commitment of \$100 million, or 20% of CVI Credit Value Fund A LP, 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 CarVal upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on CarVal or reduction or termination of the commitment.

2) Investment with an existing resource manager, Encap, in Encap Energy Capital Fund VIII, L.P.

Encap is seeking investors for a new \$2.5 billion resource fund. This fund is a successor to seven other prior resource private equity funds managed by Encap. The SBI has invested in fund VII. Like the prior funds, this fund will seek to earn attractive returns through a diversified portfolio of resource investments.

In addition to reviewing the attractiveness of the Encap Energy Capital Fund VIII, L.P. investment offering, staff has conducted reference checks, a literature database search and reviewed the potential investor base for fund VIII.

More information on Encap Energy Capital Fund VIII, L.P. is included as **Attachment D**.

#### RECOMMENDATION:

Staff recommends a commitment of \$100 million, or 20% of Encap Energy Capital Fund VIII, L.P, 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 Encap upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Encap or reduction or termination of the commitment.

3) Investment with an existing resource manager, Sheridan, in Sheridan Production Partners II, L.P.

Sheridan is seeking investors for a new \$1.3 billion resource fund. This fund is a successor to one other resource fund managed by Sheridan. The SBI has invested in fund I. Like the prior fund, this fund will seek to earn attractive returns through a diversified portfolio of resource investments.

In addition to reviewing the attractiveness of the Sheridan Production Partners II, L.P. investment offering, staff has conducted reference checks, a literature database search and reviewed the potential investor base for fund II.

More information on Sheridan Production Partners II, L.P. is included as **Attachment E**.

#### **RECOMMENDATION:**

Staff recommends a commitment of \$100 million, or 20% of Sheridan Production Partners II, L.P, 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 Sheridan 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 Sheridan or reduction or termination of the commitment.

# 4) Investment with a new resource manager, Energy Capital, in Energy Capital Partners II, L.P.

Energy Capital is seeking investors for a new \$3.5 billion resource fund. This fund is a successor to one other resource fund managed by Energy Capital. Like the prior fund, this fund will seek to earn attractive returns through a diversified portfolio of resource investments.

In addition to reviewing the attractiveness of the Energy Capital Partners II, L.P. investment offering, staff has conducted reference checks, a literature database search and reviewed the potential investor base for fund II.

More information on Energy Capital Partners II, L.P is included as **Attachment F**.

#### **RECOMMENDATION:**

Staff recommends a commitment of \$100 million, or 20% of Energy Capital Partners II, L.P, 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 Energy Capital 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 Energy Capital or reduction or termination of the commitment.

#### Minnesota State Board of Investment

# Pooled Alternative Investments Combined Funds March 31, 2010

Combined Funds Market Value

\$42,319,341,891

Amount Available for Investment

\$2,632,436,690

	Current Level	Target Level	Difference
Market Value (MV)	\$5,83 <mark>1</mark> ,431,688	\$8,463,868,378	\$2,632,436,690
MV +Unfunded	\$8,74 <mark>9</mark> ,227,514	\$12,695,802,567	\$3,946,575,053

		Unfunded	
Asset Class	Market Value	Commitment	Total
Private Equity	\$3,45 <mark>5</mark> ,895,473	\$1,627,129,241	\$5,083,024,714
Real Estate	\$76 <mark>5</mark> ,703,459	\$274,300,767	\$1,040,004,227
Resource	\$54 <mark>6</mark> ,235,363	\$371,594,455	\$917,829,818
Yield-Oriented	\$1,06 <mark>3,</mark> 597,392	\$644,771,363	\$1,708,368,755
Total	\$5,831,431,688	\$2,917,795,826	\$8,749,227,514

#### ATTACHMENT B

# Minnesota State Board of Investment - Alternative Investments -

As of March 31, 2010

		As of March	31, 2010					
Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC**	Period Years
. Real Estate								
Blackstone								
Blackstone Real Estate V	100,000,000	86,444,362	53,395,059	23,165,945	13,555,638	-6.14	0.89	3.92
Blackstone Real Estate VI	100,000,000	46,483,065	22,070,113	46,623	53,516,935	-31.94	0.48	
Colony Capital								
Colony Investors III	100,000,000	100,000,000	5,205,100	167,834,385	0	14.73	1.73	12.2
CSFB								
CSFB Strategic Partners III RE	25,000,000	24,351,647	10,506,612	568,588	648,353	-34.49	0.45	4.7
CS Strategic Partners IV RE Lehman Brothers Real Esate Partners	50,000,000	41,097,283	25,841,330	474,802	8,902,717	-26.66	0.64	1.7
Lehman Brothers Real Estate Partners II	75,000,000	65 569 549	24 218 440	22 000 051				
Lehman Brothers Real Estate Partners III	150,000,000	65,568,548 61,754,328	34,218,640 32,087,240	22,008,951	9,431,452	-6.33	0.86	4.7
Prime Property Fund	40,000,000	40,000,000	188,221,143	0	88,245,672	-35.31	0.52	1.8
T.A. Associates Realty	40,000,000	40,000,000	100,221,143	U	0	5.59	4.71	28.4
Realty Associates Fund V	50,000,000	50,000,000	16,674,821	77,840,751	0	10.95	1.89	10.8
Realty Associates Fund VI	50,000,000	50,000,000	37,289,694	41,573,953	0	12.34	1.58	7.7
Realty Associates Fund VII	75,000,000	75,000,000	52,332,907	19,266,693	0	-1.43	0.95	5.3
Realty Associates Fund VIII	100,000,000	100,000,000	65,535,800	4,659,636	0	-15.27	0.70	3.7
Realty Associates Fund IX	100,000,000	0	0	0	100,000,000	N/A	N/A	1.6
JBS Trumbull Property Fund	42,376,529	42,376,529	222,325,000	0	0	6.56	5.25	27.9
Real Estate Total	1,057,376,529	783,075,762	765,703,459	357,440,327	274,300,767		1.43	
Resource								
Apache Corp III	30,000,000	30,000,000	4,001,730	54,596,956	0	12.17	1.05	22.2
EnCap Energy Capital Fund VII	100,000,000	42,351,968	39,548,460	1,234,124	57,648,032	12.17 -3.19	0.96	23.2
irst Reserve			37,340,400	1,234,124	37,048,032	-3.19	0.90	2.1
First Reserve Fund VIII	100,000,000	100,000,000	662,003	203,073,861	0	15.86	2.04	11.9
First Reserve Fund IX	100,000,000	100,000,000	343,000	299,472,865	0	48.12	3.00	8.9
First Reserve Fund X	100,000,000	100,000,000	67,749,649	116,762,523	0	39.34	1.85	5.4
First Reserve Fund XI	150,000,000	116,787,561	116,581,945	7,676,200	33,212,439	3.10	1.06	3.2
First Reserve Fund XII GP	150,000,000	57,363,074	44,049,596	15,865	92,636,926	-21.80	0.77	1.4
NGP Midstream & Resources	100,000,000	63,647,909	(0.745.177	1.024.274				
Natural Gas Partners IX	150,000,000	43,502,440	68,745,166 39,084,107	1,924,364 365,317	36,352,091	6.73	1.11	3.0
peridan Production Partners I	100,000,000	83,502,260	99,478,523		106,497,560	-7.83	0.91	2.4
immons	100,000,000	65,502,200	77,476,323	9,750,000	16,497,740	21.73	1.31	3.0
SCF-IV	47,626,265	47,626,265	3,562,413	156,756,576	0	24.52	3.37	12.0
Rowe Price	71,002,692	71,002,692	0	97,346,757	0	28.11	1.37	N//
CW Energy Partners XIV	100,000,000	71,250,334	62,428,772	21,787,266	28,749,666	12.01	1.18	2.9
Resource Total	1,298,628,957	927,034,503	546,235,363	970,762,673	371,594,455		1.64	
. Yield-Oriented								
arbon Capital	46,184,308	46,184,308	418,072	61,178,042	0	15.58	1.33	7.88
iticorp Mezzanine						15.50	1.55	7.04
Citicorp Mezzanine I	40,000,000	40,000,000	115,818	61,049,740	0	11.50	1.53	15.25
Citicorp Mezzanine III	100,000,000	88,029,296	4,996,357	123,930,438	0	15.11	1.46	10.4
LJ Investment Partners								
OLJ Investment Partners II	27,375,168	23,164,173	3,879,500	30,724,844	4,210,995	10.32	1.49	10.2
OLJ Investment Partners III	100,000,000	25,427,801	12,774,326	4,927,934	74,572,199	-22.69	0.70	3.7
old Hill Venture Lending		TOWN STORES						
Gold Hill Venture Lending Gold Hill 2008	40,000,000	40,000,000	31,033,413	16,787,877	0	5.73	1.20	5.5
6 Mezzanine Partners	25,852,584	8,789,879	8,969,561	0	17,062,705	2.58	1.02	1.7
S Mezzanine Partners II	100 000 000	100 000 000	24.540.000					
S Mezzanine Partners III	100,000,000 75,000,000	100,000,000	24,569,027	107,381,881	0	7.38	1.32	10.08
S Mezzanine Partners 2006 Institutional	100,000,000	75,000,000 73,999,888	25,776,674	61,227,636	0	5.51	1.16	6.72
S Mezzanine Partners V	150,000,000	58,483,987	44,752,040 62,756,418	19,747,828	26,000,112	-7.07	0.87	3.98
CR Capital Partners	80,000,000	69,589,422	360,546	10,914,357	91,516,013	14.54	1.26	2.44
Mezzanine Fund II	25,000,000	25,000,000	40,488	12,632,685	10,410,578	10.82	1.54	10.38
erit Capital Partners (fka William Blair)		22,000,000	40,400	12,052,065	U	-12.96	0.51	14.50
'illiam Blair Mezzan. Cap. Fd. III	60,000,000	56,958,000	12,270,129	91,003,489	3,042,000	15.03	1.81	10.25
erit Mezzanine Fund IV	75,000,000	65,616,758	59,788,691	13,420,440	9,383,242	4.46	1.12	5.29
erit Mezzanine Fund V	75,000,000	0	0	0	75,000,000	N/A	N/A	0.28
rit Energy Partners					A STATE OF THE STA		5,44.6	-,20
anid firm and D	24,000,000	24,000,000	60,560,490	94,910,710	0	24.96	6.48	13.75
	** ***	50,000,000	184,440,427	197,301,868	0	32.50	7.63	11.42
erit Energy Partners C	50,000,000							8.85
ferit Energy Partners C ferit Energy Partners D	88,000,000	70,938,303	152,360,331	136,565,965	17,061,697	25.55	4.07	0.02
lerit Energy Partners C lerit Energy Partners D lerit Energy Partners E	88,000,000 100,000,000		152,360,331 57,632,086	136,565,965 22,657,983	17,061,697 60,016,803	25.55 16.84	2.01	5.46
erit Energy Partners C lerit Energy Partners D lerit Energy Partners E lerit Energy Partners F	88,000,000	70,938,303						5.46
ferit Energy Partners C ferit Energy Partners D ferit Energy Partners E ferit Energy Partners F udential Capital Partners	88,000,000 100,000,000 100,000,000	70,938,303 39,983,197 38,959,831	57,632,086 31,784,902	22,657,983 3,327,931	60,016,803	16.84	2.01	
ferit Energy Partners B ferit Energy Partners C ferit Energy Partners D ferit Energy Partners E ferit Energy Partners F ferit Energy Partners F fudential Capital Partners fudential Capital Partners I fudential Capital Partners I fudential Capital Partners II	88,000,000 100,000,000	70,938,303 39,983,197	57,632,086	22,657,983	60,016,803	16.84	2.01	5.46

# Minnesota State Board of Investment - Alternative investments -

As of March 31, 2010

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC**	Period Years
Quadrant Real Estate Advisors								
Institutional Commercial Mortgage Fd V	37,200,000	37,200,000	12,964,445	46,537,626	0	8.07	1.60	10.6
Summit Partners Summit Subordinated Debt Fund I	20,000,000	18,000,000	82,791	31,406,578	2,000,000	30.55	1.75	16.0
Summit Subordinated Debt Fund II	45,000,000	40,500,000	3,100,551	84,344,930	4,500,000	56.28	2.16	12.6
Summit Subordinated Debt Fund II	45,000,000	41,115,965	27,802,897	19,320,888	3,884,035	8.40	1.15	6.1
Summit Subordinated Debt Fund IV	50,000,000	3,250,000	3,250,000	0	46,750,000	0.00	1.00	2.0
T. Rowe Price	55,800,931	55,800,931	360,000	54,744,943	0	-4.28	0.99	N/A
TCW/Crescent Mezzanine	33,800,931	33,800,931	300,000	54,744,545	V	4.20	0.77	147
TCW/Crescent Mezzanine Partners III	75,000,000	68,835,264	12,853,414	141,348,082	6,164,736	36.26	2.24	9.0
Windjammer Capital Investors	73,000,000	00,033,207	12,000,111	1 11,5 10,002	3,131,133	20.20		
Windjammer Mezzanine & Equity Fund II	66,708,861	51,821,574	28,931,807	41,687,969	14,887,287	7.47	1.36	10.0
Windjammer Senior Equity Fund III	75,000,000	41,631,049	45,826,831	4,192,368	33,368,951	8.79	1.20	4.2
Yield-Oriented Total	2,251,121,852	1,594,379,785	1,063,597,392	1,733,805,729	644,771,363		1.75	
V. Private Equity								
Adams Street Partners								
Adams Street VPAF Fund I	3,800,000	3,800,000	41,239	9,440,295	0	13.23	2.50	21.8
Adams Street VPAF Fund II	20,000,000	20,000,000	52,954	37,988,511	0	24.09	1.90	19.3
Advent International GPE VI-A	50,000,000	13,250,000	12,621,065	1,000,000	36,750,000	2.61	1.03	2.0
Affinity Ventures	30,000,000	13,230,000	12,021,003	1,000,000	30,730,000	2.01	1.05	2.0
Affinity Ventures IV	4,000,000	2,711,847	1,109,249	735,493	1,288,153	-16.89	0.68	5.7
Affinity Ventures V	5,000,000	2,000,000	1,710,276	115,993	3,000,000	-9.29	0.91	1.7
Banc Fund	5,000,000	2,000,000	1,110,210	,,,,,	212201000		5121	
Banc Fund VII	45,000,000	45,000,000	23,307,750	812,725	0	-18.94	0.54	5.0
Banc Fund VIII	98,250,000	15,720,000	15,780,758	0	82,530,000	0.63	1.00	1.9
Blackstone	70,230,000	15,720,000	12,100,120	_				
Blackstone Capital Partners II	47,271,190	47,271,190	4,291,061	95,379,217	0	34.06	2.11	16.
Blackstone Capital Partners IV	70,000,000	68,524,319	48,432,344	102,708,433	1,475,681	40.65	2.21	7.
Blackstone Capital Partners V	140,000,000	112,296,167	81,567,246	5,787,541	27,703,833	-10.97	0.78	4.
Blackstone Capital Partners VI	100,000,000	0	0	0	100,000,000	N/A	N/A	1.6
BLUM Capital Partners	100,000,000				(acodescenteres)			
Blum Strategic Partners I	50,000,000	49,158,307	0	99,450,576	841,693	12.68	2.02	11.
Blum Strategic Partners II	50,000,000	40,185,889	11,041,582	73,919,825	9,814,111	22.76	2.11	8.
Blum Strategic Partners III	75,000,000	74,591,097	34,251,074	46,801,594	408,903	2.47	1.09	4.
Blum Strategic Partners IV	150,000,000	137,030,203	116,689,758	8,262,263	12,969,797	-5.26	0.91	2.
CVI Global Value Fund	200,000,000	190,000,000	198,596,361	2,087,004	10,000,000	2.66	1.06	3.
	200,000,000	190,000,000	170,370,301	2,007,004	10,000,000	2.00	1.00	
Chicago Growth Partners (William Blair) William Blair Capital Partners VII	50,000,000	48,150,000	8,359,661	60,347,764	1,850,000	9.10	1.43	9.
	50,000,000	47,441,998	37,654,931	15,789,143	2,558,002	5.88	1.13	4.
Chicago Growth Partners I	60,000,000	15,253,064	14,880,859	0	44,746,936	-3.82	0.98	2.
Chicago Growth Partners II	60,000,000	13,233,004	14,880,837	v	44,740,230	5.02	0170	
Coral Partners	15 000 000	15 000 000	1,021,256	13,538,879	0	-0.72	0.97	15.
Coral Partners IV	15,000,000	15,000,000	1,245,224	7,748,717	0	-6.24	0.60	11.
Coral Partners V	15,000,000	15,000,000	1,243,224	7,740,717	Ü	0.24	0.00	
Court Square Capital	100 000 000	80,084,837	24,203,914	129,861,886	19,915,163	27.72	1.92	8
Court Square Capital Partners	100,000,000			1,902,382	93,045,251	-8.76		
Court Square Capital Partners II	175,000,000	81,954,749	68,075,508	1,902,362	75,045,251	0.70	0.05	
Crescendo	25 000 000	25,000,000	1,429,604	9,321,908	0	-17.60	0.43	11
Crescendo III	25,000,000			5,627,888	0	-9.82		10
Crescendo IV	101,500,000	101,500,000	41,699,157	3,027,000	U	- 7.02	0.47	10.
CSFB/ DLJ	125 000 000	120 572 572	76,316,079	168,508,995	4,427,428	18.87	2.03	9
DLJ Merchant Banking Partners III	125,000,000	120,572,572		148,452,792	6,575,552	22.80		
DLJ Strategic Partners	100,000,000	93,424,448	18,312,720	119,008,165	15,409,468	37.05		6
CSFB Strategic Partners II-B	100,000,000	84,590,532	36,955,340		1,288,457	6.56		
CSFB Strategic Partners III VC	25,000,000	23,711,543	18,004,230	9,742,629	21,481,334	1.46		4
CSFB Strategic Partners III-B	100,000,000	78,518,666	79,718,777	2,265,414	51,442,884	7.67		2
CS Strategic Partners IV-B	100,000,000	48,557,116	49,536,968	4,556,353		1.09		
CS Strategic Partners IV VC	40,500,000	21,802,697	22,117,876	161,361	18,697,303			
CVC European Equity Partners V	135,309,941	32,019,157	26,921,237	3,629,900	103,290,784	-4.31		
Diamond Castle Partners IV	100,000,000	74,238,865	53,603,660	13,465,525	25,761,135	-5.12		
OSV Partners IV	10,000,000	10,000,000	32,941	39,196,082	0	10.61		
EBF Merced Partners II	75,000,000	63,768,881	70,023,447	18,750,000	11,231,120	19.33		
Elevation Partners	75,000,000	57,896,969	42,102,030	14,244,712	17,103,031	-2.13	0.97	4
Fox Paine Capital Fund				45 207 041	4.501.867	17.40	1.46	0
Fox Paine Capital Fund II	50,000,000	45,408,133	21,096,705	45,397,941	4,591,867	17.48	1.46	9
GHJM Marathon Fund		20.051.005		£2.001.102	040.000	0.44	1.66	10
GHJM Marathon Fund IV	40,000,000	39,051,000	6,595,894	53,984,488	949,000	9.44		
GHJM Marathon Fund V	50,000,000	47,885,516	46,087,470	13,636,048	2,114,484	8.16	1.25	5
Golder, Thoma, Cressey, Rauner				CE CASS DANS	Sel			
Golder, Thoma, Cressey & Rauner Fund IV	20,000,000	20,000,000	169,931	42,160,456	0	25.01		
Golder, Thoma, Cressey & Rauner Fund V	30,000,000	30,000,000	697,836	53,955,241	0	11.01	1.82	13
GS Capital Partners					140			1,5
GS Capital Partners 2000	50,000,000	50,000,000	23,100,656	82,563,958	0	23.15		
GS Capital Partners V	100,000,000	66,390,364	88,251,731	41,406,524	33,609,636	18.96		
The state of the s	100,000,000	39,166,994	28,307,279	2,082,010	60,833,006	-11.19	0.78	3.

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

As of March 31, 2010

		As of Marc	h 31, 2010					
Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR	MOIC**	Period Years
GTCR Golder Rauner								
GTCR VI	90,000,000	90,000,000	7,368,697	75,082,762	0	-2.95	0.92	11.75
GTCR VII	175,000,000	159,249,989	3,507,524	383,622,078	15,750,011		2.43	10.14
GTCR IX	75,000,000	37,631,920	26,742,476	4,741,730	37,368,080		0.84	3.75
Hellman & Friedman						202000	0.0	
Hellman & Friedman Capital Partners IV	150,000,000	133,967,494	23,729,389	351,026,979	16,032,506	34.84	2.80	10.25
Hellman & Friedman Capital Partners V	160,000,000	143,397,351	145,683,943	147,579,270	16,602,649		2.05	5.33
Hellman & Friedman Capital Partners VI	175,000,000	124,106,077	116,638,590	7,647,229	50,893,923		1.00	3.00
Hellman & Friedman Capital Partners VII	50,000,000	0	0	0	50,000,000		N/A	0.94
Kohlberg Kravis Roberts					100000000000000000000000000000000000000			0.5.7
KKR 1987 Fund	145,373,652	145,373,652	1,436,573	396,121,354	0	8.71	2.73	22.35
KKR 1993 Fund	150,000,000	150,000,000	580,036	308,173,269	0		2.06	16.28
KKR 1996 Fund	200,000,000	200,000,000	22,244,696	342,386,524	0		1.82	13.58
KKR Millennium Fund	200,000,000	200,000,000	169,698,653	162,500,900	0		1.66	7.31
KKR 2006 Fund	200,000,000	160,811,528	141,568,699	13,323,902	39,188,472	-2.62	0.96	3.51
Lexington Capital Partners			,,	15,525,702	33,100,472	-2.02	0.90	3.31
Lexington Capital Partners VI-B	100,000,000	81,679,099	56,039,012	19,649,152	18,320,901	-3.98	0.02	4.26
Lexington Capital Partners VII	100,000,000	1,468,705	1,468,705	586			0.93	4.26
RWI Ventures	100,000,000	1,400,705	1,400,703	380	98,531,295	0.06	1.00	0.80
RWI Ventures I	7,603,265	7,603,265	1 (12 012	4 025 000				2.22
RWI Group III	616,430		1,613,813	4,025,809	0	-14.49	0.74	3.75
Sightline Healthcare	010,430	616,430	125,281	330,192	0	-15.25	0.74	3.75
Sightline Healthcare Fund II	10 000 000	10,000,000		100220 200				
Sightline Healthcare Fund III	10,000,000	10,000,000	1,256,828	4,883,002	0	-6.85	0.61	13.08
	20,000,000	20,000,000	6,333,136	3,620,472	0	-9.13	0.50	11.19
Sightline Healthcare Fund IV	7,700,000	7,365,988	3,001,582	4,008,034	334,012	-1.87	0.95	6.51
Silver Lake Partners								
Silver Lake Partners II	100,000,000	88,740,757	76,609,181	32,954,779	11,259,243	6.54	1.23	5.75
Silver Lake Partners III	100,000,000	36,433,533	35,243,326	984,960	63,566,467	-0.88	0.99	3.00
Split Rock Partners								
Split Rock Partners	50,000,000	33,381,821	27,757,241	428,377	16,618,179	-6.73	0.84	4.91
Split Rock Partners II	60,000,000	7,560,000	6,135,288	0	52,440,000	-26.54	0.81	1.92
Summit Partners								
Summit Ventures II	30,000,000	28,500,000	166,366	74,524,292	1,500,000	28.82	2.62	21.88
Summit Ventures V	25,000,000	24,125,000	572,634	32,460,571	875,000	8.00	1.37	12.00
T. Rowe Price	849,215,177	849,215,177	63,988,071	838,930,706	0	7.69	1.06	N/A
Thoma Cressey								
Thoma Cressey Fund VI	35,000,000	33,915,000	12,373,986	15,876,781	1,085,000	-2.43	0.83	11.61
Thoma Cressey Fund VII	50,000,000	50,000,000	22,673,302	61,861,701	0	23.01	1.69	9.60
Thoma Cressey Fund VIII	70,000,000	66,832,574	77,183,335	0	3,167,426	5.11	1.15	3.92
Thomas, McNerney & Partners								5152
Thomas, McNerney & Partners I	30,000,000	26,925,000	15,632,085	10,504,694	3,075,000	-0.98	0.97	7.40
Thomas, McNerney & Partners II	50,000,000	24,625,000	18,842,040	768,885	25,375,000	-12.32	0.80	3.75
Varde Fund IX	100,000,000	100,000,000	125,584,700	0	0	16.72	1.26	
Vestar Capital Partners		,,	125,501,700	0	0	10.72	1.20	1.77
Vestar Capital Partners IV	55,000,000	52,438,110	25,719,488	60,796,212	2,561,890	13.67	1.65	10.29
Vestar Capital Partners V	75,000,000	57,386,789	62,782,511	5,321,047	17,613,211	6.75	1.19	
Warburg Pincus	and the second	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	02,702,511	3,321,047	17,013,211	0.73	1.19	4.28
Warburg, Pincus Ventures	50,000,000	50,000,000	449,773	255,993,050	0	40.21	6.12	16.06
Warburg Pincus Equity Partners	100,000,000	100,000,000	18,382,468		0	49.21	5.13	15.25
Warburg Pincus Private Equity VIII	100,000,000	100,000,000	80,530,658	131,442,977	0	9.08	1.50	11.76
Warburg Pincus Private Equity IX	100,000,000	100,000,000		95,141,562	0	14.35	1.76	7.96
Warburg Pincus Private Equity X	150,000,000	66,810,914	96,386,535	15,852,200	0	3.85	1.12	4.68
Wayzata	150,000,000	00,810,914	53,986,394	502,077	83,189,086	-12.36	0.82	2.43
Wayzata Opportunities Fund I	100 000 000	80 500 000	105 105 011	222 702				
Wayzata Opportunities Fund II	100,000,000	80,500,000	125,475,914	339,109	19,500,000	10.82	1.56	4.28
Welsh, Carson, Anderson & Stowe	150,000,000	108,750,000	141,888,844	429,900	41,250,000	13.91	1.31	2.44
	100 000 000	100 000 000	20210010					
Welsh, Carson, Anderson & Stowe VIII	100,000,000	100,000,000	30,778,974	85,714,525	0	1.97	1.16	11.69
Welsh, Carson, Anderson & Stowe IX	125,000,000	120,000,000	65,859,146	131,421,497	5,000,000	12.55	1.64	9.76
Welsh, Carson, Anderson & Stowe X	100,000,000	85,578,466	82,229,096	0	14,421,534	-1.35	0.96	4.29
Welsh, Carson, Anderson & Stowe XI	100,000,000	6,093,657	3,574,594	0	93,906,343	-68.20	0.59	1.69
Zell/ Chilmark Fund	30,000,000	30,000,000	36,254	77,129,496	0	17.71	2.57	19.72
Private Equity Total	8,026,139,655	6,399,010,414	3,455,895,473	5,763,899,272	1,627,129,241		1.44	
Alternatives Total	12,633,266,993	9,703,500,463	5,831,431,688					
	-1000,200,773	-1,00,000,403	5,051,751,000	8,825,908,001	2,917,795,826		1.51	

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.

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

#### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

Name of Fund:	CarVal Credit Value Fund LP
Type of Fund:	Private Equity Limited Partnership
Total Fund Size:	\$2 billion
Fund Manager:	CarVal Investors
Manager Contact:	Ryan Savell
	CarVal Investors
M.	12700 Whitewater Drive
	Minnetonka, MN 55343
	P: 952-984-3548

#### II. Organization and Staff

Founded in 1987, Cargill Value Investment ("CVI") originally operated as a business unit of Cargill Inc. To operate as an independent firm, CVI completed a spinout from Cargill in September 2006 and rebranded the firm as CarVal Investors. CarVal Investors formed this Fund to continue and expand upon its 22-year track record of investing approximately \$32.7 billion in over 3,900 distressed and credit-intensive investments including opportunistic investments in loan portfolios, corporate securities, real estate and real estate loans and special opportunities.

CarVal Investors employs more than 340 people worldwide, including approximately 120 investment professionals and approximately 220 professionals dedicated to operational, accounting and administrative functions. The investment activities of CarVal Investors are overseen by six principals who lead the investment strategies and geographic locations, as well as its chief financial officer. The principals average 13 years of service with CarVal Investors and its predecessor, and are assisted by a team of four senior managing directors, 32 managing directors and additional investment professionals. CarVal Investors' headquarters are in Minneapolis, with affiliated operations in Barbados, Beijing, Buenos Aires, Cobham, Delhi, Luxembourg, Mauritius, Paris, São Paulo, Shanghai, Singapore and Tokyo.

### III. Investment Strategy

The Fund will implement an investment program focused on the following main strategies: loan portfolios, corporate securities, loan origination, real estate loans and special opportunities each as described below.

The "Loan Portfolio Strategy" centers on investments in performing, sub-performing, non-performing or write-off loans; slow paying, partially paying or delinquent loans; loans being paid

under a modification agreement or bankruptcy plan; loan portfolios that include real estate owned and other receivables; and non-uniform or non-conforming loans.

The "Corporate Securities Strategy" centers on investments in obligations of leveraged and/or financially troubled corporations. These investments typically extend to mispriced or undervalued bonds, bank debt, trade claims, liquidation claims, credit default swaps and equities, but may also extend to other similar investment types or assets. The Fund will also opportunistically purchase high yield loans and debtor-in-possession financings.

The "Loan Origination Strategy" centers on the Fund opportunistically originating and participating in high yield loans made to acquirers of distressed assets, obligors who need cash quickly to take advantage of an opportunity, and obligors who are asset rich and liquidity poor. In addition, the Fund may provide debtor-in-possession financing to borrowers in bankruptcy and originate loans backed by commercial real estate.

The "Real Estate Loans Strategy" centers on the Fund opportunistically originating and purchasing investments in loan transactions that are secured by commercial real estate.

The "Special Opportunities Strategy" utilizes the core competencies, skills and methods of the investment professionals of CarVal Investors to identify new investment opportunities that the Fund believes to be attractive and profitable. Examples from prior funds include aviation assets, vessel assets, oil and gas related assets and commercial mortgage and asset backed securities.

CarVal, with its 22-year history, believes it is uniquely positioned to take advantage of an environment where the availability of credit and liquidity across asset classes globally has significantly diminished. Their view of the current and projected economic environment presents a strong opportunity for the Fund to exploit capital vacuums and distressed sellers. The key investment strategies where CarVal anticipates capitalizing on the most attractive risk-adjusted returns include European liquidation claims, European and US corporate restructurings, US C&I and Consumer loan portfolios, and distressed real estate loans especially in Japan. CarVal expects to concentrate its focus on opportunities in its developed markets (US, Europe, and Japan)

The Fund may borrow and utilize various lines of credit, swaps, repurchase agreements, forward purchases and other forms of leverage to a significant degree, for any purpose, including for liquidity purposes, to enhance returns and to finance assets acquired for the benefit of the Fund.

#### IV. Investment Performance

The historical investment performance of CarVal Investors as of December 31, 2009 for the Global Value Fund (GVF) and September 30, 2009 for the Cargill Managed Account (within areas that will generally comprise the Fund's investment strategy) is presented below:

Fund	Inception Date	Total Commitments	SBI Investment	Net IRR from Inception*	Net MOIC from Inception *
Global Value Fund (GVF)	2006	\$7.7 billion	\$200 million	.3%	1.0x
Cargill Managed Account	1989	\$10.8 billion		20%	1.3x

<sup>\*</sup> Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) were provided by CarVal. The performance figures for the Cargill Managed Account relate to the investment of a proprietary pool of capital from Cargill by CVI. A simulated fund structure was used to provide the hypothetical net IRR and MOIC for the Cargill Managed Account.

#### V. General Partner's Investment

The General Partner will commit to invest up to 1% of the aggregate Commitments of the Fund.

#### VI. Takedown Schedule

The General Partner will provide Investors no less than five days advance notice prior to the drawdown in respect of the Initial Closing or any Additional Closing and ten days advance notice of any drawdown in respect of Capital Contributions to fund Investments and to meet expenses or other obligations of the Fund.

#### VII. Management Fee

The Management Fee will be paid, quarterly in arrears, at a rate determined as follows:

- during the Investment Period, one point two five percent (1.25%) per annum of each Investor's Capital Contributions, as may be adjusted in connection with an Additional Closing, and
- thereafter, one point two five percent (1.25%) per annum of the net asset value of each Investor's Capital Account as of the beginning of the quarter; provided, that for purposes of calculating the Management Fee, after the end of the Investment Period, the Management Fee shall not exceed an amount equal to one point two five percent (1.25%) per annum multiplied by the Investor's Capital Commitment.

Any deal fees received by the General Partner, the Manager, or any of their affiliates from third parties related to the Partnership's investments will be applied 80% to reduce the Management Fee.

#### VIII. Distributions

Amounts of Investment Gain, Distributable Cash and Partnership Expenses initially allocated to an Investor will then be reapportioned as between such Investor and the General Partner as follows:

First, one hundred percent (100%) to such Investor until such Investor has received (without duplication) an amount equal to such Investor's Capital Contributions made to the Fund prior to the date of distribution;

Second, one hundred percent (100%) to such Investor (without duplication) until the excess of (A) the cumulative distributions to such Investor to date over (B) such Investor's Capital Contributions to date equals an eight percent (8%) per annum compounded cumulative return on such amounts, calculated from the date of such Capital Contributions until the date such amounts were distributed (the "Preferred Return");

Third, one hundred percent (100%) to the General Partner until cumulative distributions to the General Partner in respect of such Investor equal twenty percent (20%) of the sum of the cumulative distributions to such Investor in excess of its Capital Contributions to date plus the cumulative distributions to the General Partner in respect of such Investor;

Thereafter, (A) eighty percent (80%) to such Investor and (B) twenty percent (20%) to the General Partner.

#### IX. Investment Period and Term

Generally, the Capital Commitment of each Investor will be available to be drawn and invested until the first day of the month following the second anniversary of the Final Closing.

The Fund's term will end on the six (6) year anniversary of the Final Closing, subject to extension in the General Partner's sole and absolute discretion for two (2) one (1) year periods and can be extended by the consent of the majority-in-interest of the Investors thereafter.

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

#### ATTACHMENT D

### RESOURCE MANAGER SUMMARY PROFILE

## I. Background Data

Name of Fund:	EnCap Energy Capital Fund VIII, L.P.			
Type of Fund:	Resource Limited Partnership			
Total Fund Size:	\$2.5 billion			
Fund Manager:	EnCap Investments L.P.			
Manager Contact:	Gary Petersen			
	1100 Louisiana, Suite 3150			
	Houston, Texas 77002			
	713.659.6100 phone			

# II. Organization and Staff

The Partnership is being formed by EnCap Investments L.P. ("EnCap" or the "Firm"), a leading provider of private equity capital to the independent sector of the oil and gas industry in North America. Founded in 1988, EnCap has focused solely on oil and gas investments over its 22-year history and has consistently generated superior returns across multiple industry and hydrocarbon price cycles by applying a lower-risk, disciplined philosophy that balances capital preservation and value creation.

EnCap is controlled and managed by David B. Miller, Gary R. Petersen, D. Martin Phillips and Robert L. Zorich (the "Principals"), who collectively have over 140 years of oil and gas investment experience and have worked together for more than 30 years. In addition to the Principals, EnCap has a highly-qualified team of 15 oil and gas investment professionals (including three petroleum engineers) with the 13 most senior professionals having an average of 15 years of related experience (collectively with the Principals, the "Investment Professionals").

Since its inception, EnCap has raised 14 institutional oil and gas investment funds totaling over \$7 billion of capital commitments. The first six funds, raised between 1988 and 1993, comprised three reserve acquisition funds and three mezzanine debt funds. In 1994, the Firm transitioned into private equity based on the belief that it offered a more attractive risk/return equation and better alignment of interest with the management teams of EnCap's portfolio companies. The last seven oil and gas funds (EnCap Energy Capital Funds I, II, III, IV, V, VI and VII) have concentrated on providing equity growth capital to small to mid-sized independents and represent over 96% of total capital commitments that the Firm has made since 1988. To date, EnCap has invested over \$4.5 billion in 169 different companies. Since inception, EnCap has experienced realized losses of less than \$15 million in aggregate. In addition, EnCap will not invest in speculative situations dependent on inflated hydrocarbon price assumptions or high-risk exploration success to achieve its return objectives.

## III. Investment Strategy

EnCap Energy Capital Fund VIII, L.P. ("Fund VIII" or the "Partnership") is seeking capital commitments of \$2.5 billion to make privately-negotiated equity investments in the independent sector of the oil and gas industry. The Partnership will primarily focus on providing growth capital, typically making commitments of \$50 million to \$200 million per transaction, to proven management teams whose principal objective is value creation through the acquisition and exploitation of oil and gas reserves, the development of low-risk drilling opportunities in known producing regions and/or the application of advanced drilling and completion technologies to conventional and unconventional reservoirs in the United States and Canada.

EnCap has focused solely on oil and gas investments over its 22-year history and has consistently generated superior returns across multiple industry and hydrocarbon price cycles by applying a lower-risk, disciplined philosophy that balances capital preservation and value creation. Since inception, EnCap has experienced realized losses of less than \$15 million in aggregate.

In investing Fund VIII, EnCap intends to adhere to the same core tenets that have served its investors well since 1988:

- Balancing capital preservation and value creation;
- Partnering with seasoned management teams that possess demonstrable track records of success and solid value creation strategies;
- Structurally aligning the interests of management and Fund VIII;
- Funding capital commitments over a four- to five-year period to reduce exposure to any one economic or hydrocarbon price cycle;
- Controlling the boards of a large majority of its portfolio companies;
- Employing modest levels of leverage at the portfolio company level;
- Monitoring investments closely and managing risk proactively;
- · Adapting its investment approach to exploit market and industry inefficiencies; and
- Exiting opportunistically.

## IV. Investment Performance

Previous fund performance as of February 28, 2010 for EnCap is shown below (\$ in millions):

EnCap Fund	Inception Date	Total Equity Commitments	SBI Investment	Net IRR from Inception*	Net MOIC from Inception*
Private Equity Fund VII	2007	\$2,500	\$100 million	-8.4%	0.90x
Private Equity Fund VI	2006	\$1,500		15.4%	1.26x
Private Equity Fund V	2004	\$825		27.9%	1.66x
Private Equity Fund IV	2001	\$525		67.3%	2.11x
Private Equity Fund III	1997	\$480		23.5%	2.42x
Private Equity Fund II	1996	\$115		3.6%	1.12x
Reserve Acquisition Fund III	1994	\$73		41.4%**	1.67x
Private Equity Fund I	1994	\$104		24.8%	1.85x
Mezzanine Debt Fund III	1993	\$100		16.1%**	1.28x
Mezzanine Debt Fund II	1992	\$115		16.3%**	1.47x
Reserve Acquisition Fund II	1990	\$53		29.8%**	2.24x
Mezzanine Debt Fund I	1989	\$100		15.7%**	1.42x
Reserve Acquisition Fund I	1988	\$21		17.3%**	1.90x

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

## V. General Partner's Investment

The General Partner will make an aggregate cash commitment equal to 2.0% of the aggregate Commitments.

## VI. Takedown Schedule

Takedown of investor commitments will be, as needed, on 10 days' notice.

### VII. Fees

The management fee during the investment period will be 1.75% per annum of aggregate commitments; thereafter, 1.5% per annum of funded commitments. After offsetting expenses associated with such transactions, transaction and break-up fees will be credited 100% against the management fee.

<sup>\*\*</sup>Gross IRRs are provided for the mezzanine debt and reserve acquisition funds. Net IRRs are unavailable due to these funds' limited partners' ability to invest on a deal-by-deal basis.

### VIII. Distributions

In general, the Partners first will receive

- i) A return of all investment costs, fees and expenses; plus
- ii) An 8% preferred return on the above amounts.

After which, distributions will be made

- i) 80% to the General Partner and 20% to all Partners in proportion to funded Commitments as a "catch-up" provision until the General Partner has received a 20% carried interest; and thereafter;
- ii) 80% to all Partners in proportion to funded Commitments and 20% to the General Partner.

### IX. Commitment Period and Term

The commitment period is five years from the final closing. The term of the Fund is ten years, subject to two consecutive one-year extensions at the election of the General Partner and 66 and 2/3 percent in interest of the Limited Partners.

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

### ATTACHMENT E

# RESOURCE MANAGER SUMMARY PROFILE

## I. Background Data

Name of Fund:	Sheridan Production Partners II-B, L.P.			
	("Sheridan" or the "Partnership")			
Type of Fund: Resource Limited Partnership				
Total Fund Size:	\$1.3 billion			
Fund Manager: Sheridan Production Partners Manager,				
Manager Contact:	Lisa A. Stewart			
	9 Greenway Plaza, Suite 1300			
	Houston, TX 77046			
	713.548.1000			

# II. Organization and Staff

Sheridan Production Partners II-A, L.P. ("Fund II-A"), and Sheridan Production Partners II-B, L.P. ("Fund II-B" and, together with Fund II-A, "Sheridan II" or the "Partnership"), are being established by Sheridan Production Partners Manager, LLC ("Sheridan" or the "Manager"), to make investments in oil and gas properties in the United States with the objective of providing investors attractive, relatively low risk returns, strong cash distributions and long-term exposure to oil and gas prices. Sheridan II will be the second series of oil and gas investment partnerships formed by Sheridan. Sheridan II will be under common management with the initial series of oil and gas investment partnerships established in 2007 ("Sheridan I") and has the same investment strategy.

Sheridan was formed in 2006 when Lisa A. Stewart and other senior executives of Sheridan joined with Warburg Pincus LLC ("Warburg Pincus" and, together with the executive officers of Sheridan, the "Sponsors") with the long-term plan to create a premier oil and gas operator that would implement the Sheridan investment strategy. Prior to the formation of Sheridan in 2006, Ms. Stewart was President of El Paso Exploration and Production Company (2004-2006) where she had overall responsibility for oil and gas operations. While there, Ms. Stewart had overall responsibility for a large and diverse exploration and production company that generated operating revenue of \$1.8 billion and earnings of \$699 million. Prior to her time at El Paso, Ms. Stewart spent 20 years at Apache Corporation, leaving in January 2004 as Executive Vice President.

In 2007, Sheridan raised \$1.3 billion of commitments from investors to capitalize Sheridan I. By December 31, 2009, Sheridan I had called \$1.1 billion of limited partner capital and completed \$1.6 billion of acquisitions of domestic oil and gas properties. Since its formation in 2007, Sheridan has grown into an independent oil and gas company with more than 230 employees consisting of highly skilled financial, technical and operating personnel, many of whom have a history of working with Sheridan

management in prior organizations. Sheridan's headquarters are in Houston, Texas with district offices in Midland, Texas and Tulsa, Oklahoma, as well as multiple field offices throughout Texas and Oklahoma. Sheridan II will benefit from Sheridan's existing, fully operational E&P company. As Sheridan II acquires properties, additional personnel will be recruited as necessary.

## III. Investment Strategy

Sheridan II will execute a balanced strategy to acquire a diverse portfolio of mature, predictable oil and gas producing properties within various U.S. basins, to optimize the operation of those properties to aggressively control costs and judiciously invest capital to accelerate production and enhance recoveries, to hedge production for several years after an acquisition in order to protect cash flows and base rates of return, and to enhance total returns through the use of prudent leverage. Given Sheridan's hedging strategy, Sheridan II's anticipated returns should have limited sensitivity to near-term volatility in oil and gas prices, but should retain exposure to commodity prices over the longer term. Sheridan II will target a pre-tax net internal rate of return ("IRR") to limited partners in the mid-teens and a net multiple of two times invested capital.

Sheridan believes that today's market continues to offer an excellent opportunity to acquire and enhance mature oil and gas producing properties. The U.S. contains substantial reserves of oil and gas situated in some of the most secure producing basins in the world. The vast majority of those reserves are currently owned by public companies, which tend to focus on properties with high growth potential and under-invest in properties that exhibit the declining base production inherent in mature oil and gas fields. Consequently, there has been and will likely continue to be an imbalance between the number of mature properties offered for sale, and the number of well-capitalized buyers who desire to own these assets. Additionally, the long production history of mature properties allows for more accurate estimation of reserves, production, and cash flows, and this predictability allows Sheridan to hedge cash flows and prudently leverage acquisitions. In focusing on increasing share prices, public companies tend to devote their most talented people, technical resources and capital budgets to growth projects rather than mature properties. Sheridan has demonstrated the ability to acquire mature properties and improve returns by actively managing operations and targeting low risk, high rate of return reinvestment opportunities.

### IV. Investment Performance

Previous fund performance as of December 31, 2009 for Sheridan Production Partners I and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Inception	Total Equity	SBI	Net IRR from	Net MOIC from
	Date	Commitments	Investment	Inception *	Inception *
Sheridan Production Partners I	2007	\$1.3 billion	\$100 million	26 %	1.32x

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

### V. General Partner's Investment

Members of Sheridan management and Warburg Pincus LLC will commit for at least \$50 million of Capital Commitments.

### VI. Takedown Schedule

The General Partner will draw capital as needed to fund investments and operations and will provide Limited Partners 10 business days prior written notice.

#### VII. Fees

The Partnership will pay a management fee to the Manager semi-annually in advance during the term of the Partnership starting on the date of the initial closing, at the following rate:

- (i) during the Investment Period, 1.50% per annum of Capital Commitments;
- (ii) from the end of the Investment Period through the 12<sup>th</sup> anniversary of the initial closing, 1.25% per annum of Capital Commitments; and
- (iii) after the 12<sup>th</sup> anniversary of the initial closing, 1.25% per annum of the lesser of Capital Commitments and the fair value of the Partnership's properties as of the last day of the immediately preceding semi-annual measurement period.

All transaction fees or other fees received by the General Partner, the Manager, Warburg Pincus or any of their affiliates from third parties related to the Partnership's investments will be applied to reduce the Management Fee.

#### VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to such Limited Partner until the Limited Partner receives 100% of its capital contributions (including capital contributions for Partnership Expenses, Organizational Expenses and Management Fees) and a 6% per annum preferred return thereon.

Thereafter, a "90/10 catch-up" in favor of the General Partner, followed by a 20% Carried Interest.

During the Investment Period, the Partnership may generally retain, rather than distribute, net cash otherwise available for distribution, subject to the payment of amounts sufficient to discharge tax liabilities in respect of income allocated to taxable partners (including the General Partner). No new properties will in any event be acquired after the end of the Investment Period other than as Follow-on Investments.

### IX. Investment Period and Term

The Investment Period terminates six years after the initial closing of the Partnership. The Partnership's term will be 15 years from the initial closing date, subject to extension for up to two years in the discretion of the General Partner with the consent of a majority in interest of Limited Partners.

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

#### ATTACHMENT F

### RESOURCE MANAGER SUMMARY PROFILE

# I. Background Data

Name of Fund:	Energy Capital Partners II, L.P.				
Type of Fund:	Resource Limited Partnership				
Total Fund Size:	\$3.5 billion				
Fund Manager:	Energy Capital Partners				
Manager Contact:	Douglas Kimmelman				
	51 JFK Parkway, Suite 200				
	Short Hills, NJ 07078				
	Phone: 973-671-6080				

# II. Organization and Staff

Energy Capital was established in 2005 by former Goldman Sachs partner and energy industry veteran Douglas Kimmelman, whose entire 22-year professional career at Goldman Sachs focused on the electric power, gas utility and related industry sectors. The Energy Capital team currently consists of 28 investment professionals and three senior advisors. Fund II will be managed by Energy Capital Partners GP II, LP (the "General Partner"), the principals of which are Douglas Kimmelman, Scott Helm, Peter Labbat, Thomas Lane and Andrew Singer (the "Principals"). The senior members of the Energy Capital team have worked with one another over the past 13 years and the team collectively has over 350 years of energy industry experience and a track record of successful energy infrastructure investments. In addition, the team has had primary responsibility for investing and managing Energy Capital Partners I, LP (together with each affiliated investment vehicle formed to invest in, or co-invest therewith, "Fund I"), and a \$2.25 billion private investment fund formed in January 2006. As of March 31, 2010, Fund I has committed and reserved all of its available equity capital across 13 investments, all of which are in the natural gas and electric power sectors and many of which include a clean or renewable energy component. Three monetizations have been closed or announced resulting in a return of approximately \$1 billion of the \$1.6 billion called to date and achieving a 2.4x and 48% IRR on these exits.

## III. Investment Strategy

Energy Capital intends to utilize a disciplined investment approach focused on acquiring and developing interests in high quality assets, contracts and businesses in the power and midstream gas and related sectors. Specifically, the Firm intends to primarily focus on the power generation (fossil and renewable), electric transmission, gas storage and pipeline, electric and gas distribution and coal infrastructure sectors. Energy Capital expects to focus Fund II's investment efforts predominantly on control opportunities in the North American marketplace. Energy Capital plans to pursue both the purchase of existing assets, contracts and businesses and the development and construction of new ones. The Firm intends to remain opportunistic in evaluating the proportion of investment activity devoted to existing assets relative to development and construction of new assets. Energy Capital intends to enhance the value of its assets and businesses with the following strategies

- i. Optimizing the project and corporate capital structures of its investments;
- ii. Structuring and restructuring contractual arrangements related to equipment purchases, engineering and design services, fuel purchases and energy output sales;
- iii. Monetizing optionality and differing revenue streams embedded in assets and contracts;
- iv. Expanding asset capacity where economically justified;
- v. Pursuing new build development activity while attempting to mitigate early stage development risk, including working with capital constrained developers of attractive projects;
- vi. Actively managing assets and businesses in conjunction with management teams to reduce costs, improve efficiencies and expand revenue opportunities;
- vii. Combining asset investments into operating companies to create going-concern value and companies with critical mass and diversity, thereby increasing potential exit opportunities; and
- viii. Building management teams and portfolio companies to continue to pursue new growth areas in the energy sector, including, but not limited to Energy Capital's solar, carbon credits, and gas storage platforms.

In addition, Energy Capital will seek to identify, actively manage and hedge commodity price exposures in its investments related to fuel procurement and energy production. Energy Capital intends to accomplish this by targeting assets that carry long-term contracts with creditworthy counterparties for their energy inputs, outputs and capacity; seeking long term contractual commitments that will support the development and construction of new energy facilities; or strategically contracting with industry participants and financial intermediaries to hedge commodity exposure. Notwithstanding these strategies, certain risks cannot be economically or otherwise contracted or hedged, and the Firm may opportunistically choose to accept certain exposures consistent with existing and projected market dynamics.

Energy Capital intends to continue to utilize the debt markets, where appropriate, to implement its investment strategies and optimize its projected investment returns. Energy Capital's investments generally offer a combination of asset security and predictable revenue contract arrangements that should allow for meaningful leverage. As a result, the Firm believes its portfolio investments and overall returns have been less impacted by the current constrained credit environment than the investments of other more buyout-focused funds.

The Energy industry in North America is undergoing a dramatic transformation which is driven by several factors:

- Necessary replacement of an enormous base of aged generating assets over the next 10 years (average plant age over 40 years, required capital in excess of \$1 trillion)
- Public policy and state laws require new build of various types of renewable generation (solar, wind, biomass, etc.)
- New transmission lines (~\$25 billion/year) needed to connect remote renewable power projects and to optimize the system
- Distressed owners of generation dealing with excessive leverage from the credit boom and declining cash flow driven by declining natural gas and power prices
- New gas gathering pipeline and storage assets needed to integrate large production of natural gas from new shale basins

Energy Capital believes that it has the sector expertise, reputation, relationships and capital to effectively play a leading role in solving these most pressing needs while earning attractive targeted returns of 20-30%.

# IV. Investment Performance

Previous investment performance as of March 31, 2010 for Energy Capital funds is shown below:

Fund	Inception Date	Total Equity Commitments	SBI Investment	Net IRR from Inception *	Net MOIC from Inception*
Energy Capital Partners Fund I	2006	\$2.25 billion		13.66%	1.2x
Pre-Fund track record at Goldman Sachs	1997-2008	\$2.07 billion		58.0%	2.0x

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

### V. General Partner's Investment

At least \$75 million, assuming aggregate Commitments of at least \$3.5 billion.

### VI. Takedown Schedule

Commitments generally will be drawn in proportion to Commitments on an as-needed basis, with a minimum of ten business days' prior written notice to the Limited Partners.

## VII. Management Fee

Commitment Period: The management fee will be 1.75% per year on commitments up to \$3.0 billion. 1.5% on commitments over \$3.0 billion. Fee drops to 1.25% if successor fund of \$2.0 billion or greater begins to accrue management fees. Fee drops to 1.0% if successor fund reaches \$4.0 billion.

Post Commitment Period: 1.25% on called and unreturned capital (reduced by write-offs). Fee drops to 1.0% if successor fund of \$2.0 billion or greater begins to accrue management fees.

80% of any transaction, monitoring and break up fees and other similar fees received in connection with consummated or prospective investments will be applied to reduce the Management Fee.

### VIII. Distributions

- a) First, 100% to such Limited Partner until the amount distributed equals the aggregate of the following (to the extent not previously distributed):
  - (i) the funded Commitments of such Limited Partner in respect of all Portfolio Investments and such Limited Partner's proportionate share of Fund II Expenses and Organizational Expenses; and
  - (ii) a preferred return on amounts included in (i) above at the rate of 8% per annum, compounded annually (the "Preferred Return");
- b) Second, 100% to such Limited Partner, until the amount distributed under this clause b) equals the net realized loss, if any, from bridge financings previously disposed of;
- c) Third, 100% to the General Partner until the General Partner has received 20% of the sum of all distributions made pursuant to paragraph (a)(ii) and this paragraph c) with respect to amounts initially apportioned to such Limited Partner; and
- d) Thereafter, 80% to such Limited Partner and 20% to the General Partner (the distributions to the General Partner in paragraph c) and this paragraph d) being referred to collectively as the "Carried Interest").

#### IX. Investment Period and Term

Commitments may be drawn to make Portfolio Investments at any time up to December 31, 2014 (the "Commitment Period").

Fund II's term will expire on December 31, 2019; provided that Fund II's term may be extended by the General Partner for up to one additional one-year period or, beyond that, with the approval of the LP Advisory Committee or Limited Partners holding a majority of the aggregate Commitments, for up to two additional two-year periods.

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