MINNESOTA STATE BOARD OF INVESTMENT



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Governor Mark Dayton

State Auditor Rebecca Otto

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DATE: January 13, 2017

TO: The Honorable Mark Dayton

Minnesota Legislative Reference Library

FROM: Mansco Perry III M13

Executive Director and Chief Investment Officer

SUBJECT: External Money Manager Report Pursuant to Minnesota

Statutes Section 11A.04, clause (12)

Minnesota Statutes, Section 11A.04, clause (12) requires the State Board of Investment (SBI) to report annually to the Governor and Legislative Reference Library the cost and investment performance of external investment managers employed by the Board.

On June 30, 2016, the SBI utilized 20 domestic stock managers, 13 international stock managers and 8 bond managers for the defined benefit retirement assets under its control. The SBI also utilized a bond manager and an equity manager for the Assigned Risk Plan and a stable value manager for the conservative option in the defined contribution plan.

The investment performances of each manager, as well as the fees paid to each, are reported in the charts on the following pages. This information is also included in the Board's annual report for FY16.

It is important to note that all performance data reported by the SBI is *net* of fees and transactions costs associated with the various portfolios. The SBI's FY 2016 Annual Report contains additional detail on manager performance and may be accessed online at www.sbi.state.mn.us.

Defined Benefit Plan

Domestic Stock Managers

The SBI evaluates domestic stock manager returns against the performance of Russell style indices which reflect the managers' specific investment approaches. The benchmark portfolios take into account the market forces that at times favorably or unfavorably impact certain investment styles. The aggregate domestic stock program is designed to outperform the Russell 3000 Index. Assets are allocated to managers within each Russell style index in the same proportion as in the Russell 3000 Index.

As a group, the managers underperformed the broad market by 2.1 percentage points for the fiscal year. For the fiscal year, the active and semi-passive manager

groups underperformed their respective benchmarks, and the passive manager exceeded the benchmark. Three of the 15 active managers outperformed their respective benchmarks and there were no semi-passive managers that outperformed. The passive manager exceeded the benchmark for the year.

Bond Managers

The SBI evaluates the performance of its bond managers against the Barclays Capital Aggregate bond index. As a group, the bond managers underperformed the broad bond market by 0.1 percentage point for the year. For FY 2016, two of the five active managers and all semi-passive managers outperformed the benchmark return.

International Stock Managers

The SBI evaluates individual international stock managers against market indices published by Morgan Stanley Capital International (MSCI). Two indices are used: the World ex USA (net) and the Emerging Markets (net). As a group, the international stock managers outperformed the MSCI All Country World Index (ACWI) ex USA (net) index by 0.5 percentage point for the fiscal year. Three of the six active developed markets managers outperformed their respective benchmarks for the year. One of the two active emerging market managers outperformed the MSCI Emerging Markets benchmark for the year. One of the three semi-passive developed markets managers outperformed the benchmark for the year. Both passive portfolios for the developed markets and the emerging markets outperformed the MSCI World ex USA Index, and the MSCI Emerging Markets Index (net), respectively.

Assigned Risk Portfolio

Domestic Stock Manager

The SBI evaluates the performance of the stock manager against the S&P 500 index. During the fiscal year 2016, the stock manager underperformed its benchmark by 5.1 percentage points.

Bond Manager

The SBI evaluates the performance of the bond manager against the Barclays Intermediate Government bond index. During the fiscal year 2016, the bond manager outperformed its benchmark by 0.1 percentage point.

Conservative Option in Defined Contribution Plan

Stable Value Portfolio

The SBI evaluates the performance of the stable value manager against the 3 Year Constant Maturity Treasury + 45 basis points. During the fiscal year 2016, the stable value manager outperformed its benchmark by 0.6 percentage points.

External Stock and Bond Managers' Fees

Total Payments for Fiscal Year 2016

Domestic Equity Active Managers	
Barrow, Hanley, Mewhinney and Strauss, Inc. \$	1,507,538
Earnest Partners, LLC	983,879
Goldman Sachs Asset Management, L.P.	1,908,012
Hotchkis and Wiley Capital Management, LLC	1,893,247
INTECH Investment Management, LLC	1,793,969
Jacobs Levy Equity Management, Inc.	1,950,499
LSV Asset Management	2,426,771
Martingale Asset Management, L.P.	1,537,427
McKinley Capital Management, LLC	2,116,122
Next Century Growth Investors, LLC	1,978,833
Peregrine Capital Management	2,095,430
Sands Capital Management, LLC	1,776,950
Systematic Financial Management, L.P.	1,390,707
Winslow Capital Management, LLC	977,630
Zevenbergen Capital Investments, LLC	1,930,629
Domestic Equity Semi-Passive Managers	
BlackRock Institutional Trust Company, N.A.	2,351,785
INTECH Investment Management, LLC	2,178,245
J.P. Morgan Investment Management, Inc.	2,823,451
Mellon Capital Management Corporation	2,361,352
Domestic Equity Passive Manager	
BlackRock Institutional Trust Company, N.A.	925,272
Fixed Income Active Managers	
Aberdeen Asset Management, Inc.	1,827,607
Columbia Management Investment Advisers, LLC	1,185,432
Dodge & Cox	1,658,626
Pacific Investment Management Company, LLC (PIMCO	O) 3,391,505
Western Asset Management Company	1,541,794
Fixed Income Semi-Passive Managers	
BlackRock Financial Management, Inc.	1,100,511
Goldman Sachs Asset Management	1,837,932
Neuberger Berman Fixed Income, LLC	789,171

External Stock and Bond Managers' Fees

Total Payments for Fiscal Year 2016

International Active Developed Markets Managers	
Acadian Asset Management, LLC	\$ 1,490,983
Columbia Threadneedle Investments	1,112,917
JP Morgan Investment Management Inc.	1,075,792
Marathon Asset Management, LLP	2,380,348
McKinley Capital Management, LLC	1,217,072
Fidelity Instutional Asset Management, LLC	1,478,538
International Semi Passive Developed Markets Managers	
AQR Capital Management, LLC	1,534,252
Fidelity Instutional Asset Management, LLC	948,111
State Street Global Advisors	1,181,960
International Passive Developed Markets Manager	
State Street Global Advisors	564,730
International Active Emerging Markets Managers	
Capital International, Inc.	4,430,667
Morgan Stanley Investment Management Inc.	5,522,650
International Passive Emerging Markets Manager	
State Street Global Advisors	267,929
Supplemental Fixed Interest Account	
Galliard Capital Management, Inc.	3,725,025
Assigned Risk Plan	
GE Asset Management, Inc.	168,634
RBC Global Asset Management (U.S.)	240,112
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Figure 10. Domestic Stock Manager Performance for Periods Ending June 30, 2016

	1 \	1 Year 3 Years		ears	5 Years		Market	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (\$ in millions)	
Active Managers								
Large Cap Growth (Russell 1000 Growth)						-	N. A. A.	
INTECH	5.4	3.0	14.0	13.1	12.3	12.3	642.5	
Jacobs Levy Equity Mgmt.	2.1	3.0	13.4	13.1	12.1	12.3	724.1	
Sands Capital Mgmt.	-7.7	3.0	9.9	13.1	11.2	12.3	646.5	
Winslow Capital Mgmt.	-2.2	3.0	11.9	13.1	10.4	12.3	313.5	
Zevenbergen Capital	-13.6	3.0	8.5	13.1	7.5	12.3	575.6	
Large Cap Value (Russell 1000 Value)								
Barrow, Hanley	-0.1	2.9	9.7	9.9	10.7	11.4	843.4	
Earnest Partners	-2.8	2.9	9.2	9.9	8.9	11.4	559.6	
LSV Asset Mgmt.	-2.8	2.9	10.0	9.9	12.1	11.4	833.4	
Systematic Financial Mgmt.	-8.8	2.9	6.3	9.9	7.4	11.4	711.1	
Small Cap Growth (Russell 2000 Growth)								
McKinley Capital	-10.7	-10.8	9.3	7.7	10.3	8.5	384.5	
Next Century Growth	-17.6	-10.8	2.1	7.7	2.9	8.5	347.1	
Small Cap Value (Russell 2000 Value)								
Goldman Sachs	-2.9	-2.6	8.7	6.4	10.5	8.1	273.5	
Hotchkis & Wiley	-15.6	-2.6	5.9	6.4	8.5	8.1	224.6	
Martingale Asset Mgmt.	-0.6	-2.6	10.0	6.4	11.3	8.1	222.9	
Peregrine Capital Mgmt.	-7.8	-2.6	5.4	6.4	8.0	8.1	339.6	
Semi-Passive Managers (Russell 1000)								
BlackRock Institutional	1.9	2.9	11.6	11.5	12.5	11.9	2,594.5	
INTECH	2.2	2.9	10.7	11.5	11.4	11.9	2,353.8	
J.P. Morgan Investment Mgmt.	2.4	2.9	11.8	11.5	12.3	11.9	2,977.2	
Mellon Capital Mgmt.	0.7	2.9	11.0	11.5	12.2	11.9	2,524.5	
Passive Manager (Russell 3000)								
BlackRock Institutional	2.2	2.1	11.2	11.1	11.6	11.6	9,659.5	
Aggregate Domestic Stock Pool(1)	0.0	2.1	10.7	11.1	11.2	11.6	27,751.7	
Asset Class Target								
Russell 3000		2.1		11.1		11.6		

⁽¹⁾ Aggregate includes the performance of terminated managers.

Figure 13. Bond Manager Performance for Periods Ending June 30, 2016

	1 Y	ear	3 Years		5 Years		Market
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (\$ in millions)
Active Managers	- 13 150 15	186	200000 2250				7 1 2 1 2 7
Aberdeen Asset Mgmt.	6.2	6.0	4.6	4.1	4.7	3.8	1,185.4
Columbia Mgmt.	5.7	6.0	4.4	4.1	4.5	3.8	1,138.1
Dodge & Cox Investment Mgmt.	4.8	6.0	4.3	4.1	4.4	3.8	1,604.2
PIMCO	5.2	6.0	3.9	4.1	4.2	3.8	1,563.2
Western Asset Mgmt.	6.6	6.0	4.9	4.1	4.8	3.8	1,797.3
Semi-Passive Managers							
BlackRock Financial Mgmt.	6.1	6.0	4.3	4.1	4.1	3.8	2,069.5
Goldman Sachs Asset Mgmt.	6.1	6.0	4.3	4.1	4.2	3.8	2,482.6
Neuberger Investment Mgmt.	6.2	6.0	4.3	4.1	4.0	3.8	2,737.9
Aggregate Bond Pool(1)	5.9	6.0	4.3	4.1	4.3	3.8	14,578.2
Asset Class Target							
Barclays Capital Aggregate		6.0		4.1		3.8	

⁽²⁾ Aggregate includes the performance of terminated managers.

Figure 16. International Manager Performance for Periods Ending June 30, 2016

	1 3	1 Year 3 Years		5 Years		Market	
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Value (\$ in millions)
Active Managers		U Jana - I	F. 19.0.	70		70	(\$ III IIIIIIIII)
Developed Mkts (MSCI World ex USA net)							
Acadian Asset Mgmt.	-0.9	-9.8	6.4	1.9	4.4	1.2	375.2
Columbia Mgmt. Investment Advisers, LLC	-10.9	-9.8	2.7	1.9	2.7	1.2	331.5
J.P. Morgan Investment Mgmt. Co.	-13.4	-9.8	0.3	1.9	0.6	1.2	264.1
Marathon Asset Management	-8.1	-9.8	4.4	1.9	4.6	1.2	726.3
McKinley Capital Management	-13.2	-9.8	2.1	1.9	2.1	1.2	275.8
Pyramis Global Advisors Trust Co.	-8.6	-9.8	2.7	1.9	3.2	1.2	331.9
Semi-Passive Managers Developed Mkts (MSCI World ex USA net)							
AQR Capital Management	-8.6	-9.8	2.6	1.9	2.2	1.2	320.4
Pyramis Global Advisors Trust Co.	-11.8	-9.8	2.4	1.9	2.0	1.2	471.4
State Street Global Advisors	-12.4	-9.8	1.7	1.9	0.7	1.2	279.7
Active Managers Emerging Mkts (MSCI Emerging Markets net)				1		F. 1	
Capital International, Inc.	-12.8	-12.1	-3.0	-1.6	-5.9	-3.8	619.5
Morgan Stanley Investment Mgmt.	-8.7	-12.1	-0.5	-1.6	-1.1	-3.8	745.8
Passive Managers							
Developed Mkts (MSCI World ex USA net) State Street Global Advisors	-9.3	-9.8	2.3	1.9	1.6	1.2	3,261.0
Passive Managers Emerging Mkts (MSCI Emerging Markets net)							
State Street Global Advisors	-11.6	-12.1	-1.3	-1.6			267.1
Aggregate International Stock Pool ⁽¹⁾	-9.7	-10.2	1.8	1.2	0.9	0.1	8,269.5
Asset Class Target		10.0					
MSCI ACWI ex USA (net)		-10.2		1.2		0.1	

⁽¹⁾ Aggregate includes the performance of terminated managers.

Returns Net of Fees Period Ending 6/30/2016

	1 Yr.	3 Yr.	5 Yr.
Assigned Risk Portfolio			
GE Investment Management	-1.1%	9.7%	10.7%
S&P 500 Index	4.0	11.7	12.1
RBC Global Asset Management	4.0	2.4	2.2
Barclays Intermediate Government	3.9	2.4	2.3
Stable Value Portfolio			
Galliard	2.0	1.9	2.3
3 Year Constant Maturity Treasury + 45 Basis Points	1.4	1.3	1.1