

August 13, 2021

Senator Howard Marklein, Co-Chair
 Joint Committee on Finance
 P.O. Box 7882
 Madison WI 53707-7882

Representative Mark Born, Co-Chair
 Joint Committee on Finance
 P.O. Box 8952
 Madison WI 53708-8952

Senator Robert Cowles, Co-Chair
 Joint Legislative Audit Committee
 P.O. Box 7882
 Madison WI 53707-7882

Representative Samantha Kerkman, Co-Chair
 Joint Legislative Audit Committee
 P.O. Box 8952
 Madison WI 53708-8952

Secretary Joel Brennan
 Department of Administration
 101 East Wilson Street
 P.O. Box 7864
 Madison, WI 53707-7864

Dear Senator Marklein, Senator Cowles, Representative Born, Representative Kerkman, and Secretary Brennan:

State statutes require the State of Wisconsin Investment Board (SWIB) to report all costs and expenses charged to the trust funds under management during the prior quarter as well as the number of full-time equivalent positions created or abolished during the quarter¹. The information contained in this report is for the quarter ended June 30, 2021.

Total Cost of Management Summary	3Q2020	4Q2020	1Q2021	2Q2021	Trailing 4 Qtr Total	% of Total
Internal Operating Expenses						
Operating Budget Expenses	\$ 10,778,834	\$ 12,809,354	\$ 11,960,506	\$ 39,468,133	\$ 75,016,827	61.8%
Custodial, Investment Operations & Banking	878,460	1,945,599	1,597,860	1,667,094	6,089,013	5.0%
Legal	734,351	916,718	412,361	237,486	2,300,916	1.9%
Investment Research & Consulting	8,015,276	8,861,556	8,716,569	9,505,930	35,099,331	28.9%
Total Internal Operating Expenses	\$ 20,406,921	\$ 24,533,227	\$ 22,687,296	\$ 50,878,643	\$ 118,506,087	97.6%
Securities Lending Agent Expenses	519,933	633,569	906,556	884,053	2,944,111	2.4%
Total SWIB Operating Costs	\$ 20,926,854	\$ 25,166,796	\$ 23,593,852	\$ 51,762,696	\$ 121,450,198	100.0%
External Investment Management Fees						
Externally Managed Separate Account Fees						
Beta One & Other - Separately Managed	\$ 7,700,650	\$ 10,014,059	\$ 11,815,893	\$ 12,846,225	\$ 42,376,827	8.5%
Supplemental Information - External Fund Fees						
Real Estate ¹	\$ (259,551)	\$ 14,508,274	\$ 16,246,132	\$ 16,794,113	\$ 47,288,968	9.5%
Private Equity & Venture Capital ¹	(5,834,168)	53,017,487	42,901,170	57,849,368	147,933,857	29.7%
Hedge Funds	49,267,918	80,920,383	60,313,126	43,171,220	233,672,647	47.0%
Beta One & Other - External Funds	4,311,185	2,465,978	3,971,887	15,468,903	26,217,953	5.3%
Total External Investment Management Fee	\$ 55,186,034	\$ 160,926,181	\$ 135,248,208	\$ 146,129,829	\$ 497,490,252	100.0%
Total Cost of Management	\$ 76,112,888	\$ 186,092,977	\$ 158,842,060	\$ 197,892,525	\$ 618,940,450	

¹ Costs decreased in the 3rd quarter 2020 due to an accounting change.

For definitions of the expense categories presented above, please refer to Attachment C.

¹Wisconsin Statutes Section 25.17 (13m): All investment-related costs and expenses charged to the WRS Trust Funds, State Investment Fund, State Life Insurance Fund, Historical Society Endowment Fund, Injured Patients and Families Compensation Fund and UW Trust Fund. Investment transaction expenses, such as trading commissions and interest expense, are included in investment returns, and therefore not included in this report.

SWIB Operating Costs are charged to the trust funds under management and externally managed fund fees are netted against the investment returns generated by SWIB's external fund holdings. It is important to consider costs in the context of value-added investment returns. For example, during the five years ended December 31, 2020, after consideration of all expenses, costs, and fees, SWIB generated \$1.91 billion in additional profits beyond what would have been generated by the benchmark portfolio SWIB is measured against. These profits all go directly into the Wisconsin Retirement System for the benefit of its beneficiaries.

Attachment A provides a breakdown of the amount and percentage of assets managed under each type of dedicated and commingled account or partnership, and the change in the amount and percentage from the prior calendar quarter. SWIB's total authorized positions are 261 as shown in the table below.

Assets Under Management & Positions		
	3/31/2021	6/30/2021
Internal Management	55.5%	55.5%
External Management	44.5%	44.5%
Total SWIB Positions	261	261

In addition, Attachment B provides details of the services provided to SWIB and their associated quarterly costs.

As new investment strategies are implemented and markets continue to evolve, SWIB will continue evaluating the most efficient means to manage the trust fund assets. Please contact us if you have any questions or comments about this report.

Sincerely,



Edwin Denson
Executive Director/Chief Investment Officer

Attachments

cc: Members, Joint Committee on Finance
Members, Joint Committee on Audit
Robert Lang, Legislative Fiscal Bureau
Joe Chrisman, Legislative Audit Bureau

Total Assets Under Management

Wisconsin Retirement System (WRS)	9/30/2020		12/31/2020		3/31/2021		6/30/2021	
	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Internally Managed	\$58,773	49.8%	\$65,735	50.7%	\$68,456	51.6%	\$72,061	51.4%
Externally Managed Dedicated Accounts	35,417	30.0%	37,393	28.8%	35,943	27.1%	36,723	26.2%
Externally Managed Commingled Accounts	23,907	20.2%	26,617	20.5%	28,164	21.2%	31,351	22.4%
1. Passive Index Funds	2,417	2.0%	2,730	2.1%	2,864	2.2%	2,966	2.1%
2. Limited Partnerships	15,314	13.0%	16,724	12.9%	17,894	13.5%	19,692	14.1%
3. Actively Managed Commingled Accounts	6,176	5.2%	7,163	5.5%	7,406	5.6%	8,693	6.2%
TOTAL WRS Assets	\$118,097	100.0%	\$129,745	100.0%	\$132,563	100.0%	\$140,136	100.0%

State Investment Fund - Internally Managed	\$11,778		\$11,861		\$13,988		\$15,426	
Various Funds Internally Managed	\$128		\$129		\$119		\$124	
Various Funds Externally Managed	\$2,065		\$2,174		\$2,148		\$2,221	

Total Assets Under Management	\$132,068		\$143,909		\$148,819		\$157,906	
Total Internal Management	\$70,679	53.5%	\$77,725	54.0%	\$82,564	55.5%	\$87,611	55.5%
Total External Management	\$61,389	46.5%	\$66,184	46.0%	\$66,255	44.5%	\$70,295	44.5%

STATE OF WISCONSIN INVESTMENT BOARD
Expenses for All Funds Under Management
Quarter Ending June 30, 2021

EXPENSE CATEGORY ¹	SERVICE PROVIDED	EXPENSES
<u>Internal Operating Expenses</u>		
Staff Compensation	Staff Compensation	\$ 32,065,070
Fringe Benefits	Fringe Benefits	5,554,486
Equipment, Supplies & Services	General Supplies & Services	1,848,577
Total Internal Operating Expenses		\$ 39,468,133
<u>Custodial, Investment Operations and Banking Fees</u>		
BNY Mellon Asset Servicing - Custody	Master Custody Services	\$ 255,868
BNY Mellon Asset Servicing - Investment Operations	Investment Operating Services	1,411,134
US Bank	Banking Fees	92
Total Custodial, Investment Operations and Banking Fees		\$ 1,667,094
<u>Legal Fees</u>		
Cox Castle & Nicholson LLP	Legal Work for Investment Strategies	\$ 9,525
DLA Piper LLP (US)	Legal Work for Investment Strategies	52,237
Godfrey & Kahn SC	Legal Work for Investment Strategies	10,142
Purrington Moody Weill LLP	Legal Work for Investment Strategies	8,274
Quarles & Brady	Legal Work for Investment Strategies	123,520
Reinhart Boerner Van Deuren SC	Legal Work for Investment Strategies	2,496
Robins Kaplan LLP	Legal Work for Investment Strategies	6,764
Shearman & Sterling LLP	Legal Work for Investment Strategies	24,528
Total Legal Fees		\$ 237,486
<u>Investment Counsel</u>		
Adeptyx Consulting	Investment Consulting Services	\$ 182,019
Aksia LLC	Hedge Fund Investment Consulting	193,750
Alex Solutions	Research & Data Service	65,750
Ananth Seshadri	Economic Consulting Services	15,000
BCA Research Inc	Global & Domestic Fixed Income Strategy Research	32,250
Blackrock Financial Management Inc	Risk Services	75,000
Bloomberg Finance LP	Market, Company, Industry & Benchmark Information	816,713
BNY Mellon Asset Servicing - Eagle/Pace	Investment Consulting Services	298,100
Callan Associates Inc	Investment Consulting & Performance Benchmarking	12,500
CBOE Global Markets, Inc.	Research and Data Services	1,500
CFRA Research	Investment Research Services	23,100
Charles River System Inc	Portfolio Management Trading Software & Services	346,475
Consensus Economics Inc	Investment Research Services	33,707
CoStar Portfolio Strategy	Real Estate Consulting & Research Services	47,896
CreditSights	Credit Assessments	17,500
Dacheng Xiu	Investment Research	37,500
Dow Jones News Service	Company and Industry News Services	312
DTCC – EPN	Trade Settlement Service	6,603
EFront Financial Solutions Inc	Private Markets Portfolio Management Services	260,654
Elevation LLC	Research and Data	10,000
Ernst & Young LLP	Tax Compliance Services & Investment Consulting	14,645
Euromonitor International	Research and Data Services	24,677
Evercore Group LLC	Investment Research	1,104,078
eVestment Alliance LLC	Research and Data Services	7,404
FactSet Research Systems Inc	Financial & Economic Database	932,138
Fitch Solutions Inc	Credit Rating Services	43,000
Gartner Inc	Technology Sector Research	28,430
Global Financial Data Inc	Research and Data Services	30,600
Grandview Analytics LLC	Investment Information Technology Consulting Services	95,742
Green Street Advisor	Real Estate Analytics	57,937
Hammerstone Markets Inc	Investment Research	300
Haver Analytics	Global Macroeconomic Research	19,500
Ice Data LP	Fixed Income Indices	10,302
Institutional Shareholder Services Inc	Proxy Voting Analysis	41,914
Keystone Consulting Inc	Investment Information Technology Consulting Services	296,640
Kreischer Miller LLP	Investment Consulting	25,000
Kroll Bond Rating Agency, Inc. (KBRA)	Investment Research and Data Services	15,000
London Stock Exchange	London Stock Exchange Data	45,817
Mackey LLC	Research Management System	47,395
Markit-EDM Limited	Investment Consulting	173,674
MarkLines Co Ltd	Investment Research	5,100
Matrix IDM, LLC	Investment Consulting	88,200
Meketa Investment Group	Public Markets External Manager Consultant	64,413
Money-Media Inc	Research and Data Services	4,890
Moodys Analytics	Economic, Currency & Bond Analysis	35,198
MSCI - Barra	Research and Data Services	76,500
MSCI Inc - Risk Metrics Solutions	Research and Data Services	294,838
MSCI, Inc	Research and Data Services	47,884
NEPC LLC	Investment Consulting Services	100,000
Novus Partners Inc	Profit & Loss Analytics System	47,025

STATE OF WISCONSIN INVESTMENT BOARD
Expenses for All Funds Under Management
Quarter Ending June 30, 2021

EXPENSE CATEGORY ¹	SERVICE PROVIDED	EXPENSES
Nuware Technology Corp	Investment Information Technology Consulting Services	233,216
NYSE Market Inc	New York Stock Exchange Data	7,444
Odeon Capital Group, LLC	Research and Data Services	5,000
Oliver James	Investment Consulting	66,560
Options Price Reporting Authority	Quote System for Options Market	2,741
Pac-invest	Research and Data Services	11,637
Pageant Media Limited	Investment Data and Research	4,250
RCM Technologies	Investment Consulting	20,000
Refinitiv	Research Pricing (Autex, Baseline, FirstCall)	41,168
Russell Investment Group	Index Data	13,075
S&P Dow Jones Indices	Research and Data Services	52,826
S&P Global Market Intelligence	Industry & Corporate Research	163,420
Sagient Research Systems	Investment Research	5,000
Schwab Compliance Technologies, Inc.	Research and Data Services	1,986
Seaport Global Securities LLC	Research and Data Services	2,670
Sharp Decisions Inc	Investment Information Technology Consulting Services	129,875
Simcorp USA, Inc.	Investment System	1,404,186
Simmons & Simmons	Global Regulatory Services	7,584
Snowflake Inc	Research and Data Services	17,687
Solve Advisors Inc	Investment Research	9,000
SPACInsider	Research and Data	2,999
Speaking.com	Investment Consulting	12,500
State Street	Investment Consulting	20,000
StepStone Group	Private Equity Consulting Services	303,803
StepStone Group Real Estate	Real Estate Consulting Services	56,471
Strategic Economic Decisions Inc	Investment Research Reports	12,500
SVB Leerink	Research and Data Services	7,000
SWIFT SC	Research and Data Services	5,483
SystemsAccountants	Investment Information Technology Consulting Services	85,760
Taranis, Inc.	Investment Information Technology Consulting Services	86,000
Telsey Advisory Group	Consumer Sector Research	62,500
The Financial Times Limited	Investment Research	8,171
The Harry Walker Agency	Investment Consulting	10,000
The Nasdaq Stock Market, LLC	Research & Data Services	1,500
Toronto Stock Exchange	Market Data	15,131
TradeWeb	On-Line Fixed Income Trading Services	9,356
Unit4 Business Software Inc	Financial & Administration Services System	56,746
Verus Advisory Inc	Benchmarking Consulting Services	42,000
Virtu ITG Analytics LLC	Trading Transaction Cost Analysis	11,250
Visible Alpha LLC	Research and Data Services	42,673
V-Soft Consulting Group Inc	Investment Information Technology Consulting Services	54,450
Wall Street Journal	Investment Research & Information	12
WIPFLi LLP	Income Tax Preparation Services	919
Wisconsin Technology Council	Investment Research Sponsorship	7,500
Wolters Kluwer Law & Business	GDP Forecasting Services	10,985
Wolverine Execution Services LLC	Options Trading Platform	1,326
WorldBridge Partners Inc	Recruitment Consulting	80,000
Yipit, LLC	Research and Data Services	45,000
Total Investment Counsel		\$ 9,505,930
Securities Lending Agent Fees		
BNY Mellon Asset Servicing	Securities Lending Agent Fees	\$ 884,053
Total Securities Lending Agent Fees		\$ 884,053
Total Quarterly Charges to Funds		\$ 51,762,696

¹All costs reported are on an accrual basis except for internal operating costs, which are on a cash basis of accounting. Negative expense amounts are due to accrual adjustments and/or other miscellaneous adjustments.

Explanation of Expenses

Internal Operating Expenses

Internal operating expenses consist primarily of staff compensation and fringe benefits. SWIB employs a staff of professional investment and support staff to manage the trust fund assets. Other internal operating expenses consist of office equipment, supplies, business travel, information technology equipment and services, and general services.

Custodial & Banking Fees

Wisconsin Certificate of Deposit Program: Under a contract with SWIB, Bankers' Bank administers the program under which the State Investment Fund (SIF) purchases certificates of deposit from Wisconsin-based banks and thrifts. Most administrative costs are paid by the participating banks. SWIB's expenses help underwrite other administrative costs, such as insurance that SWIB requires to be purchased.

BNY Mellon: Provides master custodial and administrative services (safekeeping of assets, income collection, valuations and accounting) for public and private domestic and foreign securities in the Wisconsin Retirement System (WRS), the SIF, and the other separately managed trust funds. In addition, SWIB receives performance measurement and analytical services through its contract with BNY Mellon, which serves as the official book of record for SWIB's accounting and performance measurement functions. BNY Mellon provides data and analytical tools used by SWIB for compliance and risk management. These include global collateral management, data management, and hosting services. Fees for these services are established by contract.

US Bank: The State of Wisconsin contracted with US Bank to be the state's working bank. The fees paid to US Bank by the SIF reflect bank service charges that are not directly applicable to the fund participants.

Legal Fees, Services, and Expenses

Under authority delegated by the Attorney General, pursuant to s. 25.18 (1) (a) Statutes, SWIB may employ legal counsel for any matters arising out of the scope of its investment authority. This includes legal services relating to bankruptcies, class actions, private markets transactions, fiduciary advice, securities law, investment litigation, and other similar matters. The Attorney General annually reviews and approves a list of law firms to provide investment legal services for SWIB.

Investment Counsel

Current law gives SWIB the authority to employ investment counsel in any matters arising out of the scope of its investment authority. Investment research and services provided include global market, industry, economic and company information, financial and performance analytics, news information, pricing and exchange data, credit ratings, financial modeling, economic forecasting, trading services, and a variety of Board consultations. These services enable SWIB to perform due diligence on current and future holdings and assist in monitoring investments.

Securities Lending Agent Fees

Securities lending programs generally earn income through the reinvestment of cash collateral posted by borrowers and through the collection of fees for loans where non-cash collateral is posted. SWIB's securities lending income is shared with the agent to pay the costs associated with the administration of the program. The securities lending agent fees are no longer netted with income and are reported as securities lending agent fee expenses starting on July 1, 2019.

Externally Managed Separate Account Fees

External asset managers have been delegated authority within guidelines established by SWIB to determine investment strategy and purchase securities in SWIB's name within a SWIB account. Fees are typically assessed as a percentage of the market value of assets under management and in some cases, fees are based on investment performance.

External Funds Fees

SWIB invests in separate legal entities managed by external investment managers to gain exposure to select strategies including Public Markets, Private Equity, Venture Capital, Real Estate and Hedge Funds. In exchange for their investment management services, the external managers charge a fee within the entity they manage. Fees are typically assessed as a percentage of the market value of assets under management, commitments, and in some cases are based on investment performance. While the fees charged to these external vehicles do not meet the statutory definition of a cost or expense to SWIB, they are currently included in SWIB's total cost of management. Accordingly, these fees are reported as supplemental information.