

May 13, 2022

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 Kathy Blumenfeld
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 Blumenfeld:

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 March 31, 2022.

Total Cost of Management Summary	2Q2021	3Q2021	4Q2021	1Q2022	Trailing 4 Qtr Total	% of Total
Internal Operating Expenses						
Operating Budget Expenses	\$ 39,468,133	\$ 12,882,486	\$ 14,225,300	\$ 14,062,637	\$ 80,638,556	60.3%
Custodial, Investment Operations & Banking	1,667,094	1,712,812	1,752,273	1,803,372	\$ 6,935,551	5.2%
Legal	237,486	642,792	821,846	625,000	\$ 2,327,124	1.7%
Investment Research & Consulting	9,505,930	10,099,210	10,521,546	10,007,468	\$ 40,134,154	30.1%
Total Internal Operating Expenses	\$ 50,878,643	\$ 25,337,300	\$ 27,320,965	\$ 26,498,477	\$ 130,035,385	97.3%
Securities Lending Agent Expenses	884,053	706,762	784,251	1,282,912	3,657,978	2.7%
Total SWIB Operating Costs	\$ 51,762,696	\$ 26,044,062	\$ 28,105,216	\$ 27,781,389	\$ 133,693,363	100.0%
External Investment Management Fees						
Externally Managed Separate Account Fees						
Beta One & Other - Separately Managed	\$ 12,846,225	\$ 15,897,862	\$ 9,818,853	\$ 12,730,351	51,293,291	8.3%
Supplemental Information - External Fund Fees						
Real Estate	\$ 16,794,113	\$ 17,175,742	\$ 17,693,091	\$ 19,209,516	70,872,462	11.5%
Private Equity & Venture Capital	57,849,368	56,476,982	61,375,539	56,999,361	232,701,249	37.6%
Hedge Funds	43,171,220	46,910,532	42,415,360	72,033,779	204,530,891	33.2%
Beta One & Other - External Funds	15,468,903	18,697,235	4,722,875	18,411,505	57,300,519	9.3%
Total External Investment Management Fees	\$ 146,129,829	\$ 155,158,353	\$ 136,025,718	\$ 179,384,512	\$ 616,698,412	100.0%
Total Cost of Management	\$ 197,892,525	\$ 181,202,415	\$ 164,130,934	\$ 207,165,901	\$ 750,391,775	

¹Wisconsin Statutes Section 25.17 (13m): 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, 2021, after consideration of all expenses, costs, and fees, SWIB generated more than \$2.2 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. As of March 31, 2022, SWIB's total authorized positions are 290 as shown in the table below.

Assets Under Management & Positions		
	12/31/2021	3/31/2022
Internal Management	53.3%	50.7%
External Management	46.7%	49.3%
Total SWIB Positions	290	290

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.

For definitions of the expense categories presented in the Total Cost of Management Summary table, please refer to Attachment C

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)	6/30/2021		9/30/2021		12/31/2021		3/31/2022	
	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent	Amount (in millions)	Percent
Internally Managed	\$ 72,061	51.4%	\$ 72,136	51.2%	\$ 72,165	49.0%	\$ 64,161	45.5%
Externally Managed Dedicated Accounts	\$ 36,723	26.2%	\$ 35,978	25.5%	\$ 36,740	25.0%	\$ 36,289	25.8%
Externally Managed Commingled Accounts	\$ 31,351	22.4%	\$ 32,809	23.3%	\$ 38,311	26.0%	\$ 40,434	28.7%
1. Passive Index Funds	2,966	2.1%	2,894	2.1%	2,857	1.9%	2,283	1.6%
2. Limited Partnerships	19,692	14.1%	22,128	15.7%	26,574	18.1%	28,548	20.3%
3. Actively Managed Commingled Accounts	8,693	6.2%	7,787	5.5%	8,881	6.0%	9,603	6.8%
Total WRS Assets	\$ 140,136	100.0%	\$ 140,923	100.0%	\$ 147,217	100.0%	\$ 140,884	100.0%

State Investment Fund - Internally Managed	\$ 15,426		\$ 14,648		\$ 16,051		\$ 16,930	
Separately Managed Funds - Internally Managed	124		123		123		111	
Separately Managed Funds - Externally Managed	\$ 2,221		\$ 2,225		\$ 2,276		\$ 2,095	

Total Assets Under Management	\$ 157,906		\$ 157,919		\$ 165,666		\$ 160,020	
Total Internal Management	\$ 87,611	55.5%	\$ 86,906	55.0%	\$ 88,338	53.3%	\$ 81,202	50.7%
Total External Management	\$ 70,295	44.5%	\$ 71,012	45.0%	\$ 77,328	46.7%	\$ 78,818	49.3%

STATE OF WISCONSIN INVESTMENT BOARD
Expenses for All Funds Under Management
Quarter Ending March 31, 2022

EXPENSE CATEGORY ¹	SERVICE PROVIDED	EXPENSES
<u>Internal Operating Expenses</u>		
Staff Compensation	Staff Compensation	\$ 10,032,790
Fringe Benefits	Fringe Benefits	2,636,697
Equipment, Supplies & Services	General Supplies & Services	1,393,150
Total Internal Operating Expenses		\$ 14,062,637
<u>Custodial, Investment Operations and Banking Fees</u>		
BNY Mellon Asset Servicing - Custody	Master Custody Services	\$ 327,345
BNY Mellon Asset Servicing - Investment Operations	Investment Operating Services	1,452,731
Markit NA	Investment Data Management Software	23,222
US Bank	Banking Fees	74
Total Custodial, Investment Operations and Banking Fees		\$ 1,803,372
<u>Legal Fees</u>		
Cox Castle & Nicholson LLP	Legal Work for Investment Strategies	\$ 4,074
DLA Piper LLP (US)	Legal Work for Investment Strategies	94,353
Godfrey & Kahn SC	Legal Work for Investment Strategies	4,155
Husch Blackwell	Legal Work for Investment Strategies	19,386
Purrington Moody Weill LLP	Legal Work for Investment Strategies	44,467
Quarles & Brady	Legal Work for Investment Strategies	97,886
Reinhart Boerner Van Deuren SC	Legal Work for Investment Strategies	340
Shearman & Sterling LLP	Legal Work for Investment Strategies	15,076
Legal Services Expense Accrual	Legal Work for Investment Strategies	345,265
Total Legal Fees		\$ 625,000
<u>Investment Counsel</u>		
Adeptyx Consulting	Investment Consulting Services	\$ 87,516
Aksia LLC	Hedge Fund Investment Consulting	193,750
Alex Solutions	Research and Data Services	39,750
Allan Timmermann	Investment Consulting	5,000
Analytic Recruiting Inc	Investment Consulting	41,250
Apex Systems - CH25	Investment Consulting	25,930
Arthur Selender	Investment Consulting	8,000
Automation Anywhere, Inc.	Process Automation Software	49,400
Backstop Solutions Group	Investment Software	61,390
Baele Consulting	Investment Consulting	5,000
BCA Research Inc	Global & Domestic Fixed Income Strategy Research	33,125
Blacklight Technology Partners, LLC	Research and Data Services	31,500
Blackrock Financial Management Inc	Risk Services	75,000
Bloomberg Finance LP	Market, Company, Industry & Benchmark Information	1,031,380
BNY Mellon Asset Servicing - Custody	Master Custody Services	17,100
BNY Mellon Asset Servicing - Eagle/Pace	Investment Consulting Services	119,000
Bonfire Interactive LTD	Strategic Sourcing Software	20,000
Bridge Consulting Partners Ltd	Investment Consulting	83,160
Broad Street Consulting Group	Recruitment Consulting	50,000
CBJL Incorporated	Investment Consulting	12,300
CBOE Global Markets, Inc.	Research and Data Services	1,500
CFRA Research	Investment Research Services	19,250
Charles River System Inc	Portfolio Management Trading Software & Services	476,110
CoStar Portfolio Strategy	Real Estate Consulting & Research Services	28,738
CreditSights	Credit Assessments	5,833
Dacheng Xiu	Investment Research	37,500
Delphi-US LLC	Investment Information Technology Consulting Services	(1,233)
Deutsche Bank	Tax Registration Fees	9,000
Digitimes Inc	Investment Research	450
Dow Jones News Service	Company and Industry News Services	781
DTCC – EPN	Trade Settlement Service	3,000
DTCC ITP LLC	Trade Settlement Service	2,576
efilemyforms.com	On-Line Filing Service	36
EFront Financial Solutions Inc	Private Markets Portfolio Management Services	324,653
Elevation LLC	Research and Data Services	10,000
Ernst & Young LLP	Tax Compliance Services & Investment Consulting	31,000
Euromonitor International	Research and Data Services	18,915
FactSet Research Systems Inc	Financial & Economic Database	1,013,167
Fairleads Strategies	Research and Data Services	1,875
FIS Data Systems Inc.	Research and Data Services	28,905
Fitch Solutions Inc	Credit Rating Services	11,667
FTSE International Inc	Real Time Index Data	13,544
Gallagher	Insurance and Risk Management Service	5,178

EXPENSE CATEGORY¹	SERVICE PROVIDED	EXPENSES
Gartner Inc	Technology Sector Research	29,285
Gcon4 Group	Integration Software	3,498
Grandview Analytics LLC	Investment Information Technology Consulting Services	94,166
Green Street Advisor	Real Estate Analytics	50,438
Haver Analytics	Global Macroeconomic Research	22,700
Ice Data LP	Fixed Income Indices	25,954
Infopro Digital Services Limited	Research and Data Services	18,851
Institutional Investor	Investment Data and Research Services	49,000
Institutional Limited Partners Association ILPA	Private Equity Research	5,000
Institutional Shareholder Services Inc	Proxy Voting Analysis	81,914
JW Michaels & Co	Recruitment Consulting	7,000
Keystone Consulting Inc	Investment Information Technology Consulting Services	254,120
London Stock Exchange	London Stock Exchange Data	46,606
Mackey LLC	Research Management System	51,436
Markit-EDM Limited	Investment Consulting	186,759
Matrix IDM, LLC	Investment Consulting	15,400
McLagan Partners Inc	Investment Compensation Data and Analysis	46,813
Meketa Investment Group	Public Markets External Manager Consultant	66,648
MNI Market News	Research and Data Services	2,835
Moodys Analytics	Economic, Currency & Bond Analysis	61,559
MSCI Inc - Risk Metrics Solutions	Research and Data Services	246,390
MSCI, Inc	Research and Data Services	39,425
My Data Outlet International, LLC	Research and Data Services	10,500
NAIOP Commercial Real Estate Development Association	Investment Consulting Services	383
National Council of Real Estate Investment Fiduciaries	Real Estate Performance Research	2,500
NEPC LLC	Investment Consulting Services	100,000
Novus Partners Inc	Profit & Loss Analytics System	18,885
Nuware Technology Corp	Investment Information Technology Consulting Services	199,154
NYSE Market Inc	New York Stock Exchange Data	6,575
Odeon Capital Group, LLC	Research and Data Services	7,500
Oliver James	Investment Consulting	159,959
OptionMetrics	Investment Data Service	36,920
Options Price Reporting Authority	Quote System for Options Market	2,835
Pac-invest	Research and Data Services	12,396
Pension Real Estate Association	Real Estate Investment Research	330
Pitchbook Data Inc	Research and Data Services	46,350
PremiaLab	Investment Research	12,451
Refinitiv	Research Pricing (Autex, Baseline, FirstCall)	94,845
Russell Investment Group	Index Data	8,932
Rystad Energy AS	Investment Research	22,500
S&P Global Market Intelligence	Industry & Corporate Research	173,356
Sharp Decisions Inc	Investment Information Technology Consulting Services	87,040
Simcorp USA, Inc.	Investment System	1,730,782
Snowflake Inc	Research and Data Services	25,000
Solve Advisors Inc	Investment Research	9,000
StepStone Group	Private Equity Consulting Services	289,783
StepStone Group Real Estate	Real Estate Consulting Services	57,883
Strategic Economic Decisions Inc	Investment Research Reports	12,500
SWIFT SC	Research and Data Services	4,842
SystemsAccountants	Investment Information Technology Consulting Services	78,080
Telsey Advisory Group	Consumer Sector Research	31,250
The Nasdaq Stock Market, LLC	Research and Data Services	4,500
The Spaulding Group, Inc.	Audit Services	17,500
The University of Chicago Booth School of Business	Training Services	19,094
Toronto Stock Exchange	Market Data	14,935
TradeWeb	On-Line Fixed Income Trading Services	9,534
Trivariate Research LP	Investment Research	15,000
Unit4 Business Software Inc	Financial & Administration Services System	69,827
Vadim Moroz	Investment Consulting	47,700
Investment Research Accrual	Investment Research	850,000
Verus Advisory Inc	Benchmarking Consulting Services	42,000
Virtu ITG Analytics LLC	Trading Transaction Cost Analysis	20,500
Visible Alpha LLC	Research and Data Services	36,619
V-Soft Consulting Group Inc	Investment Information Technology Consulting Services	74,400
WallachBeth Capital LLC	Investment Consulting Services	3,000
Washington Speakers Bureau	Investment Consulting Services	10,000
Wisconsin Technology Council	Investment Research Sponsorship	7,500
Wolters Kluwer Law & Business	GDP Forecasting Services	2,628
Wolverine Execution Services LLC	Options Trading Platform	1,367
WorldBridge Partners Inc	Recruitment Consulting	66,040
Yipit, LLC	Research and Data Services	15,000
Total Investment Counsel		\$ 10,007,468

EXPENSE CATEGORY¹**Securities Lending Agent Fees**

BNY Mellon Asset Servicing

Total Securities Lending Agent Fees**Total Quarterly Charges to Funds****SERVICE PROVIDED**

Securities Lending Agent Fees

EXPENSES

\$	1,282,912
\$	1,282,912
\$	27,781,389

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.

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.