

SWIB STATE OF WISCONSIN
INVESTMENT BOARD

State Investment Fund

ANNUAL FINANCIAL REPORT

Fiscal Year Ended June 30, 2019



Table of Contents

Message from the Portfolio Manager	3
Independent Auditor's Report	4
Management Discussion & Analysis	7
Financial Statements	9
Notes to the Financial Statements	11
Schedule of Investments	17
Agency Information	23

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Message from the Portfolio Manager

The State Investment Fund (SIF) is a pool of cash balances of various state and local governmental units that is managed by the State of Wisconsin Investment Board (SWIB). The SIF includes retirement trust funds, state funds, and funds from over 1,300 Wisconsin municipal units that have accounts with the Local Government Investment Pool (LGIP). The LGIP was created in 1975 to give local governments an additional investment option providing them with liquidity, active management, and investment returns available to larger pools of assets. The investment objectives of the SIF are to provide safety, liquidity, and competitive rates of return. To meet these objectives, the fund primarily invests in obligations of the U.S. Government and its agencies, with a smaller number of investments in bank and corporate debt.

Over the course of fiscal year 2019, the economy continued to strengthen. The Federal Reserve's dual mandate regarding stable inflation and maximum employment remained close to target rates. With the strengthening domestic economy, the Federal Reserve increased the federal funds target rate range by 25 basis points (bps) in September and December of 2018. During the second half of the fiscal year, global economic concerns began to gain traction and the Federal Reserve took a patient stance, resulting in a flattening of the yield curve. At the Federal Reserve's meeting in July 2019, the Federal Reserve cut the federal funds target rate by 25 bps and indicated that they anticipated further federal funds rate cuts this year or next, if economic conditions warrant.

The investment strategy of the SIF over the past year included a short average maturity which allowed the SIF to quickly capture the steadily rising interest rates over that period as well as offer ample liquidity to participants. Over the next year, we will position the SIF to handle potential interest rate cuts this year and next, while maintaining the SIF's investment objectives of safety, liquidity, and competitive rates of return.

Andrea Ruiz, CFA, CPA
Portfolio Manager



Independent Auditor's Report on the Financial Statements and Other Reporting Required by *Government Auditing Standards*

Senator Robert Cowles and
Representative Samantha Kerkman, Co-chairpersons
Joint Legislative Audit Committee

Members of the Board of Trustees, and
Mr. David Villa, Executive Director/Chief Investment Officer
State of Wisconsin Investment Board

Report on the Financial Statements

We have audited the accompanying financial statements and the related notes of the State Investment Fund of the State of Wisconsin as of and for the year ended June 30, 2019, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management of the State of Wisconsin Investment Board (SWIB) is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America. This includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, which is issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes

evaluating the appropriateness of the accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on these financial statements.

Opinion

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position of the State Investment Fund as of June 30, 2019, and the respective changes in its financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphases of Matter

As discussed in Note 1 to the financial statements, the financial statements referred to in the first paragraph present only the State Investment Fund and do not purport to, and do not, present fairly the financial position of the State of Wisconsin as of June 30, 2019, or the changes in its financial position, or where applicable, its cash flows for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

As discussed in Note 5B to the financial statements, during the fiscal year the State Investment Fund entered into significant repurchase agreement transactions with the Core Retirement Investment Trust Fund. The State Investment Fund and the Core Retirement Investment Trust Fund are both administered by the State of Wisconsin Investment Board.

Our opinion is not modified with respect to these matters.

Other Matters

Required Supplementary Information—Accounting principles generally accepted in the United States of America require that the Management Discussion and Analysis, which precedes the financial statements, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, which considers it to be essential for placing the financial statements in an appropriate operational, economic, or historical context. In accordance with auditing standards generally accepted in the United States of America, we have applied certain limited procedures to the required supplementary information that included inquiries of management about the methods of preparing the information. We further compared the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Accompanying Information—Our audit was conducted for the purpose of forming an opinion on the financial statements of the State Investment Fund. The Message from the Portfolio Manager and the Schedule of Investments as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued a report dated December 5, 2019, on our consideration of SWIB's internal control over financial reporting; our tests of its compliance with certain provisions of laws, regulations, and contracts; and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on the effectiveness of SWIB's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be used when considering SWIB's internal control over financial reporting and compliance.

LEGISLATIVE AUDIT BUREAU



Joe Chrisman
State Auditor

December 5, 2019

Management Discussion & Analysis

The State Investment Fund's (SIF) discussion and analysis of the financial activities for the fiscal year (FY) ended June 30, 2019, is presented by management to assist the reader in understanding the financial statements by providing an overall review of the financial activities during the year and a comparison of the prior year's activity. The SIF temporarily invests the operating funds of the State of Wisconsin and agencies, the Wisconsin Retirement System (WRS), and various local government units (Local Government Investment Pool – LGIP).

Following this section are the financial statements and notes to the financial statements. The **Statement of Net Position** provides information on the financial position of the SIF at June 30, 2019. It reflects the investment assets available for use and any liabilities related to the investments.

The **Statement of Operations and Changes in Net Position** presents the results of the investing activities for the twelve months ending June 30, 2019. The **Notes to the Financial Statements** provide additional information that is essential to a full understanding of the data provided in the SIF financial statements. Condensed SIF financial information for the fiscal years ending June 30, 2019 and June 30, 2018 is included in the table entitled **SIF Condensed Financial Information**.

Because the SIF is used to temporarily invest participants' operating cash flows, investments are in highly liquid, short-term fixed income securities. As of June 30, 2019, the SIF Net Position had increased by \$3.6 billion or 38.5% from the prior year due to the combined increases in the shares of the WRS (increase of \$1.9 billion), State of Wisconsin and agencies (increase of \$1.2 billion),

Fiscal Year Ended:	SIF Condensed Financial Information			SIF Annualized Returns (as of June 30)		
	2019	2018	Change%	Year(s)	Return%	Benchmark%
Total Assets	\$13,081,507,827	\$ 9,482,004,407	38.0	One Year:		
Total Liabilities	188,544,704	174,917,781	7.8	2010	0.25	0.15
Net Position	<u>\$12,892,963,123</u>	<u>\$ 9,307,086,626</u>	38.5	2011	0.19	0.15
Investment Income	\$ 259,596,140	\$ 130,196,193	99.4	2012	0.14	0.09
Investment Expenses	2,122,031	1,412,874	50.2	2013	0.15	0.10
State Working Bank Charges	2,173,581	2,914,068	(25.4)	2014	0.09	0.06
Net Income	<u>\$ 255,300,528</u>	<u>\$ 125,869,251</u>	102.8	2015	0.11	0.05
Average Monthly Balance	\$11,588,635,453	\$ 9,818,329,570	18.0	2016	0.28	0.19
Weighted Avg. Maturity (WAM)	16	20		2017	0.54	0.57
SIF Ownership:				2018	1.34	1.42
State of Wisconsin & Agencies	38%	39%		2019	2.33	2.28
Wisconsin Retirement System	31%	23%		Multi-Year:		
Local Govt Investment Pool	31%	38%		Three Year	1.40	1.42
Total	<u>100%</u>	<u>100%</u>		Five Year	0.91	0.90
				Ten Year	0.54	0.50

Management Discussion & Analysis

and the LGIP (increase of \$0.5 billion). The SIF Average Monthly Balance increased by \$1.8 billion in FY 2019 compared to FY 2018. During the fiscal year, the monthly balance peaked at \$14.9 billion in April 2019.

Investment Income increased by \$129.4 million, or 99.4%, from the previous fiscal year. The change in investment income can be attributed to the increases in both the return on investments and the average monthly balance invested in the SIF. The increase in the return on investment is correlated to the higher federal funds rate during the year. During FY 2019, the Federal Reserve increased the federal funds “target range” from between 1.75% and 2.00% to between 2.25% and 2.50%. As a result, the average federal funds effective rate increased to 2.23% in FY 2019 compared to 1.39% in FY 2018. Accordingly, the one-year SIF return increased to 2.33% compared to 1.34% in the prior fiscal year.

Investment Expenses increased by \$709,157, or 50.2%, from the prior fiscal year for SWIB’s expenses allocated to SIF participants for investing

activities. Investment expenses help support SWIB’s investment decision making process and are necessary to operate an actively managed fund like the SIF.

The weighted average maturity decreased from 20 days to 16 days when comparing FY 2019 to the prior year-end. The largest contributor to the change was the decrease in the weighted average maturity of Government & Agency securities, which was 24 days at June 30, 2019 compared to 32 days at the end of the previous fiscal year. Also, the SIF increased its investment in overnight repurchase agreements during FY 2019. At June 30, 2019, the SIF held \$4.4 billion in repurchase agreements compared to \$3.7 billion at the end of the previous year, an increase of \$0.7 billion or 17.4%. Government & agencies and repurchase agreements represented 61.3% and 33.5%, respectively, of the SIF’s total investments as of June 30, 2019. The decrease in the weighted average maturity put the SIF in a position to more quickly take advantage of the anticipated increases in the federal funds rate during FY 2019 and to continue to meet the cash flow needs of the participants.

Financial Statements

State Investment Fund Statement of Net Position As of June 30, 2019

Assets

Investments

Repurchase Agreements	\$ 4,375,223,793
Government & Agencies	8,015,126,095
Commercial Paper	435,175,099
Certificates of Deposit	146,299,620
Time Deposits	25,000,000
Banker's Acceptances	19,762,730
Corporate Notes	50,568,952

Total Investments	13,067,156,289
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Other Assets

Accrued Interest Receivable	14,351,538
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Total Assets	13,081,507,827
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Liabilities

Check Float Invested	161,265,081
Earnings Distribution Payable	26,014,282
Payable for Investments Purchased	100,305
Accounts Payable	1,165,036

Total Liabilities	188,544,704
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NET POSITION	\$ 12,892,963,123
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Net Position consists of:

Participating Shares	\$ 12,894,086,000
Undistributed Unrealized Gains (Losses)	(1,122,877)

NET POSITION	\$ 12,892,963,123
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The accompanying notes are an integral part of this statement.

Financial Statements

State Investment Fund Statement of Operations and Changes in Net Position For the Fiscal Year Ended June 30, 2019		
Additions		
Investment Income		
Net Increase (Decrease) in the Fair Value of Investments	\$	140,360,483
Interest		119,235,657
Total Investment Income		259,596,140
Less		
Investment Expenses		
Management Operating Expenses		524,983
Custodial Bank Charges		198,139
Research and Data Services		120,000
Legal and Consulting Fees		940,497
Investment Operating Services		338,412
Total Investment Expenses		2,122,031
Net Investment Income		257,474,109
Less		
State Working Bank Charges		2,173,581
Net Income		255,300,528
Distributions Paid and Payable		256,010,031
Change in Undistributed Unrealized Gains (Losses)		(709,503)
Beginning Undistributed Unrealized Gains (Losses)		(413,374)
Ending Undistributed Unrealized Gains (Losses)		(1,122,877)
Net Change in Participating Shares		3,586,586,000
Beginning of Period Participating Shares		9,307,500,000
End of Period Participating Shares		12,894,086,000
NET POSITION	\$	12,892,963,123

The accompanying notes are an integral part of this statement.

Notes to the Financial Statements

1. Description of Funds

The State Investment Fund (SIF) pools the cash of the State of Wisconsin and its agencies, the Wisconsin Retirement System (WRS), and various local government units (Local Government Investment Pool – LGIP) into a commingled fund with the investment objective of safety of principal and liquidity while earning a competitive money market rate of return. Only State of Wisconsin agencies are required to invest their operating cash in the SIF. In the State's Comprehensive Annual Financial Report (CAFR), the SIF is not reported as a separate fund; rather, each State fund's share in the "pool" is reported on the balance sheet as "Cash and Cash Equivalents." Shares of the SIF belonging to other participating public institutions are presented in the Local Government Pooled Investment Fund, an investment trust fund. The staff of the State of Wisconsin Investment Board (SWIB) manages the SIF with oversight by the Board of Trustees as authorized in Wisconsin Statutes 25.14 and 25.17. SWIB is not registered with the SEC as an investment company. The statements are not intended to present the financial activity for the State of Wisconsin as a whole.

Wisconsin Statutes 25.17(3)(b), (ba), (bd), and (dg) enumerate the various types of securities in which the SIF can be invested, which include direct obligations of the United States or its Agencies, corporations wholly owned by the United States or chartered by an act of Congress, securities guaranteed by the United States, the unsecured notes of financial and industrial issuers, direct obligations of or guaranteed by the government of Canada, certificates of deposit issued by banks in the United States including solvent financial institutions in Wisconsin and banker's acceptances. The Board of Trustees may specifically approve other prudent legal investments.

2. Significant Accounting Policies

A. Basis of Presentation

The accompanying financial statements of the investment activity of the SIF are prepared in conformity with accounting principles generally accepted in the United States as prescribed by the

Governmental Accounting Standards Board (GASB).

B. Basis of Accounting

The accompanying statements are prepared based upon the flow of economic resources measurement focus and the full accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized in the accounting period in which they are earned and become measurable, and expenses are recognized in the period incurred, if measurable. Security transactions and the related gains and losses are recorded on a trade date basis. Interest income is accrued as earned.

C. Valuation of Securities

For financial statement purposes, the fair value of securities depends on the asset class. Repurchase Agreements and non-negotiable Certificates of Deposit and Time Deposits are carried at cost, because they are non-participating contracts that do not capture interest rate changes in their value.

All remaining debt investments (U.S. Government/ Agency securities, Banker's Acceptances, Commercial Paper, Corporate Notes, and negotiable Certificates of Deposit) are carried at fair value. Because quoted market prices for SIF securities are often not available at month end, BNY Mellon, as SWIB's custodial bank, compiles fair values from third party pricing services which use matrix pricing models to estimate a security's fair value.

The table entitled **Summary of Information by Investment Classification** contains summarized SIF information by investment type as of June 30, 2019.

D. Investment Expenses

Investment Expenses are SWIB's administrative and investment costs that are allocated to the SIF participants which consist of management operating expenses, custodial bank charges, research and data services, legal and consulting fees, and investment operating services.

E. State Working Bank Charges

State Working Bank Charges represent charges for various state banking services such as

Notes to the Financial Statements

lockbox, ePay, and depository services. These expenses are allocated to SIF participants based on their proportionate usage of banking services and, accordingly, reduce the participant's share of the Net Investment Income.

3. SIF Investment Income and Pool Shares

For reporting purposes, as noted in Note 2C, investments are valued at fair value. For purposes of calculating earnings to each participant, all investments are valued at amortized cost. Specifically, the SIF distributes income to pool participants monthly, based on their average daily share balance. Distributions include interest income based on stated rates (both paid and accrued), amortization of discounts and premiums on a constant yield basis, realized investment gains and losses calculated on an amortized cost basis, and investment expenses. This method does not distribute to participants any unrealized gains or losses generated by the pool's investments.

Unrealized gains and losses are reflected in the Statement of Operations and Changes in Net Position as "Net Increase (Decrease) in the Fair Value of Investments." The cumulative difference between net income (fair value) and distributions paid (amortized cost) is reported in the Statement of Net Position as "Undistributed Unrealized Gains (Losses)."

SIF pool shares are bought and redeemed at \$1.00 based on the amortized cost of the investments in the SIF. The State of Wisconsin does not provide any legally binding guarantees to support the value of pool shares.

4. Deposit and Investment Risk

SWIB recognizes that risk issues permeate the entire investment process from asset allocation to performance evaluation. SWIB monitors risk through multiple forms of analysis and reporting. For the SIF, evaluations of levels of diversification; nominal risk exposures including sector, maturity, and interest rate exposures; and risk/return plots form the core

Summary of Information by Investment Classification June 30, 2019

Investment Type	Maturity Dates	Fair Value
Repurchase Agreements	07/01/19	\$ 4,375,223,793
Government & Agencies	07/01/19 - 09/17/21	8,015,126,095
Commercial Paper	07/01/19 - 07/31/19	435,175,099
Certificates of Deposit	07/01/19 - 12/16/19	146,299,620
Time Deposits	07/01/19	25,000,000
Banker's Acceptances	07/02/19 - 11/04/19	19,762,730
Corporate Notes	08/02/19 - 10/25/19	50,568,952
Total Investments		<u>\$ 13,067,156,289</u>

of the monitoring process. In addition, the portfolio is reviewed daily for compliance with investment guidelines. At least quarterly, comprehensive reporting is presented to SWIB's Investment Committee and the Board of Trustees.

A. Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the SIF. The Board established SIF investment guidelines with maximum exposure limits by security type based on the minimum credit ratings as issued by Nationally Recognized Statistical Rating Organizations (NRSROs). The table entitled **Credit Quality Distribution for Securities** displays the credit ratings and aggregate exposures by investment type for the securities held by the SIF as of June 30, 2019.

B. Custodial Credit Risk

Deposits — Custodial credit risk related to deposits is the risk that, in the event of the failure of a depository financial institution, SWIB will not be able to recover deposits that are in possession of an outside party. As of June 30, 2019, the SIF held Certificates of Deposit (CDs) with a value of \$39,200,000 invested pursuant to the Wisconsin Certificate of Deposit Program (administered by Bankers' Bank) established in July 1987. Investment guidelines provide that to be accepted into this program, banks must accept deposits

Notes to the Financial Statements

in Wisconsin and meet credit-screening criteria designed to assure the safety of the deposits.

The Federal Deposit Insurance Corporation (FDIC) insures the pro rata share of Certificates of Deposit held by the LGIP up to \$250,000, and the State of Wisconsin appropriation for losses on public deposits protects a depositing municipality up to \$400,000 if the local governing body has designated the LGIP as a public depository. As of June 30, 2019, \$39,200,000 is insured through FDIC insurance and the State of Wisconsin appropriation for losses on public deposits. The actual coverage of these deposits can fluctuate daily based on the allocable share of participants' accounts. In addition, the SIF held time deposits with financial institutions with a fair value of \$25

million, all of which were uncollateralized and uninsured at June 30, 2019.

Investments — Custodial credit risk for investments is the risk that, in the event of failure of the counterparty to a transaction, SWIB will not be able to recover the value of investments that are in the possession of an outside party. The SIF invested in commercial paper with a fair value of \$25 million that was uninsured and held by the counterparty. In addition, the SIF held ten repurchase agreements totaling \$4.4 billion as of June 30, 2019. Nine of the repurchase agreements, totaling \$2.8 billion, were tri-party agreements. The underlying securities (collateral) for these repurchase agreements were held by the tri-party's agent, not in SWIB's name. The remaining

repurchase agreement, totaling \$1.6 billion, was a related-party, bilateral agreement. The underlying securities for this repurchase agreement were held by SWIB's custodian, in SWIB's name. The related party transaction is discussed in Note 5B.

SWIB requires the execution of a Master Repurchase Agreement (MRA) prior to engaging in repurchase agreements with a counterparty. MRAs are negotiated contracts containing terms in which SWIB seeks to minimize counterparty credit risk. The counterparty credit exposure is managed through

Credit Quality Distribution for Securities June 30, 2019			
Investment Type	Rating	Fair Value	%
Repurchase Agreements (Collateral):			
U.S. Government and Agencies Debt	AA	\$ 4,375,223,793	33.5
U.S. Treasury:			
Short-Term (Bills and Notes)	A-1+	1,752,214,369	13.4
Long-Term (Notes)	AA	579,338,084	4.4
Government Sponsored Entity U.S. Agency:			
Federal Home Loan Bank (FHLB)	A-1+	2,424,917,160	18.6
Federal Home Loan Bank (FHLB)	AA	260,984,950	2.0
Federal Home Loan Mortgage Corp (FHLMC)	A-1+	500,022,580	3.8
Federal National Mortgage Association (FNMA)	A-1+	2,462,592,914	18.8
Federal Farm Credit Bank (FFCB)	A-1+	99,988	0.0
Federal Farm Credit Bank (FFCB)	AA	34,956,050	0.3
Commercial Paper	A-1+	366,957,660	2.8
Commercial Paper	A-1	68,217,439	0.5
Certificates of Deposit:			
Negotiable	A-1+	82,099,540	0.6
Negotiable	A-1	25,000,080	0.2
Non-Negotiable (Wisconsin CD Program)	NR	39,200,000	0.3
Time Deposits	A-1+	25,000,000	0.2
Banker's Acceptances	A-1+	19,762,730	0.2
Corporate Notes	AA	50,568,952	0.4
Total Investments		<u>\$ 13,067,156,289</u>	<u>100.0</u>

Notes to the Financial Statements

the transfer of margin, in the form of cash or securities, between SWIB and the counterparty. The market value of securities utilized as collateral for repurchase agreements must be at least 102% of the value of the repurchase agreement. SWIB also controls credit exposures by performing a credit analysis on each counterparty and by establishing maximum exposure limits with any one counterparty based on their creditworthiness.

SWIB's custodial credit risk policy addresses the primary risks associated with safekeeping and custody. It requires that SWIB's custodial institution be selected through a competitive bid process and that the institution be designated a "Systematically Important Financial Institution" by the U.S. Federal Reserve. The policy also requires that SWIB be reflected as beneficial owner on all securities entrusted to the custodian and that SWIB have access to safekeeping and custody accounts. The custodian is also required to be insured for errors and omissions and must provide SWIB with an annual report on internal controls, prepared in accordance with the Statement on Standards for Attestation Engagements. Furthermore, SWIB management has established a system of controls for the oversight of services and related processes of the custodian. SWIB's current custodial bank was selected in accordance with these guidelines and meets all requirements stipulated in the custodial credit risk policy.

C. Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of an organization's investment in a single issuer. The SIF's investment guidelines limit concentrations of credit risk by establishing maximum issuer and/or issue exposure limits based on credit rating. These guidelines do not place a limit on maximum exposure for U.S. Treasury bills or

Agency discount notes. As of June 30, 2019, the SIF had more than five percent of its investments in FHLB (20.6%), FNMA (18.8%), U.S. Treasury (17.8%), and Repurchase Agreement collateral (33.5%) consisting of various securities issued by the U.S. Government and its agencies. Since the Repurchase Agreements generally mature each day, new collateral, consisting of a different blend of U.S. Government and agency securities, is assigned each day.

D. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The SIF uses the Weighted Average Maturity (WAM) method to analyze interest rate risk and investment guidelines mandate that the weighted average maturity for the entire portfolio will not exceed one year.

Weighted average maturity is the maturity of each position in a portfolio weighted by the dollar value of the position to compute an average maturity for the portfolio as a whole. This measure indicates

Weighted Average Maturities (WAM) for Securities June 30, 2019		
Investment Type	Fair Value	WAM (Days)
Repurchase Agreements	\$ 4,375,223,793	1
Government & Agencies	8,015,126,095	24
Commercial Paper	435,175,099	9
Certificates of Deposit	146,299,620	35
Time Deposits	25,000,000	1
Banker's Acceptances	19,762,730	55
Corporate Notes	50,568,952	40
Total Investments	<u>\$ 13,067,156,289</u>	
Portfolio Weighted Average Maturity (Days)		16

a portfolio's sensitivity to interest rate changes: a longer weighted average maturity implies greater volatility in response to interest rate changes. Depending on the types of securities held in a

fund, certain maturity shortening devices (e.g., interest rate resets, call options, and demand features) are taken into account when calculating the weighted average maturity.

The table entitled **Weighted Average Maturities (WAM) for Securities** presents the aggregated weighted average maturity by investment type for securities held by the SIF at June 30, 2019.

E. Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. At June 30, 2019, the SIF was not exposed to foreign currency risk.

5. Related Party Transactions

A. Inter-Fund Loans

Wisconsin Statutes 20.002 (11) provides for the short-term temporary reallocation of surplus moneys between statutory funds, provided that the borrowing fund anticipates receiving future revenues to pay back the temporary loan. For fiscal year 2019, Section 20.002 (11) (b) 2 provides that General Fund borrowings may not exceed 9% of defined revenues (estimated borrowing cap of \$1.605 billion). Section 20.002 (11) (b) 3 permits an additional temporary allocation not to exceed 3% of defined revenues for a period of up to 30 days (estimated total borrowing cap of \$2.139 billion). Further, Section 20.002 (11) (b) 1 limits the total amount of any temporary reallocations to a fund other than the General Fund to \$400 million. The borrowing fund is charged interest on the inter-fund loan at the SIF monthly interest rate. As of June 30, 2019, the amount of inter-fund borrowings between statutory funds invested in the SIF is listed in the table entitled **Inter-Fund Loans**.

B. Inter-Fund Transactions

The Wisconsin Legislature created SWIB for the sole purpose of providing professional investment management for the funds entrusted to it, including the assets of the SIF and the Core Retirement Investment Trust Fund (Core Fund). During the fiscal year, the SIF entered into repurchase agreement transactions with the Core

Inter-Fund Loans June 30, 2019	
Fund	Loan Amount
Industrial Building Construction Loan Fund	\$ 1,000
Medical Assistance Trust Fund	150,868,000
Recycling & Renewable Energy Fund	1,000
	<hr/>
Total Loans	\$ 150,870,000

Fund as a counterparty. The transactions were governed by an MRA, and investment guidelines limit exposure with the SIF to \$3.0 billion. Credit exposure is also managed through the transfer of margin between the Core Fund and SIF. As of June 30, 2019, the SIF held \$1.6 billion in a bilateral repurchase agreement with the Core Fund. The repurchase agreement was an overnight agreement collateralized with U.S. Treasury securities. The SIF enters into similar repurchase agreement transactions with other counterparties. The Core Fund is also a participant in the SIF, with an investment totaling \$3.9 billion at June 30, 2019.

6. Fair Value Reporting

Fair value measurements of the investments held by the SIF are categorized by the hierarchy established by generally accepted accounting principles. The hierarchy, which has three levels, is based on the valuation inputs used to measure the fair value of the asset.

Level 1 – Investments reflect unadjusted quoted prices in active markets for identical assets.

Level 2 – Investments reflect prices that are based on inputs that are either directly or indirectly observable for an asset (including quoted prices for similar assets), which may include inputs in markets that are not considered to be active.

Level 3 – Investments reflect prices based upon valuation techniques in which significant inputs or significant value drivers are unobservable.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3. When the inputs used to measure fair value

Notes to the Financial Statements

fall within different levels of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to fair value. The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and does not represent the investment's overall risk.

The fair value measurements of investments held by the SIF as of June 30, 2019 are found in the table titled **Investments Measured at Fair Value**.

Securities classified in Level 1 are generally valued at the official closing price (usually the last trade prices) or the last bid price on the security's primary exchange. Such investments include U.S. Treasury bills and only the most recently-issued U.S. Treasury notes and bonds are classified as Level 1 because available pricing for these securities is similarly reliable to exchange-traded securities.

Securities classified as Level 2 are valued using observable inputs, by third-party pricing services using a matrix-pricing technique. Matrix-pricing is used to value securities based on their relationship to quoted market prices for securities with similar interest rates, maturities, and credit ratings. The majority of debt securities are classified as Level 2 because they are generally traded using a dealer market, with lower trading volumes than Level 1 securities.

Level 3 investments are generally valued using significant inputs that are unobservable to the marketplace. Banker's Acceptances included in Level 3 represent securities that derive their fair value from cost. Typically, due to their short-term nature, cost approximates fair value for these investments.

Investments held at cost (Repurchase Agreements and non-negotiable Certificates of Deposit and Time Deposits) are not reported within the fair value hierarchy.

Investments Measured at Fair Value June 30, 2019				
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Investments by Fair Value Level:				
Government & Agencies	\$ 1,009,459,800	\$7,005,666,295		\$ 8,015,126,095
Commercial Paper		435,175,099		435,175,099
Certificates of Deposit (negotiable)		107,099,620		107,099,620
Banker's Acceptances			\$ 19,762,730	19,762,730
Corporate Notes		50,568,952		50,568,952
Total Investments by Fair Value Level	\$ 1,009,459,800	\$7,598,509,966	\$ 19,762,730	\$ 8,627,732,496
Investments Reported at Cost				
Repurchase Agreements				\$ 4,375,223,793
Certificates of Deposit (non-negotiable)				39,200,000
Time Deposits (non-negotiable)				25,000,000
Total Investments				\$ 13,067,156,289

State Investment Fund
SCHEDULE OF INVESTMENTS
Fiscal Year Ended June 30, 2019

REPURCHASE AGREEMENTS

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
CORE FUND DVP REPO	2.70	7/1/2019	\$ 1,625,223,793
CREDIT AGRICOLE TRI REPO	2.48	7/1/2019	500,000,000
DAIWA TRI REPO	2.50	7/1/2019	100,000,000
DAIWA TRI REPO	2.45	7/1/2019	400,000,000
JEFFERIES TRI REPO	2.47	7/1/2019	100,000,000
JEFFERIES TRI REPO	2.45	7/1/2019	500,000,000
MITSUBISHI TRI REPO	2.42	7/1/2019	300,000,000
MITSUBISHI TRI REPO	2.42	7/1/2019	350,000,000
MITSUBISHI TRI REPO	2.42	7/1/2019	350,000,000
MIZUHO TRI REPO	2.48	7/1/2019	150,000,000

TOTAL REPURCHASE AGREEMENTS..... \$ 4,375,223,793

GOVERNMENT & AGENCIES

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
FFCB	VARIABLE RATE	9/17/2021	\$ 9,967,300
FFCB	VARIABLE RATE	10/15/2020	24,988,750
FFCB	DISCOUNT	7/3/2019	99,988
FHLB	DISCOUNT	9/9/2019	10,206,950
FHLB	DISCOUNT	8/23/2019	199,350
FHLB	DISCOUNT	8/20/2019	199,386
FHLB	DISCOUNT	8/2/2019	99,804,000
FHLB	DISCOUNT	8/1/2019	419,421,582
FHLB	DISCOUNT	7/30/2019	15,971,680
FHLB	DISCOUNT	7/25/2019	99,853,000
FHLB	DISCOUNT	7/24/2019	152,484,693
FHLB	DISCOUNT	7/19/2019	49,945,000
FHLB	DISCOUNT	7/16/2019	99,908,000
FHLB	DISCOUNT	7/15/2019	113,902
FHLB	DISCOUNT	7/12/2019	318,786,270
FHLB	DISCOUNT	7/10/2019	38,478,825
FHLB	DISCOUNT	7/5/2019	31,406,461
FHLB	DISCOUNT	7/3/2019	1,145,862
FHLB	DISCOUNT	7/2/2019	499,970
FHLB	DISCOUNT	7/1/2019	34,000,000
FHLB	VARIABLE RATE	9/28/2020	69,974,100
FHLB	VARIABLE RATE	3/27/2020	27,993,840
FHLB	VARIABLE RATE	6/19/2020	49,985,500
FHLB	VARIABLE RATE	12/20/2019	49,992,500
FHLB	VARIABLE RATE	1/17/2020	24,995,750
FHLB	VARIABLE RATE	6/11/2021	24,985,500
FHLB	2.40	6/17/2020	134,559,419
FHLB	VARIABLE RATE	12/11/2019	119,983,200
FHLB	VARIABLE RATE	8/25/2020	6,000,660
FHLB	VARIABLE RATE	2/21/2020	14,997,000
FHLB	2.50	5/28/2020	25,013,500
FHLB	2.60	5/14/2021	20,007,660
FHLB	VARIABLE RATE	5/8/2020	20,000,200
FHLB	2.63	4/30/2021	75,017,850
FHLB	VARIABLE RATE	8/30/2019	24,998,500
FHLB	VARIABLE RATE	10/9/2019	14,998,650
FHLB	VARIABLE RATE	10/1/2020	35,004,200
FHLB	2.51	4/2/2020	100,001,000

GOVERNMENT & AGENCIES

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
FHLB	VARIABLE RATE	9/20/2019	24,998,200
FHLB	VARIABLE RATE	3/12/2021	10,000,780
FHLB	VARIABLE RATE	12/6/2019	24,997,000
FHLB	VARIABLE RATE	11/13/2019	19,995,000
FHLB	VARIABLE RATE	10/25/2019	49,994,500
FHLB	VARIABLE RATE	7/24/2020	19,994,200
FHLB	VARIABLE RATE	1/17/2020	4,999,600
FHLB	VARIABLE RATE	7/17/2019	19,999,600
FHLB	VARIABLE RATE	11/15/2019	8,000,320
FHLB	VARIABLE RATE	7/17/2019	249,992,500
FHLB	VARIABLE RATE	7/26/2019	19,998,600
FHLB	VARIABLE RATE	10/7/2019	16,998,980
FHLB	VARIABLE RATE	12/16/2019	1,999,500
FHLB	VARIABLE RATE	12/6/2019	2,999,370
FHLMC	1.25	8/1/2019	13,938,282
FHLMC	VARIABLE RATE	2/21/2020	19,996,000
FHLMC	VARIABLE RATE	11/1/2019	124,986,250
FHLMC	2.51	4/2/2020	100,001,000
FHLMC	VARIABLE RATE	7/9/2019	99,999,000
FHLMC	VARIABLE RATE	8/8/2019	69,600,608
FHLMC	VARIABLE RATE	9/5/2019	49,997,000
FHLMC	1.60	7/26/2019	1,499,400
FHLMC	VARIABLE RATE	7/5/2019	16,005,320
FHLMC	1.50	7/5/2019	3,999,720
FNMA	0.88	8/2/2019	2,405,086
FNMA	1.13	7/26/2019	3,971,820
FNMA	1.08	7/11/2019	1,299,558
FNMA	DISCOUNT	8/21/2019	5,437,926
FNMA	DISCOUNT	7/17/2019	23,167,274
FNMA	DISCOUNT	7/10/2019	24,986,250
FNMA	DISCOUNT	7/1/2019	2,401,325,000
TREASURY BILL	DISCOUNT	8/13/2019	24,938,500
TREASURY BILL	DISCOUNT	7/30/2019	124,783,750
TREASURY BILL	DISCOUNT	7/23/2019	49,937,000
TREASURY BILL	DISCOUNT	7/16/2019	274,766,250
TREASURY BILL	DISCOUNT	7/9/2019	174,924,750
TREASURY BILL	DISCOUNT	7/2/2019	150,992,450
TREASURY BILL	DISCOUNT	10/24/2019	49,682,500
TREASURY BILL	DISCOUNT	10/17/2019	84,478,100
TREASURY BILL	DISCOUNT	7/25/2019	24,967,500
TREASURY BILL	DISCOUNT	7/5/2019	49,989,000
TREASURY NOTE	VARIABLE RATE	7/31/2020	139,851,852
TREASURY NOTE	VARIABLE RATE	4/30/2021	69,941,552
TREASURY NOTE	VARIABLE RATE	1/31/2021	174,808,053
TREASURY NOTE	VARIABLE RATE	10/31/2020	194,736,627
TREASURY NOTE	VARIABLE RATE	4/30/2020	187,875,991
TREASURY NOTE	VARIABLE RATE	1/31/2020	29,984,873
TREASURY NOTE	VARIABLE RATE	10/31/2019	34,995,683
TREASURY NOTE	1.25	8/31/2019	49,908,203
TREASURY NOTE	VARIABLE RATE	7/31/2019	439,989,818

TOTAL GOVERNMENT & AGENCIES..... \$ 8,015,126,095

COMMERCIAL PAPER

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
APPLE INC	DISCOUNT	7/16/2019	\$ 2,222,408
APPLE INC	DISCOUNT	7/8/2019	4,996,772
APPLE INC	DISCOUNT	7/2/2019	34,990,993
BNY MELLON	DISCOUNT	7/31/2019	74,836,307
CME GROUP INC	DISCOUNT	7/2/2019	74,980,334
COCA COLA CO	DISCOUNT	7/29/2019	1,247,470
COLGATE PALMOLIVE	DISCOUNT	7/3/2019	24,992,038
L'OREAL USA INC	DISCOUNT	7/3/2019	19,993,561
L'OREAL USA INC	DISCOUNT	7/2/2019	4,998,713
NATIONAL AUST BK	DISCOUNT	7/1/2019	24,994,950
TOYOTA MTR CR	DISCOUNT	7/2/2019	24,993,528
TOYOTA MTR CR	DISCOUNT	7/1/2019	24,995,146
UNILEVER CAP CORP	DISCOUNT	7/15/2019	16,981,295
US BANK NA	2.45	7/1/2019	25,000,000
WAL MART STORES	DISCOUNT	7/8/2019	74,951,583

TOTAL COMMERCIAL PAPER..... \$ 435,175,099

CERTIFICATES OF DEPOSIT (CDs)

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
BANK OF MONTREAL	2.47	7/1/2019	\$ 24,000,000
BANK OF MONTREAL	VARIABLE RATE	7/11/2019	1,000,080
BANKERS' BANK	2.35	12/16/2019	8,000,000
BANKERS' BANK	2.35	9/16/2019	5,500,000
BANKERS' BANK	2.45	7/15/2019	2,000,000
BANKERS' BANK	2.55	10/15/2019	1,000,000
BANKERS' BANK	2.50	11/15/2019	9,000,000
BANKERS' BANK	2.45	8/15/2019	5,000,000
BANKERS' BANK	2.60	9/16/2019	3,000,000
BANKERS' BANK	2.60	8/15/2019	2,200,000
BANKERS' BANK	2.60	7/15/2019	3,500,000
ROYAL BANK OF CANADA	VARIABLE RATE	7/12/2019	4,257,170
ROYAL BANK OF CANADA	VARIABLE RATE	7/3/2019	5,001,150
TORONTO DOMINION BK	2.55	7/1/2019	2,830,028
TORONTO DOMINION BK	2.56	7/1/2019	40,000,991
US BANK NA	2.60	8/7/2019	30,010,200

TOTAL CERTIFICATES OF DEPOSIT..... \$ 146,299,620

TIME DEPOSITS

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
COMMONWEALTH BK AUST	2.46	7/1/2019	\$ 25,000,000

TOTAL TIME DEPOSITS..... \$ 25,000,000

BANKER'S ACCEPTANCES (BAs)

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
US BANK NA	DISCOUNT	11/4/2019	\$ 4,250,837
US BANK NA	DISCOUNT	9/19/2019	1,977,040
US BANK NA	DISCOUNT	8/14/2019	8,596,499
US BANK NA	DISCOUNT	7/2/2019	4,938,354
TOTAL BANKER'S ACCEPTANCES.....			\$ 19,762,730

CORPORATE NOTES

SECURITY NAME	COUPON RATE	MATURITY DATE	FAIR VALUE
APPLE INC	1.10	8/2/2019	\$ 3,711,285
APPLE INC	VARIABLE RATE	8/2/2019	3,915,352
MICROSOFT CORP	1.10	8/8/2019	41,976,988
PROCTER & GAMBLE CO/THE	1.75	10/25/2019	965,327
TOTAL CORPORATE NOTES.....			\$ 50,568,952

GRAND TOTAL STATE INVESTMENT FUND..... \$13,067,156,289

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Agency Information

Location

121 E. Wilson Street
Madison, WI 53703

Mailing Address

P.O. Box 7842
Madison, WI 53707

Internet Address

www.swib.state.wi.us

Main Telephone Number

(608) 266-2381

Central Facsimile Number

(608) 266-2436

Beneficiary Hotline

(800) 424-7942

Email Address

info@swib.state.wi.us





121 E. Wilson St., P.O. Box 7842 Madison WI 53707 // (p) 608.266.2381 // (f) 608.266.2436 // www.swib.state.wi.us