

2020  
Goals, Strategies & Performance Report



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## MISSION

To be a trusted and skilled global investment organization contributing to a strong financial future for the beneficiaries of the funds entrusted to us.

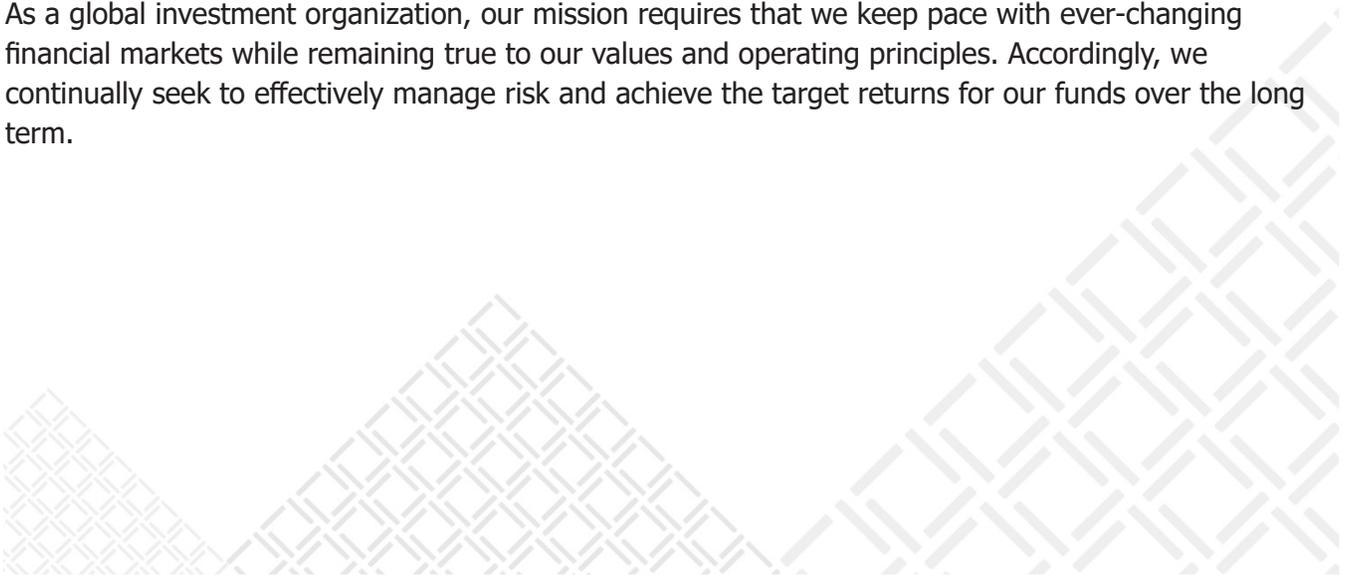
## VISION

SWIB will be an innovative, agile, integrated organization that optimizes investment returns while managing risk and cost over the long term.

## FUTURE DIRECTION

Throughout our history, we have been committed to contributing to a strong financial future for the beneficiaries of the funds entrusted to us. We understand that carrying that commitment into the future demands more than maintaining the status quo.

As a global investment organization, our mission requires that we keep pace with ever-changing financial markets while remaining true to our values and operating principles. Accordingly, we continually seek to effectively manage risk and achieve the target returns for our funds over the long term.



# Message from the Executive Director/CIO

I often use the metaphor of building a cathedral to demonstrate the bold, complex, strategic and long-term nature of the plans we are implementing at the State of Wisconsin Investment Board (SWIB). Over time, the resources we have invested in people, systems, and technology have made SWIB into the premier investment manager it is today. This 2020 Goals, Strategies & Performance Report is part blueprint and part progress update.



As of December 31, 2019, SWIB managed almost \$129 billion in total assets, over \$116 billion in the fully funded Wisconsin Retirement System (WRS). The WRS is the ninth largest public pension fund in the U.S. and 25th largest public or private pension fund in the world. More than 642,000 current and former state and local government employees and their families count on the WRS for some portion of their retirement security.

In 2019, both the WRS's Core Trust Fund and the Variable Trust Fund earned strong gross returns of 19.9 percent and 28.6 percent, respectively. However, the true value that SWIB provides is measured over long-term horizons and not simply by the rise and fall of the market in a single year. This is important to remember at a time of market stress, like right now, as COVID-19 is impacting global financial markets.

SWIB remains committed to its active investment strategy that is designed to add value to the WRS above market benchmarks. SWIB incorporates thoughtful asset allocation, significant portfolio diversification, volatility-reducing strategies, and cost-effective internal management to achieve its strategy.

Our goals for 2020 include increasing active return through improved investment strategies, enhancing and optimizing our operations and technology infrastructure, and enhancing our talent acquisition, retention and management.

Medieval cathedral builders knew their projects would not be completed for decades or even centuries. They developed a vision for the future that could only be achieved through big ideas, careful planning and assembling and mobilizing a top quality team. In a similar manner, SWIB is building a sustainable benefit that delivers value for every WRS participant, from current retirees to the public servants of the future.

A handwritten signature in black ink, appearing to read 'David Villa', written in a cursive style.

David Villa  
Executive Director/Chief Investment Officer

# About the Investment Board

SWIB is a trusted and skilled investment organization contributing to the strong financial future of the beneficiaries of the funds entrusted to us. An independent state agency governed by Chapter 25 of state statutes, SWIB is responsible for managing the assets of the Wisconsin Retirement System (WRS), the State Investment Fund (SIF), and other separately managed funds. As of December 31, 2019, SWIB managed almost \$129 billion in assets.



The largest portion of the assets managed by SWIB, about 91 percent, is the trust funds of the WRS. About eight percent of the assets managed by SWIB include the SIF, a pool of invested cash balances of the WRS and various state and local government units. The remainder of the total assets are the separately managed funds invested by SWIB including the State Life Insurance Fund, Historical Society Trust Fund, Injured Patients and Families Compensation Fund, and University of Wisconsin System Trust Funds.

SWIB and its governing body, the Board of Trustees, has a fiduciary responsibility to invest this money in the best interest of the trust funds as a prudent expert. To help it meet this responsibility, SWIB needs to attract and retain qualified investment professionals and to invest in its technology and systems. Over the years, the Legislature has helped to ensure that SWIB can meet its fiduciary duty by providing SWIB flexibility, independence, and authority that are different from those of other state agencies,

including investment, budget, position, and compensation setting authority.

SWIB's budget differs from that of other state agencies. SWIB receives no direct general purpose revenues from the state. All costs to manage assets in the trust funds are paid from those trust funds. 2011 Wisconsin Act 32 gave SWIB's independent Board of Trustees the authority to establish SWIB's operating budget and staffing level. This law change has given SWIB the flexibility to adapt to swiftly changing market conditions and to increase its internal management of assets in a cost-effective manner. Annually, SWIB is required to report its long-term strategies, investment goals and the status of goals and investment performance for the previous year. This report is submitted to the Legislature pursuant to section 25.17(14m) of the Wisconsin State Statutes.

More information about SWIB and the funds it manages can be found at [www.swib.state.wi.us](http://www.swib.state.wi.us).

## MANAGEMENT COUNCIL



**David Villa**  
**Executive Director/  
Chief Investment Officer**



**Rochelle Klaskin**  
**Deputy Executive Director/  
Chief Administrative Officer**



**Mike Jacobs**  
**Agency Business Director**



**Edwin Denson**  
**Managing Director**  
**Asset & Risk**  
**Allocation**



**Brian Hellmer**  
**Managing Director**  
**Global Public Market**  
**Strategies**



**Anne-Marie Fink**  
**Managing Director,**  
**Private Markets &**  
**Funds Alpha**

## Investment Services Leaders



**Sara Chandler**  
**Chief Legal Counsel**



**Brandon Brickner**  
**Internal Audit Director**

# Performance

## 2019 Performance

U.S. equity markets ended 2019 in very strong fashion, and it was a very strong year for capital markets in general, with US government bonds delivering a near 10 percent return and equity and government bond markets globally performing well. The year began with fears that the U.S. Federal Reserve would continue on a path of higher policy rates, despite the downturn in markets in late 2018. These fears proved unfounded, as the Federal Reserve not only stopped increasing rates, but reversed course and reduced them in the second half of the year. This sea-shift in policy and policy expectations was very supportive to capital markets. However, the run-up in equities and the decline in bond yields will make it harder to achieve return targets and expectations on a go forward basis. We will have to rely more than ever on SWIB's disciplined, long-term, and innovative investment strategy to provide sufficient returns for the trust funds under management, including the WRS.

- The Core Trust Fund (Core Fund), the larger of the two WRS trust funds with almost \$108 billion in assets, ended the year with a gross return of 19.9 percent and five-year and ten-year gross returns of 7.8 percent and 8.6 percent, respectively.
- SWIB's gross of fees returns for the Core Fund exceeded its performance benchmarks for all these periods. Benchmarks, market references that the Board of Trustees uses to compare and evaluate SWIB's performance, are set by the Board of Trustees, with the guidance of an independent benchmarking consultant.
- SWIB's one-, five- and ten-year gross returns for the Core Fund all exceed the long-term WRS investment target of 7.0 percent.
- The Variable Trust Fund (Variable Fund), an optional stock-only fund with almost \$8.7 billion in assets, ended the year with a gross return of 28.6 percent and five-year and ten-year gross returns of 9.8 percent and 11.2 percent, respectively. The Variable Fund exceeded its performance benchmarks for all these periods.
- When looking over a 20-year period through December 31, 2019, SWIB's active management and its diversified investments generated \$37.2 billion dollars for the Core Fund above what SWIB would have earned by simply investing in a low-cost passive portfolio consisting of 60 percent global equities and 40 percent U.S. investment grade bonds, assuming no contributions or withdrawals.

# Wisconsin Retirement System

The WRS is a hybrid defined benefit plan. It contains elements of both a 401(k), or defined contribution plan, and a defined benefit plan. SWIB works to protect and grow the assets of the WRS for the benefit of more than 642,000 participants who count on the WRS for a more secure financial future. Contributions made to the WRS by these employees, and their employers, are invested by SWIB to finance retirement and other benefits. SWIB has helped fuel one of the only fully funded pension systems in the U.S. during a time when many public pension plans are struggling with underfunding. From 2009 through 2018, net investment income represented 79 percent of total funding for the WRS. The U.S. public pension average is 63 percent, which means that in Wisconsin, public employers and employees bear less of the burden than those in many other states.

WRS assets are divided into two funds: The Core Fund and the Variable Fund. Investment performance for both funds is included in the table entitled **2019 Investment Performance**. Performance is gross of external management fees and costs as of December 31, 2019.

The Core Fund includes diversified holdings in stocks, bonds, private equity, real estate, hedge funds, and other investments. SWIB has designed and built the Core Fund investment strategy to strike an efficient balance between protecting the WRS and growing its assets. Asset class returns as of December 31, 2019, are presented in the table entitled **Core Fund Returns**.

SWIB diversifies its assets among many types of public and private investments, optimizes its costs (which saved \$54 million over its peers in

2019 Investment Performance*				
Annualized for period ending December 31, 2019				
	One Year	Three Years	Five Years	Ten Years
Core Fund	19.9%	10.5%	7.8%	8.6%
Core Fund Benchmark	19.2%	10.0%	7.5%	8.1%
Variable Fund	28.6%	13.4%	9.8%	11.2%
Variable Fund Benchmark	28.3%	13.3%	9.7%	11.0%

\*Gross of external management fees and costs.

Core Fund Returns*		
As of December 31, 2019		
Asset Class	Benchmark	One Year
Stocks	27.7%	28.1%
Fixed Income	10.1%	10.5%
Inflation Sensitive	8.4%	8.4%
Real Estate	5.6%	6.7%
Private Equity	8.3%	10.7%
Multi-Asset**	20.9%	20.6%
Alpha Pool Overlay	0.0%	1.4%
<b>Total</b>	<b>19.2%</b>	<b>19.9%</b>

\*Gross of external management fees and costs.  
\*\*Multi-Asset includes cross-asset class strategies.

2018 and \$1.3 billion over the last ten years), and internally manages more than 50 percent of WRS assets. This investment management strategy is designed to weather a variety of economic environments over the long term and to help ensure the WRS can meet its obligations today and in the future. It also allows SWIB to meet its standards of responsibility outlined in state statutes. That statute, s. 25.15 (2), requires that

SWIB manage the funds as a prudent expert, diversify investments in order to minimize the risk of large losses, and administer assets of each trust or fund solely for its purpose and at a reasonable cost. The investment goal of the Core Fund is to earn an optimal rate of return while taking an acceptable level of risk, and to meet or exceed the actuarially assumed rate of return of 7.0 percent (expected return over 20-30 years). The table entitled **Core Fund Asset Allocation Targets** shows policy targets for the Core Fund asset classes for each of the last three years. SWIB's actual asset allocation may vary up to +/-6 percent from the targets shown in the table.

Core Fund Asset Allocation Targets			
As of December 31, 2019			
Asset Class	2017	2018	2019
Stocks	50.0%	50.0%	49.0%
Fixed Income	24.5%	24.5%	24.5%
Inflation Sensitive	15.5%	15.5%	15.5%
Real Estate	8.0%	8.0%	8.0%
Private Equity	8.0%	8.0%	9.0%
Multi-Asset	4.0%	4.0%	4.0%
Cash & Overlays*	-10.0%	-10.0%	-10.0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*Negative percentages reflect SWIB's leverage strategy.

WRS participants may elect to have up to 50 percent of their contributions invested in the all-stock Variable Fund instead of 100 percent in the Core Fund. The Variable Fund provides participants the potential for higher returns in exchange for higher investment risk. By choosing this option, participants also forego part of the formula benefit guarantee. The Variable Fund's gains and losses are not smoothed and are recognized in the year in which they occur. This results in greater volatility in investment gains or losses.

By law, the Variable Fund invests only in stocks, as shown in the chart entitled **Variable Fund**

**Asset Allocation.** When setting the Variable Fund asset allocation, Trustees evaluate the risk/return tradeoff of U.S. and non-U.S. exposures. The benchmark is a weighted blend of U.S., international, and emerging market stock indexes. The investment strategy for the Variable Fund is to achieve returns equal to or above that of similar stock portfolios over a market cycle.

Variable Fund Asset Allocation	
U.S. Stock	70%
International Stock	30%
<b>Total</b>	<b>100%</b>

#### Long-Term Strategies

SWIB has been, and continues to be, a long-term investor. Historically, markets tend to be cyclical and decline after a few years of strong performance. Because SWIB is a long-term investor, it can be more patient than many other investors. Success is measured by the overall long-term health of the system rather than individual peaks and valleys. For that reason, managing investment risk is a constant consideration for the trust funds.

SWIB's long-term goal is to provide prudent and cost-effective management of funds held in trust. This is achieved through policies, people, and processes for setting the asset allocation in a diversified portfolio, estimating expected investment returns and risk, and evaluating investment performance. SWIB has developed a disciplined, prudent, and innovative investment strategy designed to help provide moderate protection to participants' pensions from another major market downturn, keep contributions stable, and generate reasonable returns. Asset allocation – the distribution of investments across stocks, bonds, and other assets to maximize returns and minimize risk – is the primary driver of long-term investment returns and is determined by the Board of Trustees using

an independent asset allocation consultant. Because the mix of assets is the largest driver of returns, when comparing SWIB's returns with other pension plans, one must consider differences in asset allocation, assumed rate of return, objectives, funding ratios, and risk tolerance.

SWIB has continued to diversify its portfolio by investing in multi-asset strategies. These strategies are not constrained by asset class, but can hold securities of many different asset types in the same portfolio. These strategies take advantage of market opportunities that cannot be done through a single asset class.

SWIB uses investment performance targets that are tied to benchmarks – usually market indexes against which portfolio and fund returns are evaluated. An example is the Russell 3000 Index, which measures the performance of the largest 3,000 U.S. companies, or about 98 percent of the U.S. equity market. The Core Fund is measured against a blend of benchmarks representing broader markets for stocks, bonds, and other asset classes that reflect the blend of the Core Fund's individual portfolios.

### Peer Comparison

Numerous differences in plan structure should be considered when reviewing peer comparisons including asset allocation, cash flow needs, investment styles, funding levels, return assumptions, risk tolerance levels, and statutory or other restrictions on allowable investments. In short, differences in plan structure often result in different goals, which result in different asset allocations that then drive overall returns.

When a plan is not fully funded, its effective rate of return will decrease because a portion of the assets are not available to earn investment returns. Given the WRS's fully funded status and unique risk-sharing design, SWIB invests

differently than its peers, who are underfunded, generally have higher investment targets (the average target is 7.3 percent compared to 7.0 percent of the WRS), and may need to have greater risk tolerances. In addition, because investment risks and rewards are shared with participants, SWIB has designed its plan to have a larger exposure to fixed income assets than other public pension funds.

According to Callan Associates, Inc., a firm that provides independent research, education, decision support, and advice to public pension plans and other institutional investors, the Core Fund's gross investment returns as of December 31, 2019 performed in the approximate top third of a peer median group over the last one-, three- and five-year periods. While Callan's comparisons are only shown gross of fees, Callan expressed that SWIB's performance would likely rank even higher over these periods, if shown net of fees, because SWIB consistently has lower costs than its peers.

Callan comparison peer data is reviewed by the Board of Trustees every quarter. Reports are available on SWIB's website.

### Diversification Reduces Risk

Diversification of assets at the fund level is the primary tool for managing risk; because in a more diversified fund risks are often offset by one another. This is because generally market conditions affect different asset classes differently; so returns in one asset class may be positive while another asset class may be negative in the same market environment.

SWIB continues to find ways to better diversify the Core Fund as a way to address market volatility. Every year, as part of the process in developing the Core Fund's asset allocation, SWIB and its asset allocation consultant discuss

More than **642,000** individuals participate in the WRS.

what is referred to as a “Goldilocks Zone.” This is an allocation in which the asset mix targeted is not “too hot” or “too cold” in terms of risk and expected returns but is appropriate for the Core Fund’s goals.

Managing risk becomes even more important in the WRS since its retirees’ annuity payments are directly impacted by returns because of the shared risks and rewards design. Lowering volatility helps stabilize contribution rates and benefit adjustments.

### SWIB Manages Risk in Many Ways

In addition to diversification, SWIB monitors and manages risk through an enterprise-wide process. Each portfolio follows guidelines that specify the types of allowable investments and other requirements consistent with policies established by the Board of Trustees. Portfolio managers are responsible for complying with these guidelines, as well as Wisconsin Statutes and Administrative Code.

As part of its risk management, SWIB has conducted robust investment stress testing since 2013 to evaluate and strengthen its investment strategy and make it more risk aware. The stress testing evaluates market downturns, liquidity risks, and multiple return environments. Routine testing and modeling is reviewed regularly by SWIB’s Investment Committee, and bi-annually, in-depth stress testing is conducted with the WRS’s actuaries and presented to the Board of Trustees.

SWIB’s compliance staff continuously monitors investments and reports any exceptions and their resolution. Many monitoring tools are used to detect, and in some cases prevent, investment activities that would violate the investment guidelines. Portfolios out of compliance with guidelines will be brought into compliance

immediately, or a plan for doing so or a waiver must be approved by the Executive Director/Chief Investment Officer.

SWIB’s Internal Audit Group enhances and protects organizational value by providing risk-based and objective assurance, advice, and insight through regular audits, consulting, and other activities.

### SWIB Optimizes Strategy Implementation

Staff is responsible for making investment decisions subject to its fiduciary duty, Board-approved asset allocation, and other restrictions. Assets can be managed passively as an index, which seeks to replicate the returns of the market or benchmark, or with active management, which attempts to exceed the performance of a particular market index using independent decisions. Active strategies are expected to produce higher returns than passive strategies over time; however, additional costs and risk associated with active management are considered when determining implementation strategies.

### Hedge Funds

SWIB’s investment strategy includes investments in hedge funds. SWIB’s use of hedge funds is different from many other public pension funds that have decreased or eliminated their hedge fund portfolios. Many of those plans seek hedge fund returns similar to the stock market and are paying hedge fund managers for both stock market performance and additional returns from active management. SWIB looks to access general market returns in the lowest cost and most efficient manner possible, preferring to replicate market exposures internally. SWIB’s hedge fund portfolio, which is generally designed to have minimal correlation with the stock market, is then combined with this exposure for a more efficient and cost-effective approach.

Investments account for about **79%** of the income needed to fund the WRS.

## **Leverage**

At the end of 2019, the Core Fund included leverage of 10 percent. While the word “leverage” might imply additional risk, SWIB actually employs leverage to help reduce risk by enabling a higher allocation to lower-risk fixed income securities while targeting the same performance return. Leverage is achieved through reverse repurchase agreements and derivatives exposures. These contracts essentially sell securities to a counterparty with a simultaneous promise to repurchase the securities at a fixed price on a future date. This provides SWIB with exposure to the underlying fixed income securities while also receiving additional cash to invest.

## **Derivatives**

All derivative instruments are subjected to risk analysis and monitoring processes at the portfolio, asset class, and fund levels. Investment guidelines define allowable derivative activity for each portfolio and are based on the investment policy objectives which have been approved by the Board of Trustees. The following are the types of derivatives that SWIB uses in its portfolios. SWIB also invests in derivative instruments indirectly through several commingled funds, which have not been included in the following narrative.

### Foreign Currency Spot and Forward Contracts

Foreign currency spot and forward contracts are uncleared over-the-counter agreements between two counterparties to exchange designated currencies at a specific time in the future. No cash is exchanged when a foreign currency exchange spot or forward contract is initiated. SWIB may employ discretionary currency overlay strategies at the total fund and asset class level when currency market conditions suggest such strategies are warranted. Only the currencies of developed market countries in the MSCI World Index may be used to implement a currency overlay. SWIB

executes spot and forward contracts with various counterparties. Guidelines have been established which provide minimum credit ratings for counterparties. Additionally, policies have been established which seek to implement master netting arrangements with counterparties to over-the-counter derivative transactions.

### Futures Contracts

A futures contract is an exchange traded agreement to buy or sell a financial instrument at an agreed upon price and time in the future. Upon entering into a futures contract, collateral is deposited with the broker, in SWIB’s name, in accordance with the agreement. Collateral for futures contracts can be in the form of cash, U.S. Treasuries, and equity securities. Futures contracts are marked to market daily, based upon the closing market price of the contract at the board of trade or exchange on which they are traded. The resulting gain/loss is typically received/paid the following day until the contract expires. Futures contracts involve, to varying degrees, risk of loss in excess of the collateral deposited with the broker. Losses may arise from future changes in the value of the underlying instrument.

### Options

An option contract gives the purchaser of the contract the right, but not the obligation, to buy (call) or sell (put) the security or index underlying the contract at an agreed upon price on or before the expiration of the option contract. The seller of the contract is subject to market risk, while the purchaser is subject to credit risk and market risk, to the extent of the premium paid to enter into the contract.

### Swaps

A swap is a negotiated contractual agreement in which counterparties exchange cash flows of one party’s financial instrument for those of the other

SWIB manages more than **\$116 billion** in WRS assets.

party's financial instrument. Both parties to the swap contract are subject to market and credit risk of the underlying contract payments. Market risk results from the variability of payments and credit risk results from the parties' obligations to make payments. Collateralization of payments and market value variations mitigates the credit risk.

#### To Be Announced Securities

To Be Announced (TBA) mortgage backed securities (MBS) are over-the-counter forward contracts on mortgage-backed securities issued by Fannie Mae, Freddie Mac, and Ginnie Mae where the seller agrees to deliver the MBS for an agreed upon price on an agreed upon date. The TBA market provides mortgage lenders with a means of hedging interest rate risk between the time a loan rate is locked by a borrower and when the loan is funded. At settlement, TBA securities are exchanged for mortgage pools. However, SWIB's strategy is not typically expected to take in a mortgage pool. Instead, those TBA securities will usually be sold prior to that exchange occurring.

#### **Internal Management Is Cost Effective**

SWIB optimizes its costs, invests in its infrastructure, and spends less than its peers, according to CEM Benchmarking, an independent provider of objective cost benchmarking for public pensions plans. As of December 31, 2019, 50.3 percent of SWIB's assets under management were managed internally.

CEM's most recent report found that for calendar year 2018, SWIB's investment cost of 44.7 basis points (bps) was below its benchmark cost of 50.0 bps. (One basis point is equal to 0.01 percent, 1/100th of a percent, or 1 cent for each \$100.) This confirms SWIB's costs were lower than its peers. SWIB's costs were lower because of more internal asset management and less investment in higher cost asset classes. SWIB's five-year performance placed in the positive value added/low cost quadrant in CEM's cost effectiveness chart.

SWIB's total costs have increased in recent years, but they have remained consistently and materially lower than its peers. Compared to peers, SWIB saved approximately \$54 million in 2018 and \$1.3 billion from 2009 to 2018.

CEM found SWIB's expenses rose 17 percent from 2014 to 2018. This increase was expected given SWIB's growth in assets under management over this time period and its investment in infrastructure and leading technology systems. SWIB will continue to invest in its people, processes, and technology because those investments provide the greatest edge in achieving long-term goals and delivering added returns.

#### **Qualified Staff and Systems Are Critical**

SWIB competes for staff with investment firms in the private sector throughout the country. A successful internal management program requires experienced and qualified staff. Because SWIB manages so many assets internally, it must also invest in its people. With assistance from an independent compensation consultant, SWIB annually reviews the investment industry employment market to set compensation at appropriate levels. In addition to hiring and retaining qualified staff, SWIB seeks to develop information technology, trading, accounting, and monitoring systems adequate to accommodate new and more complex investment strategies. When considering an investment strategy, SWIB compares the cost and return potential associated with internal or external management.

Maintaining a lower-cost internal management program requires the ability to attract, hire, and retain qualified staff. Over the past few years, the Board of Trustees has worked with a consultant to maintain an incentive compensation program that motivates staff to earn the highest possible returns at reasonable costs and controlled levels of risk and aligns with the interests of the WRS. SWIB's incentive compensation plan is explicitly authorized by s.25.16 of the Wisconsin Statutes. This statute was created in the 1987 session

of the Legislature, after SWIB reported it was unable to attract and retain investment staff needed to manage the trust funds in a cost-effective manner. SWIB's compensation plan focuses on pay for performance and five-year returns. A competitive compensation plan is critical to SWIB's ability to attract and retain a talented and skilled workforce.

To adequately and efficiently process trades, measure risk, and manage investments, SWIB must continually enhance its systems and processes. Over the past several years, SWIB's team has worked diligently to implement new technology platforms to improve accounting, trading, risk, and portfolio management activities. Investments in SWIB's technology are ongoing, and these improvements will continue to provide staff better access to high quality and timely

data and improve SWIB's ability to monitor and manage risk.

<b>Staff Qualifications (as of December 2019)</b>	
<b>Total SWIB Staff*</b>	<b>185</b>
Masters of Business Administration (MBA)	55
Masters Degree other than MBA	38
Juris Doctor Degree (JD)	8
Doctor of Philosophy (PhD)	7
Chartered Financial Analyst (CFA)	54
Certified Public Accountant (CPA)	20
*Some SWIB Staff have more than one advanced degree or credential.	

# Goals & Strategies

To achieve continued success in the future, SWIB works to stay at the forefront of institutional investment practices that are continually evolving. SWIB staff, along with the Board of Trustees, regularly assesses strengths and opportunities to improve, and then chart a course for the future.

Staff accomplished the following 2019 objectives.

## 2019 Goals

### Goal: Increase Active Return

In 2019, SWIB increased active return through targeted market opportunities and innovative investment strategies. With industry experts predicting a lower return environment for the next several years, SWIB's mission of earning the required returns could be more challenging in the future. Generating alpha, or returns above market benchmarks, will be more important for SWIB to meet the objectives of the WRS.

### Goal: Upgrade Technology Infrastructure & Informatics

In 2019, SWIB enhanced the accounting and portfolio management capabilities for private equity and venture capital investments, launching a technology platform that will support SWIB's private market portfolios. SWIB also made great strides in upgrading the infrastructure for the agency. These improvements allow enhanced processing and increased governance of data to support SWIB's investment strategy.

### Goal: Enhance Talent Acquisition, Retention and Management

In 2019, SWIB made substantial progress in filling several key vacancies and also increased its diversity outreach efforts. In addition, SWIB has

implemented a new strategy to improve SWIB's succession planning and employee development.

### Goal: Enhance Communication Strategy

In 2019, SWIB increased communication internally among staff and externally with participants, employers, legislators, and the media. SWIB launched video content on LinkedIn. SWIB leadership also increased its engagement with stakeholder groups and legislators.

In 2020, SWIB's goals are the following.

## 2020 Goals

### Goal: Increase Active Return Through Improved Investment Strategies

In 2020, SWIB will launch new portfolio strategies and enhance existing strategies to improve collaboration across teams and create additional alpha. There will be a focus on products that will enhance our ability to optimize SWIB's active risk.

### Goal: Enhance and Optimize SWIB's Operations and Technology Infrastructure

In 2020, SWIB will build on the significant progress made in 2019 by investing in platforms that will enable SWIB to better support its investment strategies. There will be a renewed focus on Public Markets in addition to the continuing work for Private Markets. Enhancement of the organization's data measurement, reporting and risk-monitoring ability will underpin this improved infrastructure.

### Goal: Enhance Talent Acquisition, Retention and Management

In 2020, SWIB will work to make continued progress on the organization's efforts to recruit and retain talent. Recruiting continues to be a key objective and 2020 will also see an elevated focus on talent retention with culture, communication, and career development at the forefront.

# State Investment Fund

SWIB also manages the SIF, which consists of commingled cash balances of the state and its agencies, local governments, and the WRS. The SIF investment goals are safety of principal, liquidity, and competitive rates of return. The fund's shorter-term cash management objectives reflect these goals.

State agencies deposit tax revenues, fees, federal funds, and other revenues from over 50 state funds with the SIF until needed for state operating expenditures. WRS cash assets are invested in the SIF for transition and cash flow purposes, and in some cases, until longer-term investment opportunities with more favorable rates of return become available. Over 1,400 local government units deposit funds in the commingled Local Government Investment Pool (LGIP) until needed for operating expenditures. SIF earnings are calculated and distributed

monthly based on the participant's average daily balance as a percent of the fund. Participants may deposit and withdraw funds daily. SIF assets were valued at \$13.1 billion on December 31, 2019.

## **Investment Strategy**

To effectively achieve its objectives for safety of principal, liquidity, and then competitive money market returns, the investment strategy of the SIF positions the portfolio to earn additional returns by monitoring and analyzing market and economic expectations and the market return of short-term government securities. Investment staff constantly monitor global market and economic events and position the fund accordingly. The SIF ended 2019 with a one-year return of 2.26 percent, beating its benchmark of 2.11 percent, and has also outperformed its five- and ten-year benchmarks.



# Investments in Wisconsin

Through targeted and strategic investments, SWIB has been able to help businesses across the state that have benefitted Wisconsin's economy. At the same time, those investments have generated solid returns with acceptable levels of risk for the trust funds SWIB manages.

In addition to SWIB's public equity investment in Wisconsin public companies, two dedicated portfolios at SWIB provide debt financing and venture capital to growing Wisconsin businesses. As of June 30, 2019, through all of its portfolios, SWIB has total investments over \$22.6 billion in companies with some level of employment and operations in the state. In the last five years ended June 30, 2019, new public and private investments in Wisconsin companies totaled over \$1 billion.

In 2015, SWIB's Private Debt Portfolio expanded its investment region from Wisconsin, Illinois, Iowa, and Michigan to include Indiana, Ohio, and Pennsylvania. However, over 90 percent of loans in the portfolio have been to companies headquartered in, with operations in, or intending to invest proceeds in Wisconsin. SWIB can be a good partner with a company's banks, providing the long-term loan that complements the bank's short-term financing, but does not compete with the bank to provide other financial services. The program offers flexibility with loans that mature in five to fifteen years and feature a fixed interest rate for the life of the loan.

SWIB's Private Debt Portfolio started in the late 1960s and, at one time, had a national and global focus before switching its attention to investments in the state in 1983. Since 1983,

the portfolio has invested over \$2.1 billion in 237 loans.

SWIB's primary objective for investing in early stage start-up companies through its Wisconsin Venture Capital Portfolio is to generate reasonable investment returns for the beneficiaries of the WRS on a risk-adjusted basis. A secondary benefit, many times, comes from potential jobs these investments can create.

Private equity consists of equity securities in companies not publicly traded on a stock exchange. These investments carry higher risks than publicly-traded investments but offer the potential for a higher rate of return. Venture capital is one form of private equity investment. The Wisconsin Venture Capital Portfolio, which began in 2000, targets venture capital investments in Wisconsin and the Midwest.

The Wisconsin Venture Capital Portfolio has committed or invested about \$420 million over 18 years in funds and companies. Eighty-five percent of the funds invest in Wisconsin. Eighty-one percent of the direct company investments are in Wisconsin.

The portfolio capitalizes on the imbalance between the high amount of research and development in the Wisconsin region, entrepreneurial talent, low cost to operate a business within the state, and relatively low amount of venture capital dollars seeking investments here.

SWIB believes it can make money on this imbalance because venture capital investing

requires time-intensive and hands-on attention to each company. The high costs can be prohibitive for long-distance investments giving an advantage both to local investors with established connections to the research conducted here and

to business leaders with skills to build companies that can commercialize this research. The lack of competition gives local investors the opportunity to invest at attractive valuations and select the best opportunities.

### Total Wisconsin Investments by Asset Class June 30, 2019

Asset Class	Headquartered or Significant Presence <sup>2</sup> in WI	Not Headquartered in WI - But 20+ WI Employees	Total Investment in WI
Private Equity/Private Debt	\$ 232,118,105	\$ 309,429,199	\$ 541,547,304
Fixed Income	18,320,163	1,948,449,478	1,966,769,641
Public Equities <sup>3</sup>	261,396,954	17,962,638,922	18,224,035,876
Real Estate	13,996,290	70,482,147	84,478,437
Multi Asset	6,860,555	1,094,247,051	1,101,107,606
Short-Term Funds <sup>1</sup>	<u>44,200,000</u>	<u>632,124,196</u>	<u>676,324,196</u>
<b>Total</b>	<b>\$ <u>576,892,067</u></b>	<b>\$ <u>22,017,370,993</u></b>	<b>\$ <u>22,594,263,060</u></b>

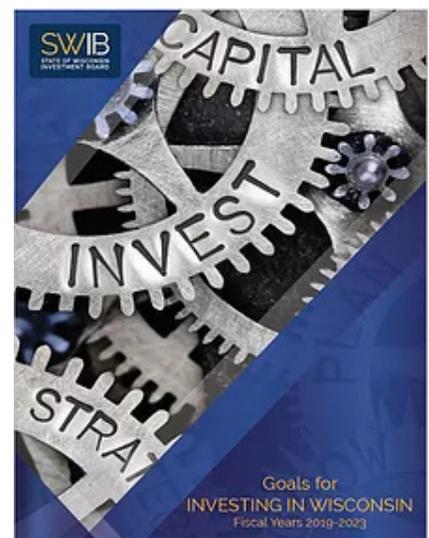
<sup>1</sup> Includes commercial paper, certificates of deposit, and bankers' acceptances valued at par. Reflects maximum outstanding value per issue during the fiscal year.

<sup>2</sup> "Significant Presence" is defined as a company with 30% or more of their operation in Wisconsin.

<sup>3</sup> Does not include liability exposure due to shorting.

## Goals for Investing in Wisconsin

SWIB is required by state statutes to report biennially to the Governor and the Legislature on a five-year plan for making investments in Wisconsin. The Goals for Investing in Wisconsin Report for fiscal years 2019-2023 can be found on SWIB's website [www.swib.state.wi.us](http://www.swib.state.wi.us) under the Investing in Wisconsin tab.



# Awards & Recognition

SWIB is recognized as a world-class investment leader. Throughout the year, SWIB has been honored for its work by peers and various industry publications. These achievements and recognition reinforce SWIB's position as a trusted and skilled global investment organization.

## **SWIB Trustees Win Allocators' Choice Award**

SWIB's Board of Trustees was honored with *Institutional Investor's* 2019 Allocators' Choice Award for Investment Committee/Board of the Year.

The Board was nominated for its role in SWIB's ability to successfully manage the investments of the WRS and other trust funds. In support of SWIB's work, the nine-member, independent Board has demonstrated a continued commitment to a strong governance structure, active internal management and a sophisticated investment strategy, building out technology, and hiring the best talent to manage the trust funds.

The Allocators' Choice Awards are investment industry awards given by *Institutional Investor* -- a leading international financial publication -- to recognize industry leaders.

## **SWIB's Leader Named to Top 30 Public Pension Chief Investment Officer List**

SWIB Executive Director/Chief Investment Officer David Villa was named to *Trusted Insight's* 2019 Top 30 Public Pension Chief Investment Officers. This year's list highlights long-term investment leaders who have expertly navigated the markets time and time again, especially now during the late market cycle. David was also named to *Trusted Insight's* top 30 chief investment officer lists in 2016 and 2017.

*Trusted Insight* is the world's biggest network of institutional investors, connecting decision-makers at endowments, foundations, pensions, insurance companies, sovereign wealth funds, family offices, corporations and healthcare systems.

## **SWIB's Funds Alpha Manager Named to CIO Magazine's "Class of 2019 NextGens"**

SWIB's Funds Alpha Manager Derek Drummond has been named to *Chief Investment Officer* magazine's "Class of 2019 NextGens." This class includes 30 talented and inspiring asset allocators who show a strong ability to become potential game changers.

This is not the first time Derek, who joined SWIB in 2010, has been recognized by his peers. In 2018 he was part of *Institutional Investor* magazine's Next CIO competition. In 2012, Derek was named a Rising Star of Public Fund Management by Investment Management Network. *Institutional Investor* named him as a Rising Star in 2014, and he was named to *Chief Investment Officer* magazine's list of "40 Under 40" in 2015.

## Appendix A

### CORE and VARIABLE FUND HOLDINGS BY ASSET CLASS

The following tables compare how the various categories of investments for the Core and Variable Funds were managed within each asset class as of December 31, 2018 and 2019. Totals include exposure to futures and may not add correctly due to rounding.

Core Trust Fund				
Holdings By Portfolio				
	12/31/2018		12/31/2019	
	\$ in Millions	% of Total	\$ in Millions	% of Total
<u>Equities</u>				
Developed Global	\$ 39,533	42%	\$ 46,481	43%
U.S. Small Cap	1,841	2	3,238	3
Emerging Market Equity	4,585	5	3,239	3
Total Equities	\$ <u>45,958</u>	<u>49%</u>	\$ <u>52,957</u>	<u>49%</u>
<u>Fixed Income</u>				
Investment Grade	17,564	19%	22,889	21%
High Yield	1,240	1	2,127	2
Global	2,553	3	0	0
Emerging Market Debt	1,894	<u>2</u>	2,025	<u>2</u>
Total Fixed Income	\$ <u>23,232</u>	25%	\$ <u>27,041</u>	25%
<u>Inflation Sensitive</u>				
TIPS	14,354	15%	16,640	15%
Commodities	0	0	0	0
Total Inflation Sensitive	\$ <u>14,354</u>	<u>15%</u>	\$ <u>14,354</u>	<u>15%</u>
<u>Private Markets</u>				
Real Estate Equity	7,384	8%	7,585	7%
Private Equity	5,922	6	6,551	6
Private Equity Co-Invest	491	1	678	1
Venture Capital	1,126	1	1,126	1
Private Equity Legacy	17	0	0	0
Current Return	927	1	1,163	1
Private Debt	503	1	553	1
Total Private Markets	\$ <u>16,370</u>	<u>18%</u>	\$ <u>17,657</u>	<u>16%</u>
<u>Multi-Asset</u>	\$ <u>2,395</u>	<u>3%</u>	\$ <u>3,644</u>	<u>3%</u>
<u>Cash/Leverage/Overlays</u>	\$ <u>(8,759)</u>	<u>(10%)</u>	\$ <u>(10,104)</u>	<u>(9%)</u>
<u>Total</u>	\$ <u>93,550</u>	100%	\$ <u>107,836</u>	100%

Variable Trust Fund

Holdings By Portfolio

	12/31/2018		12/31/2019	
	<u>\$ in Millions</u>	<u>% of Total</u>	<u>\$ in Millions</u>	<u>% of Total</u>
<b><u>Equities</u></b>				
Domestic	\$ 4,952	70%	\$ 6,069	70%
International	\$ 1,588	22	1,877	22
Emerging Markets	<u>543</u>	<u>8</u>	<u>720</u>	<u>8</u>
<b>Total Equities</b>	<b>\$ 8,160</b>	<b>100%</b>	<b>\$ 8,666</b>	<b>100%</b>
<b><u>Multi-Asset</u></b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>
<b><u>Cash</u></b>	<b>\$19</b>	<b>0%</b>	<b>\$22</b>	<b>0%</b>
<b><u>Total</u></b>	<b><u>\$ 7,102</u></b>	<b>100%</b>	<b><u>\$ 8,687</u></b>	<b>100%</b>

## Appendix B

### **RISK MANAGEMENT**

As part of SWIB's ongoing risk management activities, SWIB routinely monitors risk within the areas outlined below.

**Funding WRS Liabilities:** The most basic measure of risk for WRS trust funds under management is the ability to pay promised benefits. The WRS actuary and SWIB's asset allocation consultant both agree that the WRS is well-positioned to meet its current and future obligations.

**Volatility:** Minimizing year-to-year fluctuation in the Core Fund's returns helps to stabilize required contributions to the WRS and dividends paid to retirees.

**Interest Rate Risk:** Risk that changes in interest rates affects the value of a bond SWIB holds. SWIB uses multiple methods to monitor and mitigate interest rate risk. One example is an investment in Treasury Inflation Protected Securities (TIPS).

**Currency Risk:** Currency risk is the potential risk of loss from fluctuating foreign exchange rates. Foreign currency exposure in the trust funds occurs primarily in the international stock and bond holdings and, to a lesser extent, from private markets. International and global portfolio managers make currency hedging decisions. International currency risk is further managed by diversifying across international regions, economies, sectors and individual investments.

**Tracking Error/Active Risk:** Tracking error measures the volatility of excess return versus the benchmark. It is an indication of how the fund or portfolio is positioned relative to the benchmark. This also helps measure the extent to which the performance of any one portfolio within the trust fund could affect the performance of the entire fund. The Trustees have adopted an active risk objective of 120 basis points, plus or minus 60 basis points, for the Core Fund. The active risk target for the Variable Fund is 60 basis points, plus or minus 30 basis points. SWIB staff monitor tracking error on an ongoing basis and perform attribution analysis to understand in detail where deviations from the benchmark are occurring.

**Soft Risk Parameters:** Investment guidelines include "soft risk parameters," supplementary guidelines within which a portfolio is expected to operate over time. The Investment Committee, composed of SWIB executive and investment staff, monitors portfolios on a regular basis for compliance with parameters. The Investment Committee discusses the rationale and outlook for any exceptions.

**Credit Risk:** Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to SWIB. Fixed income credit risk investment guidelines outline the minimum ratings required at the time of purchase by individual portfolios, or groups of portfolios, based on the portfolios' investment objectives. In addition, some fixed income portfolios are required to carry a minimum weighted average rating at all times. SWIB's Credit Team reviews overall credit risks.

## Appendix C

### **SEPARATELY MANAGED FUNDS**

Goals and strategies for the following funds are set by the various fund administrators. SWIB takes guidance from the administrators of the funds on how the assets should be managed, and SWIB executes the investment strategies.

**Historical Society Trust Fund:** The Historical Society Trust Fund supports current and anticipated initiatives and operations of the Wisconsin Historical Society. The investment objective of the Historical Society Trust Fund is to maintain a mix of equities and fixed income providing long-term growth in capital and income generation.

**State Life Insurance Fund:** The State Life Insurance Fund offers low cost life insurance to Wisconsin residents. The investment objective of the fund is to maintain a diversified portfolio of high quality public bonds which will preserve principal, maximize investment income, and minimize costs to policyholders. Liabilities from the fund's insurance contracts are factored into investment decisions.

**Injured Patients and Families Compensation Fund:** The Injured Patients and Families Compensation Fund provides excess medical malpractice coverage for Wisconsin health care providers and to compensate injured claimants. SWIB is responsible for managing the fund's assets to meet the maturity and liquidity needs established by the Board of Governors. The investment objective of the fund includes a balance between capital appreciation, preservation of capital, and current income.

**UW System Trust Funds:** The University of Wisconsin System trust funds consist primarily of monies that have been gifted directly to a UW institution, rather than one of the separate, supporting foundations. The Trust Funds Office works externally with donors and other related parties, and internally with the benefiting campuses and colleges, to facilitate the receipt and proper use (compliant with donor terms and conditions) of all gifts and bequests. The majority of the trust funds are invested by SWIB. The system's spending policy target annual expenditures of 4 percent of the market value of the assets (calculated using a three-year rolling average) for payments to beneficiaries. The investment objective is to achieve, net of administrative and investment expenses, reasonable, attainable, and sustainable returns over and above the rate of inflation. SWIB seeks to achieve this objective through use of passive, externally-managed, public markets funds.





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