

## SWIB Board of Trustees Meeting of March 18, 2026

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**Name of Meeting:** Regular Meeting of the Board of Trustees  
**Date/Time:** Wednesday, March 18, 2026 9:00 am  
**Room:** 1<sup>st</sup> Floor Conference Room  
**Address:** 4703 Madison Yards Way, Madison, WI 53705  
**Virtual:** [Join meeting now](#); 608-267-3179, code 190057408#

<b>OPEN SESSION</b>
1. Committee Reports – Open Session Items A. Audit and Finance B. Compensation and Workforce Development C. Strategic Planning and Corporate Governance
2. Consent Agenda A. Open Session Minutes of December 17, 2025 B. Recommended Actions from Committee Agendas – Open Session Items
3. Election of Secretary and Assistant Secretary
4. Annual Committee Assignments by Board Chair
5. Proposed 2027 Board Meeting Dates
6. Investment Performance and Market Updates A. Board Investment Performance Report, Q4 2025 B. 2025 Callan Report
7. Committee Open Session Business A. Amendments to WRS Investment Committee Investment Guidelines B. Approved Open Session Investment Committee Meeting Minutes of November 25, 2025, December 18, 2025, and January 27, 2026 C. Final Open Session Investment Committee Agenda for February 24, 2026 and Draft Open Session Agendas for March 31 and April 28, 2026 D. Draft Open Session Minutes of November 11, 2025 Enterprise Risk and Compliance Committee Meeting
8. Quarterly Investment Update, Q4 2025

<b>CLOSED SESSION*</b>
<b>RECONVENE IN OPEN SESSION</b>
9. Announcement of Matters Taken Up in Closed Session
10. Governance Updates <ul style="list-style-type: none"> <li>A. Amendments to WRS Investment Policy</li> <li>B. Amendments to Investment Board Procedures</li> </ul>
11. In the Absence of Questions, the Following Reports will be Filed Without Comment (For informational purposes): <ul style="list-style-type: none"> <li>A. Quarterly Charges to Funds Reports, Q4 2025</li> <li>B. Private Markets and Funds Alpha Commitments, Q4 2025</li> <li>C. Board Contact Log</li> </ul>
12. Future Items for Discussion <ul style="list-style-type: none"> <li>A. 2026 Board Meeting and Agenda Plan</li> </ul>
13. Motion to Adjourn
<p><i>NOTES: Items may be taken in order other than listed.</i></p> <p><i>Estimated times are for planning purposes only. Agenda items will last until discussion is concluded.</i></p> <p><i>The meeting site is physical accessible. Upon prior request, reasonable accommodations will be provided.</i></p>

\*For further details on virtual format of meeting, please contact Dawn Tuescher (608-261-9341 or [dawn.tuescher@swib.state.wi.us](mailto:dawn.tuescher@swib.state.wi.us)).

\* The motion to go into closed session at this meeting is made pursuant to: (i) Sections 19.36(5) and 19.85(1)(e) of the Wisconsin Statutes to consider confidential and proprietary strategies for the investment of public funds relating to specific proprietary investment strategies of internal WRS portfolios, asset allocation, and risk management, and/or for any comments or discussion on prior closed session minutes that discuss the same; (ii) Section 19.85(1)(c) of the Wisconsin Statutes to discuss the compensation and performance evaluation data of specific SWIB employees, including SWIB’s executive director/chief investment officer and SWIB’s board of trustees, and/or for any comments or discussion on prior closed session minutes that discuss the same; and (iii) Section 19.85(1)(g) of the Wisconsin Statutes to confer with SWIB’s chief legal counsel to receive advice concerning legal strategy for ongoing and potential litigation, and/or for any comments or discussion on prior closed session minutes that discuss the same. The Board may convene in additional closed sessions or announce additional closed session items at the meeting in accordance with the procedure outlined in the Attorney General’s Opinion reported at 66 OAG 106 (1977). Whenever a closed session is held, the Board will subsequently reconvene in open session to cover remaining agenda items.

## Board Meeting

### Tab 1 – Committee Reports – Open Session Items

- A. Audit and Finance Committee
- B. Compensation and Workforce Development Committee
- C. Strategic Planning and Corporate Governance Committee

## Board Meeting

### Tab 2 – Consent Agenda

- A. Open Session Minutes of December 17, 2025
- B. Recommended Actions from Committee Agendas –  
Open Session Items

***Regular Meeting of the Board of Trustees***

**Wednesday, March 18, 2026**

**STATE OF WISCONSIN INVESTMENT BOARD**

**CONSENT AGENDA – OPEN SESSION ITEMS**

**Proposed Motions:**

1. Move to approve the Open Session Minutes of December 17, 2025, as presented.
2. *[TBD after Committee meetings]*

**STATE OF WISCONSIN INVESTMENT BOARD**  
***Board of Trustees Meeting – Open Session***  
**Wednesday, December 17, 2025**

Office of the Investment Board  
4703 Madison Yards Way, Madison, WI

**Board Members Present:** Clyde Tinnen, Chair  
Tom Merfeld, Vice Chair & Secretary  
Esther Ancel, Trustee  
Kathy Blumenfeld, Trustee  
Barb Bolens, Trustee  
J. Michael Collins, Trustee  
Jeff DeAngelis, Trustee  
Robert Scott, Trustee  
John Voelker, Trustee

**Staff/Others Present:** Eric Barber, Chief Legal Counsel  
John Burkhartzmeyer, Senior Trader  
Sara Chandler, Chief of Staff & Strategy  
Hassan Chehime, Head of Risk Management  
Anne-Marie Fink, Private Markets & Funds Alpha CIO  
Greg Fletcher, Performance Director  
Jameson Greenfield, Chief Financial Officer  
Dan Gyrog, Internal Auditor  
Tori Hassler, Internal Auditor  
Brian Heimsoth, Senior Portfolio Manager  
Becca Hewison, Administrative Services Manager and Executive Assistant  
Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer  
Vince Janecky, Internal Auditor Data Analyst  
Jon Loboda, Performance Measurement Operations Manager  
Todd Mattina, Head Economist, Asset & Risk Allocation CIO  
Frank Mazzucco, Senior Legal Counsel  
Scott Nichols, Head of Trading  
Cefe Quesada, Chief Technology Officer  
Nick Stanton, Head of Multi-Asset Strategies  
Matt Terpstra, Internal Auditor  
Dawn Tuescher, Executive Administrative Assistant  
Joe Nankof, NEPC  
Sam Rebenstorf, Legislative Audit Bureau  
Kevin Balaod, With Intelligence  
Bruce Johnson, Public Attendee  
Peter Knotek, Public Attendee  
Anne Steinberg, Public Attendee  
Bob Schaefer, Public Attendee

(Some individuals may have attended only portions of the meeting.)

Trustee Tinnen, Chair of the Board of Trustees (the “Board”), declared a quorum was present and called the Board meeting to order at 9:00 a.m. on December 17, 2025.

Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer, delivered remarks to the Trustees thanking them for their contributions to SWIB and the Wisconsin Retirement System.

## **1. Committee Reports – Open Session Items**

### **A. Compensation and Workforce Development Committee**

Trustee DeAngelis, Chair of the Compensation and Workforce Development Committee, reported that, in open session, the Committee: (i) approved prior meeting minutes; (ii) received a presentation on the *Comprehensive RPM Review* and recommended that the Board approve the relative performance maximums effective beginning in 2026, as presented in the meeting materials; (iii) reviewed the SWIB Compensation Philosophy; (iv) received a compensation consultant report; (v) considered changes to the incentive compensation plans and recommended that the Board approve the same; (vi) reviewed incentive compensation projections for CY 2025; and (vii) received a talent acquisition and people metrics update.

### **B. Strategic Planning and Corporate Governance Committee**

Trustee Tinnen, Chair of the Strategic Planning and Corporate Governance Committee, reported that, in open session, the Committee: (i) approved prior meeting minutes; (ii) conducted its annual review of the Committee charter; (iii) received a strategy report and market outlook for the beta one portfolios; and (iv) received an update on the targeted strategic planning initiative.

### **C. Audit and Finance Committee**

Trustee Merfeld, Chair of the Audit and Finance Committee, reported that, in open session, the Committee: (i) approved prior meeting minutes; (ii) approved the State Investment Fund audited financial statements for fiscal year 2025; (iii) reviewed the *Open Audit Issues Report as of November 30, 2025*; (iv) approved the draft audit reports for Performance Measurement and Reporting and Collateral Management; (v) received the *Internal Audit Plan Status as of December 16, 2025* presentation and approved the proposed 2026 Internal Audit Plan; (vi) received the annual presentation on cost benchmarking; and (vii) received a presentation on the Total Cost of Management Plan for Calendar Year 2026 and recommended that the Board approve the same.

### **D. Benchmark and Performance Committee**

Trustee Voelker, Chair of the Benchmark and Performance Committee, reported that, in open session, the Committee: (i) approved prior meeting minutes; (ii) considered changes recommended by SWIB staff to the SWIB Benchmarking Philosophy and the Committee Policies and recommended that the Board approve the same; and (iii) received NEPC's annual benchmark review, considered NEPC's benchmark recommendations for 2026, and recommended that the Board approve the retention of all current benchmarks.

## **2. Consent Agenda**

Eric Barber, Chief Legal Counsel, distributed a proposed consent agenda. Trustee Tinnen asked whether there were any motions listed on the consent agenda that should be removed for further discussion and individual action. Hearing none, he referred to the following items on the consent agenda:

- Move to approve the Open Session Minutes of September 10, 2025 and October 21-22, 2025, as presented.

- Move to approve the Relative Performance Maximums effective beginning in 2026, as recommended by the Compensation and Workforce Development Committee and as set forth in the Committee’s meeting materials.
- Move to approve changes to the (i) Incentive Compensation Plan – Unclassified Investment Management Staff, (ii) Incentive Compensation Plan – Unclassified Investment Services Staff, and (iii) Incentive Compensation Plan – Executive Staff, as recommended by the Compensation and Workforce Development Committee and as set forth in the Committee’s meeting materials.
- Move to approve the Total Cost of Management Plan for Calendar Year 2026, as recommended by the Audit and Finance Committee and as set forth in the Committee’s meeting materials.
- Move to approve the changes to the SWIB Benchmarking Philosophy and the Benchmark and Performance Committee Policies, as recommended by the Benchmark and Performance Committee and as set forth in the Committee’s meeting materials.
- Move to approve the retention of all current benchmarks, as recommended by SWIB’s benchmark consultant, NEPC, and SWIB’s Investment Committee, and as recommended by the Benchmark and Performance Committee and as set forth in the Committee’s meeting materials.

**Motion:** A motion was made by Trustee Bolens and seconded by Trustee Voelker to approve the consent agenda, as presented. The motion passed unanimously.

### **3. Investment Performance and Market Updates**

#### **A. Board Investment Performance Report, Q3 2025**

Greg Fletcher, Performance Director, presented the *Investment Performance Report as of September 30, 2025*, included on pages 21-36 of the meeting materials. Mr. Fletcher reported that: (i) the Core Trust Fund (“CTF”) returned 4.20% net of all fees and expenses in Q3 2025, which underperformed its benchmark by 13 basis points (“bps”) for the quarter; (ii) the CTF returned 10.30% net of all fees and expenses for the one-year period, resulting in an excess return of 69 bps; (iii) the CTF five-year return net of all fees and expenses was 8.75% and outperformed the Policy Benchmark by 84 bps on an annualized basis; and (iv) the CTF net of external manager fee return outperformed the 60/40 Reference Portfolio return by 21.4% (cumulative) over the past twenty years, which equates to an excess value add of \$12.9 billion over the same period.

Mr. Fletcher also highlighted that: (i) the CTF net of all fees and expenses return outperformed its benchmark for the year-to-date, one-, three-, and five-year time periods; (ii) the CTF net of external manager fee return outperformed its benchmark for the ten-, fifteen-, and twenty-year time periods; (iii) the CTF gross of fee return outperformed its benchmark for the thirty-year time period; (iv) the Variable Trust Fund (“VTF”) net of all fees and expenses return outperformed its benchmark for the year-to-date and one-year periods and underperformed for the three- and five-year periods; (v) the VTF net of external manager fee return outperformed its benchmark for the ten-, fifteen-, and twenty-year time periods; and (vi) the VTF gross of fee return outperformed its benchmark for the thirty-year time period. Mr. Fletcher noted that SWIB’s investment management has added more than \$4.8 billion above benchmark returns to the Wisconsin Retirement System (“WRS”) over the last five years.

Mr. Fletcher reviewed the overall assets under management (“AUM”) of SWIB, noting that the gross market value of assets increased by nearly \$9.5 billion over the past year. He then noted that the percentage

of WRS assets that are actively managed has declined slightly year-over-year, and that the percentage of WRS assets that are internally managed increased slightly over the same period. With respect to active management, he noted that there was an actual increase, but that it was being masked by a rise in value in the passively managed equities. Next, Mr. Fletcher: (i) provided a breakdown of CTF asset class exposures, noting that the portfolio remains well diversified and all asset classes are within asset allocation target ranges; (ii) reviewed the asset class performance for the CTF over various time periods and discussed the performance of the alpha pool overlay; (iii) reviewed VTF performance and asset class exposures, noting that asset class exposures were within target ranges; and (iv) presented return information for the Separately Managed Funds.

Finally, Mr. Fletcher presented *Leverage Performance as of September 30, 2025*, included on pages 37-38 of the meeting materials, commenting that policy leverage contributed 84 bps to CTF absolute performance year-to-date and remained a positive contributor over the one-, three-, and five-year periods.

## **B. Callan Quarterly Report**

Mr. Fletcher noted that the *Callan Quarterly Report Summary – 3<sup>rd</sup> Quarter 2025* was included on pages 39-53 of the meeting materials. He highlighted that the CTF's total fund unadjusted performance exceeds the policy target for the one-, three-, five-, and ten-year periods, and is in the second quartile of the peer group for the one, three- and ten-year periods and in the third quartile for the five-year period. On an asset allocation adjusted basis, the CTF's performance rankings are in the first quartile for the one-year period and in the second quartile for the three-, five-, and ten-year periods. When comparing the CTF's ten-year cumulative performance to peers, Mr. Fletcher noted that the CTF exhibits low tracking error relative to its peers and produces stable, ascending cumulative performance over the ten-year period.

## **4. Asset Allocation Recommendations for 2026**

Joe Nankof, Partner, NEPC, and Todd Mattina, Head Economist & Asset and Risk Allocation Chief Investment Officer, presented the *Asset Allocation Review*, included on pages 55-134 of the meeting materials. Mr. Nankof reviewed the themes of the 2026 asset allocation analysis, noting that (a) Gabriel Roeder & Smith Co. ("GRS") had conducted their on-year actuarial overview and stress testing of the WRS and recommended that SWIB continue to target a range of 6% to 7.5% return rate, which balances expected return, investment volatility, and downside risk; and (b) there were no meaningful changes from the asset allocation preview that was presented and discussed during the October Board Workshop.

With respect to NEPC's 2026 asset allocation recommendations, Mr. Nankof summarized the recommendations for the CTF to (i) decrease the public equities target by 2% from 38% to 36%, matched with a 2% decrease in the policy leverage target from -12% to -10%, reflecting NEPC's updated capital market assumptions for future asset class returns and risk; (ii) shift the public fixed income sub asset class allocation to eliminate the long Treasury allocation of 4% and increase U.S. Treasuries from 24% to 28% of the public fixed income allocation; and (iii) maintain the current private markets allocation, which remains in line with the long-term pacing plan and within target allocation ranges. Mr. Nankof also reviewed NEPC's 2026 recommendation for the VTF to implement an active risk target range of zero to 90 bps.

Mr. Nankof and Mr. Mattina concluded by leading the Board's discussion regarding NEPC's quarterly adjustments to its long-term capital market assumptions and the downside protections afforded by NEPC's recommended asset allocation.

**Motion:** A motion was made by Trustee Tinnen and seconded by Trustee Collins, to adopt and approve the asset allocation and active risk targets for the Core Trust Fund and the Variable Trust Fund as set forth and further described in the Asset Allocation Review included in the Board materials, as recommended by the Investment Committee and the Board’s asset allocation consultant, NEPC. The motion passed unanimously.

## **5. Committee Open Session Business**

### **A. Amendments to Investment Committee Charter**

Mr. Barber reviewed the proposed amendments to the SWIB Investment Committee Charter, included on pages 136-139 in the meeting materials, noting that the revisions (i) update the membership of the Investment Committee to account for upcoming changes to SWIB’s organizational structure, effective as of January 1, 2026; and (ii) revise reporting and presentation timelines to conform to current practice.

**Motion:** A motion was made by Trustee Tinnen and seconded by Trustee Collins to approve the changes to the Investment Committee Charter, effective as of January 1, 2026, as reflected in the meeting materials. The motion passed unanimously.

### **B. Amendments to WRS Investment Committee Guidelines**

Mr. Barber then discussed amendments to the *SWIB Investment Committee Wisconsin Retirement System Investment Guidelines*, included on pages 140-184 of the meeting materials, which were approved by the Investment Committee at its September meeting. He stated that the changes (a) revise the guidelines for each of the internally managed active public fixed income portfolios to limit their aggregate use of centrally arranged leverage from the Asset & Risk Allocation (“ARA”) division to 15% of the portfolios’ aggregate market value, with a corresponding new soft risk parameter set at 9%; (b) clarify the distinction between “emerging” and “developed” markets for public fixed income investments; and (c) make non-substantive revisions to the list of approved exchanges to combine individual exchanges that fall within a broader exchange group.

### **C. Approved Open Session Investment Committee Minutes**

Mr. Barber stated that the approved open session minutes of the August 26, September 23, and October 28, 2025 Investment Committee meetings were included on pages 185-202 of the meeting materials for the Board’s review and noted that staff had previously reviewed the agendas for these meetings with the Board.

### **D. Agendas for Upcoming Meetings**

Mr. Barber also stated that the final open session agenda for the November 25, 2025 Investment Committee meeting, as well as draft open session agendas for the December 18, 2025 and January 27, 2026 Investment Committee meetings, were included on pages 203-208 of the meeting materials for the Board’s review.

## **6. Quarterly Investment Update, Q3 2025**

Mr. Mattina presented the *Quarterly Investment Update*, included on pages 217-231 of the meeting materials. As he had in prior presentations, Mr. Mattina highlighted the CTF’s average return required to avoid any negative dividend adjustment, noting that performance through October 2025 exceeded the required 9.9% by 3%, or 12.9%.

Scott Nichols, Head of Trading, then presented the *Public Markets Trading – Update*, included on pages 210-216 of the meeting materials. Mr. Nichols (a) reviewed the structure of the trading function at SWIB, noting that the trading team executes trades and focuses on reducing both explicit and implicit costs; (b) highlighted that team had achieved lower total commissions by identifying a concentrated set of strategic broker relationships and pursuing lower rates, with efforts to reduce overall explicit costs effective across both realized equities and futures; and (c) provided illustrative examples of trade workflow, automation, and implementation. Lastly, he led the Board’s discussion regarding primary counterparties, the use of machine learning, and innovations in fixed income trading.

## **7. Motion to Convene in Closed Session**

**Motion:** A motion to convene in closed session pursuant to: (i) Sections 19.36(5) and 19.85(1)(e) of the Wisconsin Statutes to consider confidential and proprietary strategies for the investment of public funds relating to specific proprietary investment strategies of internal WRS portfolios, asset allocation, and risk management and/or for any comments or discussion on prior closed session minutes that discuss the same; (ii) Section 19.85(1)(c) of the Wisconsin Statutes to discuss the compensation and performance evaluation data of specific SWIB employees, including SWIB’s executive director/chief investment officer and SWIB’s board of trustees, and/or for any comments or discussion on prior closed session minutes that discuss the same; and (iii) Section 19.85(1)(g) of the Wisconsin Statutes to confer with SWIB’s chief legal counsel to receive advice concerning legal strategy for ongoing and potential litigation and/or for any comments or discussion on prior closed session minutes that discuss the same, was made by Trustee Merfeld and seconded by Trustee Bolens.

The Chair called for a roll call vote.

Ancel–Aye	Blumenfeld–Aye	Bolens–Aye	Collins–Aye
Merfeld–Aye	Scott–Aye	Tinnen–Aye	Voelker–Aye

There being eight ayes and no nays, the Chair declared the motion passed. The Board convened in closed session at 11:19 a.m. and reconvened in open session at 1:25 p.m.

## **8. Announcement of Board Actions Relating to Items Taken up in Closed Session**

Trustee Tinnen announced that, while in closed session, the Board: (i) received closed session Committee reports; (ii) approved prior closed session and executive closed session meeting minutes; (iii) heard an annual review of the expected tail loss analysis and discussed the asset allocation cadence; (iv) received a risk management update; and (v) received an update on Investment Committee closed session business. Trustee Tinnen also reported that, while in executive closed session, the Board discussed follow-up items from its self-evaluation.

## **9. Reports Filed Without Comment**

In the absence of questions, the following reports, included on pages 305-320 of the meeting materials, were filed without comment: (i) Quarterly Charges to Funds Report, Q3 2025; (ii) Private Markets and Funds Alpha Commitments, Q3 2025; and (iii) Board Contact Log.

**10. Future Items for Discussion**

Mr. Barber noted that the 2026 Board Meeting and Agenda Plan was included on pages 322-325 in the meeting materials for the Board’s information.

**11. Adjournment**

**Motion:** A motion to adjourn was made by Trustee Tinnen and seconded by Trustee Voelker. The motion passed unanimously, and the meeting was adjourned at 1:27 p.m.

Date of Board Approval:

Signed:

\_\_\_\_\_  
Thomas J. Merfeld, Board Secretary

DRAFT

## Board Meeting

### Tab 3 – Election of Secretary and Assistant Secretary

Summary: In accordance with Board procedures, the Board elects a Secretary and Assistant Secretary annually. Duties of the Secretary include signing the minutes of the Board meetings. Duties of the Assistant Secretary include certifying to the validity of copies of statutes and SWIB documents when requested by counterparties. Typically, the Board selects a Trustee as Secretary and the Chief Legal Counsel as Assistant Secretary.

## Board Meeting

### Tab 4 – Annual Committee Assignments by Board Chair

March 19, 2026

Pursuant to each Committee Charter, the Board Chair shall appoint members of each Committee and appoint members to serve as Committee chair, vice chair and secretary for terms not to exceed one year.

**Audit and Finance Committee**

Robert Scott, Chair  
 Tom Merfeld, Vice Chair & Secretary  
 Barb Bolens  
 John Voelker/ETF Secretary

State Controller, ex-officio  
 State Auditor, ex-officio

**Benchmark and Performance Committee**

Jeff DeAngelis, Chair  
 J. Michael Collins, Vice Chair & Secretary  
 Esther Ancel  
 John Voelker/ETF Secretary

**Compensation and Workforce Development Committee**

Barb Bolens, Chair  
 Jeff DeAngelis, Vice Chair & Secretary  
 Tom Merfeld  
 Robert Scott<sup>1</sup>  
 Clyde Tinnen

**Strategic Planning and Corporate Governance Committee**

Tom Merfeld, Chair  
 Esther Ancel, Vice Chair & Secretary  
 Kathy Blumenfeld  
 J. Michael Collins  
 Robert Scott

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<sup>1</sup> Appointed on a temporary basis for the March 2026 Committee Meeting.

\*If a member has not been appointed, the Board Chair reserves the right to appoint additional Committee members on a temporary or permanent basis.

Board Meeting

Tab 5 – Proposed 2027 Board Meeting Dates

## STATE OF WISCONSIN INVESTMENT BOARD 2027 Board Meeting Dates

Tuesday/Wednesday	March	16/17
Tuesday/Wednesday	June	8/9
Tuesday/Wednesday	September	14/15
Tuesday/Wednesday (off-site)	October	19/20
Tuesday/Wednesday	December	7/8

### MEETING SITE:

Offices of the State of Wisconsin Investment Board  
4703 Madison Yards Way, Madison, WI 53705  
Conference Room – 1st Floor

\*Board meetings are held the second Tuesday/Wednesday of the month in June, September & December and the third Tuesday/Wednesday in March & October.

## Board Meeting

### Tab 6 – Investment Performance and Market Updates

- A. Board Investment Performance Report, Q4 2025
- B. 2025 Callan Report



# Investment Performance Report

*as of December 31, 2025*

*Board Meeting, March 18, 2026*

# Investment Performance Report

## *4Q 2025 Key Insights*

### Strong Absolute and Relative Performance Continues YTD<sup>1</sup>

- Quarterly Return: Core Trust Fund (CTF) up 2.23% and Variable Trust Fund (VTF) up 3.25% with performance exceeding their benchmarks by 7 bps and 2 bps, respectively
- YTD Return: Core Trust Fund (CTF) up 14.40% and Variable Trust Fund (VTF) up 22.03% with excess performance of +76 bps and +20 bps, respectively

### Key Portfolio Outcomes for 2025

- High absolute returns across all equity sub-asset classes, with SWIB outperforming in all but EM ex-China
- In fixed income, non-investment grade strategies are underperforming their benchmarks, while absolute returns across sub-asset classes are solid
- Real Estate absolute returns are muted and trail the benchmark, while Private Equity/Debt continues to generate strong excess returns
- Hedge Funds and Multi-Strat continue to add excess returns above an elevated cost of financing

### Positioning Relative to Peers

- The CTF has relatively less public equity exposure compared to other large public plans, reflecting a cautious approach to high equity valuations
- Asset-allocation adjusted performance relative to peers demonstrates strong portfolio implementation. Results are more mixed when not controlling for asset allocation, reflecting this lower exposure to public equity during a market runup

<sup>1</sup> All returns are net of all fees and expenses

# WRS Performance

*as of December 31, 2025*

Fund	Net of All Fees and Expenses Return %							
	YTD	1 Year	3 Year	5 Year	10 Year	15 Year	20 Year	
Core Trust Fund	14.40	14.40	11.42	7.08	8.85	7.98	7.15	
Core Trust Fund Benchmark	13.64	13.64	10.66	6.44	8.34	7.54	6.84	
Excess	<b>+0.76</b>	<b>+0.76</b>	<b>+0.76</b>	<b>+0.65</b>	<b>+0.51</b>	<b>+0.44</b>	<b>+0.31</b>	
Net Excess Value Add (\$M)	<b>+\$875.7</b>	<b>+\$875.7</b>	<b>+\$2,589.8</b>	<b>+\$3,849.6</b>				
Variable Trust Fund	22.03	22.03	20.98	11.78	12.67	11.45	9.29	
Variable Trust Fund Benchmark	21.83	21.83	21.06	11.82	12.72	11.42	9.31	
Excess	<b>+0.20</b>	<b>+0.20</b>	<b>(0.08)</b>	<b>(0.03)</b>	<b>(0.04)</b>	<b>+0.03</b>	<b>(0.02)</b>	
Net Excess Value Add (\$M)	<b>+\$22.0</b>	<b>+\$22.0</b>	<b>(\$10.7)</b>	<b>(\$6.0)</b>				

Notes:

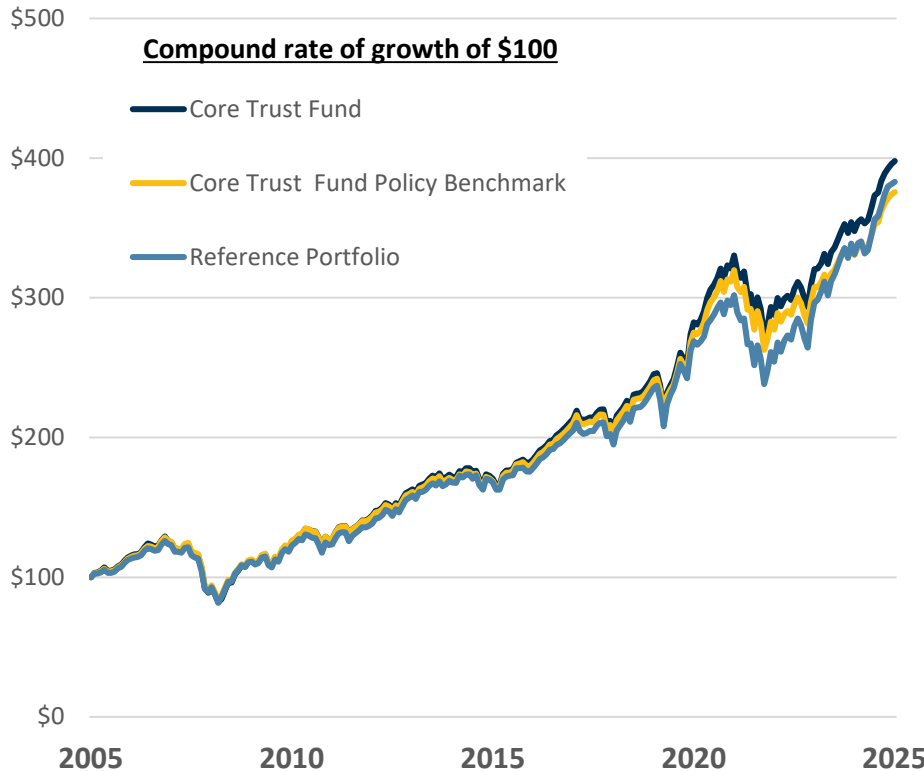
Periods greater than 1 yr show annualized return; excess returns may contain rounding differences  
 Refer to the disclosure section for additional details on return measurements and calculation methodologies

***SWIB's investment management has added more than \$3.8 billion above benchmark returns over the last five years to the WRS after consideration of all fees and expenses.***

# CTF vs. 60/40 Reference Portfolio

20-year cumulative return<sup>1</sup>: January 1, 2006 to December 31, 2025

## Indexed Benefit of CTF's Asset Allocation & Active Management Over Time



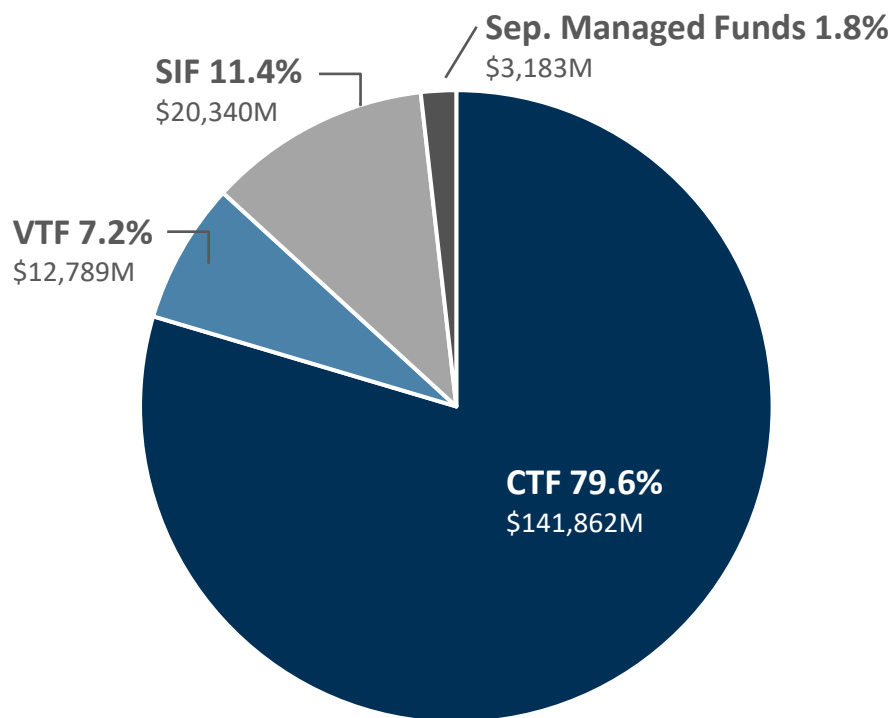
Net of All Fees and Expenses Return & EVA			
Portfolio / Benchmark	Annualized Return	Cumulative Return	Cumulative \$ Excess Value Added
Reference Portfolio <sup>2</sup> (60% equity/40% bonds)	6.9%	283.0%	= Passive Market Return
<b>Benefit of CTF Asset Allocation</b>			
CTF Policy Benchmark	6.8%	275.7%	+\$0.6B
<b>Benefit of CTF Active Management</b>			
CTF	7.1%	297.9%	+\$9.4B
<b>CTF Excess Return vs. Reference Portfolio</b>	<b>+0.2% pts</b>	<b>+14.9% pts</b>	<b>+\$10.0B</b>

<sup>1</sup> Core Trust Fund beginning market value, as of January 1, 2006, was \$67.5B and ending market value, as of December 31, 2025, was \$141.8B.

<sup>2</sup> Reference Portfolio is composed of 60% MSCI World and 40% Bloomberg US Gov't / Credit (rebalanced monthly).

# Total Assets Under Management (AUM)

as of December 31, 2025



Gross Market Value of Assets (\$millions)			
By Fund	12/31/2024	12/31/2025	1 Year Change
<b>Total WRS</b>	139,482	154,652	+15,170
<b>Core Trust Fund</b>	128,389	141,862	+13,474
<b>Variable Trust Fund</b>	11,093	12,789	+1,696
<b>State Investment Fund (SIF) <sup>1</sup></b>	20,383	20,340	(43)
<b>Separately Managed Funds</b>	2,948	3,183	+235
<b>Total SWIB AUM</b>	<b>\$162,814</b>	<b>\$178,175</b>	<b>+\$15,361</b>

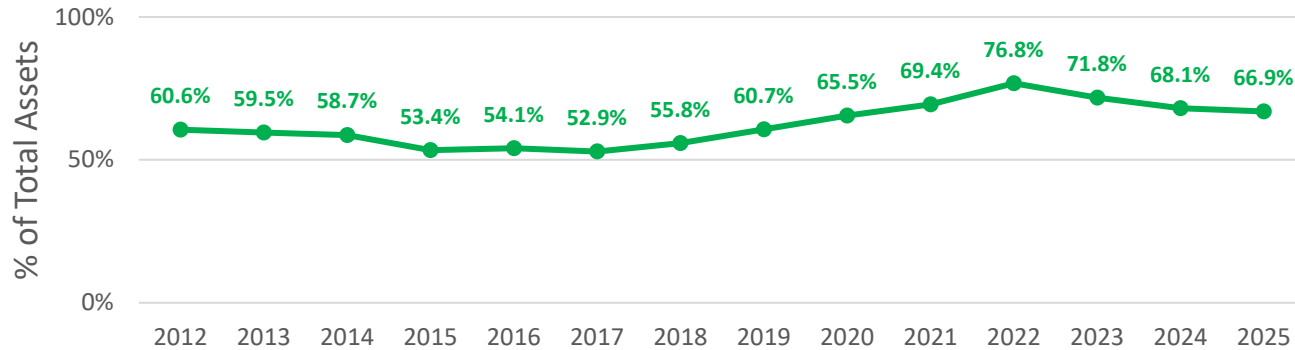
<sup>1</sup> Excludes cash invested in SIF held on behalf of CTF and VTF.

Refer to the disclosure section for additional details

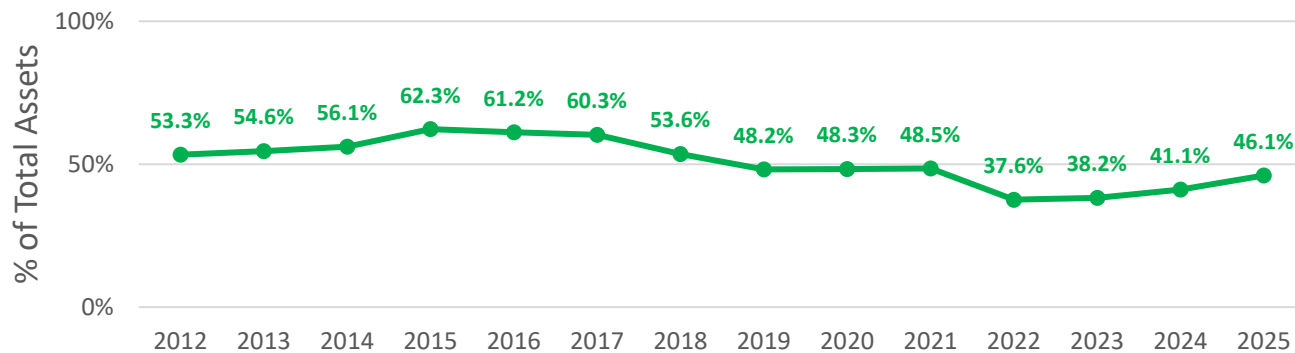
# WRS Assets as of December 31, 2025

## *Breakdown of Active vs. Passive and Internal vs. External*

### Actively Managed Assets



### Internally Managed Assets



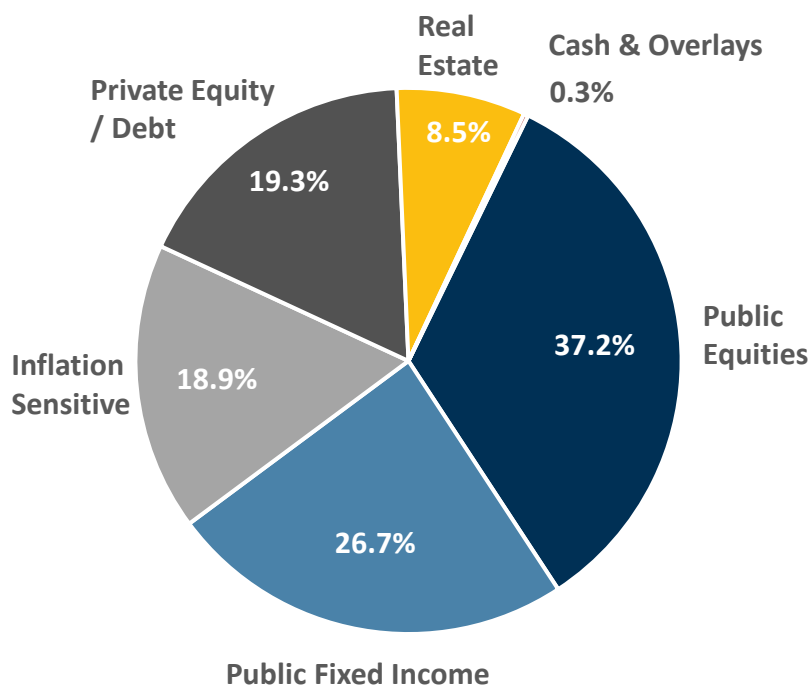
**51% of Total SWIB Assets (including SIF) are internally managed**

A methodology change was made during this reporting period that currently and retroactively impacts the figures presented above. Please see page 43 in the Report Disclosures section for additional details.

# CTF Assets Under Management

*Breakdown by Asset Class as of December 31, 2025*

**Total Exposure - % of Total  
12/31/2025**



Total CTF by Asset Class	Total Exposure \$ & Adjusted AUM (\$millions)		
	Total Exposure \$ <sup>1</sup> 12/31/2024	Total Exposure \$ 12/31/2025	Year over Year Change
Public Equities	47,314	52,803	+5,489
Public Fixed Income	33,761	37,903	+4,142
Inflation Sensitive	24,248	26,865	+2,617
Real Estate <sup>2</sup>	11,925	12,054	+129
Private Equity / Debt <sup>2</sup>	26,083	27,395	+1,312
Cash & Overlays	391	412	+21
<b>Total Exposure</b>	<b>\$143,722</b>	<b>\$157,433</b>	<b>+13,711</b>
<i>Less: Policy Leverage</i>	<i>15,328</i>	<i>15,561</i>	<i>+233</i>
<b>Total CTF AUM</b>	<b>\$128,393</b>	<b>\$141,872</b>	<b>+13,479</b>

<sup>1</sup> Total Exposure is composed of the gross market value of investments, plus beta exposure added or offset through derivative instruments.

<sup>2</sup> The Real Estate and Private Equity / Debt asset classes (28% of the Core Trust Fund) contain Illiquid Investments, as defined in "Report Disclosures: Glossary, Definitions & Data Sources", below.

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund Allocation

*as of December 31, 2025*

## Allocation – Exposure Based

Strategies	(\$ millions)	As % of Total Fund		Target Range %	Notes
	Total Exposure	Portfolio Exposure %	Benchmark Target %		
<b>Public Equities</b>	<b>52,803</b>	<b>37.2</b>	<b>37.4</b>	<b>31.4 – 43.4</b>	Public & Private exposures include cash  Cash / Overlays: Includes liquidity, overlay cash, cash used to fund synthetic beta related to Alpha Pool.
Global Developed	42,623	30.0	30.2		
US Small Cap	2,954	2.1	2.1		
International Small Cap	2,697	1.9	1.9		
Emerging Markets	4,529	3.2	3.2		
<b>Public Fixed Income</b>	<b>37,903</b>	<b>26.7</b>	<b>26.8</b>	<b>20.8 – 32.8</b>	Benchmark Target weights are adjusted monthly to reflect the actual exposure to Private Equity/Debt and Real Estate. Offsetting adjustments are made to Public Equities and Public Fixed Income.
Investment Grade	22,645	16.0	16.1		
Non-Investment Grade	11,358	8.0	8.0		
Emerging Market Debt	3,901	2.7	2.7		
Inflation Sensitive	26,865	18.9	19.0	14.0 – 24.0	
Real Estate	12,054	8.5	8.5	4.0 – 12.0	Additional CTF leverage details available in disclosure section
Private Equity / Debt	27,395	19.3	19.3	12.0 – 28.0	
Cash / Overlays	412	0.3	0.0		
Leverage	(15,561)	(11.0)	(11.0)	(19.0) to (3.0)	
<b>Total Fund – Total Exposure</b>	<b>\$157,433</b>	<b>111.0</b>	<b>111.0</b>	<b>103.0 – 119.0</b>	
<b>Total Fund – Market Value</b>	<b>\$141,872</b>	<b>100.0</b>	<b>100.0</b>		

Asset \$ exposures and % weights may contain rounding differences

# Core Trust Fund: Asset Class Returns

*as of December 31, 2025*

Asset Class Group: Public Equities	Performance Start Date	Total Exposure Value (\$millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year or ITD
<b>Public Equities</b>	<b>12/31/2002</b>	\$52,781	22.80	22.80	20.62	11.41	12.11
<b>Benchmark</b>			22.37	22.37	20.56	11.45	12.20
<b>Excess</b>			<b>+0.43</b>	<b>+0.43</b>	<b>+0.06</b>	<b>(0.04)</b>	<b>(0.09)</b>
<b>Global Developed</b>	<b>2/28/2017</b>	\$40,258	21.66	21.66	21.44	12.33	12.54
<b>Benchmark</b>			21.60	21.60	21.70	12.64	12.82
<b>Excess</b>			<b>+0.06</b>	<b>+0.06</b>	<b>(0.26)</b>	<b>(0.32)</b>	<b>(0.28)</b>
<b>Global Equities w/EM</b>	<b>5/31/2021</b>	\$2,656	25.14	25.14	23.08		11.76
<b>Benchmark</b>			22.89	22.89	21.17		10.21
<b>Excess</b>			<b>+2.24</b>	<b>+2.24</b>	<b>+1.92</b>		<b>+1.55</b>
<b>US Small Cap</b>	<b>2/28/2017</b>	\$2,954	13.12	13.12	15.55	7.57	9.65
<b>Benchmark</b>			12.12	12.12	14.16	6.82	8.68
<b>Excess</b>			<b>+1.00</b>	<b>+1.00</b>	<b>+1.39</b>	<b>+0.75</b>	<b>+0.97</b>
<b>International Small Cap</b>	<b>1/31/2020</b>	\$2,675	34.82	34.82	17.73	7.65	8.64
<b>Benchmark</b>			29.65	29.65	15.92	6.17	7.87
<b>Excess</b>			<b>+5.17</b>	<b>+5.17</b>	<b>+1.81</b>	<b>+1.48</b>	<b>+0.77</b>
<b>Emerging Market ex China</b>	<b>3/31/2022</b>	\$3,535	33.27	33.27	18.55		8.97
<b>Benchmark</b>			34.73	34.73	18.83		9.47
<b>Excess</b>			<b>(1.46)</b>	<b>(1.46)</b>	<b>(0.27)</b>		<b>(0.50)</b>
<b>Emerging Market China</b>	<b>3/31/2022</b>	\$650	32.09	32.09	11.49		5.77
<b>Benchmark</b>			28.88	28.88	10.92		5.91
<b>Excess</b>			<b>+3.21</b>	<b>+3.21</b>	<b>+0.58</b>		<b>(0.14)</b>

Periods greater than 1 yr show annualized return; since inception returns shown for strategies with less than 10-year history

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund: Asset Class Returns

*as of December 31, 2025*

Asset Class Group: Public Fixed Income & Inflation Sensitive	Performance Start Date	Total Exposure Value (\$millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year or ITD
<b>Public Fixed Income</b>	<b>12/31/2003</b>	\$37,902	8.78	8.78	7.19	1.07	3.30
<b>Benchmark</b>			8.45	8.45	6.59	0.81	3.03
<b>Excess</b>			<b>+0.33</b>	<b>+0.33</b>	<b>+0.60</b>	<b>+0.26</b>	<b>+0.26</b>
<b>Investment Grade US Credit</b>	<b>2/28/2022</b>	\$9,060	8.62	8.62	6.77		1.97
<b>Benchmark</b>			7.83	7.83	5.98		1.58
<b>Excess</b>			<b>+0.79</b>	<b>+0.79</b>	<b>+0.79</b>		<b>+0.39</b>
<b>US Treasuries</b>	<b>2/28/2022</b>	\$10,560	6.20	6.20	3.43		(0.23)
<b>Benchmark</b>			6.32	6.32	3.62		(0.02)
<b>Excess</b>			<b>(0.11)</b>	<b>(0.11)</b>	<b>(0.19)</b>		<b>(0.21)</b>
<b>US Long Treasuries</b>	<b>9/30/2022</b>	\$0	5.93	5.93	0.83		0.61
<b>Benchmark</b>			5.59	5.59	0.61		0.38
<b>Excess</b>			<b>+0.34</b>	<b>+0.34</b>	<b>+0.21</b>		<b>+0.23</b>
<b>MBS</b>	<b>4/30/2020</b>	\$3,012	9.80	9.80	6.99	0.82	1.06
<b>Benchmark</b>			8.58	8.58	4.90	0.15	0.20
<b>Excess</b>			<b>+1.22</b>	<b>+1.22</b>	<b>+2.09</b>	<b>+0.67</b>	<b>+0.86</b>

Periods greater than 1 yr show annualized return; since inception returns shown for strategies with less than 10-year history

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund: Asset Class Returns

*as of December 31, 2025*

Asset Class Group: Public Fixed Income & Inflation Sensitive	Performance Start Date	Total Exposure Value (\$millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year or ITD
<b>High Yield</b>	<b>7/31/2019</b>	\$7,573	8.68	8.68	9.90	3.60	4.57
<b>Benchmark</b>			8.77	8.77	9.42	4.17	4.83
<b>Excess</b>			<b>(0.09)</b>	<b>(0.09)</b>	<b>+0.48</b>	<b>(0.56)</b>	<b>(0.26)</b>
<b>Leveraged Loans</b>	<b>3/31/2023</b>	\$3,786	5.41	5.41			9.08
<b>Benchmark</b>			7.24	7.24			9.43
<b>Excess</b>			<b>(1.83)</b>	<b>(1.83)</b>			<b>(0.36)</b>
<b>Emerging Market Debt - USD</b>	<b>6/30/2005</b>	\$1,964	15.33	15.33	11.07	2.51	5.01
<b>Benchmark</b>			14.30	14.30	10.60	1.78	4.40
<b>Excess</b>			<b>+1.03</b>	<b>+1.03</b>	<b>+0.48</b>	<b>+0.73</b>	<b>+0.61</b>
<b>Emerging Market Debt - Local</b>	<b>7/31/2017</b>	\$1,937	23.15	23.15	10.95	2.03	2.25
<b>Benchmark</b>			19.26	19.26	9.48	1.12	2.00
<b>Excess</b>			<b>+3.89</b>	<b>+3.89</b>	<b>+1.48</b>	<b>+0.91</b>	<b>+0.25</b>
<b>Inflation Sensitive</b>	<b>12/31/2003</b>	\$26,864	7.02	7.02	4.24	1.16	3.39
<b>Benchmark</b>			7.01	7.01	4.23	1.12	3.30
<b>Excess</b>			<b>+0.01</b>	<b>+0.01</b>	<b>+0.02</b>	<b>+0.03</b>	<b>+0.08</b>

Periods greater than 1 yr show annualized return; since inception returns shown for strategies with less than 10-year history

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund: Asset Class Returns

*as of December 31, 2025*

Asset Class Group: Private Markets & Other Strategies	Performance Start Date	Total Exposure Value (\$millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year or ITD
<b>Real Estate</b>	<b>12/31/2003</b>	\$12,054	2.20	2.20	(2.76)	4.51	5.60
<b>Benchmark</b>			3.19	3.19	(6.15)	2.59	4.12
<b>Excess</b>			<b>(0.99)</b>	<b>(0.99)</b>	<b>+3.38</b>	<b>+1.92</b>	<b>+1.48</b>
<b>Private Equity / Debt</b>	<b>11/30/2006</b>	\$27,395	11.45	11.45	8.36	13.34	13.69
<b>Benchmark</b>			10.67	10.67	8.17	12.52	11.63
<b>Excess</b>			<b>+0.78</b>	<b>+0.78</b>	<b>+0.20</b>	<b>+0.82</b>	<b>+2.06</b>
<i>Other strategies:</i>							
<b>Alpha Pool Overlay</b>	<b>1/31/2011</b>	\$14,759	4.60	4.60	2.78	3.48	2.86
<b>Benchmark (set to zero as of 1/1/2019)</b>			0.00	0.00	0.00	0.00	0.50
<b>Excess</b>			<b>+4.60</b>	<b>+4.60</b>	<b>+2.78</b>	<b>+3.48</b>	<b>+2.36</b>

Periods greater than 1 yr show annualized return; since inception returns shown for strategies with less than 10-year history

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund: Asset Class Returns

*Net of External Mgr Fee - Excess Returns as of December 31, 2025*



Excess Return - % points

<sup>1</sup> Either 10-year annualized return or Since Inception (ITD) annualized return is used if there is insufficient return history.

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Core Trust Fund: Alpha Pool Overlay

*as of December 31, 2025*

Alpha Pool Return	Performance Start Date	Market Value (\$ millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year
<b>Total Alpha Pool Composite</b>	<b>1/31/2011</b>	<b>\$14,759</b>	<b>4.60</b>	<b>4.60</b>	<b>2.78</b>	<b>3.48</b>	<b>2.86</b>

- Prior to 2022, Hedge Fund sub strategy assets composed > 90% of the Alpha Pool Composite.
- Each sub strategy in the composite incurs the cost of implementation expense (assessed on a pro rata basis using AUM). Hence, each sub strategy is assigned a Zero Benchmark.

Alpha Pool: Key Sub Strategies	Inclusion Date	Market Value (\$ millions)	Calendar YTD NoF Return %	1 Year NoF Return %
<b>Hedge Funds</b>	1/31/2011	\$10,441 (71%)	5.76	5.76
<b>Multi Strat</b>	2/1/2022	\$1,726 (12%)	6.19	6.19

Alpha Pool Overlay Return (Alpha Pool + Beta Return)	Calendar YTD	1 Year	3 Year	5 Year	10 Year
<b>CTF Policy Benchmark (Beta)</b>	<b>13.64</b>	<b>13.64</b>	<b>10.66</b>	<b>6.44</b>	<b>8.34</b>
<b>Alpha Pool Overlay Return (Alpha Pool + Beta)</b>	<b>18.24</b>	<b>18.24</b>	<b>13.44</b>	<b>9.92</b>	<b>11.19</b>

Periods greater than 1 yr show annualized return

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Variable Trust Fund

*as of December 31, 2025*

## Performance

Fund	Performance Start Date	Market Value (\$ millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year
Variable Trust Fund	6/30/77	\$12,789	22.06	22.06	21.03	11.83	12.74
Variable Trust Fund Benchmark			21.83	21.83	21.06	11.82	12.72
Excess			+0.22	+0.22	(0.03)	+0.02	+0.02

Periods greater than 1 yr show annualized return

## Portfolio Allocation

By Portfolio	(\$ millions)	As % of Total Fund		
	Total Exposure	Portfolio Exposure	Exposure Target	Target Range
Public Equities	12,751	99.7	100.0	
US Equities	8,910	69.7	70.0	65.0 – 75.0%
International Equities	3,840	30.0	30.0	25.0 – 35.0%
Cash & Overlays	38	0.3	0.0	
Total Fund	\$12,789	100.0	100.0	

- *Asset class exposures are within the Target Range*

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Separately Managed Funds

*as of December 31, 2025*

Fund	Performance Start Date	Market Value (\$ millions)	Net of External Manager Fee Return %				
			Calendar YTD	1 Year	3 Year	5 Year	10 Year or ITD
<b>State Investment Fund (SIF)</b>	<b>6/30/1975</b>	\$24,157	4.37	4.37	4.96	3.29	2.23
<b>SIF Benchmark</b>			4.20	4.20	4.76	3.20	2.17
<b>Excess</b>			<b>+0.17</b>	<b>+0.17</b>	<b>+0.19</b>	<b>+0.08</b>	<b>+0.06</b>
<b>State Life Insurance Fund</b>	<b>10/31/1994</b>	\$95	6.96	6.96	3.80	(2.33)	2.40
<b>No Benchmark</b>							
<b>Historical Society Endowment Fund</b>	<b>12/31/1993</b>	\$32	14.80	14.80	18.25	10.15	11.67
<b>Historical Society Endowment Benchmark</b>			14.58	14.58	17.70	9.81	11.36
<b>Excess</b>			<b>+0.23</b>	<b>+0.23</b>	<b>+0.55</b>	<b>+0.34</b>	<b>+0.31</b>
<b>Injured Patients &amp; Families Comp. Fund</b>	<b>10/31/1993</b>	\$1,600	9.21	9.21	7.43	1.80	4.38
<b>IP&amp;FC Benchmark</b>			8.68	8.68	7.04	1.47	3.92
<b>Excess</b>			<b>+0.53</b>	<b>+0.53</b>	<b>+0.40</b>	<b>+0.34</b>	<b>+0.46</b>
<b>UW System Long Term Fund</b>	<b>3/31/2018</b>	\$662	15.49	15.49	12.20	7.26	8.14
<b>UW System Benchmark</b>			15.34	15.34	12.07	7.15	7.96
<b>Excess</b>			<b>+0.15</b>	<b>+0.15</b>	<b>+0.13</b>	<b>+0.11</b>	<b>+0.17</b>
<b>UW Cash Management Fund</b>	<b>4/30/2022</b>	\$793	9.30	9.30	8.32		5.92
<b>UW Cash Management Benchmark</b>			9.37	9.37	8.32		5.96
<b>Excess</b>			<b>(0.06)</b>	<b>(0.06)</b>	<b>(0.00)</b>		<b>(0.04)</b>

Periods greater than 1 yr show annualized return; since inception returns shown for strategies with less than 10-year history

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Leverage Performance

*As of December 31, 2025*

# CTF Policy Leverage Performance

*as of December 31, 2025*

Core Trust Fund	Net of All Fees and Expenses Return %			
	Calendar YTD	1 Year	3 Year	5 Year
<b>Unlevered Returns (as estimated):</b>				
Portfolio <sup>1</sup>	13.41	13.41	10.81	6.82
CTF Benchmark Return <sup>1</sup>	12.64	12.64	10.05	6.17
Excess Return	+0.77	+0.77	+0.77	+0.65
<hr/>				
Portfolio Return (Unlevered)	13.41	13.41	10.81	6.82
Absolute Return from Leverage <sup>1,2</sup>	1.00	1.00	0.62	0.27
Implementation (+) or (-)	(0.01)	(0.01)	(0.01)	0.00
<hr/>				
<b>Levered Returns (as reported):</b>				
Portfolio	14.40	14.40	11.42	7.08
CTF Benchmark	13.64	13.64	10.66	6.44
Excess	+0.76	+0.76	+0.76	+0.65

Periods greater than 1 yr show annualized return

**Leverage notes:**

<sup>1</sup> The Unlevered Portfolio Return, Unlevered CTF Benchmark Return, Absolute Return from Leverage and Implementation (+) or (-) are estimated.

<sup>2</sup> Policy leverage was first introduced into the CTF and the benchmark at the end of April 2012.

- Policy leverage at SWIB is implemented passively. Therefore, it generally does not contribute to active risk or excess returns<sup>1</sup>
- Policy leverage amplifies absolute returns (whether positive or negative), which is an important component in SWIB’s strategy to meet the 6.8% actuarial target over the long-term
- The CTF benchmark return is levered to create an apples-to-apples comparison for evaluating relative performance of the CTF (i.e., excess return)

Excess returns may contain rounding differences  
Refer to the disclosure section for additional details

# Callan Quarterly Report Summary

*As of December 31, 2025*



March 18, 2026

**State Of Wisconsin Investment Board**

**Callan Associates Performance Reporting**

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**Ivan "Butch" Cliff, CFA**  
Executive Vice President  
Director of Research

# What Callan is doing for SWIB

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## Purpose of the project and the resulting service relationship

- SWIB contacted Callan 2011 and expressed the desire for performance and risk analysis relative to “true” peers
- Purpose was to better understand and evaluate results compared to relevant peer funds
  - Public funds only
  - Very large in asset size to reflect both the advantages of scale as well as burdens of huge assets
  - Reasonably large sample size for robust and meaningful analysis
- Callan constructed and is maintaining a custom peer group for SWIB using our proprietary fund sponsor database that aggregates data from Callan clients and outside data vendors
- SWIB custom peer group results:
  - ~79 public funds with assets in excess of \$10 BB, ~22 of which are greater than \$50BB
  - Callan continues to maintain peer group by adding new members where appropriate
- Callan supplies SWIB with a detailed quarterly report using this custom peer group
  - Asset allocation analysis (actual and policy) versus peers
  - Total fund performance and risk analysis versus target and peers
  - Asset class performance versus targets and peers
  - Present summary results to the Board annually

# Relevant Background Information on SWIB Investment Program

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Important differentiating factors when evaluating strategy/performance vs. peers

- SWIB is one of the few ~100% fully-funded public funds in the US (assets  $\geq$  liabilities).
- Results from strong governance, prudent and disciplined benefit/contribution policies, appropriate investment policies, and effective investment practices.
- ~100% funded status along with some benefit flexibility gives SWIB more strategic investment policy options
- Many public funds are ~70% funded (many less) and feel forced to take on increasing levels of equity-like risks in an attempt to close the gap.
  - Underfunded peers need to exceed actuarial returns to close their gaps (absent large contribution increases).
  - To “tread water” a 70% funded plan with a 7% return hurdle needs to generate a 10% return (7% / .70).
- SWIB only has to meet its actuarial return hurdle (6.8%) on assets to maintain fully-funded status.

# Relevant Background Information on SWIB Investment Program

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Important differentiating factors when evaluating strategy/performance vs. peers

- SWIB can afford to utilize a more diversified strategic investment policy than most public funds.
- SWIB's policy is less reliant on, and concentrated in, equity-like risks and can still meet goals.
  - Uses moderate financial leverage to diversify fund's risk exposures to better counterbalance equity-like risks.
  - SWIB uses tenets of a well-known investment strategy, Risk Parity, to construct a more risk-balanced portfolio that is more robust against equity drawdowns than traditional peer portfolios.
  - SWIB's strategy uses moderate financial leverage (~10-15%) to raise exposure to a conservative fixed income portfolio as a "flight to quality" hedge against volatile equity/credit market scenarios. SWIB's leverage allows for this extra fixed income and diversification without having to fund from growth assets. Most peers have less fixed income and/or more aggressive, higher risk fixed income programs to pursue higher return.
- SWIB maintains a cost-effective mix of internal and external investment management that provides a material total fund cost advantage vs. many peers.

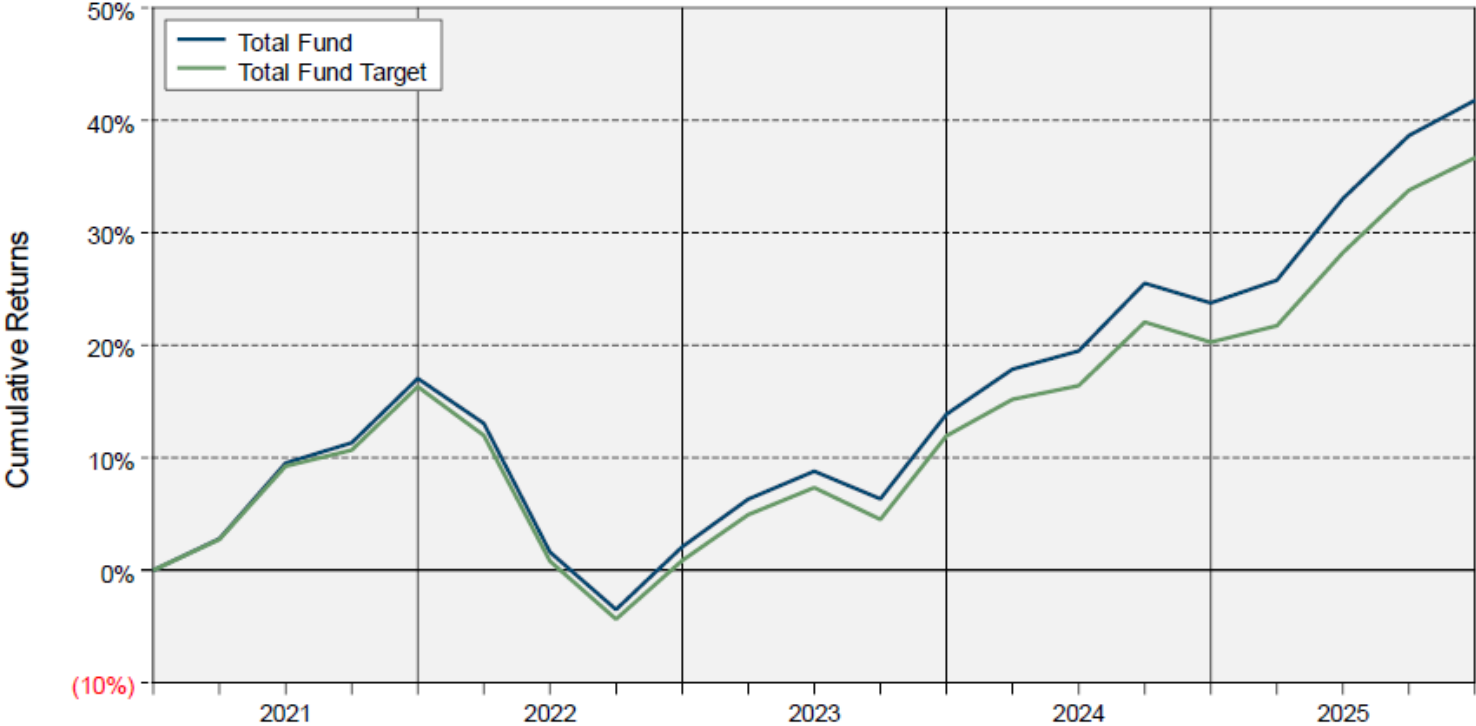


**SWIB Performance Reporting**

**Gross of Fees as of 12/31/25**

# 5 Year Cumulative Returns vs. Target (Gross, 12/31/25)

Cumulative Returns Actual vs Target

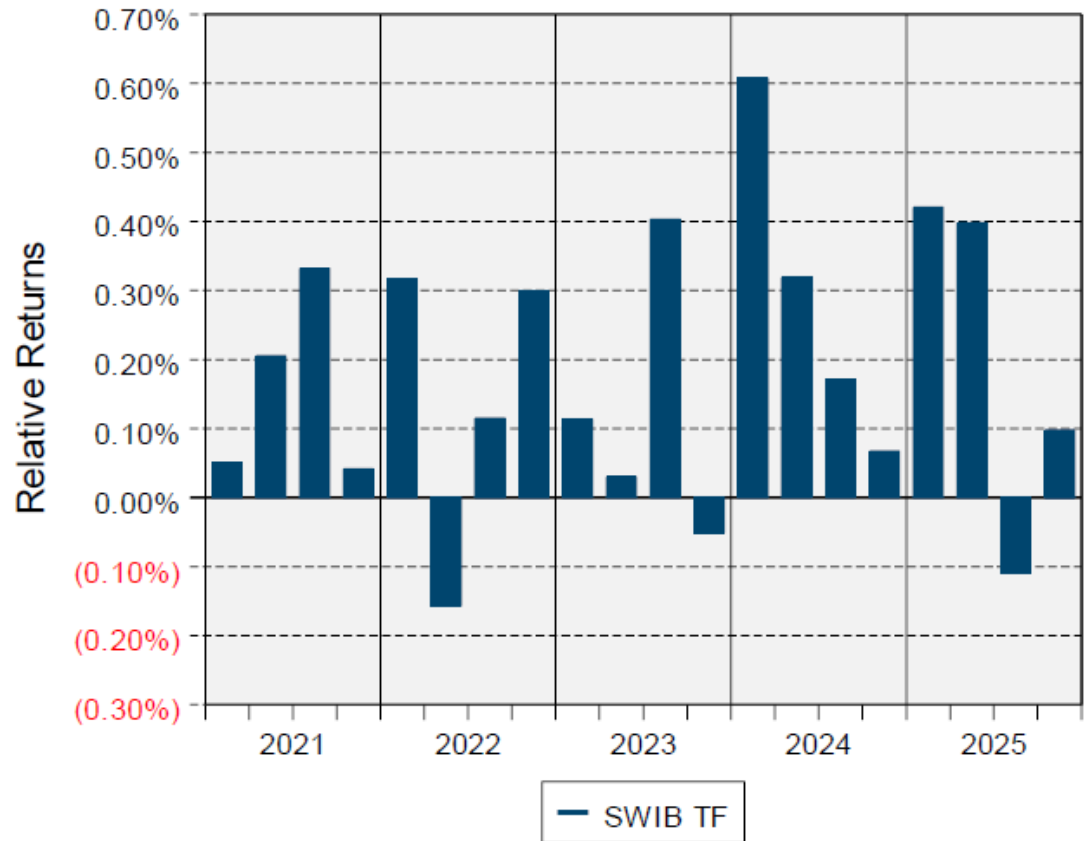


- Over last five years SWIB generated absolute returns of 7.23% annualized, beating its actuarially required return of 6.80% by 0.43%. The target policy return of 6.45% lagged the actuarial return by 0.35%.
- SWIB has added value above its target policy return with excess returns of +78 bps annualized, resulting in a cumulative excess return of +5.08% over the last 5 years.
- Results generated with high diversification and very low tracking error due to robust risk management.

# 5 Year Return Consistency vs. Target (Gross, 12/31/25)

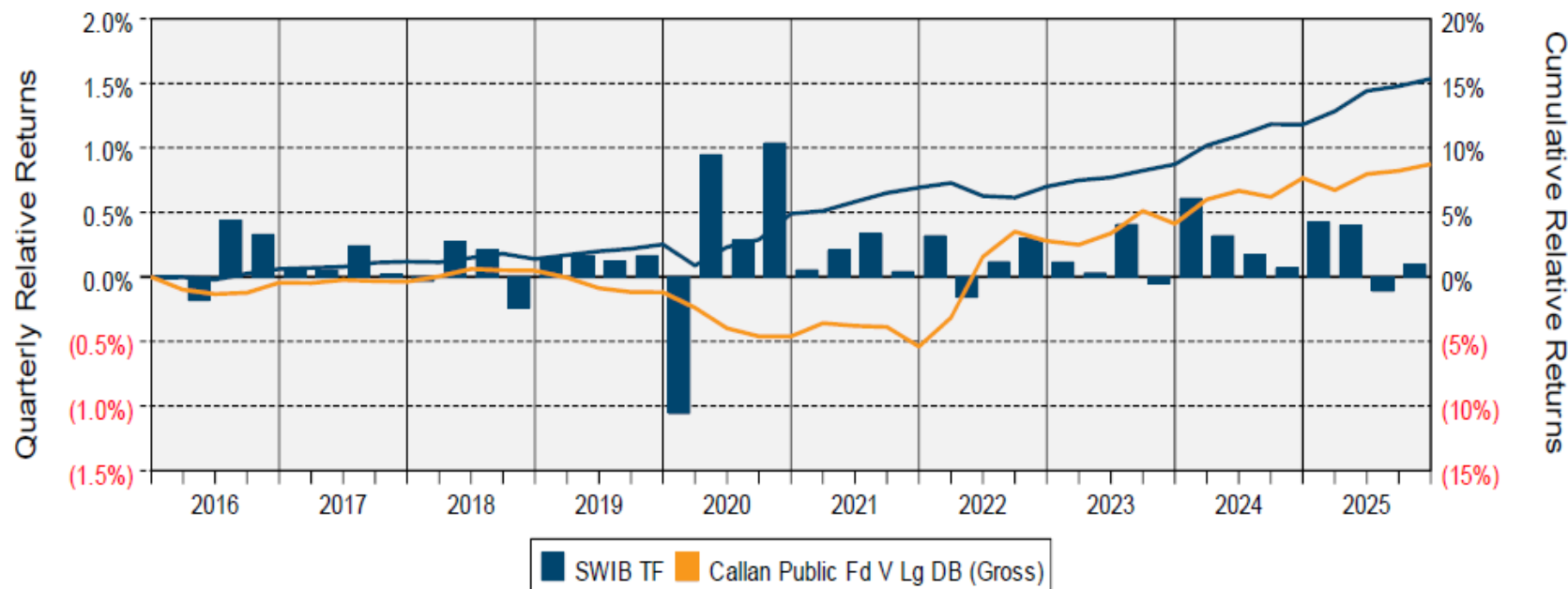
- Highly controlled tracking error relative to target (note small scale for y-axis relative returns).
- Consistent positive excess returns over last 5 years with an 85% batting average (17/20 qtrs).
- Consistency and risk control resulted in a relatively smooth ride to excess return of +78 bps annualized over last 5 years.
- Strong 3-year results with excess return of +92 bps annualized and 83% batting average (10/12 qtrs).
- The trailing 1-year outperformance was +92 bps with a 75% batting average (3/4 qtrs.)
- Continuation of the normally low tracking error, usually less than .40%

Relative Return vs Target



# 10 Year Return Consistency vs. Target (Gross, 12/31/25)

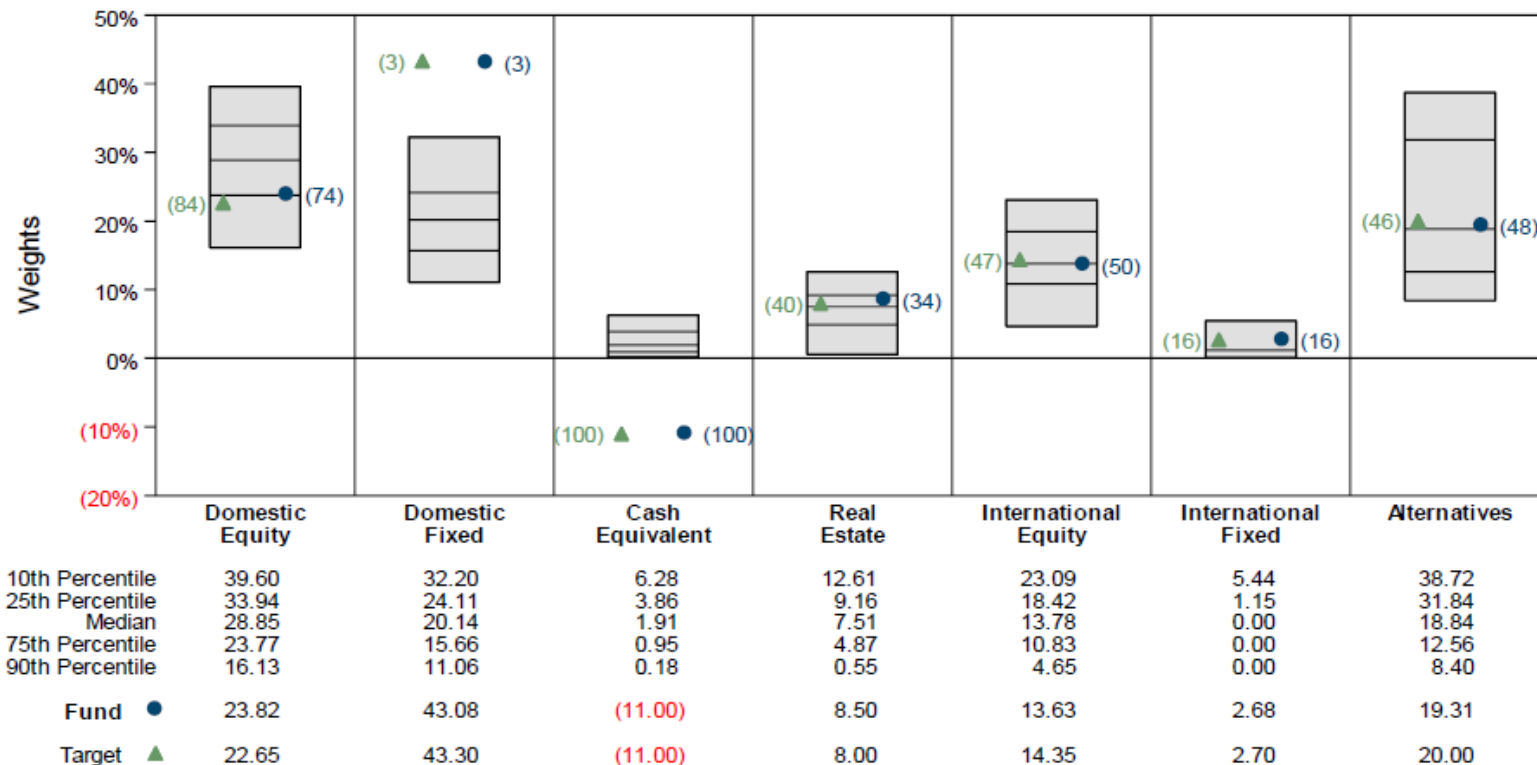
Cumulative and Quarterly Relative Returns vs Target



- Longer 10-year time frame shows similar consistency and risk control (2020 was an outlier).
- Smooth accumulation of excess return over very long time periods (85% batting average).
- Annualized 10-year excess return of +72 bps resulting in a cumulative excess return of +15.40%.
- Both actual return of 9.17% and target return of 8.45% exceed actuarially required return of 6.80%.

# Asset Allocation Comparison to Custom Peer Group (12/31/25)

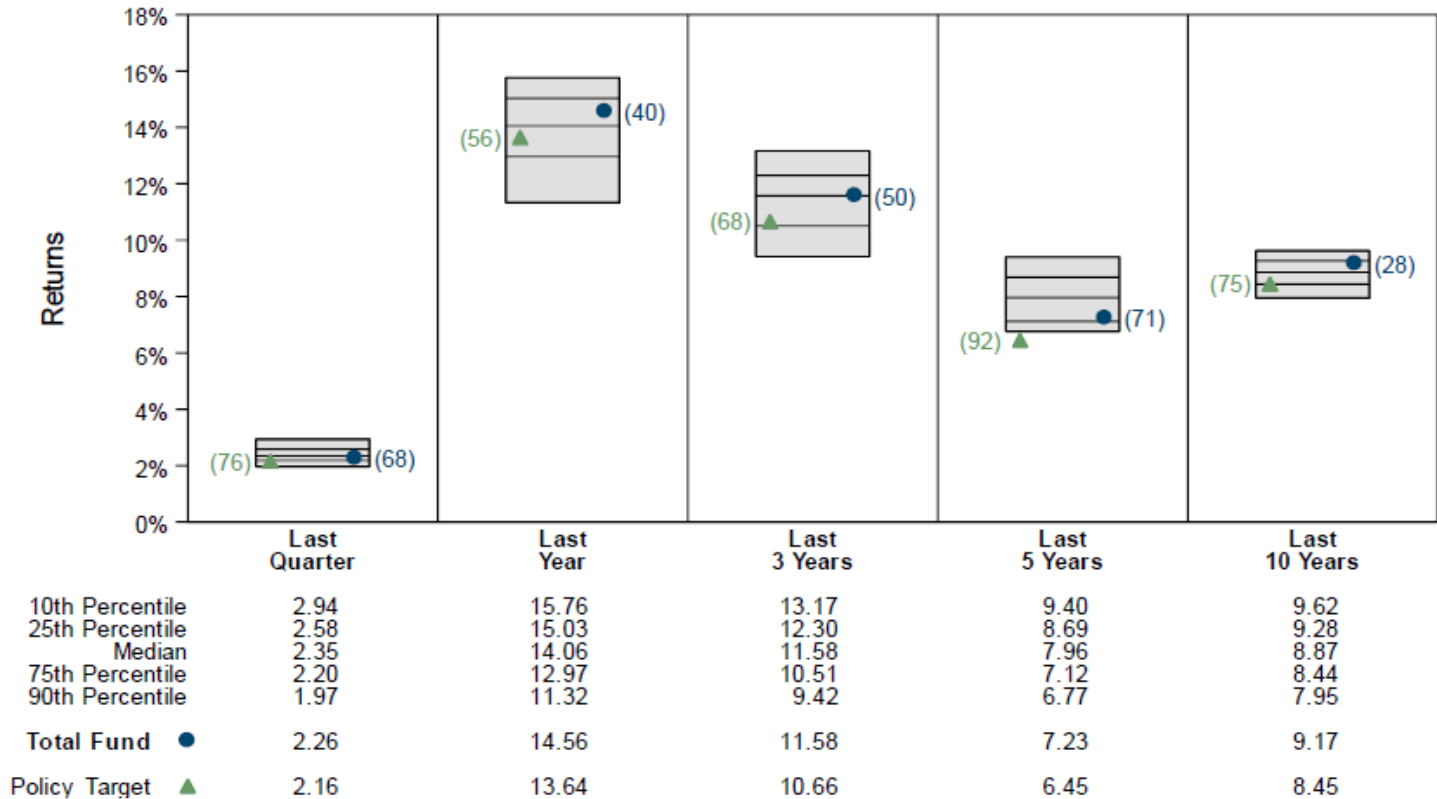
Asset Class Weights vs Callan Public Fund Spons- V Lg DB (>10B)



- SWIB's use of financial leverage (10-15%) enables more risk reducing/diversifying assets w/o sacrificing too much growth assets. Public equity assets are less US equity-centric than peers, more diversified.
- This somewhat unique strategy is a more diversified and risk-balanced portfolio than most peers.
- Much more fixed income in US especially, and Int'l as a hedge against equity-like risks.
- Leverage enables much higher risk-reducing fixed income than peers, while still having similar amounts of growth assets.

# Cumulative Performance Rankings vs. Peers (Gross, 12/31/25)

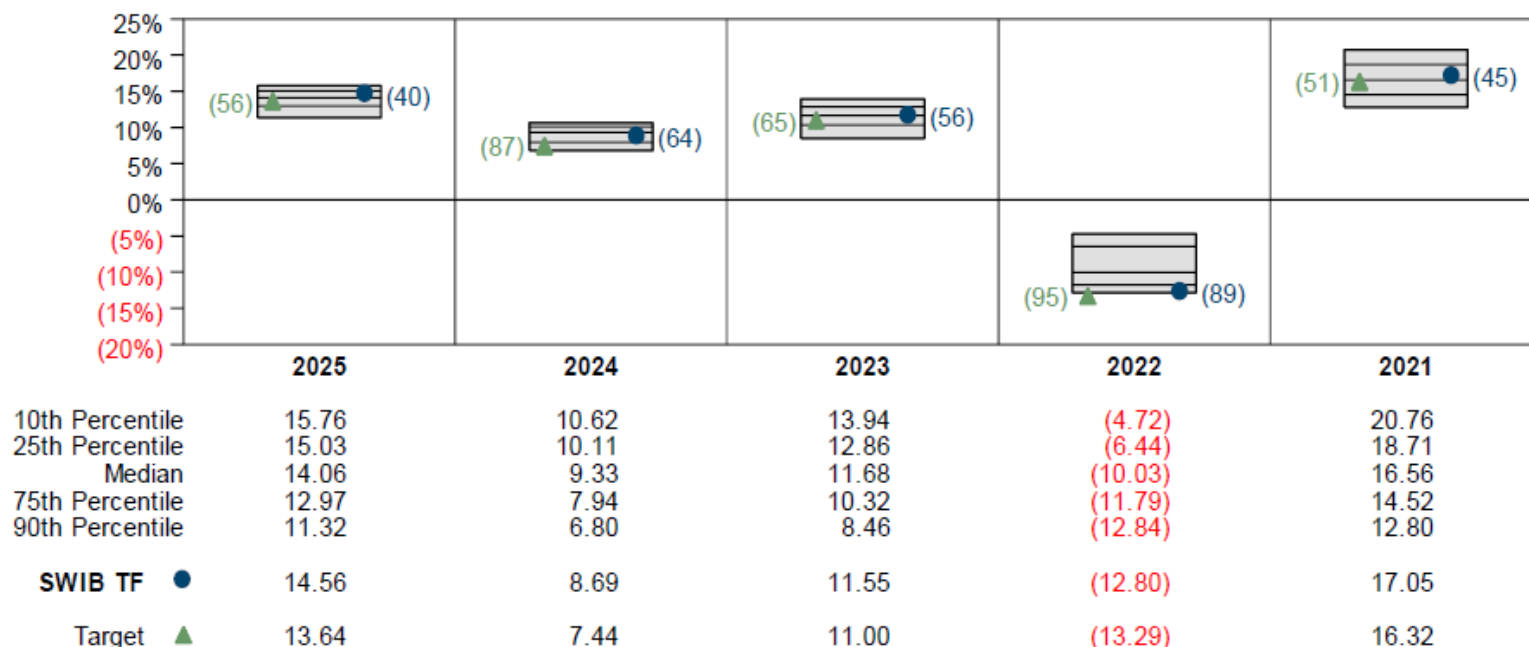
Callan Public Fund Spons- V Lg DB (>10B)



- Actual total returns above policy target returns for all periods shown.
- Competitive 1, 3, and 10-year rankings entirely due to value-add above target, as policy target return trailed peers.
- SWIB's policy target trailed peers badly in 2022, having a large negative effect on the 5-year ranking.

# Annual Performance Rankings vs. Peers (Gross, 12/31/25)

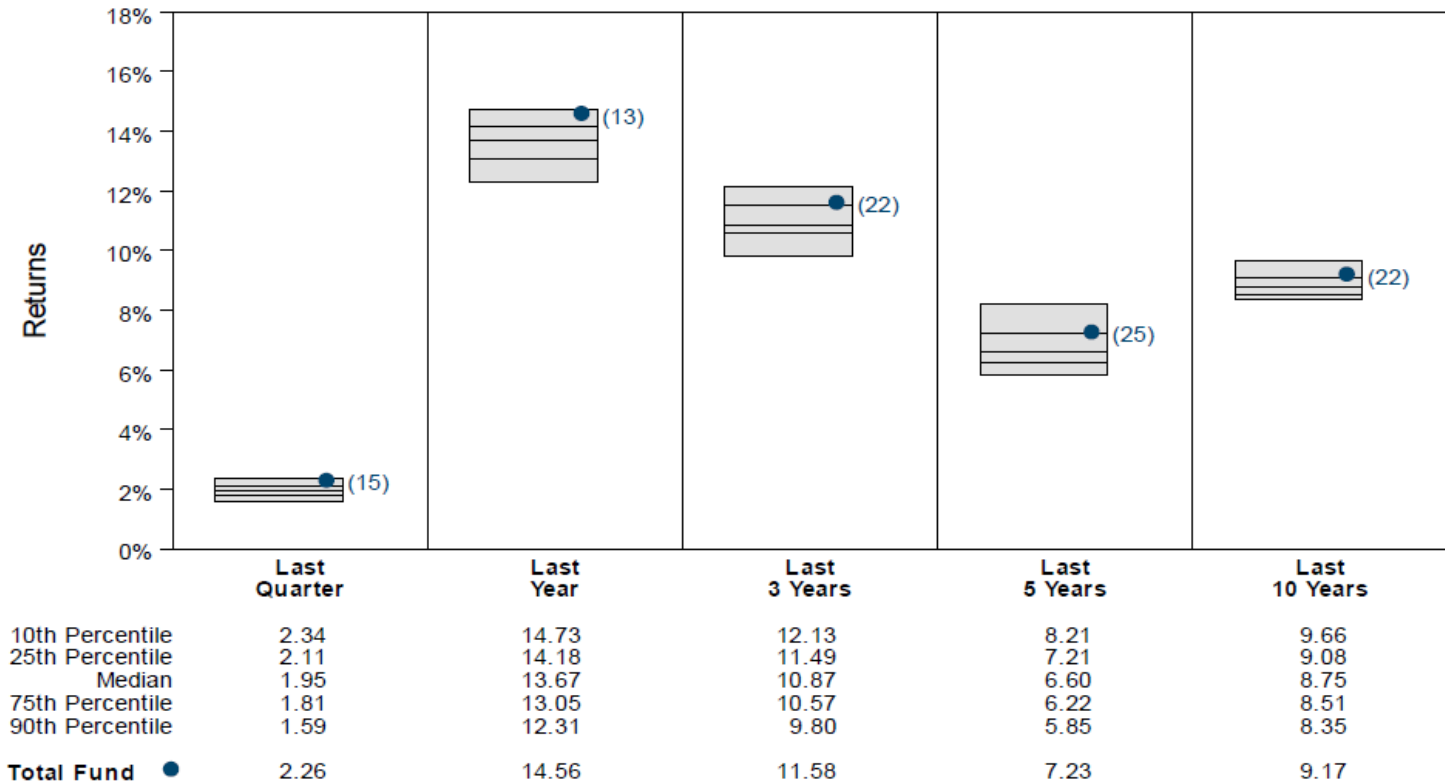
## Performance vs Callan Public Fund Spons- V Lg DB (>10B) (Gross)



- Actual total returns materially above policy target returns for all of the last five calendar years
- 2022 was very tough for SWIB’s leveraged policy as both equities and bonds fell dramatically (historic drop for bonds) due to high inflation and rapidly rising rates. Nowhere to hide with ~115% exposure to markets. Diversification didn’t work well.
- SWIB’s strategy worked extremely well in 2020 (not shown) amid a classic rate drop / bond rally to combat the Covid recession. Absent “stagflation” scenarios, bonds usually are powerful diversifiers during equity bear markets / drawdowns.

# Callan Proprietary Allocation Adjusted Ranking vs. Peers (Gross, 12/31/25)

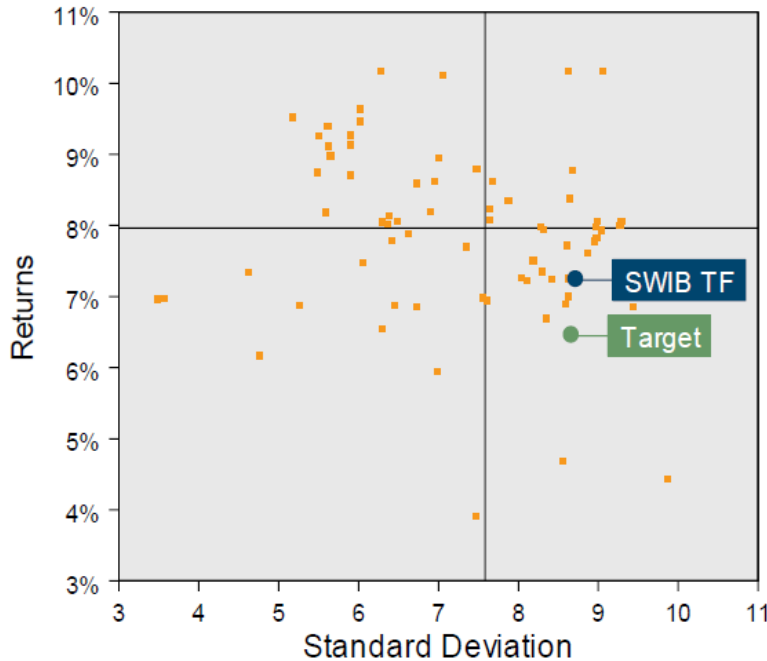
## Asset Allocation Adjusted Ranking



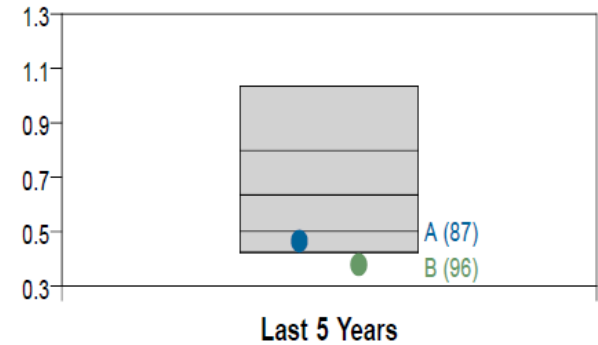
- Asset allocation adjusted ranking adjusts peers to match SWIB's more risk-balanced asset allocation (inc. leverage). Result is a risk-adjusted peer ranking not dominated by asset allocation, reflecting the quality of program implementation.
- Adjusting for SWIB's unique asset allocation policy moves even the poor 5-year ranking to top quartile of peers.
- Asset allocation adjusted peer rankings are in the top quartile for all periods. Program strategy very well implemented.

# Absolute Risk / Reward Tradeoff vs. Peers (Gross, 12/31/25)

Callan Public Fund Spons- V Lg DB (>10B) (Gross)  
Annualized Five Year Risk vs Return



Sharpe Ratio vs. Callan Public Fund Spons- V Lg DB (>10B)

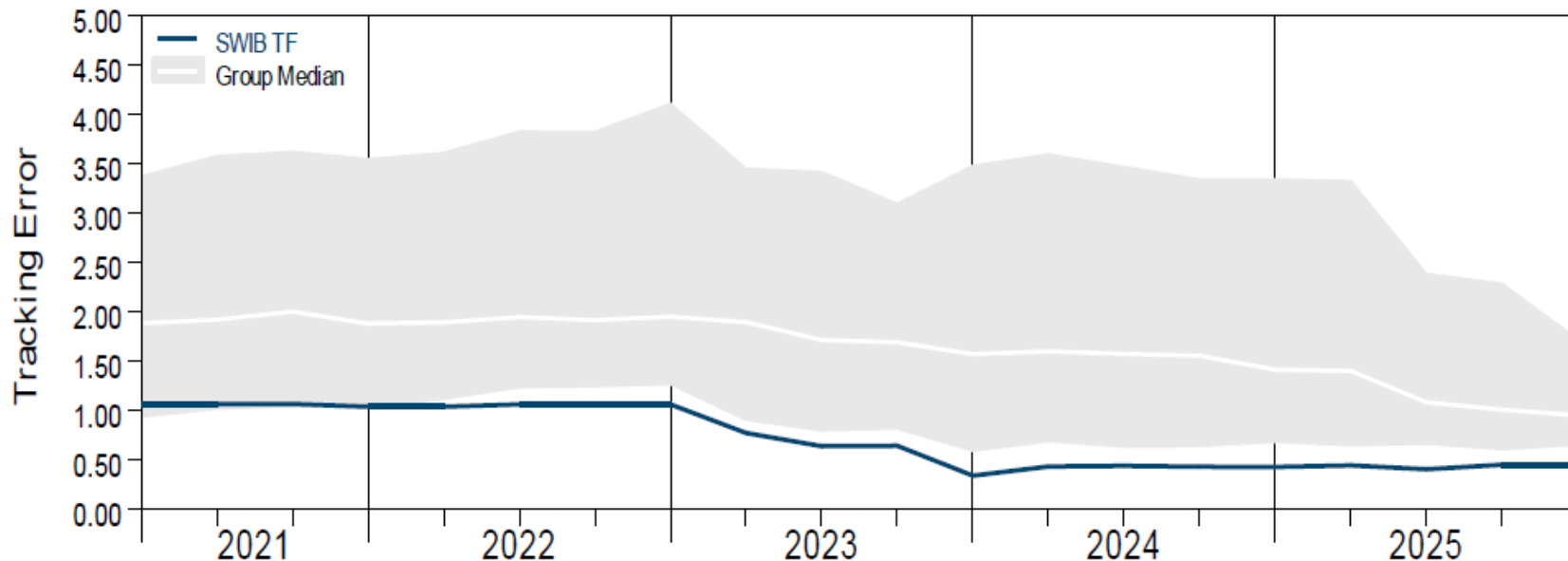


10th Percentile	1.04
25th Percentile	0.80
Median	0.64
75th Percentile	0.50
90th Percentile	0.42
SWIB-Total Fund A	0.47
SWIB-Total Fund Target B	0.38

- Policy Target had more risk and a lower return (-151 bps) than peer median (crosshairs) over the last 5 years.
- Actual implementation had similar risk as target, return above target (+78 bps), but trailed peer median return (-73 bps).
- Risk/reward tradeoff (Sharpe Ratio) was worse than peers over the 5-year period due to 2022 drawdown, negative US and Int'l bond returns, and US large cap equity return domination ... 3 and 10-year Sharpe ratios are just below median.
- Actual Sharpe Ratio better than policy target meaning implementation added more return than risk.

# Tracking Error (active risk) vs. Target and Peers (Gross, 12/31/25)

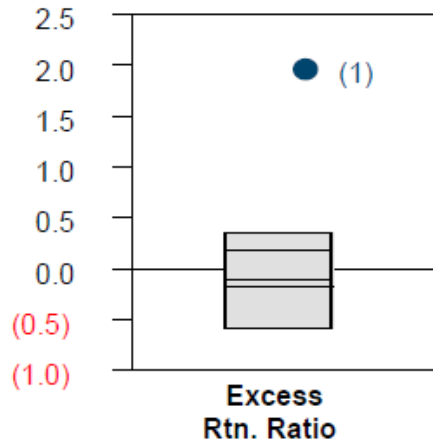
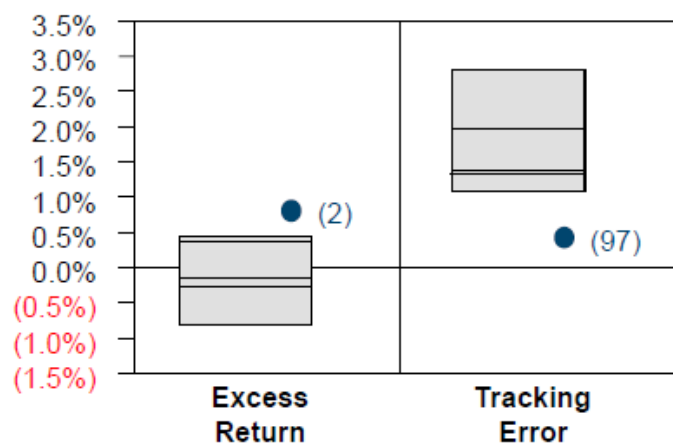
Rolling 12 Quarter Tracking Error vs Targets Compared to Callan Public Fund Spons - Large



- Strong risk control practices result in consistently much lower tracking error than peers have versus their policy targets.
- SWIB's tracking error is consistently in the bottom decile vs. peers and less than 1/2 of median peer tracking error.
- Less chance of materially underperforming policy target. Focused on consistency of results (singles/batting average vs. home runs/strikeouts). Consistent and controlled positive excess returns compound nicely over the long term.

# Relative Risk/Reward Tradeoff vs. Target and Peers (Gross, 12/31/25)

Risk Statistics Rankings (Gross) vs Large Public Funds  
Five Years Ended December 31, 2025



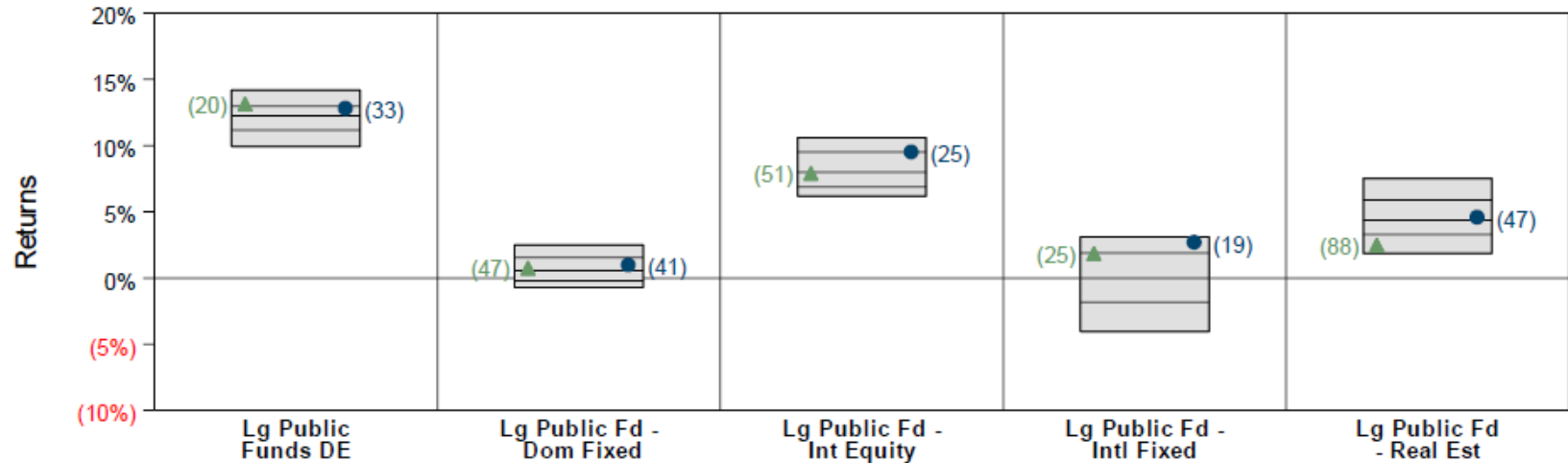
	Excess Return	Tracking Error
10th Percentile	0.45	2.81
25th Percentile	0.36	1.98
Median	(0.16)	1.37
75th Percentile	(0.27)	1.33
90th Percentile	(0.81)	1.07
<b>SWIB TF</b>	● 0.78	0.40

	Excess Rtn. Ratio
10th Percentile	0.36
25th Percentile	0.19
Median	(0.12)
75th Percentile	(0.18)
90th Percentile	(0.59)
<b>SWIB TF</b>	● 1.94

- Positive Excess Returns, top decile vs. peers, without taking near as much active risk from policy target as peers.
- Consistently very low Tracking Error versus policy target in absolute terms and relative to peers (bottom decile).
- Combination gives top decile Excess Return Ratio (aka Information Ratio) rankings. Active Risk/return tradeoff is great.

# Asset Class Comparisons vs. Targets and Peers (Gross, 12/31/25)

Total Asset Class Performance  
Five Years Ended December 31, 2025



	Lg Public Funds DE	Lg Public Fd - Dom Fixed	Lg Public Fd - Int Equity	Lg Public Fd - Intl Fixed	Lg Public Fd - Real Est
10th Percentile	14.20	2.51	10.61	3.10	7.52
25th Percentile	12.97	1.55	9.51	1.89	5.90
Median	12.24	0.58	8.00	(0.02)	4.37
75th Percentile	11.19	(0.19)	6.90	(1.82)	3.30
90th Percentile	9.94	(0.71)	6.20	(4.04)	1.86
<b>Asset Class Composite</b>	12.73	0.89	9.43	2.61	4.51
<b>Composite Benchmark</b>	13.15	0.76	7.91	1.85	2.51

- 4/5 asset classes outperformed their targets over 5 years. US Equity trailed its target but did well vs. peers.
- All 5 asset classes rank above median vs. peers.
- Value has been added relative to target and peers through skillful implementation across multiple asset classes.

## Biographical Information

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Ivan “**Butch**” Cliff, CFA, is an Executive Vice President and Director of Research. He is responsible for the following groups: Global Manager Research, Capital Markets & Alternatives Research and Published Research. Butch is a member of Callan's Management, Client Policy Review, Institute Advisory and Alternatives Review Committees. He is also a Portfolio Manager and member of the Investment Committee that oversees all of Callan's discretionary multi-manager solutions. Butch is a shareholder of the firm.

Butch joined the Programming Group of Callan in 1989 and was instrumental in developing sophisticated performance analytics as well as solutions to data processing and management problems. In 1993 he became the Manager of the Database Group with responsibility for coordinating the design and implementation of performance measurement operations as well as overseeing the development and maintenance of Callan's databases. Butch was made Director of Operations in 2000 and has responsibility for the management and development of all Callan's performance monitoring systems and personnel. In 2007, Butch became the Director of Investment Research & Operations with responsibilities expanded to include oversight of Callan's Global Manager Research activities.

Prior to joining Callan, Butch worked for two years at Gifford Fong Associates developing analytical software for fixed income money managers.

Butch earned a BA in Economics from the University of California at Berkeley and earned the right to use the Chartered Financial Analyst designation.

## Important Disclosures

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Past performance is no guarantee of future results.

# Report Disclosures

*Glossary, Definitions & Data Sources*

# Report Disclosures

Key Terms	Return Measurement Description / Definitions				
<b>WRS Gross Return History</b>	<b>30 Year – Gross of Fee Return %</b>		<b>Fund Return</b>	<b>Gross Benchmark</b>	<b>Excess</b>
	<b>Core Trust Fund</b>		8.02	7.50	<b>+0.52</b>
	<b>Variable Trust Fund</b>		9.25	8.89	<b>+0.37</b>
<b>Gross of Fee Return (“GoF Return”)</b>	The total investment fund, composite or investment portfolio return that reflects a reduction for: (i) transaction expenses, (ii) cost of implementing leverage expense (if applicable) (iii) all fees and expenses attributable to externally managed, pooled funds where expenses are included in the fund Net Asset Value (“NAV”). GoF Return is used by SWIB for long-term history (> 20 years), internal analytics and to fulfill consultant data submissions where GoF returns are requested. SWIB’s primary reported return types are NoF Return and NoA Return.				
<b>Net Return Types</b>	<b>Net of External Manager Fee Return (“NoF Return”)</b> The GoF return plus additional deductions for external management fees, performance fees and any identifiable carried interest incurred in investment portfolios. SWIB has portfolio-level records to support NoF return history over approximately 20 years.				
	<b>Net of All Fees and Expenses Return (“NoA Return”)</b> The NoF return plus additional deductions for administrative expenses, categorized by SWIB as either Direct or Indirect expenses, that are permitted to be charged directly to the Trust Funds under statutory authority. SWIB’s performance agent has Independently calculated NoA return since July 2017.				
<b>NoA Return History and Methodology Details</b>	<p><b>Externally Calculated NoA Return</b> has been recorded and calculated at the fund and portfolio-level since July 2017. Starting in 2026, SWIB began to calculate NoA Return for the CTF and VTF Funds using a monthly data series extending back to January 2005.</p> <p><b>Internally Calculated NoA Return:</b> NoA return is calculated by adjusting BNY-calculated NoF Return for the direct and indirect expenses identified in the WRS audited financial statements and workpapers. The incremental expenses captured to support the NoA Return calculation include Consulting Fees, Legal Fees, Research and Data Fees, Custodial Fees, Investment Operations Fees, and SWIB Agency Overhead costs.</p> <p>From 2005 – 2017, calendar year expenses were evenly allocated by month. The NoA expense contribution to return was calculated to facilitate a deduction from monthly BNY-calculated NoF Return to yield the SWIB internally-calculated NoA Return .</p> <p>SWIB developed calculations to geometrically link the NoA Return data series and archived the results in its data warehouse (UDM platform).</p> <p>With this calculation, annualized NoA Return may be reported for 10-, 15-, and 20-year periods for the CTF and VTF.</p>				
<b>Excess Return % (“Excess”)</b>	Portfolio return or security level return minus the benchmark return. Portfolio or Composite Returns are generally compared against benchmarks with a similar level of risk. It is widely used as a measure of the value added by the portfolio or investment manager or the manager’s ability to outperform the market.				

# Report Disclosures

Key Terms	Return Measurement Description / Definitions
<b>Net Excess Value Add \$ ("NEVA")</b>	NEVA calculates the portfolio's performance NoA return in total dollars relative to a benchmark. NEVA is a measure used to assess the value-add dollars that a particular investment strategy or team generated over specified time periods. NEVA is also used to monitor the return objectives set forth in the annual Active Risk Budget which is prepared for the Core Trust Fund ("CTF") and Variable Trust Fund ("VTF") managed by SWIB.
<b>Cumulative Return Calculation</b>	SWIB uses the cumulative return calculation ("cumulative basis") to reflect the aggregate amount an investment has gained or lost over time for portfolios and benchmarks. This measurement shares aspects of the annualized return calculation, however, it excludes the geometric averaging. <b>Cumulative Return</b> = $((1 + r^1) \times (1 + r^2) \times (1 + r^3) \dots) - 1$ ; $r^{(n)}$ = series of holding period returns
<b>Compound rate of growth of \$100</b>	The cumulative and compounded rate of growth of portfolio and benchmark returns may also be presented on an indexed basis over time (measurement may be calculated using any return type). <b>Compound rate of growth of \$100</b> = $(\$100 \times (1 + r^1) \times (1 + r^2) \times (1 + r^3) \dots)$ ; $r^{(n)}$ = series of holding period returns
<b>SWIB Inception To Date Reporting</b>	The Quarterly Performance Summary discloses a reporting period described as <b>10 years or ITD</b> . The return disclosed in this reporting field yields either 10-year annualized returns for funds or portfolios with at least 10 years of return history or the data field may revert to the return since inception for portfolios with less than 10 years of history. The quarterly report provides a performance start date for those portfolios with the abbreviated return history.
<b>Performance Start Date</b>	The date denotes the initial period of a portfolio or composites' return data series that is stored and calculated by the SWIB Performance Measurement Service Agent.
<b>Time-weighted Rate of Return</b>	A method of calculating period-by-period returns that reflects the change in value and negates the effects of external cash flows. This methodology is applied to portfolios that are processed with daily frequency and where daily valuation updates of the underlying instruments are available.
<b>Annualized Return Calculation</b>	SWIB reports containing portfolio and benchmark return calculations for time periods greater than 1 year generally utilize a geometric averaging calculation. Returns shown for periods of less than 1 year are not presented utilizing the annualization calculation method. In this instance, compound returns are reported for the specified calendar period (e.g., month to date, quarter to date or year to date). <b>Annualized Return</b> = $((1 + r^1) \times (1 + r^2) \times (1 + r^3) \dots)^{\wedge} (\text{calendar units} / \text{time interval measured}) - 1$ ; $r^{(n)}$ = series of holding period returns and calendar units are often expressed as days, months or years
<b>Modified Dietz Total Rate of Return</b>	A measurement that evaluates a portfolio's return based on a weighted calculation of its cash flow. The method considers the timing of cash flows and assumes a constant rate of return over the specified time period. This methodology is applied to portfolios and composites that are processed with monthly frequency (and where only monthly valuation updates are available).

# Report Disclosures

Key Term	Benchmark Descriptions / Definitions
<b>Policy Benchmark</b>	The Fund level Benchmark as approved by the Benchmark Committee. The Benchmark is composed of multiple indices that reflect the Fund's exposure to a diverse set of investment strategies. (can also referred to as "Policy Target" as implemented through SWIB's Asset Allocation plan).
<b>Reference Portfolio</b>	Hypothetical global portfolio comprised of 60% MSCI World Net (using a SWIB custom net variant as of 2010) and 40% Bloomberg Barclays Government Credit Index. The return is presented on a gross of fee basis and assumes no contributions or withdrawals.
<b>Zero or No Benchmark</b>  (for Official Measurement purposes)	<p><b>Zero Benchmark:</b> This designation applies to the CTF Alpha Pool Overlay. Since 1/1/2019, the benchmark associated with the Alpha Pool Overlay has been set to zero. The Cost of Implementation (which includes an estimate of financing costs) is directly allocated to the underlying strategies that make up the Alpha Pool Overlay and the effect of the cost allocation will usually result in a deduction from the strategy's return.</p> <p><b>No Benchmark:</b> In certain instances, a benchmark is not assigned for the purpose of measuring excess performance. For example, the State Life Insurance Fund ("SLIF"), has no assigned benchmark for its investment mandate due to the limitations placed on SWIB's investment activities by the SLIF. The SLIF portfolio invests in fixed income securities that approximate the expected life of the Fund's insurance contracts, and SWIB is directed to hold all securities to maturity other than in extraordinary circumstances.</p>
<b>Reported Benchmark Returns</b>	<p>The SWIB Benchmark and Performance Committee and its designated benchmark consultant follow the parameters set forth in the SWIB Benchmarking Philosophy. Under the Philosophy, selected benchmarks should exhibit the characteristics described in the <i>Benchmark Qualities</i> criteria to ensure portfolio and benchmark attributes are closely aligned.</p> <p><b>Net Total Return Benchmarks:</b> are commonly used for publicly-traded portfolio strategies. The benchmark returns reflect the price performance, plus the net amount of all special and regular dividends after applying an assumed foreign tax withholding rate (as determined by the benchmark data provider.)</p> <p><b>SWIB Custom Net Benchmark for non-U.S. Public Equity Strategies:</b> SWIB's custodian bank customizes SWIB's non-U.S. equity benchmarks to reflect the actual, historical reinvestment of withholding tax rates rather than index provider's assumption for varying countries.</p> <p><b>Net of External Manager Fee-based Benchmarks:</b> benchmark type most frequently used to gain better alignment when the measured SWIB portfolio return is inclusive of external management fees, performance fees and carried interest charges (e.g., private market investments.)</p> <p><b>Gross Policy Benchmarks</b> (limited use, 30-year annualized return): the benchmark is constructed using gross return index inputs with deductions for foreign withholding taxes. Prior to January 1, 2021, the CTF's Gross Benchmark private market inputs incorporated management fee gross-up adjustments to ensure consistency with fund's gross return calculations.</p>
<b>Custom Weighted Calculated Benchmarks</b>	<p>Managed funds and portfolios may require the construction of custom benchmarks that are created through applying static or asset weighted calculations to achieve a blended benchmark that is representative of the investment strategy. When feasible, SWIB will request its third-party benchmark data provider(s) to blend benchmarks as a part of the market data service. If this option is not available, SWIB will calculate the benchmark using market data inputs.</p> <p>In certain cases, SWIB may customize a benchmark to more accurately reflect the SWIB-managed Fund's actual tax rate experience in non-U.S jurisdictions with investment portfolio withholding taxes applicable to dividends and capital gains. This type of custom benchmark is designated as "SWIB Custom Net".</p>

# Report Disclosures

Key Term	Market Value and Exposure Descriptions / Definitions
<b>Total Exposure</b>	For SWIB managed funds governed by the Wisconsin Retirement System (“WRS”) Investment Policy, this measure reflects the total value of the fund’s exposure to investable markets by asset class and sub asset class. Total Exposure is inclusive of those instruments utilized under the WRS Leverage Use Policy to achieve the asset exposures approved under the asset allocation strategy and active risk target.
<b>Market Value</b>	<p>The price at which the fund investor can buy or sell the underlying investment instruments held in the portfolio at a given time multiplied by the quantity held, plus any accrued income.</p> <p><b>Gross Market Value:</b> the market value of a portfolio or composite without any deduction for SWIB expenses.</p> <p><b>Net Market Value:</b> the market value of a portfolio or composite as adjusted for the effect of expense transactions as recorded on the balance sheet.</p>
<b>Illiquid Investments</b>	Those investments that may be difficult to sell or be sold quickly because of a lack of market or ready or willing investors.
<b>WRS Asset Classifications</b>	<p><b>Internally Managed:</b> Portfolios managed by SWIB investment professionals without the substantial use of external asset manager investment vehicles. Each internal portfolio is assigned compulsory investment guidelines and is also assigned “soft risk parameters.” Soft risk parameters refer to desired characteristics and/or risk exposures.</p> <p><b>Externally Managed:</b> Portfolios managed by third-party investment managers hired by SWIB. External active and passive managers operate under contractual investment guidelines approved by SWIB’s Investment Committee or by SWIB’s investment management staff, as designated in the Investment Committee Charter.</p> <p><b>Actively Managed:</b> Portfolios that have the objective of out-performing their respective benchmarks (or generating alpha) by using investment insights or quantitative tools to deploy buy, hold, and sell decisions. This style of management will result in portfolio positioning decisions that will add active risk and generate higher tracking error. Actively managed portfolios are governed through investment guidelines and soft risk parameters.</p> <p><b>Passively Managed:</b> Portfolios that have the objective of closely tracking the returns and risk of their respective benchmarks. This style of management usually involves mirroring the benchmark security holdings (or constituents) to closely replicate the benchmark risk and return.</p>

# Report Disclosures

Key Term	Market Value and Exposure Descriptions / Definitions
<p><b>WRS Market Value Reporting</b></p> <p><b>Calculations &amp; Methodologies</b></p>	<p><u>Rationale for market value reporting changes adopted as of March 2026:</u></p> <p>SWIB’s borrowing techniques to implement leverage have evolved over recent years and these enhancements prompted SWIB management to review current market value reporting practices. Market value reporting is executed by assigning market value classifications (Internal / External / Active / Passive) to individual WRS portfolios. In most cases, this assignment process is simple and produces transparent reporting results. However, new borrowing methods and legacy custom classification practices were reviewed to confirm if current calculation techniques and reporting accuracy could be improved.</p> <p><u>Calculation and methodology changes now in effect:</u></p> <ul style="list-style-type: none"> <li>• Leverage implementation techniques have begun to generate larger borrowing balances (liabilities) that are deducted from investment assets to calculate market value. Previously, the borrowing balance assignment was linked to a single source account assigned an Internal / Active classification. To improve this process, data and report processing enhancements were executed to facilitate a more precise allocation technique across all market value classifications based on the source of borrowings.</li> <li>• Previously, Private Market non-fee paying investment holdings were reclassified to the Internally Managed asset category. This approach added approximately 2 percentage points to the Internally Managed category from 2012 – 2025. This practice has been discontinued given that these non-fee paying investments may be sourced via external asset managers.</li> <li>• Previously, third party managed cash sweep holdings inside Internally Managed portfolios were reclassified to the Externally Managed asset category. This approach added approximately 0.1 percentage point to the Externally Managed category from 2012 – 2025. This practice has been discontinued.</li> <li>• Calculation and methodology changes have been applied over the entire reporting period.</li> </ul>

# Report Disclosures

## Performance Report Data Sources and Processing Notes

### Return Calculation Processing

Bank of New York (BNY), an independent 3rd party, provides services related to custodial records, accounting and performance return calculations for SWIB managed funds. BNY also serves as the source for certain standard, market-based benchmarks and static weight blended benchmarks.

### Return Calculations Prepared on a Notional or Unlevered Basis (CTF only)

SWIB uses leverage to help achieve the CTF's diversification objectives. A description of the Leverage Use Policy is contained in the WRS Investment Committee Investment Guidelines. For those accounts and composites deploying leverage, the calculation of notional or unlevered returns (using gross asset exposure) is required to achieve a comparable return vs. market indices. BNY performed the unlevered return calculation from 7/1/2017 – 9/30/2024. Beginning 10/1/2024, this calculation was processed using the SWIB IBOR. Consistent with Leverage Use Policy guidelines, this calculation is processed inside the reported composites that contain US Large Cap Equity, US Small Cap Equity, MSCI World x US Equity, US TIPS and US Treasury exposures.

### State Investment Fund ("SIF") Commingled Fund Processing

The SIF pools the cash of the State of Wisconsin and its agencies, WRS, and various local government units (Local Government Investment Pool) into a commingled fund with the investment objectives of safety of principal and liquidity while earning a competitive money market rate of return. For purposes of calculating earnings to each participant, all investments are valued at amortized cost. SIF returns are calculated using the monthly net earnings distributed to all commingled fund participants. SIF returns are presented net of all allocated SWIB administrative costs and State Controller's Office costs that are allocated to the participants of the Local Government Investment Pool.

### Benchmark Market Data and Selection Process

The data source for this information is provided by multiple investment industry market data vendors and analytics firms depending on the investment strategy. The SWIB Benchmark and Performance Committee governs the benchmark selection process. An independent consultant (selected by the Board of Trustees or "Board") makes recommendations to initially select or change benchmarks.

### Peer Rank Return Comparison Data

This information is provided and processed by industry consultants that consume return information for SWIB managed funds and then provide investor universe return comparisons and analytics using proprietary databases. When consultant info is included in the Quarterly Performance Summary the preparer of the work is identified.

SWIB Annual Reports: Additional WRS disclosures can be found in the Annual Reports, available at <https://www.swib.state.wi.us/list-of-investments>.

### BNY ABOR and SWIB IBOR Processing

On 1/1/2024, the BNY ABOR processing platform became the primary source for CTF and VTF return calculations and market values. Beginning 10/1/2024, the SWIB IBOR was used to process SIF, SWIB-managed Separately Managed Funds, and CTF strategies reporting unlevered returns. Small rounding differences attributable to the use of BNY ABOR vs. SWIB IBOR data sources is possible.

This report contains unlevered return calculations that are processed using Total Exposure (Notional-based) Assets for accounts with substantial derivative positions that generate leverage for the CTF. The objective of this calculation is to generate meaningful returns that can be compared to the account or composite's benchmark. CTF impacted composites include Public Equities (pg. 9), Global Developed (pg. 9), Public Fixed Income (pg. 10), US Treasuries (pg. 10), and Inflation Sensitive (pg. 11).

# Leverage Disclosures

*Calculation formulas to estimate impact*

# Leverage Disclosures

## Notes on CTF Leverage Analysis

Term	Description / Definitions
<b>Portfolio Return (Unlevered)</b>	<p>This is an estimated-only CTF return because SWIB does not implement a CTF unlevered portfolio to calculate actual performance against. Leverage is used to expand the CTF's entire asset base. All definitions that include (unlevered) are ESTIMATES only for this reason.</p> <p>It is estimated by:</p> <ol style="list-style-type: none"> <li>1) <u>Excess Return (Levered)</u> is first subtracted from the <u>Portfolio Return (Levered)</u><sup>1</sup>;</li> <li>2) The result of Step 1 is then divided by the <u>Policy Leverage Factor</u>; then</li> <li>3) <u>Excess Return (Levered)</u> is added back to the result of Step 2 and that number is then adjusted to account for the cost of financing (i.e., the expense of acquiring leverage, which would not be applicable to an unlevered portfolio).</li> </ol> $\text{Portfolio Return (Unlevered)} = \left( \frac{\text{Portfolio Return (Levered)} - \text{Excess Return (Levered)}}{\text{Policy Leverage Factor}} \right) + \text{Excess Return (Levered)} - \text{cost of implementation}$ <p><sup>1</sup> Note, because <u>Excess Return (Levered)</u> is the difference between two similarly "levered" portfolios (Portfolio Return (Levered) and Benchmark Return (Levered)), it represents outperformance that is not attributable to leverage. Accordingly, it is subtracted first as it would be inaccurate to reduce such amount by the Policy Leverage Factor for purposes of this calculation.</p> <p><u>Policy Leverage Factor</u> is the amount of the approved Policy Leverage during any given period, time weighted for multi-year periods. Policy Leverage was first introduced into the CTF Portfolio and Benchmark at the end of April 2012 and was raised from 10% to 15%, effective Calendar Year 2021.</p>
<b>CTF Benchmark Return (Unlevered)</b>	<p>Estimated by the <u>Benchmark Return (Levered)</u> divided by the <u>Policy Leverage Factor</u> for the period.</p>

# Leverage Disclosures

## *Notes on CTF Leverage Analysis*

Term	Description / Definitions
<b>Excess Return (Unlevered)</b>	<p>The Excess Return (Unlevered) is the excess return that it is estimated SWIB would have achieved if it did not implement leverage for the CTF.</p> <p>Estimated as <u>Portfolio Return (Unlevered)</u> minus <u>Benchmark Return (Unlevered)</u>.</p> <p>Can also be estimated by taking the actual <u>Excess Return (Levered)</u> minus <u>Implementation (+) or (-)</u> (see below for definition).</p>
<b>Absolute Return from Leverage</b>	Estimated by the <u>Portfolio Return (Levered)</u> minus <u>Portfolio Return (Unlevered)</u> minus <u>Implementation (+) or (-)</u> .
<b>Implementation (+) or (-)</b>	<p>The relative cost of financing (i.e., the actual cost of financing minus the CTF benchmark cost of financing). The CTF benchmark cost of financing is the CTF cash benchmark, previously LIBOR plus 30 bps and now BSBY plus 30 bps. Implementation (+) or (-) can also result from outperformance or underperformance relative to how efficiently SWIB replicates the index in connection with policy leverage (this is called basis risk).</p> <p>Can either be positive or negative. When the leverage implementation is achieved at a cost saving compared to the CTF cash benchmark (i.e., less than the CTF cash benchmark), it is positive (+); but when it is achieved with additional cost compared to the CTF cash benchmark (i.e., more than the CTF cash benchmark), it is negative (-). Cost savings can generate minor excess returns for the CTF. Basis risk can also generate minor contributions to or detractions from relative performance with respect to policy leverage.</p>
<b>Portfolio Return (Levered)</b>	Actual performance of the CTF Portfolio for the period presented, from all strategies including Policy Leverage.
<b>CTF Benchmark Return (Levered)</b>	Actual performance of the CTF Benchmark for the period, taking into account the use of Policy Leverage.
<b>Excess Return (Levered)</b>	Actual excess return of the CTF. Portfolio Return (Levered) minus Benchmark Return (Levered).

## Board Meeting

### Tab 7 – Committee Open Session Business

- A. Amendments to WRS Investment Committee Investment Guidelines
- B. Approved Open Session Investment Committee Meeting Minutes of November 25, 2025, December 18, 2025, and January 27, 2026
- C. Final Open Session Investment Committee Agenda for February 24, 2026, and Draft Open Session Agendas for March 31 and April 28, 2026
- D. Draft Open Session Minutes of November 11, 2025 Enterprise Risk and Compliance Committee Meeting

SWIB Investment Committee  
**WISCONSIN RETIREMENT SYSTEM**  
**INVESTMENT GUIDELINES**

Revised as of

~~September 23, 2025~~

January 27, 2026

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## I. INTRODUCTION

The SWIB Board of Trustees (the “Board”) has delegated to the investment staff of SWIB standing authority to manage the assets of the Core Retirement Trust Fund (the “Core Fund”) and the Variable Retirement Trust Fund (the “Variable Fund”), which together make up the Wisconsin Retirement System (the “WRS”), pursuant to the Board’s WRS Investment Policy and to section 25.15(2) of the Wisconsin Statutes and section IB 2.02 of the Wisconsin Administrative Code. The Investment Committee was created to provide oversight of WRS<sup>1</sup> investments within the parameters established by the Board and pursuant to the Investment Committee’s Charter approved by the Board. To properly and prudently execute its delegated authority and oversight functions, the Investment Committee has established guiding policies, guidelines and procedures, which are set forth in this document, the Investment Committee Investment Guidelines (these “IC Guidelines”). These IC Guidelines articulate the policies and guidelines that are employed in the day-to-day management of the WRS assets by SWIB’s staff. This document will be reviewed periodically and updated as necessary by the Investment Committee to reflect changes in investment strategies and to reflect best industry practices for prudent investors. Notwithstanding the delegation of authority by the Board to the Investment Committee for the establishment, approval, and amendment of the policies, guidelines and procedures included in these IC Guidelines, the Board reserves all rights to modify and amend these IC Guidelines at any time in its discretion. Any changes to these IC Guidelines will be periodically reported to the Board. In addition to these IC Guidelines, SWIB staff may also have to comply with Risk, Compliance Division or legal requirements, and review operational readiness with Operations staff prior to the trading of the instruments and securities authorized herein.

## II. LEVERAGE USE POLICY

### Introduction

Leverage is an exposure to an asset that is not fully collateralized by cash assets or an exposure to an asset acquired that has not been fully funded. Leverage by itself does not necessarily create additional market risk or variation in market returns. Leverage may result in greater diversification and lower market risk than an unlevered portfolio under normal market conditions. The funds managed by SWIB can have exposure to leverage through different structures, instruments and vehicles.

SWIB uses leverage in two primary ways. The first is to express the overall policy asset allocation, which includes leverage (“Policy Leverage”). Generally, Policy Leverage is implemented passively. The total amount of Policy Leverage is approved by the Board through the WRS asset allocation process. The Board-approved asset allocation targets for each asset class together with the approved Policy Leverage is called the “Policy Portfolio.” The second use of leverage is to fund the alpha pool (“Alpha Pool Leverage”), which overlays alpha-producing strategies on the overall Core Fund Policy Portfolio. Those alpha strategies are funded with additional leverage but are

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<sup>1</sup> The Investment Committee also has oversight of the State Investment Fund and other funds managed by SWIB as described in the Board’s SIF and Separately Managed Funds Investment Policy and Guidelines.

not part of the Policy Portfolio. The total amount of Alpha Pool Leverage is limited by the Board-approved active risk target and range.

Certain internal active portfolios are also authorized to use portfolio-specific leverage. The Core Fund may provide limited unallocated cash (“Temporary Leverage”) to such internal active portfolios, and to other portfolios, to fund short-term financing needs, and charge a market-based funding rate to the applicable portfolio. Active internal and external portfolios may also fund portfolio leverage by financing assets within the portfolio.

Use of leverage introduces distinct liquidity risk that can vary based on leverage sources and margin requirements. Often, leverage requires liquid assets to satisfy margin obligations. Liquidity risk is managed by monitoring the level of liquidity required in various market scenarios and ensuring that an adequate reserve of liquid assets is available to meet commitments in times of market stress. Having a variety of leverage sources diversifies the refinancing risk and mitigates cost under varied market scenarios.

Alpha Pool and Policy Leverage can be generated through several different mechanisms. These mechanisms may be utilized in different proportions given market conditions and asset allocations. Each of these mechanisms have unique counterparty dynamics and risks, all of which are addressed by SWIB’s counterparty risk framework.

**Derivative instruments.** Leverage can be gained by replacing a physical instrument with a derivative instrument such as a futures contract, a swap contract, or a forward contract. Most of the proceeds generated from the sale of the physical instrument can then be used to finance further investment. The cost of the leverage is imbedded in the price of the derivative instrument. Use of derivative instruments provides the ability to source large scale leverage across many different asset classes in a standardized format. There is a risk of tracking error, or basis risk, between the physical instrument and the derivative instrument that could result in the returns of the two instruments diverging.

**Securities Lending Cash Collateral.** Through the course of securities lending, cash collateral may be received from borrowers. This cash may be used to finance leverage needs without creating basis risk. The available cash fluctuates day to day and is governed by the borrowing demand of and choice of collateral posted by market participants.

**Repurchase Agreements (Repo).** Repo is another way to gain leverage from physical instruments, like securities lending, without using derivative instruments. While securities lending relies on borrowing demand for the physical instrument, repo can generate leverage from physical instruments that do not have borrow demand, and also creates zero basis risk. The repo and the underlying asset management may be executed internally, externally or a mix of the two. An agency repo model can be used to facilitate operational scale, collateral efficiency, and market access by partnering with an external agent.

**Secured Borrow Agreements.** Physical instruments can be pledged as collateral in a secured borrow agreement to gain financing from a bank or other financial institution, as and when needed. This form of financing creates zero basis risk and may have maturities

ranging from three to six months. The stability of the available capital can vary based on the financing bank's or financial institution's balance sheet constraints.

**Unsecured Borrowing.** Unsecured borrowing, such as the issuance of commercial paper, is another way to gain leverage without encumbering assets or requiring collateral. This form of borrowing can diversify the cash providers purchasing the debt providing SWIB with access to new borrowing sources. [SWIB's commercial paper pilot program \("CP Pilot Program"\) managed by the Liquidity Management and Beta Implementation \("LMBI"\) Division shall not exceed \\$2 Billion face amount outstanding in the aggregate. The LMBI Division shall report on the CP Program to the Investment Committee on a quarterly basis.](#)

New mechanisms may be added from time to time and included herein.

### **Leverage Use Philosophy**

Leverage is used where it can improve investment portfolio efficiency in terms of return for risk versus alternative choices that do not use leverage. Leverage will also be used to improve portfolio diversification and reduce portfolio concentration.

### **Leverage Monitoring**

Detailed reporting is regularly (i.e., daily, monthly and quarterly) produced by SWIB to provide feedback regarding leverage exposures for review by portfolio managers, the head of Asset and Risk Allocation (ARA), [the head of LMBI](#), the Risk Management Division, and the Executive Director/Chief Investment Officer (ED/CIO). Leverage use risk metrics are reported at least quarterly to the Investment Committee. Leverage use is also periodically reported by the ED/CIO to the Board.

### **Policy and Alpha Pool Leverage Guidelines**

1. Leverage ratios govern leverage derived from beta sources (i.e., from levered asset class exposures). Established leverage ratio ranges for each levered asset class are set forth below. Current Leverage Ratio is defined as the ratio of notional exposure to capital available in the portfolio (or total exposure to unencumbered exposure in the case of repo). If the Current Leverage Ratio for any levered asset class exceeds the Maximum Target Leverage Ratio, SWIB will, within 30 days (unless such time limit is waived ~~with majority approval of the rebalancing task force~~ [by the ED/CIO](#)), reduce exposure or add capital to bring the Current Leverage Ratio within the established range. A Current Leverage Ratio below the Minimum Target Leverage Ratio will be monitored as part of the overall optimization of capital and funding costs.

<b>Levered Asset Class</b>	<b>Minimum Target Leverage Ratio</b>	<b>Target Leverage Ratio</b>	<b>Maximum Target Leverage Ratio</b>
<i>US Large Cap Equity</i>	2.7	3.3	4.0
<i>US Small Cap Equity</i>	2.7	3.3	4.0
<i>MSCI World xUS Equity</i>	2.7	3.3	4.0
<i>US TIPS</i>	6.0	8.0	10.0
<i>US Treasuries</i>	8.0	10.0	12.0

### III. DERIVATIVES USE POLICY

#### **Introduction**

A "derivative instrument" is an investment instrument which usually derives its value and marketability from an underlying instrument which represents direct ownership of an asset or a direct obligation of an issuer (e.g. a "spot" or cash market instrument). SWIB recognizes that derivatives provide a means through which SWIB can implement investment strategies in a more cost and time efficient manner than through the physical investment of the underlying securities. Additionally, derivatives can be used to facilitate SWIB's risk management activities including risk mitigation. Derivatives include such instruments as futures, swaps, options and currency forwards and may be exchange traded, traded over-the-counter (OTC) and/or cleared.

#### **Derivatives Use Objectives**

The overall strategic objective of SWIB's use of derivatives is to facilitate risk exposure management and to manage the cost of investing. Objectives for derivatives use include:

1. Constructing portfolios with risk and return characteristics that could not efficiently be created using underlying physical securities,
2. Changing systematic exposures without executing trades in the underlying physical securities,
3. Hedging or managing risks, and
4. Effecting varying active and passive investment strategies including, but not limited to: portable alpha, currency hedging, equitization, relative value trades, transition management, and rebalancings.

## **Derivatives Use Monitoring and Reporting**

Derivatives use exposures will be monitored by portfolio managers that employ derivatives and incorporated as part of the overall risk monitoring of the strategy by the ED/CIO and the Risk Management Division. The Investment Committee will be notified of material risks identified.

### **Derivatives Guidelines Applicable to all WRS Internal Portfolios:**

1. Exchange-traded derivatives must be traded on a recognized exchange approved by the Investment Committee, except for exchange-traded derivatives that are traded pursuant to Exchange for Related Position (EFRP) transactions, which are traded off-exchange and not subject to this requirement. Such approved exchanges are listed on *Appendix 1*. As additional exchanges are approved *Appendix 1* shall be updated without amendment to these IC Guidelines.
2. OTC derivatives may only be traded with counterparties with which SWIB has a current International Swap and Derivative Association (ISDA) agreement that includes a Credit Support Annex (CSA).

In addition:

- a) The counterparty, or its guarantor, must, on each date on which a transaction is entered into, have an actual credit rating of not less than: (1) "A2/P2" on short-term debt from S&P or Moody's; and/or (2) "Baa2/BBB" on long-term debt from S&P or Moody's.
- b) The collateral that SWIB holds under a CSA may be invested in the following:
  - i. Bank deposit accounts;
  - ii. Any money market fund having a rating of at least "Aaa" by Moody's or at least "AAA" by S&P;
  - iii. Overnight commercial paper having a rating of at least "P-1" by Moody's and "A-1" by S&P;
  - iv. Overnight repurchase agreements with U.S. government, agency or dollar cash collateral;
  - v. Overnight reverse repurchase agreements with U.S. government, agency or dollar cash collateral; and
  - vi. The State Investment Fund or similar short term investment funds.
3. For clarity, Items 1 and 2 do not apply to exchange-traded funds (ETFs), or to over-the-counter derivatives entered into on behalf of SWIB, or a title-holding entity that is wholly-owned by SWIB, by either an external manager or advisor in connection with a real estate separate account.
4. Investments may be made in exchange-traded notes (ETNs) which are traded on exchanges included on an approved-exchange list maintained by the Compliance Division. The Risk and Compliance Divisions shall be notified upon any investment in a new ETN.

5. Investments may be made in put option contracts and call option contracts on securities, futures or an index of a group of securities. Put and call options may be purchased or sold on investments that could be held in the portfolio if the options were exercised.
6. Currency exposure management is permitted (but not required) through the use of exchange-traded currency instruments, and through the use of spot and forward contracts in foreign currencies (including FX Swaps). Direct currency hedging is permitted to directly hedge currency exposure back to the U.S. dollar. Cross-currency exposure management to transfer out of an exposed currency and into a benchmark currency is permitted.
7. Guideline limits and soft parameters for each portfolio will be applied to the aggregate exposures which include both physical and synthetic securities.
8. New derivatives instruments will be reviewed and approved by the Investment Committee before their implementation or use.
9. SWIB shall not enter into new derivatives agreements with new counterparties until the ED/CIO has approved the agreement. Each relevant division head or portfolio manager shall submit to the ED/CIO a written summary of any proposed addition of a relationship that may require evaluation of counterparty credit risks. Such relationship may involve (a) entering into a master netting or trading agreement with a new counterparty, which acts either as a principal or as an agent on behalf of multiple principals, or (b) hiring an external manager to implement a strategy that may require the manager to evaluate and monitor counterparty credit risks on SWIB's behalf (excluding external managers selected by Private Markets and Funds Alpha staff and [ARALMBI](#) staff pursuant to their portfolio guidelines). The ED/CIO will review all proposals of such new relationships to determine that (i) the addition of the relationship is consistent with SWIB's investment goals and strategies, (ii) the appropriate loss and drawdown limits for the credit risk associated with the proposed counterparty relationship have been considered, and (iii) appropriate due diligence has been conducted. The relevant division head or portfolio manager ("Initial Division User") shall retain responsibility for monitoring any such approved relationship. If another division expects to use the derivatives agreement for trading strategies after its initial approval, the ED/CIO, Initial Division User and the new division lead shall agree on the strategy for monitoring for the counterparty.

#### IV. REBALANCING PROCEDURES

1. Mandatory rebalancing is triggered by the procedures in the Board's WRS Investment Policy and the procedures below, as applicable. The Core Fund and Variable Fund asset mixes will be reviewed at least monthly for potential rebalancing.
- ~~2. A rebalancing task force will consist of the ED/CIO and the heads of ARA, Global Public Markets Strategies (GPMS) and Private Markets & Funds Alpha (PMFA). The ED/CIO may call a meeting of the rebalancing task force to consider a discretionary rebalancing from time to time. In consultation with the rebalancing task force, and with a majority approval~~

~~of the task force, a discretionary rebalancing may be initiated pursuant to the plan developed by the ARA Division.~~

2. ~~3.~~ Discretionary rebalancing may be used to bring public market asset classes partially or fully back to their strategic target weights, to reduce or use active risk, to otherwise minimize asset allocation drift, or to intentionally overweight or underweight an asset or sub-asset class. Discretionary rebalancing will be recommended by the head of ARA and approved by the ED/CIO.
3. ~~4.~~ In connection with any rebalancing, the ARA Division, in consultation with the LMBI Division as needed, will develop ~~and implement~~ a plan approved by the ED/CIO (a “Rebalancing Plan”) to affect the rebalancing. The Rebalancing Plan will include the total amount of each asset class to be bought and sold, the intended market exposures, and the time frame of purchases and sales. The Rebalancing Plan is based on best estimates of market prices, private market valuations, and benefits cash flows for when the rebalance will take effect. The LMBI Division will implement the Rebalancing Plan. To the extent that the market prices are different at the time of a rebalancing from the anticipated market prices, valuations or cash flows, the Rebalancing Plan may be subsequently adjusted by the ARA Division, in consultation with the LMBI Division, for additional purchases and/or sales to true up the market exposures to the anticipated levels of the ~~originally approved rebalancing without further approval by the rebalancing task force~~original Rebalancing Plan.
4. ~~5.~~ The ARA Division, under the supervision of the head of ARA, in consultation with the LMBI Division as needed, has the discretion to approve intra-month allocation adjustments ~~of unallocated fund level cash to passive portfolios and to manage asset class mis-alignments. Such adjustments may be, for example, to allocate unallocated fund-level cash arising from a distribution, to raise liquidity to fund private markets capital calls, to adjust for benchmark weight changes, or to otherwise make adjustments during the month as conditions may arise to return the asset allocation to its intended allocation targets consistent~~ to align portfolio and cash exposures with ~~most recently~~the approved Rebalancing Plan. ~~The manner in which intra-month allocation adjustments of unallocated fund level cash are allocated or cash deficits are funded depends on the source of such unallocated cash or cash deficit and shall follow Guideline 8 below, as applicable.~~ Only passive portfolios may be utilized for allocations or deallocations. ~~Once unallocated fund level cash is allocated to a passive portfolio, investment of such cash shall be made in accordance with the underlying passive portfolio’s guidelines.~~ Aggregate daily portfolio allocations or deallocations shall not exceed \$~~250~~400 million unless approved by the ED/CIO.
5. ~~6.~~ Exchange-traded and OTC options or other derivatives may be purchased or sold in conjunction with managing asset class exposure and rebalancing. The aggregate notional value of the options will be limited to 2% of the market value of the Core Fund at the date of purchase. The term of options used for this purpose may not exceed one year.
6. ~~7.~~ Cleared derivatives traded on a swap execution facility (SEF) may only be traded on or pursuant to the rules of the SEFs of which SWIB is a member or participant.

7. ~~8.~~ In connection with any rebalancing, the following procedures will be followed with respect to the following asset classes:

- a. The Real Estate Asset Class will rebalance 50% to Public Equities and 50% to Public Fixed Income. Accordingly, in connection with any rebalancing, for any percentage increase in Real Estate there will be a corresponding 50% reduction to Public Equities and a corresponding 50% reduction to Public Fixed Income, and vice versa if the Real Estate assets decrease. The rebalancing does not have to be proportional through the sub-asset classes.
- b. The Private Equity Asset Class will rebalance on a 1 for 1 basis to Public Equities. Accordingly, in connection with any rebalancing, for any percentage increase in Private Equity there will be a corresponding 1% reduction to Public Equities. The rebalancing does not have to be proportional through the sub-asset classes.

## **V. DRAWDOWN PROCEDURES**

1. On an annual basis, the Investment Committee shall approve the active risk budget for the next calendar year and the relative drawdown limits per strategy (based on percentage of assets under management (AUM)) for the Core Fund. The relative drawdowns are measured against the benchmark for each strategy on a monthly basis by the Risk Management Division. Relative drawdown limits are intended to protect the Core Fund from large relative drawdowns. Given the active risk that each strategy is expected to take and achieve, the Investment Committee acknowledges that (1) the relative drawdown limits may be reached in any given market environment, and (2) the probability of reaching the drawdown limits is not remote for the levels of active risk approved in the active risk budget.
2. If and when 60% of the relative drawdown limit is reached during the calendar year for any given strategy, the division head, the strategy head, the head of Risk Management, and the ED/CIO will all meet to discuss the relative drawdown limit, attribution, and outlook for the calendar year. The meeting will be documented by email confirmation sent to the Chief Legal Counsel and the head of Compliance.
3. If and when 90% of the relative drawdown limit is reached during the calendar year for any given strategy, the division head, strategy head, the head of Risk Management, and the ED/CIO will all meet to create a plan to address the drawdown for the strategy. The plan may require the strategy to reduce risk, stay the course until a given set of market conditions exist, make certain trades, and/or provide timing for implementation of the plan. A copy of the plan will be presented to the Investment Committee, generally at the next scheduled meeting.

## **VI. WRS GENERAL AND PORTFOLIO GUIDELINES – INTERNAL MANAGEMENT**

Each internal portfolio is assigned compulsory investment guidelines. Portfolio managers are generally not allowed to deviate from compulsory guidelines. If a deviation from compulsory guidelines occurs or is expected to occur, the staff member who becomes aware of it must immediately notify the head of the Compliance and Risk Management divisions, ED/CIO, and the

division head of the asset class in which the deviation occurred. Upon receiving notice of a deviation or potential deviation, the ED/CIO and relevant division head will either take action to correct the deviation or obtain a waiver approved by the ED/CIO. If the ED/CIO is not available, then the waiver may be granted by any division head (other than the division head of the portfolio that is requesting the waiver) and the Deputy Executive Director, in consultation with the head of Risk Management. All waivers will be reported to the Investment Committee and documented in the Investment Committee's meeting minutes.

All internal portfolios are also assigned "soft risk parameters." Soft risk parameters refer to desired characteristics and/or risk exposures. Portfolio managers are allowed, however, to deviate from soft parameters in pursuit of excess return or efficiency, subject to Investment Committee inquiry, discussion and concurrence of the continued exposure. Soft risk parameters for each portfolio are detailed in *Appendix 2*.

The following general compulsory guidelines ("General Guidelines") are applicable to all internally managed portfolios. Individual portfolio guidelines appear subsequently.

1. All portfolios must be managed in accordance with the fiduciary standards set forth in section 25.15(2) of the Wisconsin Statutes.
2. Credit quality rating requirements refer to an entire rating level, e.g., "A or better" includes "A-" and better ratings. The lower of split ratings is used. Investment grade securities are those rated "BBB-" or better (or the equivalent rating agency rating). Portfolios may invest in unrated securities, provided that the unrated securities have been assigned an internal SWIB rating by portfolio management staff using similar rating methodologies as the rating agencies.<sup>2</sup>
3. Fixed income securities backed by the full faith and credit of the U.S. government will be classified as U.S. government securities for purposes of these guidelines.
4. Any sovereign debt obligation (or the issuer in the event the obligation is unrated) in which SWIB invests must be rated "B3/B-" or above, unless otherwise approved in advance by the Investment Committee based on its guidelines for individual business case determinations.
5. Public equity investments in markets designated as "developed" or "emerging" are investments in entities that are incorporated or organized in countries included in the MSCI World Index or the MSCI Emerging Market Index, respectively. Public fixed income investments in markets designated as "emerging" are investments in the debt of countries (or of companies incorporated or organized in countries) included in the JP Morgan Emerging Markets Diversified Index. Public fixed income investments in the debt of countries (or of companies incorporated or organized in countries) not included in the JP Morgan Emerging Markets Diversified Index (other than frontier markets) will be designated as "developed."

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<sup>2</sup> Using ratings models that are reviewed by Risk and Compliance staff.

6. The Board approves the benchmarks for the Core Fund and Variable Fund, which are listed in *Appendix 3*. When new benchmarks are approved by the Board or modified by the Board, *Appendix 3* shall be updated without amendment to these IC Guidelines.
7. The Risk Management Division will monitor the risk exposures of all WRS portfolios. The head of Risk Management may recommend modifications to portfolio exposures to manage risk exposures. With the ED/CIO's concurrence, the manager of a portfolio will make changes as recommended by the head of Risk Management. In addition to such recommendations, drawdown control procedures for all active internal WRS portfolios will be implemented and monitored by the Risk Management Division and adhered to by the portfolios.
8. Portfolios may utilize cash instruments or derivatives in their investment strategy. All investments used will be subjected to the risk analysis and monitoring processes at the portfolio, asset class and fund levels. New derivative and investment instruments will be reviewed with and approved by the Investment Committee prior to implementation.
9. Exposure limits and credit quality exposure limits are to be applied at the time of purchase. Unless otherwise indicated, "value" shall mean market value including un-invested cash.
10. Covered Agency Transactions as defined in FINRA Rule 4210<sup>3</sup> may be traded only with a counterparty with which SWIB has a current Master Securities Forward Transaction Agreement (MSFTA), and the settlement of any such transaction shall not be more than 90 days from the date of the trade.
  - a. The counterparty, or its guarantor, must, on each date on which a transaction is initiated, have a credit rating of not less than "Baa2/BBB" on long-term debt from S&P or Moody's.
  - b. If the counterparty is not rated, then its parent must have such a rating and must guarantee the obligations of the counterparty.
  - c. If a counterparty or its parent is downgraded to a credit rating below "Baa2/BBB" after the initiation of a trade, then trades may be initiated with that same counterparty only to reduce the existing exposure to that downgraded counterparty.
11. Internally managed portfolios, including separately managed funds, are prohibited from investing in commercial paper or other securities issued by SWIB.
12. "Centrally Arranged Leverage" means leverage sourced or provided by the [ARALMBI](#) Division including Temporary Leverage and leverage created by shorting any securities by a portfolio which requires posting of Treasuries, including TIPS, as collateral.
13. "Fixed Income Portfolios" means the internally managed active public fixed income portfolios, including the Investment Grade Credit Portfolio, ~~the Long Treasury Portfolio,~~

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<sup>3</sup> "Covered Agency Transactions" include certain to-be-announced (TBA) transactions, specified pooled transactions and collateralized mortgage obligations (CMOs).

the Mortgage-Backed Securities Portfolio, the High-Yield Bond Portfolio, the Leveraged Loan Portfolio, and the TBA Strategy Portfolio.

#### **A. Small Cap Portfolio**

The Small Cap Portfolio is invested primarily in publicly traded equity securities that are registered with the Securities and Exchange Commission, including common stocks, preferred stocks, ETFs, American Depository Receipts (ADRs), American Depository Shares (ADSs), convertible bonds, securities issued in initial public offerings, and when-issued securities. The Small Cap Portfolio may also be invested in equity securities that are publicly traded on stock exchanges in other developed countries, or that are issued through private placements.

1. No more than 5% (long or short) of outstanding shares of any single issuer, excluding shares held in commingled funds and ETFs, may be held.
2. No single issuer's equity securities may represent (long or short) more than the greater of (a) 7% of the total market value of the Small Cap Portfolio, or (b) 5% over the percentage of such issuer's equity securities in the portfolio's benchmark. Shares held in commingled funds and ETFs are excluded from this guideline.
3. Up to 10% of the portfolio's market value may be invested in international and emerging markets companies through common stocks, ADRs, ADSs, or country-specific ETFs.
4. The portfolio may use exchange-traded futures contracts or ETFs to equitize cash and receivables.
5. The portfolio may sell short any securities that may be purchased under applicable guidelines and may then use the proceeds from the short sale to purchase additional approved securities. The total value of the short sales in the portfolio may not exceed 50% of the portfolio's net market value.
6. The portfolio's aggregate ex-ante tracking error will not exceed ~~8.75~~10% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds ~~8.75~~10% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
7. Except as provided in 3 above, securities must be issued by an entity (a) that is incorporated in the United States or (b) incorporated outside the United States if (1) the company's headquarters are located in the U.S. or (2) the primary exchange for the issuer's securities is located in the U.S. The issuers in (b) shall not count toward the 10% limit in 3 above.
8. The aggregate notional value of long or short puts and calls is limited to 5% of the market value of the portfolio.

9. Gross exposure for the portfolio shall not exceed 205% of the portfolio's market value, and net exposure for the portfolio shall not exceed 105% of the portfolio's market value, in each case unless approved by the ED/CIO.

## **B. ARALMBI Passive Internal Portfolios**

This guideline section pertains to all internally managed passive investment strategies, unless otherwise separately discussed in other sections. This includes, but is not limited to: passive physical equities, passive U.S. TIPS, passive U.S. Treasuries, synthetic liquidity, synthetic leverage, and overlay strategies. The objective of the passive portfolios is to closely track the returns and risk of their respective benchmarks.

1. The universe for inclusion in the portfolio shall be the full respective benchmark for each portfolio. Non-benchmark securities may be held from time to time as a result of corporate actions, purchases or sales in advance of expected changes to the benchmark in order to optimize trading costs or to provide synthetic/derivative exposure to the underlying benchmark. Retention of physical non-benchmark securities will only occur if the portfolio manager deems it beneficial to fund (Core Fund/Variable Fund) performance and not significantly detrimental to tracking error. Portfolios that provide liquidity or leverage may hold primarily non-benchmark securities in the form of derivatives that replicate the underlying target beta exposure.
2. Securities offered or sold to U.S. investors pursuant to Regulation D or Rule 144A under the Securities Act of 1933 may be purchased if they are publicly traded on a stock exchange in a developed country.
3. Portfolios may use physical securities or synthetic instruments, including exchange-traded futures contracts, ETFs, swaps, or other Investment Committee-reviewed derivative instruments to equitize cash and receivables, to achieve ~~policy fund level leverage~~Policy Leverage within Trustee-approved limits; for liquidity purposes; to replicate beta for the alpha-beta overlay; or for other passive investment strategies. Passive portfolios used to achieve ~~policy fund level leverage~~Policy Leverage shall be monitored by the ARA Division so that the Policy Leverage does not exceed Board-approved limits.
4. Portfolios may sell short from time to time as a result of corporate actions, benchmark changes or other similar events. Short positions are also permitted to more closely, more efficiently and/or more cost effectively track the returns and risk of their respective benchmarks if the portfolio manager deems it beneficial to Core Fund/Variable Fund performance and not significantly detrimental to tracking error. Short positions are intended to be used opportunistically to enhance efficient beta management (e.g., transitions or rebalancing), but not solely to increase active risk. The portfolios may short any securities that may be purchased under Guidelines #1-3 and may then use the proceeds from the short sale to purchase additional approved securities.

**C. ARALMBI Passive External Managers**

The ARALMBI Passive External Managers will be comprised primarily of direct or commingled passive investments in strategies of external managers that are intended to generate a beta or SWIB policy benchmark return.

1. Investments in ARALMBI Passive External Managers will be comprised of the following investment vehicles:
  - a. *Separately Managed Accounts (“SMAs”)*: SWIB intends for its portfolio to be comprised primarily of direct investments in various strategies via SMAs, the assets of which would reside at SWIB’s custodial bank.
  - b. *Commingled Investments or Fund Investments*: Investments can be made in commingled funds or in a Fund-of-One structure where SWIB is the sole investor, the assets of which may not reside at SWIB’s custodial bank.
2. Investment Strategies and Broad Guidelines for ARALMBI External Managers:
  - a. *Equities* –Strategies will be invested in traditional long only portfolios and other public equity securities approaches across various geographies and market cap weights. Derivatives may be used and will be set forth in the individual manager guidelines.
  - b. *Fixed Income* –Strategies will primarily be invested in traditional long only portfolios across the credit quality spectrum, varying geographies, including emerging and frontier market debt, high yield and structured securities. Derivatives may be used and will be set forth in the individual manager guidelines.
  - c. *Levered Strategies* – Strategies that are designed to provide fund-level leverage will be subject to both the external manager guidelines in this section, as well as the applicable Leverage Use Policy guidelines in Section II above. The individual managers will also be subject to any additional guidelines outlined in the investment management agreement with respect to strategy and/or leverage management tool.
3. Approvals: ARALMBI Passive External Manager allocations are subject to the following approvals:

Investment	Head of <u>ARALMBI</u>	ED/CIO
New Manager Relationship	Up to \$1.75 billion	More than \$1.75 billion
Additional Allocations to Existing Manager	Up to \$2 billion	More than \$2 billion
Includes all <u>ARALMBI</u> investments aggregated with the Manager, regardless of vehicle, strategy or portfolio, but excludes allocations to existing strategies managed by existing Managers as part of routine rebalancing activity.		

4. Other guideline limitations notwithstanding, the head of [ARALMBI](#) or other staff authorized by the head of [ARALMBI](#) may modify, amend or waive terms of [ARALMBI](#) Passive External Manager investment management agreements and generally take any and all other actions that are necessary and reasonable to protect, maintain, or enhance the value of SWIB's position in the investments.
5. All redemptions, terminations or reductions of capital will be at the discretion of the head of [ARALMBI](#) for rebalancing, liquidity management, leverage management and/or policy benchmark exposure consideration.

#### **D. Investment Grade Credit Portfolio**

The Investment Grade Credit Portfolio is primarily invested in publicly traded and Rule 144A investment grade corporate bonds or other fixed income instruments, primarily in the United States and other developed markets. Subject to the limitations set forth below, the portfolio may also invest in bank loans, convertible, and equity securities.

1. Maximum single issuer concentration is limited to 8% of the portfolio's market value on a net basis for developed markets investment grade issuers and 3% for all other issuers, in each case, excluding Treasuries, Treasury futures and ETFs.
2. Positions may be purchased long and sold short, and the use of leverage will be incorporated in ex-ante risk assessments and active risk/tracking error contributions. The portfolio may take short exposure by shorting individual securities, including cash bonds and equity securities, utilizing single name CDS and CDX index securities, and shorting ETFs that have been approved by Compliance and included on an approved ETF trading list (including put or call options thereon).
3. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of credit, duration, yield curve exposure, and volatility management. Derivatives use is permitted through the use of (a) exchange-traded and over-the-counter interest rate instruments, including forwards, futures and options, (b) interest rate swaps and swaptions, (c) total return swaps (TRS) with index or underlying basket of permitted instruments, (d) options on permitted ETFs and indices, (e) other volatility derivatives (including options), (f) credit index swaps (e.g., CDX) and single-name CDS, including options on these instruments, and (g) options on equity securities, indices and ETFs for purposes of tail hedging.
4. Effective duration of the portfolio shall remain within two years of the assigned benchmark's duration.
5. Emerging market (EM) debt investment is limited to securities rated "B-" or above and:
  - a. EM sovereign debt must be of countries in the JP Morgan Emerging Market Bond Index Global Diversified ("JP Morgan EM Bond Index").
  - b. EM corporate debt must be denominated in U.S. Dollars.

- c. Gross EM debt shall not exceed 15% of the portfolio's market value on a long or short basis (i.e., long % + short %). EM FX forwards used to hedge currency risk will not be counted against the EM debt exposure threshold.
6. Further limits:
    - a. Non-investment grade securities shall not exceed 20% of the portfolio's market value on a gross basis.
    - b. Exposure to bank loans, including CLOs, shall not exceed 15% of the portfolio's market value on a net basis.
    - c. Exposure to convertible securities shall not exceed 10% of the portfolio's market value on a net basis.
    - d. Equity exposure shall not exceed 2% of the portfolio's market value on a net basis.
  7. Ex-ante tracking error shall not exceed 2.5% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds 2.5% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
  8. Gross exposure for the portfolio shall not exceed 300% of the portfolio's market value, and net exposure for the portfolio shall not exceed 200% of the portfolio's market value, in each case unless approved by the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.

#### **E. Exposure Management Portfolios**

Portfolios may be established at the asset class level for multi-asset, public equity and public fixed income asset classes to provide for adjustment and management of the Core Fund and Variable Fund exposures and to utilize or adjust active risk of the Core Fund and Variable Fund. In determining portfolio investments, exposures held in both internally and externally managed portfolios will be considered. These portfolios may also be used to express investment strategies and ideas where the sizing of the investment requires it to be outside of an individual internal portfolio.

The head of ARA or their designee may approve strategies and/or investment ideas in the portfolios up to an ex-ante contribution to overall Core Fund active risk of 0.20% (excluding investments in PMFA overage portfolios), as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If, at the time of investment, the portfolios' ex-ante contribution to active risk exceeds 0.20%, then the strategy and/or investment idea must be approved by the ED/CIO. Portfolio ~~implementation~~management, oversight and reporting to the Investment Committee will be the responsibility of the ARA Division. These portfolios may

invest in any instrument approved for the relevant asset class portfolios described elsewhere in these guidelines. The portfolios may use derivative instruments. Portfolios will not have a separate benchmark or risk target, but will be included within the benchmark and risk parameters for the applicable aggregated asset class. The portfolios may include, for example, investments strategies to adjust aggregate equity beta, the allocations between specific sectors or sub-asset class exposures, currency exposures, volatility exposure, or credit exposure or duration.

#### **F. Multi-Strat Portfolio**

1. The Multi-Strat portfolio is authorized to invest in or short any instrument or derivative, subject to guidelines 5 and 6 below and the general guidelines contained herein.
2. Strategies may be managed either by internal investment staff or by an external manager.
3. Leverage and derivatives may be used to implement individual strategies and to adjust the market exposure of the Multi-Strat portfolio.
4. The Multi-Strat portfolio's aggregate ex-ante tracking error will not exceed ~~1.221~~1.221% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds ~~1.221~~1.221% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
5. The ED/CIO and Head of Risk Management must be informed prior to the launch of a new strategy within the Multi-Strat portfolio. New strategies must be reported to the Investment Committee reasonably promptly following the launch.
6. ED/CIO approval, along with notice to the Head of Risk Management, is required prior to the Multi-Strat portfolio investing in an investment instrument or derivative that was previously approved by the Investment Committee for use by other asset class portfolios. Investment in such instruments must be reported reasonably promptly to the Investment Committee. Investment Committee review and approval is required prior to the Multi-Strat portfolio investing in any new investment instruments or derivatives not previously approved by the Investment Committee for any asset class portfolios.

#### **~~G. Long Treasury Portfolio~~**

~~The Long Treasury portfolio is a long duration, but not long-only, portfolio primarily invested in US Treasury securities, including nominal and inflation-indexed Treasuries and Treasury strips, and other US Government issued debt such as Agency debentures (which include debt, or bonds, issued by a US federal agency or a government-sponsored enterprise (GSE)). It may also invest in other fixed income securities, certain ETFs, and certain derivatives, as outlined below.~~

- ~~1. Securities other than nominal US Treasury securities including principal and interest strips, US Treasury Futures, and ETFs investing primarily in nominal US Treasury securities,~~

- ~~but otherwise permitted in these portfolio guidelines, may not exceed 25%, in the aggregate, of the portfolio's market value.~~
- ~~2. Effective duration of the portfolio shall remain within five years of the assigned benchmark's duration.~~
  - ~~3. The portfolio may invest long or short in ETFs that invest primarily in US Treasury securities and that have been approved by Compliance and included on an approved trading list (including put or call options thereon).~~
  - ~~4. The portfolio's aggregate ex ante tracking error will not exceed 3% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex ante tracking error exceeds 3% then the portfolio may not trade or take any other action which is predicted to increase the ex ante tracking error of the portfolio.~~
  - ~~5. Except for US Treasury securities, exchange traded interest rate futures, and ETFs, no single issue may exceed 8% of the portfolio's market value.~~
  - ~~6. The portfolio may use repurchase agreements and reverse repurchase agreements for cash management.~~
  - ~~7. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of duration, interest rate, yield curve, and volatility management. Derivatives use is permitted through the use of (a) exchange traded and over the counter interest rate instruments, including forwards, futures, and options, (b) interest rate swaps and swaptions, (c) total return swaps (TRS) with index or underlying basket of permitted instruments, (d) options on permitted ETFs and indices, and (e) other volatility derivatives (including options).~~
  - ~~8. All instruments permitted in these guidelines may be traded long or short. Gross exposure for the portfolio shall not exceed 300% of the portfolio's market value, and net exposure for the portfolio shall not exceed 200% of the portfolio's market value, in each case unless approved by the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.~~

#### **G. ~~H.~~ Mortgage-Backed Securities Portfolio**

The Mortgage-Backed Securities (MBS) portfolio is primarily invested in Agency-issued mortgage-related securities, including MBS pools, collateralized mortgage obligations (CMOs), credit risk transfer (CRT) securities, as well as other securities in the structured products sector such as TBA MBS, commercial mortgage-backed (CMBS), asset-backed (ABS), and private label mortgage-related securities. It may also invest in other fixed income securities, certain ETFs, and certain derivatives as outlined below.

1. Securities other than agency-issued mortgage-related securities (e.g., pools, CMOs, CRTs), mortgage TBAs, and mortgage ETFs, but otherwise permitted in these portfolio guidelines and with effective duration of greater than one year, may not exceed 25%, in the aggregate, of the portfolio's market value.
2. Effective duration of the portfolio shall remain within two years of the assigned benchmark's duration.
3. Private label MBS may not exceed 10% of the portfolio's market value. Private label mortgage securities backed by borrower collateral other than prime may not exceed 5% of the portfolio's market value.
4. The portfolio may invest long or short in ETFs that invest primarily in U.S. MBS and that have been approved by Compliance and included on an approved trading list (including put or call options thereon).
5. The portfolio's aggregate ex-ante tracking error will not exceed 5% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds 5% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
6. Except for TBA MBS, US Treasuries and ETFs, no single issue may exceed 5% of the portfolio's market value. No single BBB-rated issue may exceed 2% of the portfolio's market value. The average rating of securities covered by these limits will be "Baa2/BBB" or better. No single issue rated below investment grade may exceed 1% of the portfolio's market value. Each tranche of a securitized product is considered a separate issue. Total exposure to issues rated below investment grade may not exceed 20% of the portfolio's market value, in the aggregate.
7. Fixed income securities with an effective duration of one year or less will have an average credit rating of "A" or better. The portfolio may also use repurchase agreements and reverse repurchase agreements for cash management.
8. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of duration, interest rate, yield curve, mortgage and structured products credit, prepayment and volatility management. Derivatives use is permitted through the use of (a) exchange-traded interest rate instruments, including forwards, futures and options, (b) interest rate swaps and swaptions, (c) total return swaps (TRS) with index or underlying basket of permitted instruments, (d) options on permitted ETFs and indices, (e) other volatility derivatives (including options), (f) MBS options, (g) credit index swaps (e.g., CMBX, CDX and similar instruments) and options, and (h) options on equity indices and ETFs for purposes of tail hedging.

9. All instruments permitted in these guidelines may be traded long or short. Excluding the TBA Strategy, gross exposure for the portfolio shall not exceed 300% of the portfolio's market value, and net exposure for the portfolio shall not exceed 200% of the portfolio's market value, in each case unless approved by the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.
10. CLOs collateralized by corporate bank loans may not exceed 15% of the portfolio's market value.

#### **H. High-Yield Bond Portfolio**

The High-Yield Bond Portfolio is eligible to invest in any instruments included in the assigned benchmark — primarily U.S. dollar denominated publicly-traded and Rule 144A high-yield corporate bonds or other fixed income instruments rated between BB+/Ba1 and B-/B3. Subject to the limitations set forth below, the portfolio may also invest in non-U.S. dollar denominated bonds of issuers located outside of the United States, as well as convertible, preferred securities and equity securities.

1. The portfolio shall maintain at minimum a weighted average rating of B-. Subject to the foregoing, the portfolio may hold fixed income instruments rated below B-/B3.
2. Effective duration of the portfolio shall remain within +/- five years of the assigned benchmark's effective duration.
3. Positions may be purchased long and sold short, and the use of leverage will be incorporated in ex-ante risk assessments and active risk/tracking error contributions. The portfolio may take short exposure by shorting individual securities, cash bonds, buying single name CDS, shorting the CDX index, shorting high-yield and equity ETFs that have been approved by Compliance and included on an approved ETF trading list (including put or call options thereon), as well as shorting the underlying equity of a leveraged issuer.
4. Instruments not included in the benchmark, but otherwise permitted in these portfolio guidelines, may not exceed 25% of the portfolio's market value on a long or short basis (i.e., long % + short %). For the avoidance of doubt, any instrument that is subsequently removed from the portfolio's benchmark due solely to the instrument's maturity falling below the benchmark's stated thresholds shall not be deemed to be out of benchmark for purposes of the 25% limitation described in this Guideline #4.
5. Maximum single issuer active concentration is limited to 5%, excluding Treasuries, Treasury futures and holdings of ETFs, of the portfolio's market value on a net basis.
6. Gross exposure to non-U.S. Dollar denominated instruments shall not exceed 10% of the portfolio's market value on a long or short basis (i.e., long % + short %).

7. Gross exposure to emerging market corporate debt is limited to (a) securities that are rated "B-/B3" or above and (b) issuers incorporated or organized in countries included in the JP Morgan Emerging Markets Diversified Index, and in aggregate shall not exceed 5% of the portfolio's market value on a net basis.
8. Exposure to any single industry sector shall remain within 20% of the assigned benchmark's industry sector weighting on a net basis.
9. Exposure to high-yield bank loans shall not exceed 10% of the portfolio's market value on a net basis.
10. Ex-ante tracking error shall not exceed 5% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds 5% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
11. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of duration, yield curve exposure, and volatility management. Derivatives use is permitted through the use of (a) exchange-traded and over-the-counter interest rate instruments, including forwards, futures and options, (b) interest rate swaps and swaptions, (c) total return swaps (TRS) with index or underlying basket of permitted instruments, (d) options on permitted ETFs and indices, (e) other volatility derivatives (including options), (f) credit index swaps (e.g., CDX) and single-name CDS, including options on these instruments, and (g) options on equity securities, indices and ETFs for purposes of tail hedging.
12. Gross exposure for the portfolio shall not exceed 300% of the portfolio's market value, and net exposure for the portfolio shall not exceed 200% of the portfolio's market value, in each case unless approved by the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.
13. The portfolio may invest in debt instruments and loans and may include senior financing, subordinated or mezzanine financing, and "bridge" financing. Debt instruments and loans may be syndicated or privately issued credit. Debt instruments and loans may be of public or private company issuers. Strategies may include, without limitation, specialty and alternative credit opportunities, distressed and opportunistic strategies, or dislocated credit opportunities. Debt instruments and loans may include credit opportunities alongside SWIB external managers. In the aggregate, exposure to special or alternative opportunity financings described in this guideline shall not exceed 5% of the portfolio.

## I. **Leveraged Loan Portfolio**

The Leveraged Loan Portfolio is eligible to invest in any instruments included in the assigned benchmark — primarily U.S. dollar denominated publicly-traded and senior secured syndicated leveraged loans. Subject to the limitations set forth below, the portfolio may also invest in non-U.S. dollar denominated loans and/or bonds of issuers located outside of the United States, as well as collateralized loan obligations (CLOs), derivatives, convertible, preferred securities and equity securities.

1. No less than 75% of the portfolio's market value can be invested in single-name first-lien bank loans, total return swaps on first-lien bank loans and first-lien bank loan indices, and/or ETFs with a diversified portfolio of first-lien bank loans, in aggregate.
2. The portfolio shall maintain at minimum a weighted average rating of B. Subject to the foregoing, the portfolio may hold fixed income instruments rated below B-/B3 as well as unrated securities, provided the unrated securities have been assigned an internal SWIB rating by portfolio management staff using similar rating methodologies as the rating agencies.
3. Positions may be purchased long and sold short, and the use of leverage will be incorporated in ex-ante risk assessments and active risk/tracking error contributions. The portfolio may take short exposure by shorting individual securities, including cash bonds and equity securities, utilizing single name CDS and CDX index securities, and shorting ETFs that have been approved by Compliance and included on an approved ETF trading list (including put or call options thereon).
4. Excluding U.S. Treasuries, total return swaps and CDS on first-lien loans, and Compliance approved ETFs with a diversified portfolio of first-lien bank loans, investments in instruments not included in the broad Morningstar LSTA US Leveraged Loan index, but otherwise permitted in these portfolio guidelines, may not exceed 25% of the portfolio's market value on a long or short basis (i.e., long % + short %).
5. Maximum single issuer active concentration is limited to 5%, excluding Treasuries, Treasury futures and holdings of ETFs, of the portfolio's market value on a net basis.
6. Gross exposure to non-U.S. Dollar denominated instruments shall not exceed 10% in the aggregate of the portfolio's market value on a long or short basis (i.e., long % + short %).
7. Aggregate exposure to second-lien loan instruments is limited to 15% of the portfolio's market value on a long or short basis (i.e., long % + short %), and maximum exposure to a single second-lien loan instrument is limited to 2.5% of the portfolio's market value on a long or short basis (i.e., long % + short %).
8. Ex-ante tracking error shall not exceed 5% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante

tracking error exceeds 5% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.

9. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of duration, yield curve exposure, and volatility management. Derivatives use is permitted through the use of (a) exchange-traded and over-the-counter interest rate instruments, including forwards, futures and options, (b) interest rate swaps and swaptions, (c) total return swaps (TRS) with index or underlying basket of permitted instruments, (d) options on permitted ETFs and indices, (e) other volatility derivatives (including options), (f) credit index swaps (e.g., CDX) and single-name CDS, including options on these instruments and (g) options on equity securities, indices and ETFs for purposes of tail hedging.
10. Gross exposure for the portfolio shall not exceed 300% of the portfolio's market value, and net exposure for the portfolio shall not exceed 200% of the portfolio's market value, in each case unless approved by the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.
11. Leveraged loans may include senior financing, subordinated or mezzanine financing, and "bridge" financing. Loans may be syndicated or private credit loans. Loans may be of public or private company issuers. Strategies may include, without limitation, specialty and alternative credit opportunities, distressed and opportunistic strategies, or dislocated credit opportunities. Loans may include credit opportunities alongside SWIB external managers. In the aggregate, exposure to special or alternative opportunity financings described in this guideline shall not exceed 5% of the portfolio.

#### J. ~~K.~~ TBA Strategy Portfolio

The TBA Strategy portfolio is invested primarily in Agency TBA mortgages, as well as Agency MBS pools. It may also invest in ABS, CMBS and other fixed income securities and certain derivatives as outlined below.

1. The portfolio's aggregate ex-ante tracking error will not exceed 25% as measured by SWIB's standard model used at any given time by SWIB's Risk Management Division. If market conditions (compared to active management actions) cause the portfolio's ex-ante tracking error to exceed this limit, then the portfolio will not be deemed to be out of compliance with these guidelines and this guideline will not be deemed to be violated; except that, if the portfolio's ex-ante tracking error exceeds 25% then the portfolio may not trade or take any other action which is predicted to increase the ex-ante tracking error of the portfolio.
2. Derivatives use is permitted as allowed by the Derivatives Use Policy for the purposes of yield curve, mortgage, credit, and volatility management. Derivatives use is permitted through the use of (a) exchange-traded interest rate instruments, including forwards,

futures, and options, (b) interest rate swaps and swaptions, (c) volatility derivatives (including options), (d) CDX, and (e) MBS options.

3. The portfolio may invest long and short in any permitted security as described herein.
4. In the event of an Agency MBS trade failure, the head of strategy or designee will promptly notify Risk Management and Compliance.
5. Except for TBA and Agency pass-through MBS, and US Treasuries, no single issue may exceed 8% of the portfolio's market value. Other fixed income securities are allowed with an effective duration of five years or less and must be investment grade. The average rating of these securities will be "A" or better. Each tranche of a securitized product is considered a separate issue. The portfolio may also use repurchase agreements and reverse repurchase agreements for cash management.
6. Effective duration of the portfolio, determined on the gross value of the portfolio, shall be within 0.5 years of the portfolio's benchmark.
7. Gross notional exposure of the portfolio shall not exceed \$20 Billion and net notional exposure of the portfolio shall not exceed \$4 Billion, in each case without the approval of the ED/CIO. The portfolio may create leverage through the use of derivatives, securities lending, and repurchase agreement transactions, as well as Centrally Arranged Leverage. Centrally Arranged Leverage in the aggregate across the Fixed Income Portfolios shall not exceed 15% of such portfolios' aggregate market value.

**K.    Short Term Credit Portfolio**

The Short-Term Credit Portfolio is an investment vehicle of cash and short-term investments of the WRS. Its investment objectives are: 1) Safety of principal; 2) Return Objective; and 3) Liquidity.

Portfolio Allocation

(Percent of Portfolio at Par Value)

Treasuries, Agencies, and FDIC Insured Bank Deposits	0-100%
Repurchase Agreements	0-100%
Commercial Paper	0-100%
Corporate Notes	0-100%
Certificates of Deposit/Time Deposits	0-50%
Bankers' Acceptances	0-50%
Yankee/Euro Certificates of Deposit/Time Deposits (U.S. Dollars)	0-50%

Maturity Guidelines

(Maximum)

Consistent with the portfolio purpose and objectives, the portfolio weighted average maturity will not exceed one year (the weighted average maturity of floating rate securities is based on interest rate reset dates).

Repurchase Agreements	1 year
Reverse Repurchase Agreements	1 year
U.S. Treasuries and Agencies	5 years
Commercial Paper/Bankers' Acceptances	1 year
Corporate Notes – Fixed Rate	3.1 years
Corporate Notes – Floating Rate	5.1 years
Certificates of Deposit/Time Deposits	5 years
Yankee/Euro Certificates of Deposit/Time Deposits	5 years

Issuer Exposure

(Percent of Portfolio at Par Value)

The maximum exposure for each issuer/guarantor/counterparty shall be in the aggregate as follows:

U.S. Treasury Bills and U.S. Agency Discount Notes	No limit
Repurchase Agreements (Gov't/Agency Collateral)	25%
Repurchase Agreements (Other Collateral)	5%
Commercial Paper and Corporate Notes	5%
Certificates of Deposit/Time Deposits	5%
Bankers' Acceptances	5%
Yankee/Euro Certificates of Deposit/Time Deposits (U.S. Dollars)	5%
Wisconsin CD Program – individual bank (unless a higher limit from another category applies.)	\$20MM or 3% of bank assets, whichever is less
Bank Deposits	Up to the amount guaranteed by the FDIC or the amount allowable for a

bank instrument, whichever is higher

CREDIT QUALITY

The minimum rating of an issuer/counterparty shall be the lowest in the event of a split rating and shall be as follows:

U.S. Treasury Bills and U.S. Agency Discount Notes	No minimum
Repurchase Agreements	BBB
Commercial Paper	A-2/P-2
Unrated Wisconsin Company Commercial Paper (maximum maturity of 90 days and percentage of the portfolio in unrated CP cannot exceed 15%)	Unrated
Corporate Notes, Bankers' Acceptances, Certificates of Deposit/ Time Deposit, Bank Deposits and Yankee/Euro Certificates of Deposit/Time Deposits (U.S. Dollars) greater than 1 year	A
Corporate Notes, Bankers' Acceptances, Certificates of Deposit/ Time Deposit, Bank Deposits and Yankee/Euro Certificates of Deposits (U.S. Dollars) less than 1 year (the percentage of the portfolio in BBB cannot exceed 15%).	BBB
Wisconsin CD Program – individual bank	Unrated

L. ~~M.~~ **General Guidelines specific for Private Markets and Funds Alpha Portfolios**

1. The portfolio manager shall be responsible for notifying the ED/CIO of any referrals or significant contacts by or on behalf of SWIB Trustees regarding consideration of an investment opportunity.
2. The Private Markets & Funds Alpha (PMFA) staff shall report to the Trustees all portfolio commitments to non-public investments.
3. Each portfolio manager shall obtain written confirmation from legal counsel (which may be external legal counsel) that documentation has been satisfactorily completed prior to closing of any investment in his or her portfolio that involves negotiated SWIB documentation.
4. Each portfolio manager shall submit to the head of PMFA a written summary of any proposed investment. The head of PMFA will review all such investments to determine that a) the investment falls within the portfolio's investment guidelines, including limits on invested capital, b) the investment is consistent with the portfolio's established

strategy, and c) the appropriate due diligence standards are being applied. No such investment may be closed without approval of the head of PMFA or ED/CIO depending upon the nature and amount of the investment as required in the relevant portfolio guidelines. The portfolio manager shall retain responsibility for each investment decision. External managers with delegated investment discretion operate under separate authority. For purposes of this paragraph, “investments” does not include the individual properties within a Real Estate Equity Portfolio separate account tranche, but does include the tranche that holds such properties.

5. Dollar limitations for commitments to funds or other investments do not apply to incidental and customary contractual reinvestment, indemnity, reserve or similar obligations incorporated into the terms of an investment, provided such obligations are not expected to be material.
6. Private equity and venture capital investments in markets designated as “developed” or “emerging” are investments in countries included in the MSCI World Index or the MSCI Emerging Market Index, respectively. Real estate investments in markets designated as “developed” or “emerging” are investments in properties in countries included in the EPRA/NAREIT Developed Index and the EPRA/NAREIT Emerging Market Index, respectively.
7. Funds or commingled investments shall be considered U.S., non-U.S., “developed” or “emerging” based on their primary strategy and not on a look-through basis to the underlying investments.
8. Exposure limits and credit quality exposure limits are to be applied at the time of purchase. The term “exposure” is defined as the net asset value (which includes co-investments) plus unfunded commitments. “Allocations” are calculated as the current net asset value of any existing investment(s) plus the intended subscription.
9. SWIB staff may determine to engage a consultant to review prospective investments, perform operational due diligence on prospective investments, or otherwise assist staff in the evaluation of investment opportunities and/or managers.

#### **M. ~~N.~~ Private Debt Portfolio**

The overall objective of the Private Debt Portfolio (the “Private Debt Portfolio” includes both the Wisconsin Private Debt Portfolio and the Non-Wisconsin Private Debt Portfolio) is to invest funds of the Core Fund in debt instruments consistent with SWIB’s fiduciary responsibilities that are primarily private loans negotiated by SWIB directly or as part of an investor group that includes banks or other institutional investors. Instruments can be fixed or floating rate. The two portfolios are invested as follows:

- Wisconsin Private Debt Portfolio – This portfolio’s investments will consist of loans or fixed income securities issued by companies or entities that are headquartered in Wisconsin, have existing operations in Wisconsin, or intend to apply the proceeds to new business operations in Wisconsin which contribute to the Wisconsin economy.

- Non-Wisconsin Private Debt Portfolio – This portfolio can invest in loans or fixed income securities issued by companies or entities located in or doing business in the United States.

The Private Debt Portfolio may also include securities sold to SWIB pursuant to Rule 144A or in the public fixed income markets. Investments may be made in fixed income instruments and in instruments with both fixed income and equity features.

1. Investments may carry a rating from a national rating agency, the National Association of Insurance Commissioners (NAIC) or SWIB. Notwithstanding the provisions of the General Guidelines above, the head of Private Debt may make investments that carry a “BBB” or better rating from a national rating agency or the NAIC, provided that if the investment carries only a SWIB rating, it shall be approved by the head of PMFA, regardless of size.
2. Investments may be made in below investment grade instruments provided that such investments do not in the aggregate constitute more than 25% of the Private Debt Portfolio’s par value. Any investment below investment grade requires approval from the head of PMFA.
3. The Private Debt Portfolio’s aggregate issuer limits shall be scaled by quality and a purchase may not cause the Private Debt Portfolio’s exposure to a borrower or issuer to exceed the following limits (at par value):

<b>Rating</b>	<b>Maximum Position</b>
U.S. Gov’t/Agency	No Limit
“AA” or higher	\$100 MILLION
“A”	\$75 MILLION
“BBB”	\$50 MILLION
“BB” or less	\$25 MILLION

4. The Private Debt Portfolio shall maintain at minimum a weighted average rating of “BBB”, where “AAA”=4, “AA”=3, “A”=2, “BBB”=1, and “BB” or less =0.
5. Other guideline limitations notwithstanding, the head of Private Debt or other staff authorized by the head of PMFA may modify or waive terms of investments in the portfolio and generally take any and all other actions that are necessary and reasonable to protect, maintain or enhance the value of SWIB’s position in the investments.

## **N. ~~Q.~~ Venture Capital Portfolio**

The SWIB Venture Capital Portfolio (the “Venture Capital Portfolio” includes both the Wisconsin Venture Capital Portfolio and the Non-Wisconsin Venture Capital Portfolio) consists of venture capital or venture capital-related investments and invests as follows:

- The Non-Wisconsin Venture Capital Portfolio shall make venture capital investments on a global basis in limited partnership or other fund vehicles, strategic partnerships, or in co-investments in venture-backed companies or publicly traded companies that were venture backed.

- The Wisconsin Venture Capital Portfolio shall make venture capital investments in limited partnership or other fund vehicles or strategic partnerships that are either located in Wisconsin and/or which target Wisconsin as a primary market or as co-investments in venture-backed companies or publicly traded companies that were venture backed that are located or have operations in Wisconsin.

1. Any other guidelines notwithstanding, the Venture Capital Portfolio commitments are subject to the following approvals:

Approval By:	Head of PMFA	ED/CIO
• Venture Capital Funds	Up to \$65 million	More than \$65 million
• Venture Capital Co-Investments (excluding funds of one)	Up to \$25 million	More than \$25 million
SWIB ownership equal to or greater than 50% of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made)	ED/CIO, provided that notice shall be given to the ED/CIO if ownership of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made) is equal to or greater than 33 1/3%	

2. No more than 45% of the Venture Capital Portfolio’s exposure may be invested outside of the U.S., without the approval of the ED/CIO. No more than 20% of the Venture Capital Portfolio’s exposure may be invested in emerging markets. No more than 5% of the Venture Capital Portfolio’s exposure may be invested in co-investments located in emerging markets.
3. Venture capital investments may be made through funds, strategic partnerships, or co-investments. Venture capital co-investments (excluding funds of one) must be made in one of the following ways:
  - (1) alongside a fund with the same sponsor or manager as a fund in which SWIB is or has been an investor,
  - (2) alongside a fund with the same sponsor or manager as a fund on which SWIB is conducting due diligence and is actively evaluating for a prospective commitment, or
  - (3) as approved by the ED/CIO.
4. From time to time, SWIB may consider formation of fund investments where it may participate both as a general partner and as limited partner.

5. Co-investments in the Venture Capital Portfolio may not make up more than 15% of the Venture Capital Portfolio's exposure.
6. Neither the aggregate exposure to any fund manager or sponsor, nor the aggregate amount of investments in any company, may exceed 20% of the Venture Capital Portfolio's exposure without approval of the ED/CIO.
7. No single co-investment (excluding funds of one) shall exceed 10% of the Venture Capital Portfolio's exposure.
8. The Venture Capital Portfolio may make co-investments in public company securities through private placements, including PIPEs, or other offerings. Co-investments in public company securities shall not exceed 10% of the Venture Capital Portfolio's exposure. For purposes of this guideline, public company securities received via a distribution are not counted and are expected to be sold as soon as reasonably practicable.
9. Subject to the approval thresholds and the restrictions above, the head of Venture Capital or other staff authorized by the head of PMFA may modify or waive terms of investments in the portfolio and generally take any and all other actions that are necessary and reasonable to protect, maintain or enhance the value of SWIB's position in the investments.

**O. ~~P.~~ Private Equity Portfolio**

The Private Equity Portfolio consists of private equity or private equity-related investments, made on a global basis, in limited partnership or other fund vehicles, strategic partnerships, and co-investments in operating or holding companies.

1. Any other guidelines notwithstanding, all portfolio commitments are subject to the following approvals:

	Head of PMFA	ED/CIO
• Funds or Strategic Partnerships	\$250 million or less	Over \$250 million
• Co-Investments	\$75 million or less	Over \$75 million
SWIB ownership equal to or greater than 50% of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made)	ED/CIO, provided that notice shall be given to the ED/CIO if ownership of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made) is equal to or greater than 33 1/3%	

2. The Private Equity Portfolio shall not include investments in venture capital funds.
3. Investments may be made through funds, strategic partnerships, or co-investments. Co-investments must be made in one of the following ways:

- (1) alongside a fund with the same sponsor or manager as a fund in which SWIB is or has been an investor,
  - (2) alongside a fund with the same sponsor or manager as a fund on which SWIB is conducting due diligence and is actively evaluating for a prospective commitment, or
  - (3) as approved by the ED/CIO.
4. Neither the aggregate exposure (including co-investments) to any fund manager or sponsor, nor the aggregate amount of investments in any company, may exceed 10% of the total Private Equity Portfolio's exposure without approval of the ED/CIO.
  5. No more than 45% of the Private Equity Portfolio's exposure may be invested outside of the U.S., without the approval of the ED/CIO. No more than 20% of the Private Equity Portfolio may be invested in emerging markets.
  6. The Private Equity Portfolio may make co-investments in public company securities through private placements, including PIPEs, or other offerings. Co-investments in public company securities shall not exceed 2% of the Private Equity Portfolio's exposure. For purposes of this guideline, public company securities received via a distribution are not counted and are expected to be sold as soon as reasonably practicable.
  7. Other guideline limitations notwithstanding, the head of Private Equity or other staff authorized by the head of PMFA may modify or waive terms of investments in the portfolio and generally take any and all other actions that are necessary and reasonable to protect, maintain or enhance the value of SWIB's position in the investments.

**P. ~~Q.~~ Real Estate Equity Portfolio Guidelines**

The Real Estate Equity Portfolio contains investments in a broad range of real estate and real estate-related assets, including equity and debt investments, either solely, or through investment vehicles and structures such as public or private Real Estate Investment Trusts (REITs), public or private real estate company securities, limited liability corporations, limited partnerships, joint ventures, separate accounts or co-investment vehicles. Investment guidelines and soft parameters for Real Estate shall be applied, on an invested basis, to the aggregate composition of the Real Estate Equity Portfolio (except that all REIT portfolios shall be included in the aggregate as Core holdings).

All portfolio commitments are subject to the following approvals:

	Head of PMFA	ED/CIO
Commingled Fund	\$250 million or less	Over \$250 million
Core - Separate Account*	\$300 million or less	Over \$300 million
Non-Core – Separate Account*	\$200 million or less	Over \$200 million

\*With respect to a separate account tranche, approval is required for the tranche, and not for individual investments within the tranche.

1. Aggregate exposure (including co-investments) to any commingled fund manager or sponsor may not exceed 20% of the Real Estate Equity Portfolio's exposure without approval of the ED/CIO. This limit does not apply to real estate investments for which SWIB has sole discretion to select, retain, and terminate manager(s) and/or advisor(s) without cause.
2. Aggregate direct public REIT and real estate company stock holdings (excluding underlying commingled fund holdings and externally managed REIT Portfolios) may not exceed 15% of the Real Estate Equity Portfolio's exposure and portfolio investments in any one public REIT or company may not exceed 3% of the Real Estate Equity Portfolio's exposure. SWIB's direct ownership position in any public REIT or company may not exceed 20% of outstanding voting equity, without ED/CIO approval. Any externally managed REIT portfolio(s) will be managed under separate authority, with guidelines set out in the management agreement(s) between SWIB and the selected manager(s).
3. No more than 45% of the Real Estate Equity Portfolio's exposure may be invested outside the U.S., without the approval of the ED/CIO. No more than 20% of the Real Estate Equity Portfolio's exposure may be invested in emerging markets, and no more than 10% of the Real Estate Equity Portfolio's exposure may be invested in separate accounts invested in emerging markets.
4. Other guideline limitations notwithstanding, the head of Real Estate or other staff authorized by the head of PMFA may: modify or waive terms of investments in the portfolio, including without limitation mortgages and leases on real estate in the portfolio; enter into new mortgages and leases; execute deeds and bills of sale; make expenditures for maintenance and improvements; grant easements; hire consultants, service providers, real estate advisors and property managers; and generally take any and all other actions that are necessary and reasonable to protect, maintain or enhance investment value of SWIB's position in the investments.
5. Prior to funding a direct investment (including a property within a separate account tranche) where real property is a material component, the property shall be evaluated for the presence of environmental and code compliance issues. If environmental issues that require action by governmental authorities exist, then funding shall not occur until an adequate remediation program is in place. If code compliance issues exist, then an adequate plan to bring the property into compliance shall be in place.
6. SWIB may not initiate improvement or development of real property owned or controlled by SWIB without making provisions for compliance with applicable Federal, state and local codes and ordinances.

**Q. ~~R.~~ Current Return Portfolio**

The Current Return Portfolio consists of current return or certain equity-related investments, made on a global basis, in limited partnership or other fund vehicles, strategic partnerships, and co-investments in operating or holding companies. Investments may be made in debt instruments and in instruments with both current pay and equity features.

1. Any other guidelines notwithstanding, all portfolio commitments are subject to the following approvals:

	Head of PMFA	ED/CIO
• Funds or Strategic Partnerships	\$250 million or less	Over \$250 million
• Co-Investments	\$75 million or less	Over \$75 million
SWIB ownership equal to or greater than 50% of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made)	ED/CIO, provided that notice shall be given to the ED/CIO if ownership of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made) is equal to or greater than 33 1/3%	

2. Investments may be made through funds, strategic partnerships, or co-investments. Co-investments must be made in one of the following ways:
  - (1) alongside a fund with the same sponsor or manager as a fund in which SWIB is or has been an investor;
  - (2) alongside a fund with the same sponsor or manager as a fund on which SWIB is conducting due diligence and is actively evaluating for a prospective commitment; or
  - (3) as approved by the ED/CIO.
3. Neither the aggregate exposure (including co-investments) to any fund manager or sponsor, nor the aggregate amount of investments in any company, may exceed 25% of the Current Return Portfolio's exposure without approval of the ED/CIO.
4. No more than 45% of the Current Return Portfolio's exposure may be invested outside of the U.S., without the approval of the ED/CIO. No more than 20% of the Current Return Portfolio may be invested in emerging markets.
5. The Current Return Portfolio may make co-investments in public company securities through private placements or other offerings. Co-investments in public company securities shall not exceed 2% of the Current Return Portfolio's exposure. For purposes of this guideline, public company securities received via a distribution are not counted and are expected to be sold as soon as reasonably practicable.
6. Other guideline limitations notwithstanding, the head of Private Equity or other staff authorized by the head of PMFA may modify or waive terms of investments in the portfolio and generally take any and all other actions that are necessary and reasonable to protect, maintain or enhance the value of SWIB's position in the investments.

**R. ~~S.~~ Hedge Fund Portfolio**

The Hedge Fund Portfolio ("HF Portfolio") will be comprised primarily of direct investments in hedge funds and is intended to generate a low-beta, alpha-oriented return stream.

1. The HF Portfolio will be comprised of the following investment vehicles:

- a. *Direct Investments or Fund-of-Funds*: SWIB intends for its portfolio to be comprised primarily of direct investments in hedge funds rather than fund-of-funds vehicles that use an intermediary investment advisor(s) to select and allocate to hedge funds through a commingled fund. SWIB may make investments in fund-of-fund vehicles, as may be deemed appropriate by Funds Alpha staff and otherwise approved hereunder.
- b. *Hedge Funds or Separately Managed Accounts (“SMAs”)*: Investments can be made in limited liability partnerships with other investors or, in some cases depending upon the manager and size of investment, in separately managed accounts. SWIB expects most investments will be in limited liability vehicles. SWIB may invest via SMAs if it is in the best interest of SWIB to do so.

2. Hedge Fund Investment Strategies:

- a. *Relative Value* – strategies that seek to take advantage of price differentials by buying and selling different yet related securities. Relative value strategies include, but are not limited to, fixed income arbitrage, insurance linked, quantitative strategies, merger arbitrage, convertible arbitrage, and volatility-related investments.
- b. *Credit* - long/short and event driven investment strategies to various fixed-income instruments including bank loans, corporate, government bonds, distressed debt, and securitized credit.
- c. *Equity Long/Short* – long and short investments in publicly traded stocks and related securities either on a discretionary or systematic basis.
- d. *Tactical Trading* – global investments in indexes, commodities, interest rates, and currencies and, in each case, their derivatives as a result of relative value or directional forecasts from a systematic or discretionary approach.
- e. *Multi-Strategy* – funds seek to maximize risk-adjusted returns by investing in a variety of underlying investment strategies. They often employ flexibility in terms of capital, aiming to allocate dynamically to the best opportunities and shifting resources to where they are most needed.
- f. *Specialty Finance* - broad collection of lending strategies which typically have private, customized structures with a front ended cash flow profile at the portfolio level, short duration, and asset backed collateral.
- g. *Special Opportunity Investments & Coinvests*– SWIB may invest a portion of its portfolio in special opportunity investments, which may include: interests in the equity or revenues of hedge fund managers, co-investments, or external manager “best ideas” opportunities.

The HF Portfolio has the following target weightings and ranges to the individual hedge fund strategies:

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	<u>Target Allocation</u>	<u>Target Maximum</u>
Relative Value	20%	40%
Credit	10%	30%
Equity Long/Short	20%	30%
Tactical Trading	10%	30%
Multi-strategy	25%	50%
Specialty Finance	10%	15%
Special Opportunity Investments	<u>5%</u>	15%
	100%	

3. Approvals: HF Portfolio allocations are subject to the following approvals:

	Head of PMFA	ED/CIO
<ul style="list-style-type: none"> <li>Core</li> </ul>	Up to \$300 million aggregated	More than \$300 million
<ul style="list-style-type: none"> <li>Special Opp/ Co-invest</li> </ul>	Up to \$75 million aggregated	More than \$75 million
SWIB ownership equal to or greater than 50% of an individual fund, calculated at the master fund level (excluding funds of one and a fund/vehicle through which a co-investment is made)	ED/CIO, provided that notice shall be given to the ED/CIO if ownership of an individual fund (excluding funds of one and a fund/vehicle through which a co-investment is made) is equal to or greater than 33 1/3%	

- The aggregate exposure to any hedge fund manager or sponsor (including co-investments) may not exceed 15% of the total HF Portfolio's exposure without approval of the ED/CIO.
- Other guideline limitations notwithstanding, the head of Funds Alpha or other staff authorized by the head of PMFA may modify or waive terms of investments in the portfolio and generally take any and all other actions that are necessary and reasonable to protect, maintain, or enhance the value of SWIB's position in the investments.
- All redemptions, terminations or reductions of capital will be at the discretion of the Funds Alpha Manager and the head of PMFA.

#### S. ~~T.~~ Beta One Portfolio

The Beta One Portfolio is comprised primarily of direct investments in strategies of external managers that are intended to generate both (1) the total return (or beta of one) of a SWIB policy benchmark and (2) an excess return (or alpha) over the benchmark through active security

selection. Tracking error measures divergence around the given benchmark. In comparison, SWIB’s external hedge fund portfolio is designed to deliver only an excess return or alpha. This section does not govern passive external managers which the Asset and Risk Allocation Division oversees and monitors.

1. Investments in Beta One External Managers will be comprised of the following investment vehicles:
  - a. *Separately Managed Accounts (“SMAs”)*: in which external managers direct positioning but the assets reside at SWIB’s custodial bank.
  - b. *Commingled Investments or Fund Investments*: in which SWIB has a percentage ownership in limited liability partnerships or other structures alongside other investors or in a fund-of-one structure where SWIB is the sole investor. Assets reside at the manager’s custodial bank.
2. Investment Strategies and Broad Guidelines for Beta One External Managers:
  - a. *Equities* – strategies will be comprised of various fundamental, quantitative and other approaches intended to produce an active return above the respective benchmarks. Strategies will be invested in traditional long only portfolios, active extension formats (i.e. 130/30, 150/50) and other public equity securities approaches across various styles, geographies and market cap weights. A limited use of shorting (up to 80%) may be used in the active extension format in non-SMAs.
  - b. *Fixed Income* – strategies will be comprised of various fundamental, quantitative, and other approaches intended to produce an active return above the respective benchmarks. Strategies will primarily be invested in portfolios across the credit quality spectrum, across geographies, including emerging and frontier market debt, across structures (e.g., asset-backed securities, corporate debentures, etc.) Individual manager guidelines may allow shorting of cash bonds. Derivatives may be used (long or short) for both hedging and investment purposes and will be set forth in the individual manager guidelines.
  - c. Notwithstanding any shorting permitted in (a) above, pursuant to SWIB’s policies, the investment guidelines for SMAs will prohibit the Beta One External Managers from shorting any equity securities and from purchasing equity securities in secondary offerings.
3. Any use of derivatives, leverage, and shorting allowed will be incorporated into the ex-ante risk assessments and active risk contributions.
4. Approvals: Beta One External Manager allocations are subject to the following approvals:

Investment	Head of PMFA	ED/CIO
Beta One Fixed Income	Up to \$1.8 billion	More than \$1.8 billion
Beta One Equity	Up to \$1 billion	More than \$1 billion

Includes all Funds Alpha investments aggregated with the Manager, regardless of vehicle, strategy or portfolio.

5. Other guideline limitations notwithstanding, the head of Funds Alpha or other staff authorized by the head of PMFA may modify, amend or waive terms of Beta One Manager investment management agreements and generally take any and all other actions that are necessary and reasonable to protect, maintain, or enhance the value of SWIB's position in the investments.
6. All redemptions, terminations or reductions of capital will be at the discretion of the head of Funds Alpha and the head of PMFA in consultation with the head of ARA for policy benchmark exposure consideration.
7. Notwithstanding the above discretion regarding redemptions, terminations or reductions, if the Risk Management Division determines that certain risk attributes in the context of the total Core Fund or the aggregate Beta One Portfolio are undesirable for the Core Fund, Variable Fund or the aggregate portfolio, then the head of Risk Management may recommend redemptions, terminations or reductions to portfolio exposures. With the ED/CIO's concurrence, the head of Funds Alpha will make the changes as recommended by the head of Risk Management.

#### **T. ~~U~~-Private Markets and Funds Alpha Overage Portfolios**

Portfolios may be established at the asset class level for private equity, co-investment, real estate, venture capital, hedge fund, and private debt asset classes to provide for (i) excess exposure to certain investment ideas where the sizing of the investment requires it to be held, in part, outside of an individual internal portfolio or (ii) hedging transactions using public or private securities. In each case, a primary investment must be made by the relevant private markets or hedge fund portfolio with the excess exposure or hedging transaction being allocated to an overage portfolio. The relevant PMFA strategy head will be responsible for portfolio oversight and monitoring of the investment, including the securities in the overage portfolio.

These portfolios may also be used to express investment strategies and ideas that do not fit clearly in any of the private markets or Funds Alpha portfolios but are attractive from a risk/return perspective. In such cases, no primary investment will be made in the existing private markets portfolios, and the ED/CIO will designate a portfolio manager that will be responsible for portfolio oversight and monitoring.

These portfolios may invest in (1) any instrument approved for the relevant private markets asset class portfolios described elsewhere in these guidelines, and (2) any other public or private securities or derivatives approved for trading by SWIB solely for hedging purposes. Each investment idea expressed in the portfolios shall be approved by the ED/CIO with the recommendation of the head of PMFA. The ARA Division is responsible for reporting on any approved investment to the Investment Committee on a monthly basis. Other governance, monitoring, compliance or reporting for the investment may also be specified in the approval. Portfolios will not have a separate benchmark or risk target, but will be included within the benchmark and soft risk parameters for the applicable aggregated asset class, portfolio, or Core

Fund, as applicable and as approved at the time of the investment. If the investment will use active risk assigned to exposure management, it will be noted in the investment approval.

## **VII. EXTERNAL MANAGEMENT**

Portfolios may be managed internally by SWIB investment professionals or externally by money management firms. In making the decision on how the portfolios will be managed, SWIB compares the resources, expertise, diversification benefits, and cost of internal management versus external management. If the decision is made to manage the portfolios externally, SWIB will determine whether a separate account or commingled fund best suits SWIB's needs.

External active and passive managers operate under contractual investment guidelines approved by SWIB's investment management staff.

## **APPENDIX 1 - APPROVED EXCHANGES**

### **Approved Exchanges for Derivatives Trading as of September 23, 2025\***

Australian Securities Exchange (ASX)  
BOX Exchange  
CBOE Exchanges  
CME Group Exchanges  
London Stock Exchange  
Eurex Exchanges  
Euronext Exchanges  
ICE Futures Exchanges  
Japan Exchange Group  
Nasdaq Exchanges  
NYSE Exchanges  
TMX Group

\*Approved exchanges shall include any and all exchanges that may be acquired by, merged with or otherwise reorganized with or into, or any subset of, any of the above-listed exchanges subsequent to the date above provided that such exchange continues to clear through a Qualifying Central Counterparty (QCCP). This list may be updated for such organizational or name changes from time to time by Legal & Compliance without any additional action of the Investment Committee, and all additions or changes shall be deemed Approved Exchanges for purposes of the WRS Investment Committee Investment Guidelines effective as of the date of such acquisition, merger or reorganization. Periodically, Compliance shall provide notice to the Investment Committee if there have been any such changes to the list.

The Multi-Strat and Exposure Management Portfolios are approved to trade on any of the above exchanges and any other exchange whose clearing house is a Qualifying Central Counterparty (QCCP) as defined by the Bank for International Settlement (BIS).

**APPENDIX 2 - SOFT RISK PARAMETERS**

**SOFT RISK PARAMETERS – ASSET CLASS AND PORTFOLIO**

<b>PORTFOLIO ASSET CLASS CHARACTERISTIC</b>	<b>ASSET CLASS</b>	<b>DISCUSSION TRIGGER</b>
Asset Class Exposure*	Core Fund	
	Global Equities	Target ± 4.6%
	EM Equities	Target ± 2.8%
	Small Cap	Target ± 4.9%
	EAFE Small Cap	Target ± 4.3%
	U.S. Inv Grade	Target ± 4.8%
	High Yield and Levered Loans	Target ± 5.1%
	EM Debt	Target ± 5.6%
	Variable Fund	
	U.S. Equity	Target ± 5.0%
	Int'l Equity	Target ± 5.0%
*Post-Corridor Treatment		
Maximum Small Cap Exposure	CTF Domestic Public Equities	2.75x Benchmark
	VTF Domestic Public Equities	2.75x Benchmark
Ex Ante Tracking Error	Public Equities	0.75% - 2.25%
	Public Fixed	0.4% - 1.2%
	Core Fund	0.6% - 1.8%
	Variable Fund	<del>0.3</del> 0.0% - 0.9%
Counterparty Exposure (internal and external separate account portfolios)	WRS (Core and Variable Funds)	5 bp exposure (net of collateral, if any) to a single counterparty
Duration	Public Fixed	+/- 1 year of Benchmark

## ACTIVE/INDEXED EQUITIES

Minimum Number of Holdings

Small Cap 100 Long

Ex Ante Tracking Error

Passives (Core Fund and Variable Fund Consolidation):

MSCI US 10 bp annualized

MSCI ex US 20 bp annualized

MSCI US Small Cap 30 bp annualized

Small Cap ~~1.75% - 5.25%~~ 2% - 6%

Maximum EM Active Risk Exposure

Small Cap Emerging Markets Tracking Error Contribution of 20%

Maximum Convertible Bond Issues

Small Cap 0

Maximum Private Placements

Small Cap 0

Single Name Concentration

Small Cap Benchmark weight  $\pm$  2%

Maximum ETF Exposure

Small Cap 15% of portfolio value

Maximum Company Ownership  
(Excluding ETFs) (L/S)

Small Cap 3% of outstanding

Sum of Top Ten Holdings (L/S)  
(Active Weight)

Small Cap 10% of portfolio value

P/E Ratio

Small Cap 50%-150% of Benchmark

Maximum Sector Exposure

Small Cap Benchmark weight  $\pm$ 10%

Maximum Cash

Passives 1% in unequitized cash

Small Cap 5%

## FIXED INCOME

Duration	IG Credit	+/- 1 year of assigned Benchmark
	MBS	+/- 1 year of assigned Benchmark
	<del>Long Treasury</del>	<del>+/- 2 years of assigned Benchmark</del>
	High Yield	+/- 2 years of assigned Benchmark
Maximum Corporate Industry Sector Exposure	IG Credit	Greater of 10% or 3 x Benchmark
Ex Ante Tracking Error	IG Credit	1.5%
	MBS	3.0%
	High Yield	3.0%
	Lev Loans	3.0%
	<del>Long Treasury</del>	<del>1.5%</del>
Maximum Equity Exposure	TBA Strategy	15%
	High Yield	5% of portfolio value
	Lev Loans	5% of portfolio value
Maximum Centrally Arranged Leverage	Fixed Income Portfolios	9% of aggregate market value

## MULTI-STRAT

Ex ante volatility (tracking error) range	Multi-Strat	<del>35%</del> to <del>814%</del> , measured with a trailing two-year risk sampling period
Ex-Ante Equity Beta		
Ex-Ante Spread Beta	Multi-Strat	Range of <del>-0.3</del> <a href="#">\$750,000,000</a> to <del>+0.3</del> <a href="#">\$750,000,000 of asset equivalent exposure</a> with a target of zero over a market cycle. This is measured ex ante with a trailing two-year risk sampling period
Ex-Ante Rates Beta		
<del>Ex-Ante FX Carry Beta</del>		

## PRIVATE MARKETS & FUNDS ALPHA

Maximum Co-Investments	Private Equity	30% of core Private Equity Portfolio for Private Equity Co-Investments
		30% of Current Return Portfolio for Current Return Co-Investments
Maximum Co-Investments alongside funds with the same sponsor or	Private Equity	5% of core Private Equity Portfolio for Private Equity Co-Investments

manager as a fund on which SWIB was conducting due diligence and actively evaluating for a prospective commitment at the time of co-investment <sup>4</sup>	Venture Capital	5% of Current Return Portfolio for Current Return Co-Investments 5% of Venture Capital Portfolio for Venture Capital Co-Investments
Maximum Venture Capital Exposure	Venture Capital	25% of sum of Private Equity, Current Return, Private Debt and Venture Capital
Maximum Development Risk (Direct Holdings Only)	Real Estate	10%
Maximum Single Property Type Exposure = Quarterly	Real Estate	50%
Minimum Core Holdings (Including REIT portfolios)	Real Estate	50%
Maximum Value Holdings	Real Estate	30%
Maximum Opportunistic Holdings	Real Estate	30%
Maximum Core Portfolio Leverage	Real Estate	50%
Maximum Core Fund/Deal Leverage (Must be non-recourse to SWIB)	Real Estate	65%
Maximum Real Estate Equity Portfolio Leverage	Real Estate	60%
Maximum Holdings with Leverage > 80%	Real Estate	10%
Maximum Debt Holdings	Real Estate	25%
Ex ante volatility (tracking error) Range	Hedge Fund	2.5% to 6.5%, measured with a trailing two-year risk sampling period
	Beta One Equity	0.8% to 2.0%
	Beta One Fixed Income	0.8% to 2.0%
Equity Delta to the S&P 500 Range	Hedge Fund	-0.3 to +0.3 (target of zero) over a market cycle measured ex ante with a trailing two-year risk sampling period
Target Beta Range	Beta One Equity	0.8 to 1.2 (target of 1.0) (CTF + VTF)

<sup>4</sup> If SWIB subsequently commits to a limited partnership or other fund vehicle of the sponsor or manager, then such co-investment shall no longer be included for purposes of calculating this soft parameter.

	Beta One Fixed Income	0.8 to 1.2 (target of 1.0)
Maximum one-year annual Conditional Value at Risk (CVaR)	Hedge Fund	7% based on trailing two-year risk sampling period
Maximum Hedge Fund Active Risk Contribution	Hedge Fund	6.0 bps of Core Fund active risk
Maximum General Partner/Investment Manager Portfolio Concentration	Hedge Fund	12%
	Beta One	25% (CTF+VTF)

**APPENDIX 3 – CTF AND VTF BENCHMARKS**  
**State of Wisconsin Investment Board**  
**Target State Benchmarks ~~2025~~2026<sup>1</sup>**

<b>Core Trust Fund Benchmark<sup>2</sup></b>		
	<b>Current Benchmark</b>	
Public Equity	<del>38</del> 36% MSCI ACWI Investable Market Index (IMI) ex China + China All Shares Special Weight	- Current and previous benchmark asset classes are weighted by asset class strategic target weights - Current Benchmark updated 4/30/2012 to include Cash, which reflects leverage
Public Fixed Income	27% Fixed Blend of Eight Components <sup>3</sup>	
Inflation Sensitive	19% Bloomberg U.S. Treasury Inflation-Linked Bond Index	
Private Equity/Debt	20% Roll-Up of Five Components <sup>4</sup>	
Real Estate	8% NCREIF Open End Diversified Core Equity (ODCE)	
Cash	( <del>12</del> 10%) 3 Month T-Bill Yield + 50bps	
Total	100%	

<b>Variable Trust Fund Benchmark</b>		
	<b>Current Benchmark</b>	
Domestic Equities	70% MSCI USA Investable Market Index	
International Equities	30% MSCI All Country World Index (ACWI) ex US Custom Net Index	
Total	100%	

Note: Roll-Up refers to the market-weighted aggregation of benchmark components or indices, based on SWIB’s actual market exposures.

<sup>1</sup> Reflects target weights under the ~~2025~~2026 Asset Allocation implementation plan as of ~~12/31/2024~~12/31/2025.

<sup>2</sup> The major asset class weights are established through the annual asset allocation exercise. Private Equity/Debt weights float between 12% and 28% and Real Estate weights float between 4% and 12%. The Private Equity/Debt excess weights are taken from Public Equities and the Real Estate excess weights are taken 50% from Public Equities and 50% from Public Fixed Income.

<sup>3</sup> Public Fixed Income Benchmark: Fixed Blend of Eight Components  
~~24.00~~28.00% Bloomberg U.S. Treasury Index  
 24.00% Bloomberg U.S. Credit Index  
 20.00% ICE BofA BB-B US High Yield Net of Transaction Cost Index  
 10.00% Morningstar LSTA U.S. Leveraged Loan 100 Index  
 8.00% Bloomberg Mortgage-Backed Securities Index  
 5.00% JPM EMBI Global Diversified  
 5.00% JPM GBI-EM Diversified  
~~4.00%~~ Bloomberg U.S. Treasury Long Index

<sup>4</sup> Private Equity/Debt Benchmark: Roll-Up of Five Components  
 Component One: State Street Private Equity Index (SSPEI) – All Regions  
 Component Two: SSPEI Venture Capital – U.S. Region  
 Component Three: Private Equity Legacy (SW050300) Actual Portfolio Returns  
 Component Four: Bloomberg Duration-Adjusted Baa Corporate plus 20 basis points  
 Component Five: SSPEI Private Debt – All Regions

Effective 1/1/2010, the tax treatment of the MSCI benchmark updated to a custom net-of-tax benchmark based on SWIB-specific tax treatment.

**STATE OF WISCONSIN INVESTMENT BOARD**  
*Investment Committee Meeting–Open Session*

**Tuesday, November 25, 2025**

Offices of the Investment Board  
4703 Madison Yards Way, Madison, Wisconsin

**Committee Members Present:** Edwin Denson, Executive Director/Chief Investment Officer (Chair)  
Anne-Marie Fink, Private Markets & Funds Alpha–Chief Investment Officer  
Todd Mattina, Head Economist & Asset and Risk Allocation Chief Investment Officer  
Derek Drummond, Head of Funds Alpha  
Diane Linn, Senior Portfolio Manager–Multi-Asset Strategies  
Lin Maung, Senior Portfolio Manager–Private Equity  
Chase Nicholson, Senior Portfolio Manager–Multi-Asset Strategies  
Jason Rector, Senior Portfolio Manager–Funds Alpha  
Mike Shearer, Head of Fixed Income Strategies  
Nick Stanton, Head of Multi-Asset Strategies  
Ivy Zhang, Senior Portfolio Manager–Asset & Risk Allocation  
  
Eric Barber, Chief Legal Counsel (non-voting)  
Hassan Chehime, Head of Risk Management (non-voting)

***Also in Attendance:***

J. Michael Collins, Trustee  
Robert Scott, Trustee  
John Voelker, Trustee  
Kevin Blank, Senior Analyst–Funds Alpha  
Brandon Brickner, Head of Internal Audit  
Kate Burkart-Paulson, Senior Legal Counsel  
John Burkhartzmeyer, Senior Trader  
Sara Chandler, Chief of Staff & Strategy  
Bridget Chen, Portfolio Manager–MBS  
Christian Comito, Senior Portfolio Manager–MBS  
Tunc Dayioglu, Senior Portfolio Manager–Funds Alpha  
Roger Ding, Senior Portfolio Manager–Multi-Asset Strategies  
Jack Drew, Trader  
Trey Edgerle, Compliance Analyst  
Tom Freeman, Director of Quantamental Research  
Jameson Greenfield, Chief Financial Officer  
Dan Gyorog, Internal Auditor  
Syed Haider, Quantitative Analyst–Multi-Asset Strategies  
Sean Hamner, Legal Counsel  
Logan Hash, Investment Associate–Funds Alpha  
Tori Hassler, Internal Auditor  
Brian Heimsoth, Senior Portfolio Manager–Asset & Risk Allocation  
Vince Janecky, Internal Auditor Data Analyst  
Phil Johnson, Senior Portfolio Manager–High Yield and Leveraged Loans

Salah Khalaf, Senior Portfolio Engineer–Private Markets & Funds Alpha  
Jason Kowalke, PMFA Operations Manager  
Jason Krueger, Compliance Analyst  
Alex Kubiak, Investment Operations Analyst  
Katie Kuryla, Senior Paralegal/Records Specialist  
Lisa Lange, Director of Compliance & Senior Legal Counsel  
Shan Lo, Senior Portfolio Manager–Multi-Asset Strategies  
Jon Loboda, Performance Measurement Operations Manager  
Jeff Lucas, Senior Portfolio Manager–Investment Grade Fixed Income  
Bill Luetzow, Legal Counsel  
Michael Mandarino, Senior Analyst–High Yield and Leveraged Loans  
Matt Marek, Portfolio Engineer–Asset & Risk Allocation  
Ed Martinez, PMFA Business Director  
David Meyer, Senior Trader  
Joy Mukherjee, Senior Portfolio Manager–U.S. Small Cap Strategy  
Sunil Nair, Operational, Financing & Counterparty Risk Director  
Scott Nichols, Head of Trading  
Matt Notzon, Performance Analyst  
Cefe Quesada, Chief Technology Officer  
Anand Rakesh, Director of Risk Analytics & Financial Engineering  
Systems  
Vishnu Reddy, Senior Trader  
Andrea Ruiz, Senior Portfolio Manager–Liquidity, Inflation & Rates  
Mgmt.  
Cora Shi, Senior Analyst–Asset & Risk Allocation  
Gabriel Souza, Investment Operations Analyst  
Mark Stockley, Senior Trader  
Lyle Tang, Quantitative Analyst  
Mark Taylor, Senior Portfolio Manager–Quantitative Research  
Matt Terpstra, Internal Auditor  
Rob Thornton, ARA Business Director  
Leif Thybony, Senior Portfolio Manager–High Yield and Leveraged Loans  
Dawn Tuescher, Executive Administrative Assistant  
Ping Wong, Portfolio Manager–Liquidity, Inflation & Rates Mgmt.  
Sarah Zhao, Investment Operations Analyst  
Marc Gesell, Verus Advisory  
Joe Nankof, NEPC  
Eileen Neill, Verus Advisory  
(Some individuals may have attended only portions of the meeting.)

## **OPEN SESSION**

With a quorum present, Edwin Denson, Chair of the Investment Committee, called the meeting to order at 1:00 p.m.

### **1. Approval of the Minutes**

Mr. Denson asked if there were any comments on either the open or closed session minutes of the October 28, 2025 Investment Committee (“Committee”) meeting. Hearing no

comments, Mr. Denson stated that the Committee could approve both the open and closed session minutes in open session.

**Motion:** A motion was made by Mr. Mattina and seconded by Mr. Nicholson to approve both the open session and the closed session minutes of October 28, 2025, as presented. The motion passed unanimously.

## **2. Amendments to SWIB Investment Committee Charter**

Eric Barber, Chief Legal Counsel, reviewed the proposed amendments to the *SWIB Investment Committee Charter*, included on pages 11-14 in the meeting materials. He noted that the revisions update the membership of the Committee in line with the upcoming changes to SWIB's organizational structure, effective January 1, 2026, and include minor changes regarding annual investment strategy reviews.

**Motion:** A motion was made by Mr. Shearer and seconded by Mr. Stanton to recommend to the Board of Trustees that it adopt and approve the changes to the *SWIB Investment Committee Charter*, as shown in the Committee materials. The motion passed unanimously.

## **3. 2026 Asset Allocation Recommendations**

Todd Mattina, Head Economist & Asset and Risk Allocation Chief Investment Officer, and Joe Nankof, NEPC, presented the *Asset Allocation Review*, included on pages 15-89 in the meeting materials. Mr. Mattina noted that no material changes were made from the draft recommendations discussed with the Committee in September and the Board of Trustees at the October Workshop. He reviewed the proposed 2026 asset allocation recommendations for the Core Trust Fund ("CTF") **(a)** to decrease the public equities target by 2%, matched with a 2% decrease in the policy leverage target, and **(b)** within the public fixed income allocation, to eliminate the long Treasury allocation and increase U.S. Treasuries. He also reviewed the 2026 recommendation for the Variable Trust Fund ("VTF") to replace the existing target active risk of 60 basis points ("bps") plus or minus 30 bps with a range of zero to 90 bps.

Mr. Mattina and Mr. Nankof then led the Committee's discussion of the recommendations and the market assumptions upon which they were based, in which they **(a)** noted that the analysis incorporates preliminary forward-looking stress-testing results from the Wisconsin Retirement System's actuary, **(b)** reviewed 10- and 30-year return expectations for various asset classes, including year-over-year changes to those expected returns, **(c)** highlighted that the private markets allocation remains in line with the long-term pacing plan and remains within target allocation ranges, **(d)** discussed the current and recommended asset allocation relative to hypothetical model portfolios with respect to 10- and 30-year returns and the transaction costs of implementing different portfolios, and **(e)** for the VTF, highlighted that the broader active risk target range would provide more flexibility for passive investing and reflects the multi-year decline in the VTF's active risk profile.

**Motion:** A motion was made by Mr. Shearer and seconded by Mr. Drummond to approve and to recommend to the Board of Trustees the Asset Allocation Recommendations for 2026, in substantially the form included in the Committee materials. The motion passed unanimously.

#### **4. Annual Benchmark Presentation**

Mr. Nankof, also representing NEPC in its capacity as the Board of Trustees' benchmark consultant, discussed the annual benchmark review. He noted that NEPC completed its annual systematic benchmark review, including meeting with SWIB's investment and performance teams as appropriate, and has no additional benchmark recommendations following the changes that were approved and implemented earlier in the year.

**Motion:** A motion was made by Mr. Mattina and seconded by Ms. Fink to approve and to recommend to the Board of Trustees' Benchmark and Performance Committee the retention of all current benchmarks. The motion passed unanimously.

#### **5. Global Public Market Strategies Division Update**

Nick Stanton, Head of Multi-Asset Strategies, reported on performance from the Global Public Market Strategies division in the *Global Public Market Strategies Quarterly Update, Q3 2025*, included on pages 90-92 in the meeting materials. He commented that six of eight division strategies generated positive relative returns through Q3 2025, and reviewed the performance of the division strategies over the three- and five-year periods.

#### **6. Q3 2025 Quarterly Updates**

##### **A. Fixed Income Strategies**

Mike Shearer, Head of Fixed Income Strategies, presented the *Fixed Income Strategies Review*, included on pages 93-108 in the meeting materials. He commented that the fixed income portfolios continued to have mixed performance in the third quarter, with the investment-grade credit, mortgage-backed securities ("MBS"), and to-be-announced ("TBA") strategies performing well while the high yield and leveraged loans portfolios underperformed. With respect to leveraged loans, he noted the portfolio suffered two credit events during the quarter. He then reviewed the positioning of the strategies, noting that overall the portfolios are modestly long duration and that the removal of the yield curve steepener resulted in lower tracking error in some of the portfolios.

With respect to the fixed income markets generally, Mr. Shearer commented that **(a)** market pricing of expected cumulative Federal Reserve interest rate cuts over the next twelve months continued to be volatile in the third quarter, **(b)** the U.S. Treasury yield curve jumped around in the third quarter but has been relatively unchanged in the first half of the fourth quarter, **(c)** MBS nominal spreads continued to tighten but remain inexpensively priced, and **(d)** higher-tier consumer credit remains strong. Lastly, he confirmed that the portfolios were in compliance with their guidelines in Q3 2025.

##### **B. Small Cap Strategy**

Joy Mukherjee, Senior Portfolio Manager–U.S. Small Cap Strategy, referred to the *U.S. Small Cap Strategy Review*, included on pages 109-117 in the meeting materials. He highlighted that the portfolio outperformed its benchmark by 39 bps year-to-date through Q3, despite a challenging third quarter, and that absolute and relative performance over the three- and five-year periods were positive. Mr. Mukherjee then provided public equity market commentary, noting that **(a)** equity markets were generally up in Q3, with the

performance narrative driven by the “magnificent seven” group of high-performing technology stocks, with meaningful contributions from micro-cap stocks as well, and **(b)** performance was mediocre from the S&P 500 outside of the “magnificent seven,” and **(c)** micro-cap stocks outperformed small cap stocks and the average small-cap fund underperformed. Lastly, Mr. Mukherjee **(i)** provided sector commentary for the small cap portfolio, noting that industrials and consumer staples were the top performing sectors year-to-date, while the materials and financials sectors detracted, and **(ii)** confirmed that the portfolio remained in compliance with its guidelines.

### C. LIRM

Andrea Ruiz, Senior Portfolio Manager–Liquidity, Inflation & Rates Mgmt. (“LIRM”), presented the *Investment Strategies: Liquidity, Inflation and Rates Management* quarterly update, included on pages 118-123 in the meeting materials. With respect to the market, she noted that **(a)** money market fund net assets continued to increase in the third quarter, **(b)** U.S. Treasury bills outstanding rose sharply, and **(c)** the overnight reverse repurchase agreement balance remains low and is expected to stay low due to the increase in U.S. Treasury bill issuance. Ms. Ruiz then reviewed performance for the State Investment Fund (“SIF”), noting that the SIF returned positive absolute and relative performance for the year-to-date, one-, three- and five-year periods, and confirmed that the portfolio remained in compliance with its guidelines.

### D. Multi-Strat

Chase Nicholson, Senior Portfolio Manager–Multi-Asset Strategies, presented the *Multi-Strat Portfolio Review*, included on pages 124-127 in the meeting materials. He reported that the multi-strat portfolio outperformed its benchmark by 133 bps in the third quarter, driven by performance from systematic and fundamental arbitrage strategies, and that the portfolio returned positive absolute and relative performance for the year-to-date, three- and five-year periods. Mr. Nicholson **(a)** discussed the market environment for multi-asset trend systems, and **(b)** confirmed that the portfolio remained in compliance with its guidelines.

## 7. Convene in Closed Session

**Motion:** A motion to go into closed session as authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes to consider confidential strategies for the investment of public funds, including **(a)** the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(b)** the review of specific proprietary investment strategies and investment instruments related to fixed income strategies, small cap equities, LIRM, multi-strat, and exposure management, and **(c)** discussion of the impact of recent events on portfolio positioning, was made by Mr. Stanton and seconded by Mr. Maung.

Mr. Denson called for a roll call vote.

Denson-Aye	Fink-Aye	Mattina-Aye	Drummond-Aye
Linn-Aye	Maung-Aye	Nicholson-Aye	Rector-Aye
Shearer-Aye	Stanton-Aye	Zhang-Aye	

There being eleven ayes and no nays, Mr. Denson declared the motion passed. The

Committee convened in closed session at 1:48 p.m. and reconvened in open session at 4:05 pm.

#### **8. Announcement of Committee Actions Relating to Items Taken Up in Closed Session**

Mr. Denson announced that, while in closed session, the Committee **(i)** reviewed active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(ii)** reviewed specific proprietary investment strategies and investment instruments related to fixed income strategies, small cap equities, LIRM, multi-strat, and exposure management, and **(iii)** discussed the impact of recent events on portfolio positioning.

#### **9. Soft Risk Parameters**

Hassan Chehime, Head of Risk Management, noted that the report *Soft Risk Parameters–Asset Class and Portfolio*, as of October 31, 2025, was included on pages 263-264 in the meeting materials for the Committee’s review. Mr. Chehime noted that there were no new discussion triggers this month and that no discussion triggers had been dropped.

#### **10. Future Meeting Topics**

Mr. Denson noted that draft agendas for the December 18, 2025 and January 27, 2026 Committee meetings were included on pages 265-268 in the meeting materials for the Committee’s review.

#### **11. Adjournment**

**Motion:** A motion to adjourn the meeting was made by Ms. Fink and seconded by Mr. Mattina. The motion passed unanimously, and the meeting adjourned at 4:06 p.m.

Date of Committee Approval: 12/18/25

Signed: /s/ Eric Barber  
Eric Barber, Secretary  
Investment Committee

**STATE OF WISCONSIN INVESTMENT BOARD**  
*Investment Committee Meeting–Open Session*

**Thursday, December 18, 2025**

Offices of the Investment Board  
4703 Madison Yards Way, Madison, Wisconsin

**Committee Members Present:** Edwin Denson, Executive Director/Chief Investment Officer (Chair)  
Anne-Marie Fink, Private Markets & Funds Alpha–Chief Investment Officer  
Todd Mattina, Head Economist & Asset and Risk Allocation Chief Investment Officer  
Derek Drummond, Head of Funds Alpha  
Diane Linn, Senior Portfolio Manager–Multi-Asset Strategies  
Lin Maung, Senior Portfolio Manager–Private Equity  
Chase Nicholson, Senior Portfolio Manager–Multi-Asset Strategies  
Jason Rector, Senior Portfolio Manager–Funds Alpha  
Mike Shearer, Head of Fixed Income Strategies  
Nick Stanton, Head of Multi-Asset Strategies  
Ivy Zhang, Senior Portfolio Manager–Asset & Risk Allocation  
  
Eric Barber, Chief Legal Counsel (non-voting)  
Hassan Chehime, Head of Risk Management (non-voting)  
Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer (non-voting)

**Also in Attendance:** Derek Bloom, Senior Portfolio Manager–Asset & Risk Allocation  
Kate Burkart-Paulson, Senior Legal Counsel  
John Burkhartzmeyer, Senior Trader  
Sara Chandler, Chief of Staff & Strategy  
Christian Comito, Senior Portfolio Manager–MBS  
Tunc Dayioglu, Senior Portfolio Manager–Funds Alpha  
Jack Drew, Trader  
Trey Edgerle, Compliance Analyst  
Greg Fletcher, Performance Director  
Tom Freeman, Director of Quantamental Research  
Megan Gall, Investment Operations Analyst  
Max Garcia, Analyst–Funds Alpha  
Jameson Greenfield, Chief Financial Officer  
Thomas Gregg, PMFA Operations Manager  
Dan Gyorog, Internal Auditor  
Syed Haider, Quantitative Analyst–Multi-Asset Strategies  
Sean Hamner, Legal Counsel  
Logan Hash, Investment Associate–Funds Alpha  
Tori Hassler, Internal Auditor  
Brian Heimsoth, Senior Portfolio Manager–Asset & Risk Allocation  
Vince Janecky, Internal Auditor Data Analyst  
Phil Johnson, Senior Portfolio Manager–High Yield and Leveraged Loans

Ryan Johnston, Senior Analyst–Funds Alpha  
Salah Khalaf, Senior Portfolio Engineer–Private Markets & Funds Alpha  
Jason Kowalke, PMFA Operations Manager  
Dylan Krivoshein, Investment Operations Analyst  
Jason Krueger, Compliance Analyst  
Alex Kubiak, Investment Operations Analyst  
Katie Kuryla, Senior Paralegal/Records Specialist  
Lisa Lange, Director of Compliance & Senior Legal Counsel  
Jon Loboda, Performance Measurement Operations Manager  
Tony Lubarsky, Investment Operations Analyst  
Jeff Lucas, Senior Portfolio Manager–Investment Grade Fixed Income  
Bill Luetzow, Legal Counsel  
Michael Mandarino, Senior Analyst–High Yield and Leveraged Loans  
Matt Marek, Senior Analyst–Asset & Risk Allocation  
Ed Martinez, PMFA Business Director  
Frank Mazzucco, Senior Legal Counsel  
David Meyer, Senior Trader  
Nick Mokha, Portfolio Manager–High Yield and Leveraged Loans  
Scott Nichols, Head of Trading  
Cefe Quesada, Chief Technology Officer  
Anand Rakesh, Director of Risk Analytics & Financial Engineering  
Systems  
Vishnu Reddy, Senior Trader  
Robby Richlen, Analyst–Funds Alpha  
Joe Roth, Transition Management and Portfolio Support Manager  
Harsh Shah, Investment Operations Analyst  
Hannibal Smith, Operational Risk Analyst  
Gabriel Souza, Investment Operations Analyst  
Mark Stockley, Senior Trader  
Lyle Tang, Quantitative Analyst  
Matt Terpstra, Internal Auditor  
Rob Thornton, ARA Business Director  
Leif Thybony, Senior Portfolio Manager–High Yield and Leveraged  
Loans  
Dawn Tuescher, Executive Administrative Assistant  
Sarah Zhao, Investment Operations Analyst  
Eileen Neill, Verus Advisory  
(Some individuals may have attended only portions of the meeting.)

## **OPEN SESSION**

With a quorum present, Todd Mattina, Head Economist & Asset and Risk Allocation Chief Investment Officer, called the meeting to order at 1:02 p.m.

### **1. Approval of the Minutes**

Mr. Mattina asked if there were any comments on either the open or closed session minutes of the November 25, 2025 Investment Committee (“Committee”) meeting. Hearing no

comments, Mr. Mattina stated that the Committee could approve both the open and closed session minutes in open session.

**Motion**: A motion was made by Mr. Nicholson and seconded by Mr. Stanton to approve both the open session and the closed session minutes of November 25, 2025, as presented. The motion passed unanimously.

## **2. Transition Update (Q3 2025)**

Joe Roth, Transition Management and Portfolio Support Manager, presented the *Transition Management Summary, Q3 2025*, included on page 10 in the meeting materials, and reviewed the transition event from the third quarter. The transition, which was managed by BlackRock, effectuated an active-to-passive rebalance of international small cap assets and cost less than expected.

## **3. Convene in Closed Session**

**Motion**: A motion to go into closed session as authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes to consider confidential strategies for the investment of public funds, including **(a)** the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(b)** the review of specific proprietary investment strategies and investment instruments related to asset and risk allocation and exposure management, **(c)** the review of broker information, and **(d)** discussion of the impact of recent events on portfolio positioning, was made by Ms. Fink and seconded by Mr. Nicholson.

Mr. Mattina called for a roll call vote.

Denson-Aye	Fink-Aye	Mattina-Aye	Drummond-Aye
Linn-Aye	Maung-Aye	Nicholson-Aye	Rector-Aye
Shearer-Aye	Stanton-Aye	Zhang-Aye	

There being eleven ayes and no nays, Mr. Mattina declared the motion passed. The Committee convened in closed session at 1:04 p.m. and reconvened in open session at 1:53 p.m.

## **4. Announcement of Committee Actions Relating to Items Taken Up in Closed Session**

Mr. Mattina announced that, while in closed session, the Committee **(i)** reviewed active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(ii)** reviewed specific proprietary investment strategies and investment instruments related to asset and risk allocation and exposure management, **(iii)** reviewed broker information, and **(iv)** discussed of the impact of recent events on portfolio positioning.

## **5. Research Task Force Report**

Nick Stanton, Head of Multi-Asset Strategies, presented the *Research Task Force Update*. He reported on the Research Task Force's recent re-examination of its purpose and goals, which include providing funding for specific data and research projects as well as larger research topics. He discussed plans for improved facilitation of large research topics and the

potential integration of programming between the June Investment Forum and the June Board meeting.

**6. Quarterly Performance Review (Q3 2025)**

Mr. Mattina noted that the *Investment Performance Report*, as of September 30, 2025, was included on pages 93-125 in the meeting materials for the Committee’s information.

**7. Soft Risk Parameters**

Hassan Chehime, Head of Risk Management, noted that the report *Soft Risk Parameters– Asset Class and Portfolio*, as of November 28, 2025, was included on pages 126-127 in the meeting materials for the Committee’s review. Mr. Chehime noted that there were no new discussion triggers this month and that no discussion triggers had been dropped.

**8. Future Meeting Topics**

Mr. Mattina noted that draft agendas for the January 27, 2026 and February 24, 2026 Committee meetings were included on pages 128-131 in the meeting materials for the Committee’s review.

**9. Adjournment**

**Motion:** A motion to adjourn the meeting was made by Mr. Denson and seconded by Ms. Fink. The motion passed unanimously, and the meeting adjourned at 1:59 p.m.

Date of Committee Approval: 01/27/26

Signed: /s/ Eric Barber  
Eric Barber, Secretary  
Investment Committee

**STATE OF WISCONSIN INVESTMENT BOARD**  
***Investment Committee Meeting–Open Session***

**Tuesday, January 27, 2026**

Offices of the Investment Board  
4703 Madison Yards Way, Madison, Wisconsin

**Committee Members Present:** Edwin Denson, Executive Director/Chief Investment Officer (Chair)  
Anne-Marie Fink, Private Markets & Funds Alpha–Chief Investment Officer  
Mike Shearer, Head of Fixed Income Strategies  
Nick Stanton, Head of Multi-Asset Strategies  
Derek Bloom, Senior Portfolio Manager–Asset & Risk Allocation  
Derek Drummond, Head of Funds Alpha  
Jeff Lucas, Senior Portfolio Manager–Fixed Income Strategies  
Sunil Nair, Portfolio Manager–Liquidity Management and Beta Implementation  
Chase Nicholson, Senior Portfolio Manager–Multi-Asset Strategies  
Jason Rector, Senior Portfolio Manager–Funds Alpha  
Andrea Ruiz, Senior Portfolio Manager–Liquidity Management and Beta Implementation  
  
Eric Barber, Chief Legal Counsel (non-voting)  
Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer (non-voting)

**Also in Attendance:** John Voelker, Trustee  
Brandon Brickner, Head of Internal Audit  
Kate Burkart-Paulson, Senior Legal Counsel  
John Burkhartzmeyer, Senior Trader  
Sara Chandler, Chief of Staff & Strategy  
Bridget Chen, Portfolio Manager–MBS  
Christian Comito, Senior Portfolio Manager–MBS  
Tunc Dayioglu, Senior Portfolio Manager–Funds Alpha  
Jack Drew, Trader–High Yield and Leveraged Loans  
Trey Edgerle, Compliance Analyst  
Greg Fletcher, Performance Director  
Tom Freeman, Director of Quantamental Research  
Scott Freundlich, Portfolio Manager–High Yield and Leveraged Loans  
Jameson Greenfield, Chief Financial Officer  
Thomas Gregg, PMFA Operations Manager  
Dan Gyrog, Internal Auditor  
Syed Haider, Quantitative Analyst–Multi-Asset Strategies  
Sean Hamner, Legal Counsel  
Brian Heimsoth, Senior Portfolio Manager–Asset & Risk Allocation  
Vince Janecky, Internal Auditor Data Analyst  
Ryan Johnston, Senior Analyst–Funds Alpha  
Salah Khalaf, Senior Portfolio Engineer–Private Markets & Funds Alpha

Jason Kowalke, PMFA Operations Manager  
Jason Krueger, Compliance Analyst  
Lisa Lange, Director of Compliance & Senior Legal Counsel  
Shan Lo, Senior Portfolio Manager–Multi-Asset Strategies  
Jon Loboda, Performance Measurement Operations Manager  
Bill Luetzow, Legal Counsel  
Michael Mandarino, Senior Analyst–High Yield and Leveraged Loans  
Matt Marek, Senior Analyst–Asset & Risk Allocation  
Lin Maung, Senior Portfolio Manager–Private Equity  
Frank Mazzucco, Senior Legal Counsel  
David Meyer, Senior Trader  
Nick Mokha, Portfolio Manager–High Yield and Leveraged Loans  
Scott Nichols, Head of Trading  
Sarah Noronha, Senior Portfolio Manager–U.S. Small Cap Strategy  
Matt Notzon, Performance Analyst  
Hunter Olson, Analyst–High Yield and Leveraged Loans  
Scott Parrish, Head of Private Equity  
Jeanne Peltier, Head of Human Resources  
Chris Prestigiaco, Head of Private Debt & Venture Capital  
Cefe Quesada, Chief Technology Officer  
Anand Rakesh, Director of Risk Analytics & Financial Engineering  
Systems  
Vishnu Reddy, Senior Trader–MBS  
Robby Richlen, Analyst–Funds Alpha  
Tom Robinson, Head of Corporate Governance  
Jason Rothenberg, Head of Real Estate  
Dan Schally, Analyst–Real Estate  
Harsh Shah, Investment Operations Analyst  
Sam Shibilski, Investment Operations Analyst  
Hannibal Smith, Operational Risk Analyst  
Gabriel Souza, Investment Operations Analyst  
Mike Stamm, Portfolio Manager–Financing & Collateral Management  
Mark Stockley, Senior Trader–High Yield and Leveraged Loans  
Mark Taylor, Senior Portfolio Manager–Quantitative Research  
Matt Terpstra, Internal Auditor  
Rob Thornton, ARA Business Director  
Leif Thybony, Senior Portfolio Manager–High Yield and Leveraged  
Loans  
Dawn Tuescher, Executive Administrative Assistant  
Ping Wong, Portfolio Manager–Liquidity, Inflation & Rates Mgmt.  
Ivy Zhang, Senior Portfolio Manager–Asset & Risk Allocation  
Sarah Zhao, Investment Operations Analyst  
Joe Nankof, NEPC  
(Some individuals may have attended only portions of the meeting.)

## **OPEN SESSION**

With a quorum present, Edwin Denson, Chair of the Investment Committee, called the meeting to order at 1:02 p.m. He welcomed Derek Bloom, Senior Portfolio Manager–Asset

& Risk Allocation, Jeff Lucas, Senior Portfolio Manager–Fixed Income Strategies, Sunil Nair, Portfolio Manager–Liquidity Management and Beta Implementation, and Andrea Ruiz, Senior Portfolio Manager–Liquidity Management and Beta Implementation, to the Investment Committee (“Committee”), and thanked the departing members for their service and contributions to the Committee.

### **1. Approval of the Minutes**

Mr. Denson asked if there were any comments on either the open or closed session minutes of the December 18, 2025, Committee meeting. Hearing no comments, Mr. Denson stated that the Committee could approve both the open and closed session minutes in open session.

**Motion:** A motion was made by Mr. Shearer and seconded by Ms. Fink to approve both the open session and the closed session minutes of December 18, 2025, as presented. The motion passed unanimously.

### **2. Amendments to Investment Committee WRS Investment Guidelines**

Lisa Lange, Director of Compliance and Senior Legal Counsel, discussed the proposed amendments to the *SWIB Investment Committee Wisconsin Retirement System Investment Guidelines*, included on pages 8-53 in the meeting materials. She reported that the proposed revisions correspond to recent overall SWIB changes, including (i) with respect to the Board-approved 2026 asset allocation, the discontinuation of the long Treasuries portfolio and the widening of the active risk target range for the Variable Trust Fund (“VTF”), and (ii) in connection with the relative performance maximum (“RPM”) review, the increases in target tracking error for the small cap and multi-strat portfolios and corresponding changes to their soft risk parameters.

In addition, the proposed revisions reflect the new Liquidity Management and Beta Implementation (“LMBI”) group, the restructuring of the Asset & Risk Allocation (“ARA”) group and the delineation of responsibilities and functions between those groups, including the simplification of both the rebalancing process and the intra-month allocation adjustment process with an increase in the daily limit for such adjustments.

Lastly, Ms. Lange noted the proposed additions to the leverage use policy related to the commercial paper pilot program, which will be managed by LMBI with quarterly reporting to the Committee subject to a maximum of two billion dollars outstanding in the aggregate.

**Motion:** A motion was made by Mr. Nicholson and seconded by Mr. Stanton to approve the proposed amendments to the *SWIB Investment Committee WRS Investment Guidelines*, as presented in the Committee materials. The motion passed unanimously.

### **3. Q4 2025 Quarterly Updates**

#### **A. Funds Alpha**

Derek Drummond, Head of Funds Alpha, presented the *Funds Alpha Q4 2025 Update*, included on pages 54-62 in the meeting materials. He highlighted that the hedge funds and beta one portfolios all generated positive excess value added (“EVA”) for the fourth quarter

as well as the one-, three-, and five-year time periods, with an aggregate of \$820 million in EVA generated in 2025.

Mr. Drummond then provided an update on the fourth quarter performance and the market environment, commenting that **(i)** hedge fund performance was driven by multi-strategy, tactical trading and equity long-short strategies and beta one equity performance saw gains in quantitative strategies and international markets, **(ii)** hedge fund managers are at nearly all-time peak gross leverage but still have conservative directional positioning while looking to capitalize on dispersion and volatility, and **(iii)** U.S. fixed income managers remain at low risk levels and expectations are high for an active new issue calendar in both U.S. credit and emerging market debt. Lastly, Mr. Drummond reviewed the manager environment and factor exposures in the beta one and hedge fund portfolios and confirmed that all portfolios were in compliance with their guidelines for Q4 2025.

## **B. Private Equity & Current Return**

Scott Parrish, Head of Private Equity, presented the *Quarterly Activity Report – Private Equity*, included on pages 63-88 in the meeting materials. He provided a private equity market update for Q4 2025, noting that **(a)** U.S. private equity fundraising dollars and the number of funds both decreased year-over-year in a challenging fundraising environment—the lowest in the last decade, **(b)** purchase price and leverage multiples for 2025 remained steady relative to 2024, **(c)** U.S. private equity deal volume was slightly down while deal value increased in 2025 relative to 2024, **(d)** exit volume and exit value increased year-over-year, **(e)** private equity-backed IPO activity increased in 2025, representing approximately 20% of exit value for the year, **(f)** European fundraising dollars and the number of funds both decreased materially year-over-year, and **(g)** European private equity deal volume and value as well as exit volume and value were all up for 2025 relative to 2024.

Mr. Parrish then reported that, as of December 31, 2025, the market value of the private equity and current return portfolios, excluding the venture capital and private debt portfolios, was approximately \$23.1 billion and made up over 16% of the Core Trust Fund (“CTF”). He commented that distributed capital significantly exceeded capital calls year-to-date, resulting in the first cash-flow-positive year since 2018.

With respect to performance, Mr. Parrish highlighted that **(a)** as of September 30, 2025, the private equity portfolio achieved second quartile performance for vintage years 2014-2022, with first quartile performance for vintage years 2023-2025, and the current return portfolio achieved first or second quartile performance for eight of the eleven vintages, and **(b)** the private equity and current return portfolios outperformed their benchmarks for the one-, three- and five-year time periods. He then discussed **(i)** the portfolios’ contributors and detractors for the fourth quarter by sub-asset class, **(ii)** the portfolios’ sub-asset class diversification, noting the large portion of the portfolio invested in the small- and middle-market space, and **(iii)** public versus private portfolio company exposure, noting that public company exposure remained low. Lastly, Mr. Parrish reviewed the commitments made in

Q4 2025, discussed the portfolio pipeline for investments currently under review, and confirmed that the portfolio remained in compliance with all investment guidelines.

### **C. Private Debt**

Chris Prestigiaco, Head of Private Debt & Venture Capital, presented the *Private Debt Portfolio Investment Committee Quarterly Report*, included on pages 89-102 in the meeting materials. He provided a private debt market update, noting that **(a)** 2025 fundraising reflected a normalization down from peak levels, although still well above pre-2018 activity, **(b)** direct lending and distressed debt remain the preferred sub-strategies within private debt, **(c)** direct lending volume declined year-over year with volume in the fourth quarter the lowest in two years, and **(d)** following rising default rates from 2021 through 2025, forecasters expect default rates to begin declining due to lower interest rates.

Mr. Prestigiaco noted that one loan paid off and four new loans were added during the quarter. He then reviewed the portfolio's **(i)** characteristics, noting that duration, average life, and average coupon all increased slightly quarter-over-quarter, **(ii)** below investment grade ("BIG") holdings are up to 10% of the portfolio, **(iii)** sector mix, which remained slightly underweight industrial relative to the benchmark, and **(iv)** originations within and outside Wisconsin, noting that the non-Wisconsin flow and pipeline continue to be more active than in past quarters.

With respect to performance, Mr. Prestigiaco stated that the portfolio outperformed its benchmark over the one-, three-, and five-year periods. He then reported that there were no problem credits or workouts in the portfolio, confirmed that the portfolio remained in compliance with its guidelines, and discussed the pipeline under review.

### **D. Real Estate**

Jason Rothenberg, Head of Real Estate, presented the *Quarterly Activity Report – Real Estate*, included on pages 103-115 in the meeting materials. He provided a market overview, noting that **(a)** the real estate market is still adjusting to a higher interest rate environment and excess supply in certain sectors, **(b)** with respect to the components of the real estate market's returns, net operating income ("NOI") growth has decelerated over the past year and will be a key factor for returns going forward, **(c)** the retail sector has re-emerged due to strong demand without new supply, and **(d)** return momentum is becoming more dispersed between geographic markets.

Mr. Rothenberg then reviewed the real estate portfolio, noting the portfolio's market value of approximately \$12 billion, which represented 8.5% of the CTF as of December 31, 2025. He commented that the real estate transaction market is starting to improve and the portfolio saw more capital returned in the second half of 2025. He reviewed the portfolio's risk profile, noting the increased opportunities in non-core spaces, as well as its exposure by market, noting the migration of institutional real estate beyond the core gateway cities into the secondary and tertiary markets.

Mr. Rothenberg also reviewed the portfolio's performance, **(i)** noting outperformance relative to the benchmark for the three-, five-, and ten-year periods but negative relative performance for the one-year period, and **(ii)** commenting on strong performance from data centers and recent underperformance from the office and diversified sub-strategies. Lastly,

Mr. Rothenberg reviewed the commitments made in the fourth quarter, discussed the pipeline under review, and confirmed that the portfolio remained in compliance with its investment guidelines.

#### **4. Convene in Closed Session**

**Motion:** A motion to go into closed session as authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes to consider confidential strategies for the investment of public funds, including **(a)** the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(b)** the review of specific proprietary investment strategies and investment instruments related to funds alpha, private equity, venture capital, private debt, real estate, and exposure management, and **(c)** discussion of the impact of recent events on portfolio positioning, was made by Mr. Drummond and seconded by Mr. Shearer.

Mr. Denson called for a roll call vote.

Denson-Aye	Fink-Aye	Shearer-Aye	Stanton-Aye
Bloom-Aye	Drummond-Aye	Lucas-Aye	Nair-Aye
Nicholson-Aye	Rector-Aye	Ruiz-Aye	

There being eleven ayes and no nays, Mr. Denson declared the motion passed. The Committee convened in closed session at 1:46 p.m. and reconvened in open session at 3:58 p.m.

#### **5. Announcement of Committee Actions Relating to Items Taken Up in Closed Session**

Mr. Denson announced that, while in closed session, the Committee **(i)** reviewed active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, **(ii)** reviewed specific proprietary investment strategies and investment instruments related to funds alpha, private equity, venture capital, private debt, real estate, and exposure management, and **(iii)** discussed of the impact of recent events on portfolio positioning.

#### **6. QIR Certification**

Ms. Lange presented a proposal that the Committee appoint Mark Stockley as a Qualified Independent Representative (“QIR”) for Leveraged Loan Index Total Return Swaps (CFTC) and for Single-Name Leveraged Loan Swaps (SEC), as set forth on pages 213-225 in the meeting materials. Ms. Lange noted that the appointments would be for all approved counterparties with whom SWIB has a master netting agreement for such instruments and that signed Internal QIR Certificates and Agreements for Mr. Stockley documenting his relevant knowledge and experience were included in the meeting materials for the Committee’s review. She also explained that Mr. Stockley would be subject to quarterly and annual certifications regarding his QIR status as a condition of his employment.

**Motion:** A motion was made by Mr. Shearer and seconded by Mr. Stanton to approve that Mark Stockley meets all of the QIR Criteria with respect to Leveraged Loan Index Total Return Swaps and Single-Name Leveraged Loan Swaps, respectively, for all approved counterparties with whom SWIB has a master netting agreement for such instruments, from

time to time, and he is approved to act and is hereby appointed as a QIR with respect to such counterparties. The motion passed unanimously.

#### **7. Soft Risk Parameters**

Anand Rakesh, Director of Risk Analytics & Financial Engineering Systems, noted that the report *Soft Risk Parameters–Asset Class and Portfolio*, as of December 31, 2025, was included on pages 226-227 in the meeting materials for the Committee’s review. Mr. Rakesh noted that there were no new discussion triggers this month and that one discussion trigger had been dropped relating to the small cap portfolio’s ex ante tracking error.

#### **8. Future Meeting Topics**

Mr. Denson noted that draft agendas for the February 24, 2026, and March 31, 2026, Committee meetings were included on pages 228-231 in the meeting materials for the Committee’s review.

#### **9. Adjournment**

**Motion:** A motion to adjourn the meeting was made by Ms. Fink and seconded by Mr. Bloom. The motion passed unanimously, and the meeting adjourned at 4:01 p.m.

Date of Committee Approval: 02/24/26

Signed: /s/ Eric Barber  
Eric Barber, Secretary  
Investment Committee

# AGENDA / NOTICE

**Name of Meeting:** Staff Investment Committee Meeting  
**Date/Time:** Tuesday, February 24, 2026 1:00 pm  
**Room:** 7<sup>th</sup> Floor Conference Room - 7022  
**Address:** 4703 Madison Yards Way, Madison, WI 53705

Est. Time Minutes	Action Item	Topic	Presenter
		<b>OPEN SESSION</b>	
	Motion	1. Approval of the Minutes – Open Session A. January 27, 2026	
10	Motion	2. Trustee WRS Investment Policy Amendments	Eric Barber
5		3. Global Public Market Strategies Division Update	Mike Shearer
15		4. Q4 2025 Quarterly Updates A. Fixed Income B. Small Cap	Mike Shearer Joy Mukherjee
	Motion	<b>CLOSED SESSION*</b>	
	Motion	<b>RECONVENE IN OPEN SESSION</b>	
		5. Announcement of Committee Actions Relating to Items Taken Up in Closed Session	
		6. Soft Risk Parameters (No presentation unless requested)	
		7. Future Meeting Topics	
	Motion	8. Motion to Adjourn	
		<i>NOTES: Items may be taken in order other than listed.</i>  <i>The meeting site is physically accessible. Upon prior request, reasonable accommodations will be provided.</i>	

\* A motion to go into closed session at this meeting is authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes (a) to consider confidential strategies for the investment of public funds, including (i) the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, (ii) the review of specific proprietary investment strategies and investment instruments related to fixed income strategies, small cap equities, and exposure management, and (iii) discussion of the impact of recent events on portfolio positioning, and (b) to discuss and approve prior closed session minutes that discuss the same. The Committee may convene in additional closed sessions or announce additional closed session items at the meeting in accordance with the procedure outlined in the Attorney General’s Opinion reported at 66 OAG 106 (1977). Whenever a closed session is held, the committee will subsequently reconvene in open session to cover remaining agenda items.

**Future Meetings**

3/31/26 – March Committee Mtg.  
 4/28/26 – April Committee Mtg.  
 5/26/26 – May Committee Mtg.  
 6/23/26 – June Committee Mtg.  
 7/28/26 – July Committee Mtg.  
 8/25/26 – August Committee Mtg.  
 9/22/26 – September Committee Mtg.  
 10/27/26 – October Committee Mtg.  
 11/24/26 – November Committee Mtg.  
 12/22/26 – December Committee Mtg.

**Voting Committee Members:**

**Edwin Denson (Chair)**, Executive Director/Chief Investment Officer  
**Anne-Marie Fink**, Private Markets & Funds Alpha–CIO  
**Todd Mattina**, Head Economist, Asset & Risk Allocation–CIO  
**Mike Shearer**, Head of Fixed Income Strategies  
**Nick Stanton**, Head of Liquidity Management & Beta Implementation  
**Derek Bloom**, Senior Portfolio Manager–Asset & Risk Allocation  
**Derek Drummond**, Head of Funds Alpha  
**Jeff Lucas**, Senior Portfolio Manager–Fixed Income Strategies  
**Sunil Nair**, Portfolio Manager–Liquidity Management & Beta Implementation  
**Chase Nicholson**, Senior Portfolio Manager–Multi-Asset Strategies  
**Jason Rector**, Senior Portfolio Manager–Funds Alpha  
**Andrea Ruiz**, Senior Portfolio Manager–Liquidity Management & Beta Implementation

**Non-voting Committee Members:**

**Rochelle Klaskin**, Deputy Executive Director/Chief Operating Officer  
**Eric Barber (Secretary)**, Chief Legal Counsel  
**Hassan Chehime**, Head of Risk Management

**Name of Meeting:** Staff Investment Committee Meeting  
**Date/Time:** Tuesday, March 31, 2026 1:00 pm  
**Room:** 7<sup>th</sup> Floor Conference Room - 7022  
**Address:** 4703 Madison Yards Way, Madison, WI 53705

Est. Time Minutes	Action Item	Topic	Presenter
		<b>OPEN SESSION</b>	
	Motion	1. Approval of the Minutes – Open Session A. February 24, 2026	
10		2. LMBI Division Update	Nick Stanton
20		3. Q4 2025 Quarterly Updates A. LIRM B. Multi-Strat	Andrea Ruiz Chase Nicholson
5		4. Transition Update (Q4 2025)	Joe Roth
	Motion	<b>CLOSED SESSION*</b>	
	Motion	<b>RECONVENE IN OPEN SESSION</b>	
		5. Announcement of Committee Actions Relating to Items Taken Up in Closed Session	
5		6. Research Task Force Report A. June Investment Forum Preview	Nick Stanton
		7. Quarterly Performance Review (Q4 2025) (No presentation unless requested)	
		8. QIR Annual Certification Report (No presentation unless requested)	Lisa Lange

\* A motion to go into closed session at this meeting is authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes (a) to consider confidential strategies for the investment of public funds, including (i) the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, (ii) the review of specific proprietary investment strategies and investment instruments related to liquidity management and beta implementation, multi-strat, LIRM, private markets and funds alpha, global public market strategies, asset and risk allocation, and exposure management, (iii) the review of broker information, and (iv) discussion of the impact of recent events on portfolio positioning, and (b) to discuss and approve prior closed session minutes that discuss the same. The Committee may convene in additional closed sessions or announce additional closed session items at the meeting in accordance with the procedure outlined in the Attorney General’s Opinion reported at 66 OAG 106 (1977). Whenever a closed session is held, the committee will subsequently reconvene in open session to cover remaining agenda items.

		9. Soft Risk Parameters (No presentation unless requested)	
		10. Future Meeting Topics	
	Motion	11. Motion to Adjourn	
		<p><i>NOTES: Items may be taken in order other than listed.</i></p> <p><i>The meeting site is physically accessible. Upon prior request, reasonable accommodations will be provided.</i></p>	

**Future Meetings**

- 4/28/26 – April Committee Mtg.
- 5/26/26 – May Committee Mtg.
- 6/23/26 – June Committee Mtg.
- 7/28/26 – July Committee Mtg.
- 8/25/26 – August Committee Mtg.
- 9/22/26 – September Committee Mtg.
- 10/27/26 – October Committee Mtg.
- 11/24/26 – November Committee Mtg.
- 12/22/26 – December Committee Mtg.

**Voting Committee Members:**

- Edwin Denson (Chair)**, Executive Director/Chief Investment Officer
- Anne-Marie Fink**, Private Markets & Funds Alpha–CIO
- Todd Mattina**, Head Economist, Asset & Risk Allocation–CIO
- Mike Shearer**, Head of Fixed Income Strategies
- Nick Stanton**, Head of Liquidity Management & Beta Implementation
- Derek Bloom**, Senior Portfolio Manager–Asset & Risk Allocation
- Derek Drummond**, Head of Funds Alpha
- Jeff Lucas**, Senior Portfolio Manager–Fixed Income Strategies
- Sunil Nair**, Portfolio Manager–Liquidity Management & Beta Implementation
- Chase Nicholson**, Senior Portfolio Manager–Multi-Asset Strategies
- Jason Rector**, Senior Portfolio Manager–Funds Alpha
- Andrea Ruiz**, Senior Portfolio Manager–Liquidity Management & Beta Implementation

**Non-voting Committee Members:**

- Rochelle Klaskin**, Deputy Executive Director/Chief Operating Officer
- Eric Barber (Secretary)**, Chief Legal Counsel
- Hassan Chehime**, Head of Risk Management

# AGENDA / NOTICE

**Name of Meeting:** Staff Investment Committee Meeting  
**Date/Time:** Tuesday, April 28, 2026 1:00 pm  
**Room:** 7<sup>th</sup> Floor Conference Room - 7022  
**Address:** 4703 Madison Yards Way, Madison, WI 53705

Est. Time Minutes	Action Item	Topic	Presenter
		<b>OPEN SESSION</b>	
	Motion	1. Approval of the Minutes – Open Session A. March 31, 2026	
5		2. Private Markets & Funds Alpha Division Update	Anne-Marie Fink
45		3. Q1 2026 Quarterly Updates A. Funds Alpha B. Private Equity & Current Return C. Private Debt D. Real Estate	Derek Drummond Scott Parrish Chris Prestigiacomo Jason Rothenberg
	Motion	<b>CLOSED SESSION*</b>	
	Motion	<b>RECONVENE IN OPEN SESSION</b>	
		4. Announcement of Committee Actions Relating to Items Taken Up in Closed Session	
		5. Soft Risk Parameters (No presentation unless requested)	
		6. Future Meeting Topics	
	Motion	7. Motion to Adjourn	
		<i>NOTES: Items may be taken in order other than listed.</i>  <i>The meeting site is physically accessible. Upon prior request, reasonable accommodations will be provided.</i>	

\* A motion to go into closed session at this meeting is authorized pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes (a) to consider confidential strategies for the investment of public funds, including (i) the review of active risk profiles and positioning of portfolio investments and the Core and Variable Trust Funds, (ii) the review of specific proprietary investment strategies and investment instruments related to funds alpha, private equity, venture capital, private debt, real estate, and exposure management, and (iii) discussion of the impact of recent events on portfolio positioning, and (b) to discuss and approve prior closed session minutes that discuss the same. The Committee may convene in additional closed sessions or announce additional closed session items at the meeting in accordance with the procedure outlined in the Attorney General’s Opinion reported at 66 OAG 106 (1977). Whenever a closed session is held, the committee will subsequently reconvene in open session to cover remaining agenda items.

**Future Meetings**

5/26/26 – May Committee Mtg.  
6/23/26 – June Committee Mtg.  
7/28/26 – July Committee Mtg.  
8/25/26 – August Committee Mtg.  
9/22/26 – September Committee Mtg.  
10/27/26 – October Committee Mtg.  
11/24/26 – November Committee Mtg.  
12/22/26 – December Committee Mtg.

**Voting Committee Members:**

**Edwin Denson (Chair)**, Executive Director/Chief Investment Officer  
**Anne-Marie Fink**, Private Markets & Funds Alpha–CIO  
**Todd Mattina**, Head Economist, Asset & Risk Allocation–CIO  
**Mike Shearer**, Head of Fixed Income Strategies  
**Nick Stanton**, Head of Liquidity Management & Beta Implementation  
**Derek Bloom**, Senior Portfolio Manager–Asset & Risk Allocation  
**Derek Drummond**, Head of Funds Alpha  
**Jeff Lucas**, Senior Portfolio Manager–Fixed Income Strategies  
**Sunil Nair**, Portfolio Manager–Liquidity Management & Beta Implementation  
**Chase Nicholson**, Senior Portfolio Manager–Multi-Asset Strategies  
**Jason Rector**, Senior Portfolio Manager–Funds Alpha  
**Andrea Ruiz**, Senior Portfolio Manager–Liquidity Management & Beta Implementation

**Non-voting Committee Members:**

**Rochelle Klaskin**, Deputy Executive Director/Chief Operating Officer  
**Eric Barber (Secretary)**, Chief Legal Counsel  
**Hassan Chehime**, Head of Risk Management

**STATE OF WISCONSIN INVESTMENT BOARD**  
***Enterprise Risk and Compliance Committee-Open Session***

**Tuesday November 11, 2025**

Offices of the Investment Board  
4703 Madison Yards Way, Madison, Wisconsin

**Committee Members Present:** Hassan Chehime, Head of Risk Management (Co-Chair)  
Lisa Lange, Director of Compliance & Senior Legal Counsel (Co-Chair)  
Jameson Greenfield, Chief Financial Officer (Vice Chair)  
Eric Barber, Chief Legal Counsel (Secretary)  
Edwin Denson, Executive Director/Chief Investment Officer  
Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer  
Todd Mattina, Head Economist, Asset & Risk Allocation CIO  
Cefe Quesada, Chief Technology Officer  
Brandon Brickner, Head of Internal Audit (*non-voting*)

**Others Present:** Jason Krueger, Compliance Analyst, Team Lead  
Alyssa Moore, Compliance Analyst  
Trey Edgerle, Compliance Analyst  
Sunil Nair, Operational, Financing & Counterparty Risk Dir.  
Dawn Tuescher, Executive Administrative Assistant  
Madeline Warkins, Legal Counsel  
Hannibal Smith, Operational Risk Analyst  
Vince Janecky, Internal Auditor Data Analyst  
Tori Hassler, Internal Auditor  
Dan Gyong, Internal Auditor  
Salah Khalaf, Senior Portfolio Engineer  
Joe Testerman, Data Services & Engineering Director

**Open Session**

Lisa Lange, Co-Chair of the Enterprise Risk and Compliance Committee (“ERCC”), declared that a quorum was present and called the meeting to order at 1:00 p.m.

**1. Approval of Minutes**

Ms. Lange confirmed that there were no questions or comments on either the open session or closed session minutes of May 22, 2025, which were included on pages 4-6 in the meeting materials.

**Motion:** A motion was made by Rochelle Klaskin, Deputy Executive Director/Chief Operating Officer and seconded by Jameson Greenfield, Chief Financial Officer, to approve the open session and closed session minutes of May 22, 2025, as presented. The motion passed unanimously.

## 2. Compliance Update

Lisa Lange, Director of Compliance and Senior Legal Counsel, presented the *Compliance Update* for Q2 2025 and Q3 2025, which were included on pages 7-26 in the meeting materials.

### A. Q2 2025

Ms. Lange reported that the second quarter of 2025 had a slightly higher number of personal trading requests than the prior quarter, with the approval rate slightly lower. There was one personal trading violation in the quarter and no guideline violations or waivers. There were no employees with late affirmations.

### B. Q3 2025

Ms. Lange noted that the third quarter of 2025 had a higher number of personal trading requests than the prior quarter, with a higher approval rate. There were three personal trading violations in the quarter and no guideline violations or waivers. There was one employee with two late affirmations.

After discussing details of the Q2 and Q3 2025 personal trading violations, Ms. Lange then noted some commonalities among personal trading violations in recent years, including a significant number of violations resulting from employees' family members personal trading. In response, Compliance created and distributed a Personal Trading Family Guide for staff to take home to their families. The guide was designed to be easy to read and understood by non-investment professionals. Ms. Lange then reviewed 2025 Compliance Initiatives and Projects, highlighting the comprehensive guideline review, a successful Ethics Audit, and collaboration with various functions across SWIB.

Ms. Lange then discussed the Comprehensive Guideline Review, which included a review of all investment guidelines and compliance tests to identify any gaps, as well as Compliance staff meetings with each front-office strategy team to review each strategy's investment guidelines, including a discussion of both independent compliance testing and front office monitoring of guidelines. The meetings, covering 23 portfolios or strategies, aligned expectations for front office teams with respect to monitoring their guidelines. The meetings are intended to be revisited on an annual basis or whenever a lead portfolio manager changes or new analyst joins the team. Ms. Lange then highlighted the mandatory Ethics Quiz and reviewed the Compliance initiatives for the remainder of 2025 and for 2026.

## 3. ERCC Charter

Eric Barber, Chief Legal Counsel, noted that the Committee annually review its Charter, which was included on pages 27-29. There were no recommended changes.

## 4. Convene in Closed Session

**Motion:** A motion to go into closed session pursuant to section 19.85(1)(d) of the Wisconsin Statutes to consider confidential strategies for crime detection and prevention relating to

SWIB's information technology systems and pursuant to sections 19.85(1)(e) and 19.36(5) of the Wisconsin Statutes to consider confidential strategies for the investment of public funds, including the review of proprietary credit counterparty and broker information, was made by Ms. Klaskin and seconded by Mr. Barber.

Ms. Lange called for a roll call vote.

Barber-Aye  
Klaskin-Aye

Cehime-Aye  
Lange-Aye

Denson-Aye  
Mattina-Aye

Greenfield-Aye  
Quesada-Aye

There being eight ayes and no nays, Ms. Lange declared the motion passed. The Committee convened in closed session at 1:16 p.m. and reconvened in open session at 2:20 p.m.

**5. Announcement of Matters Taken Up in Closed Session**

Ms. Lange announced that while in closed session, the Committee reviewed: (i) a risk management update; (ii) a Chief Technology Officer update; (iii) an operational, financing and counterparty risk update; and (iv) a comprehensive guideline review discussion.

**6. Future Meeting Topics**

No future meeting topics were discussed.

**7. Adjournment**

**Motion:** A motion to adjourn was made by Mr. Greenfield and seconded by Hassan Cehime, Head of Risk Management (Co-Chair). The motion passed unanimously, and the ERCC meeting was adjourned at 2:22 p.m.

Date of Committee Approval: \_\_\_\_\_

Signed: \_\_\_\_\_

Eric Barber, Secretary  
Enterprise Risk and Compliance Committee

Board Meeting

Tab 8 – Quarterly Investment Update, Q4 2025



# Quarterly Investment Update

*Board Meeting*

*March 18, 2026*

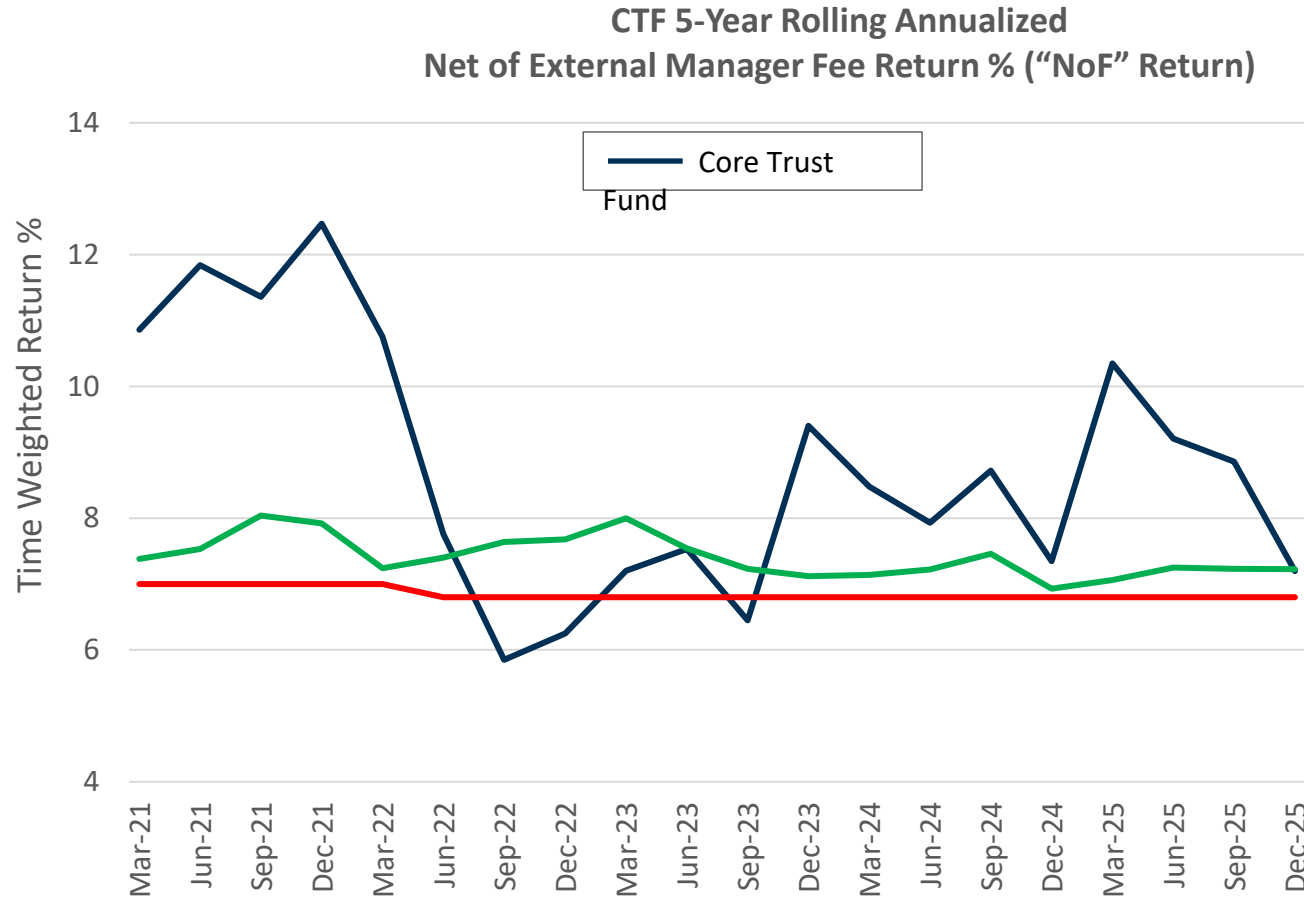
# Key Insights

- Investment returns have outperformed the assumed rate in the last 5- and 20-year periods, maintaining plan stability with an appropriate average dividend, stable contribution rates, and fully funded liabilities.
- With a 5-year investment return of 7.2% (NoF), a negative dividend can be avoided in 2026 with an investment return of 1.8% this year.
- Structural changes in U.S. fixed income and public equity markets, alongside rising geopolitical fragmentation, have increased concerns about downside risk and lower long-term return potential:
  - Equity is relatively concentrated and overvalued with declining free cash flow margins as the “hyperscalers” ramp up AI capital investment
  - Fixed Income is exposed to rising sovereign bond issuance, greater inflation uncertainty and the risk that the era of low real interest is coming to an end, suggesting weaker portfolio diversification benefits
  - Geopolitical “ruptures” can transmit to the real economy and financial markets, but strong U.S.-led economic growth has helped to offset geopolitical headwinds
  - Growth outlook remains solid in 2026, although risks are skewed to downside due to potential labor market disruption from AI adoption, rising credit default rates, and spillover effects from the Iran conflict
- Future ARA work will translate financial and macroeconomic conditions into asset-liability implications for the WRS.

# Performance Trends & Outlook

# CTF 5-Year Rolling NoF Return Trend

## Quarter-end Results Through December 31, 2025



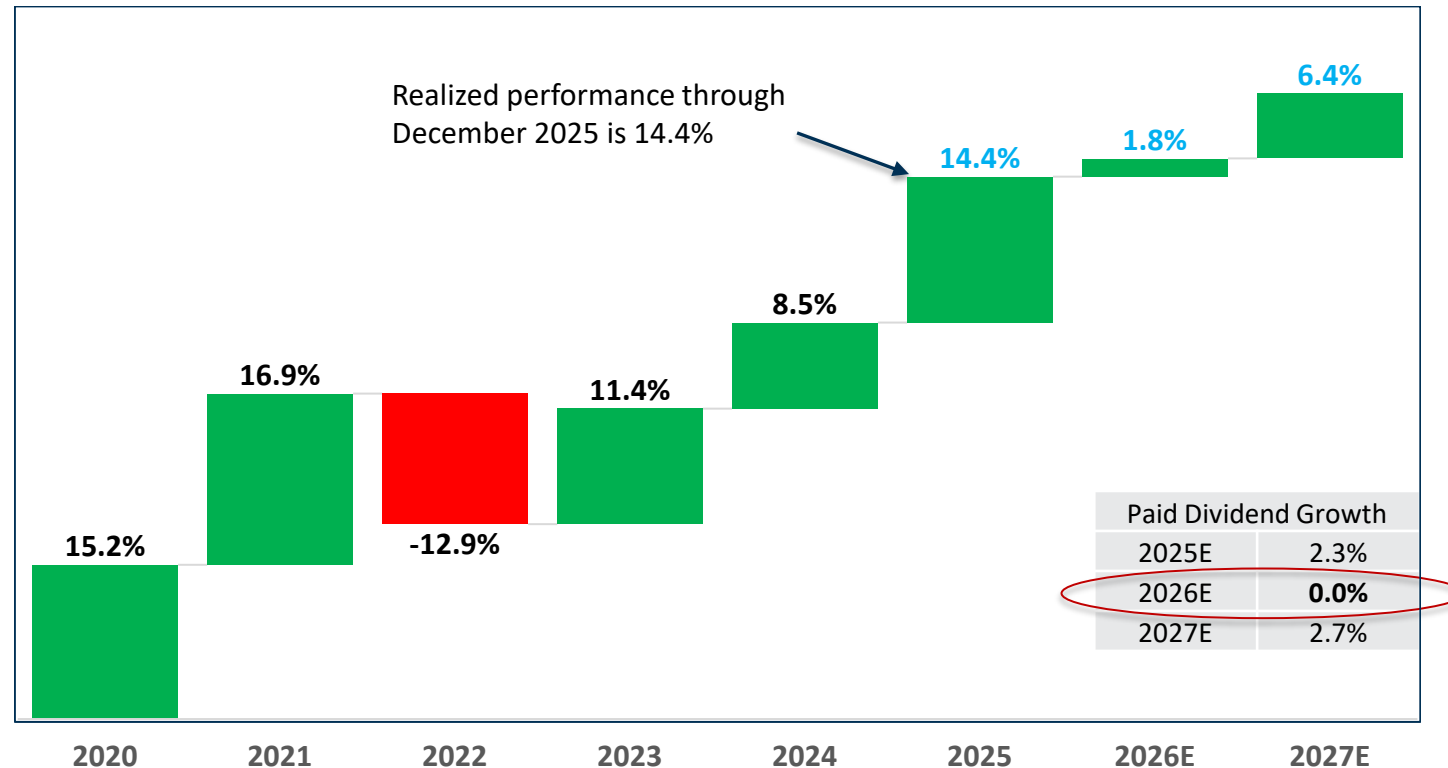
5-Year Annualized NoF Return (as of December 31, 2025)	
7.20%	Core Trust Fund
6.44%	CTF Policy Benchmark

7.23% CTF 20-Year NoF Return  
6.8% Actuarial Target Rate of Return

# Return Required for No Dividend Cut

## *CTF NoA Return and Paid Dividend Growth*

CTF needs to generate 1.8% return in 2026 to avoid a negative CTF dividend adjustment<sup>1</sup>



<sup>1</sup> Based on ETF calculations using preliminary data, a 2026E calendar year return of 1.8% is required to avoid a negative dividend adjustment. The 2027 estimate is based on NEPC's 10-year expected return assumption. The preliminary 2025 NoA investment return is 14.4%.

# CTF Policy Benchmark & Other Indices

January 31, 2026: Total Rate of Return %, Annualized					
Index Name (Gross Return Basis, unless noted)	YTD	1yr	5yr	10yr	10yr volatility
CTF Policy Benchmark (Net)	1.3	13.3	6.8	8.8	8.5
MSCI USA	1.3	15.7	14.4	15.6	15.2
MSCI USA Small Cap	5.4	14.0	8.4	12.4	19.7
MSCI World ex US Equities (Net)	4.7	31.5	10.7	9.8	14.7
MSCI World ex US Equities (Net) (Local)	2.8	19.5	12.6	9.8	11.5
MSCI EAFE Small Cap	5.8	35.5	7.4	9.4	16.5
MSCI Emerging Markets ex China	10.5	46.7	11.0		
MSCI China	4.7	36.3	(3.5)	7.7	23.7
MSCI ACWI	3.0	22.4	12.5	13.3	14.3
MSCI ACWI (Local)	2.5	19.3	13.3	13.4	13.1
Bloomberg US Gov't / Credit	0.0	6.3	(0.4)	2.0	5.2
ICE BOFA High Yield BB/B	0.5	7.8	4.2	20.8	7.0
Bloomberg U.S. TIPs	0.3	6.0	1.1	3.0	5.0

Source: Factset, SWIB

# Economic and Market Outlook

# Introduction

- **Structural changes** in U.S. fixed income and public equity markets, alongside rising **geopolitical fragmentation**, have increased concerns about downside risks and lower long-term return potential.
- **Fixed Income:** Elevated sovereign issuance, inflation uncertainty, weaker stock–bond diversification, and structurally higher real rates could pressure valuations. Gradual dollar diversification may moderate foreign demand for Treasuries.
- **Equities:** Rich valuations and AI-driven concentration may compress future returns and increase downside sensitivity if expectations reset.
- **Countervailing Forces:**
  - Unstable historical link between U.S. debt levels and sustained inflation or rate spikes.
  - U.S. Treasuries remain the only scalable, deeply liquid global reserve asset.
  - AI-driven capex and productivity gains help offset geopolitical ruptures and structural headwinds.
- Implications for long-term returns and WRS financial stability depend on how these risks and offsets evolve. Future analysis will further assess WRS asset–liability linkages.

# Evolving Risk Factors

Expanding government bond issuance, richly valued public equities, and geopolitical fragmentation

## Evolving Fixed Income Risk

- Sovereign bond supply expanding in most advanced economies.
- Low real rates, inflation uncertainty persists, and dollar diversification.

## Evolving Equity Risk

- S&P500 valuation in top 99<sup>th</sup> percentile historically based on Shiller cyclically-adjusted P/E ratio.
- AI sector concentration heightens risk.

## Economic Tailwinds vs. Geopolitical Headwinds

- U.S.-led global growth driven by an AI capex investment boom.
- Geopolitical ruptures heighten uncertainty for trade and investment.

## U.S. Still Enjoying the “Exorbitant Privilege”

- No clear substitute for global reserve role of Treasuries and U.S. dollar.

## Concentration vs Expected Return

- Concentration does not *imply* lower future returns, although risk is higher.

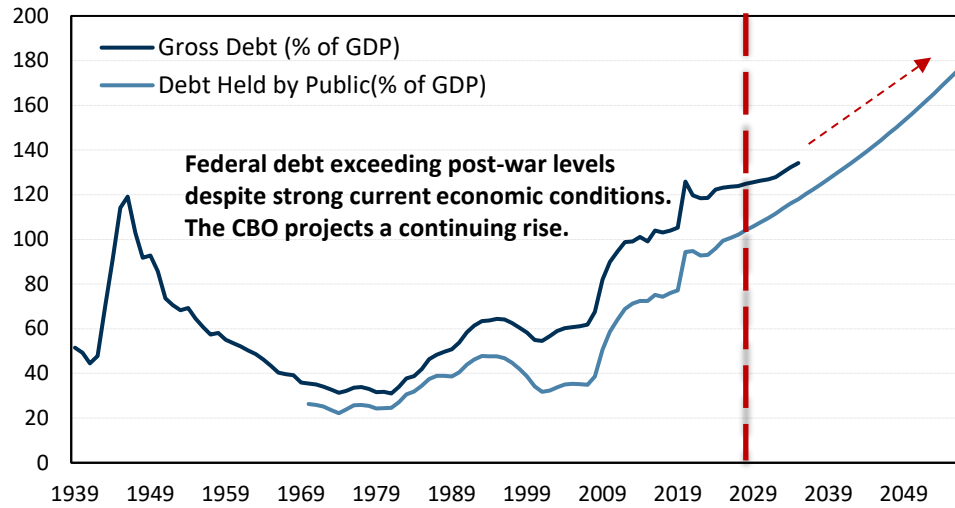
## AI Capex vs Geopolitical Ruptures

- Capex boom offsetting the potential geopolitical drag, sustaining growth.

**Structural shifts in fixed income, equity, and geopolitics are real, but the outlook remains balanced amid a strong U.S. cyclical backdrop.**

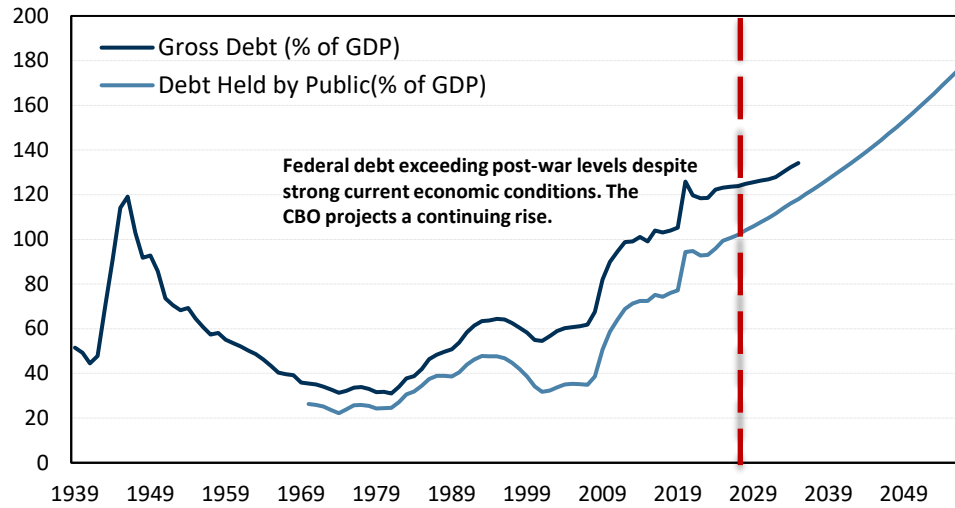
# What Has Evolved

## Increasing Sovereign Debt Issuance

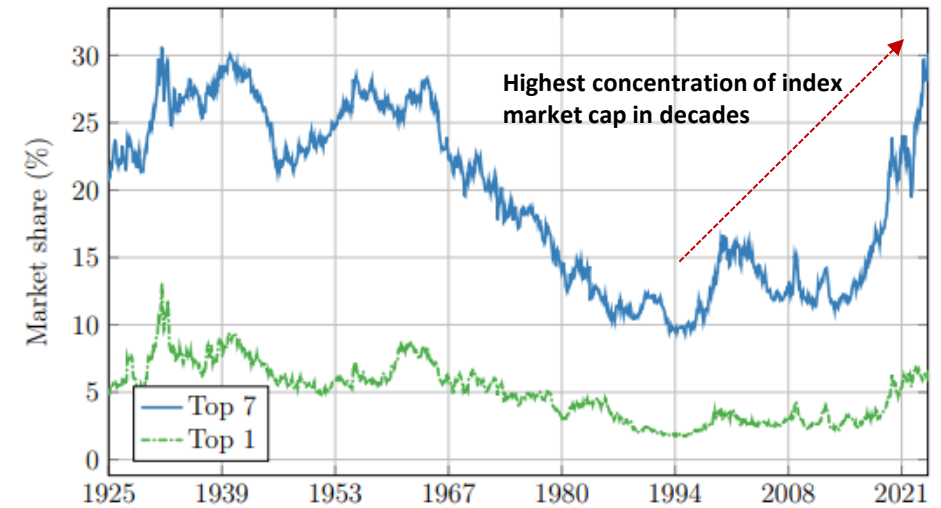


# What Has Evolved

## Increasing Sovereign Debt Issuance

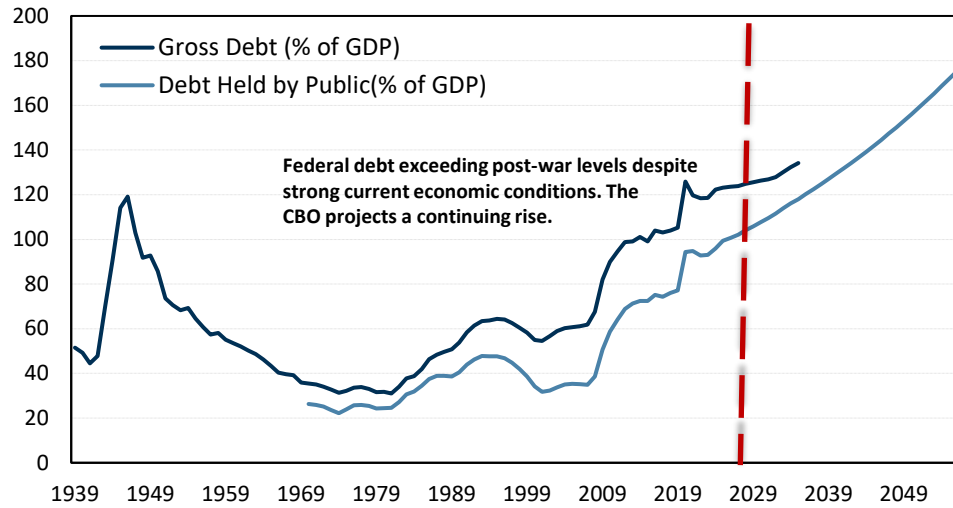


## Increased S&P500 Index Concentration

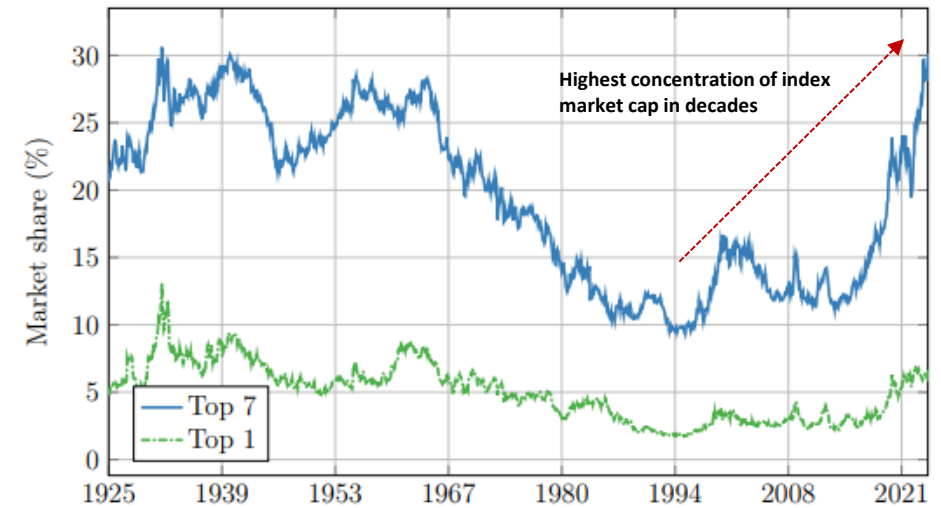


# What Has Evolved

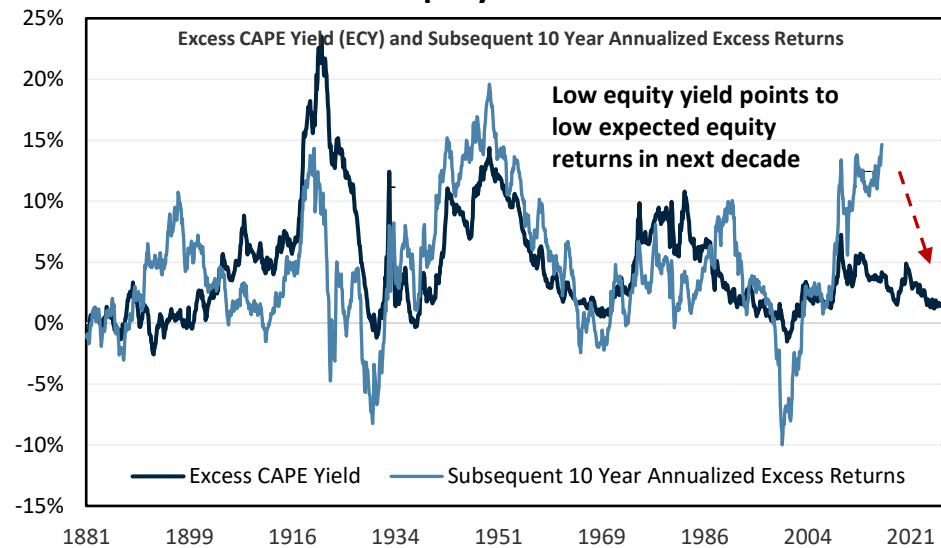
## Increasing Sovereign Debt Issuance



## Increased S&P500 Index Concentration

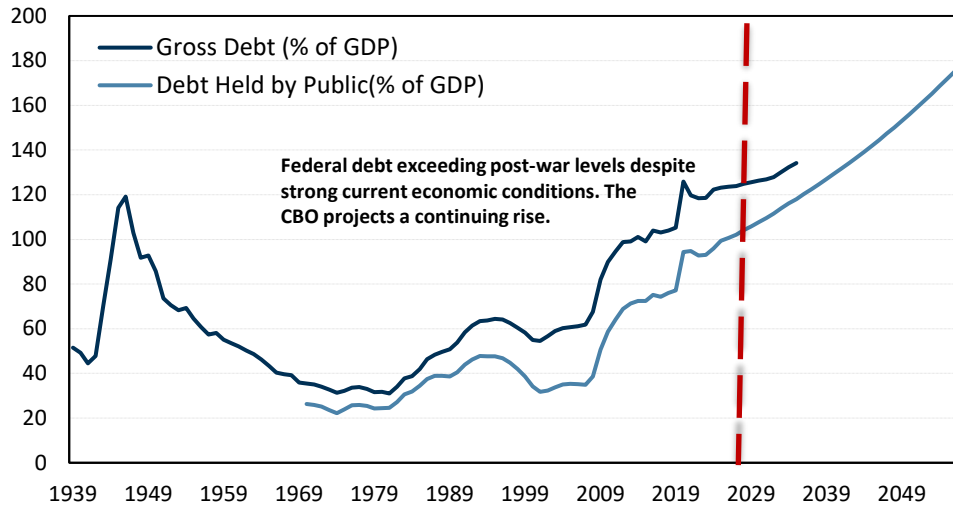


## Richer US Equity Market Valuations

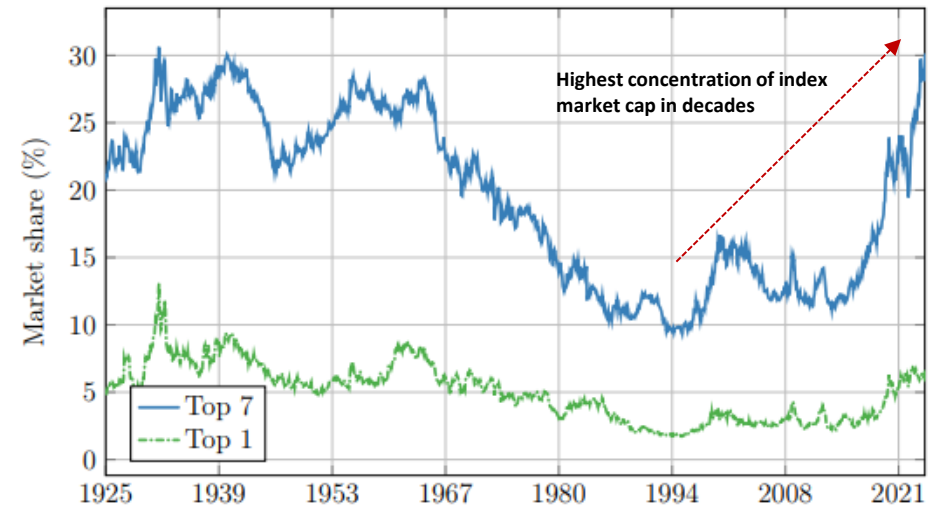


# What Has Evolved

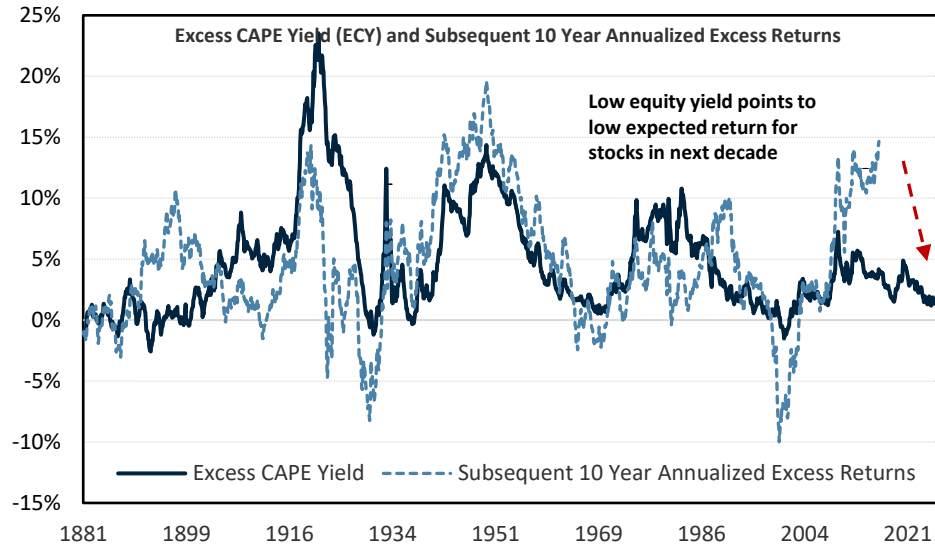
### Increasing Sovereign Debt Issuance



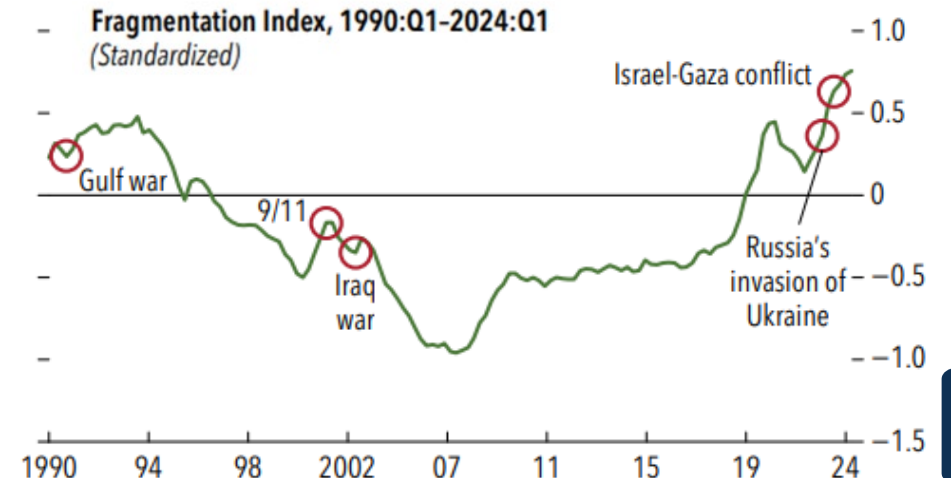
### Increased S&P500 Index Concentration



### Richer US Equity Market Valuations



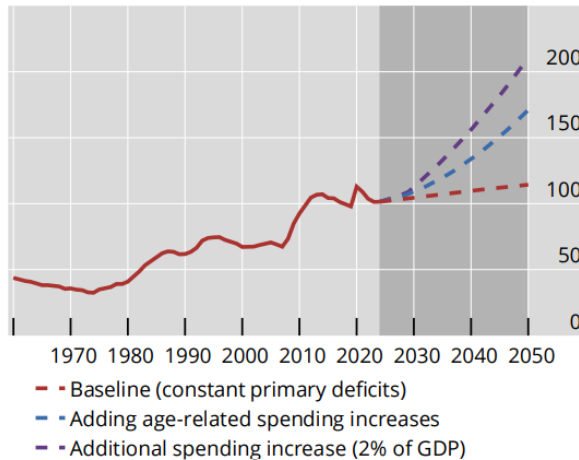
### Rising Geopolitical Fragmentation



# Evolution of Fixed Income Risk

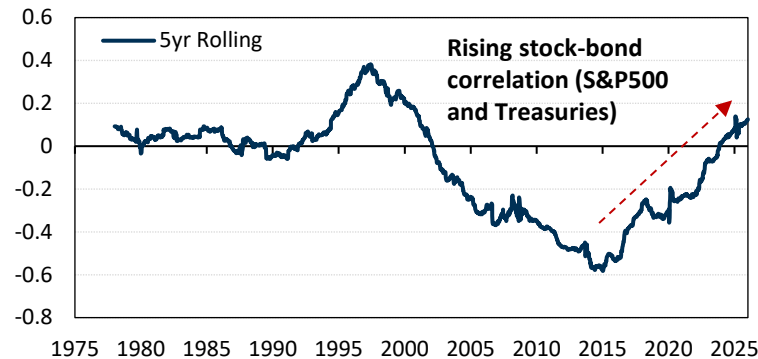
*Structural changes are changing the defensive properties of Fixed Income*

## Structural Change in Developed Market Sovereign Supply (% of GDP)



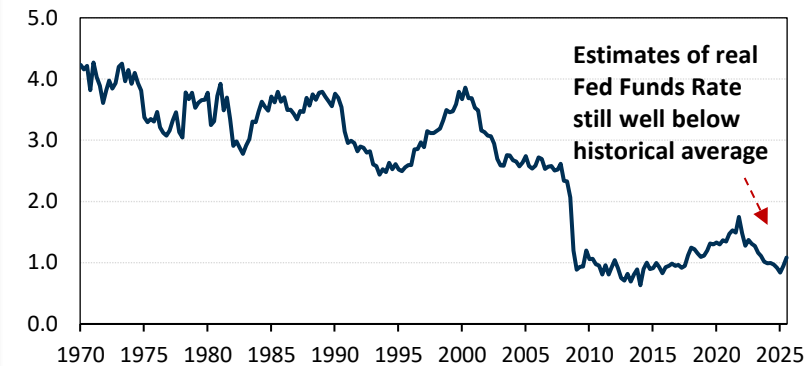
- Increasing sovereign bond supply in developed markets may keep pressure on long-term rates.

## U.S. Treasuries Are Less Robust Portfolio Diversifiers



- Post-2022 higher inflation regime increased stock-bond correlation, reducing fixed income hedging benefits.

## U.S. Real Rates Below Average Despite Increasing Supply and Uncertain Inflation

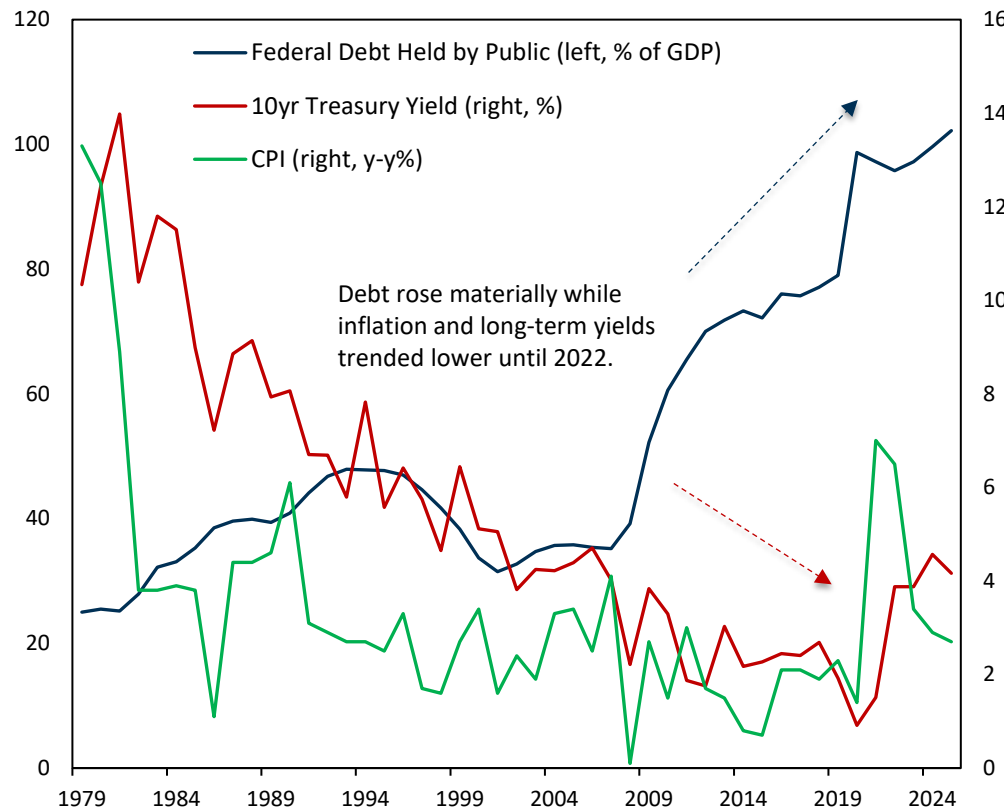


- While real rates have moved higher, starting levels remain low based on the historical average of real rates.

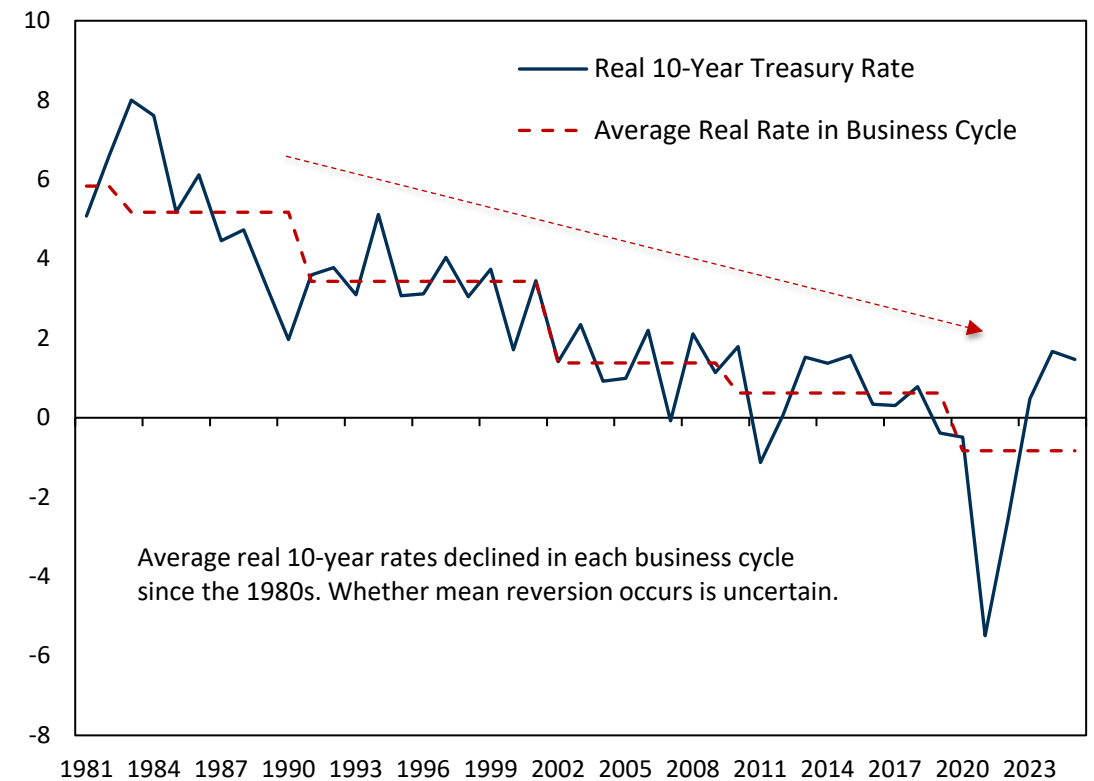
# Rising Debt Has Not Driven Higher Rates or Inflation in Recent Decades

*Real interest rates have trended lower across cycles despite higher public debt*

Upward Trend in U.S. Federal Debt as 10-year Treasury Yield and Inflation Have Trended Lower



Average 10-Year Real Interest Rate Shifted Lower in Each Business Cycle Since the 1980s

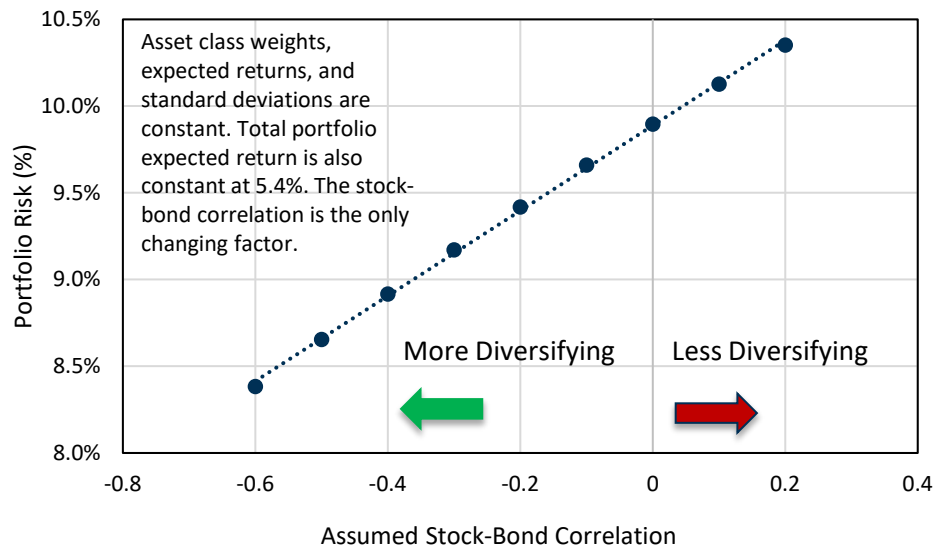


# Fixed Income Remains A Core Portfolio Diversifier

*While stock-bond correlations have increased, bonds remain a core diversifier of equity risk*

Impact of the Stock-Bond Correlation on the Risk of a Stylized 60/40 Portfolio\*

Asset Class	Weight	Expected Return	Std. Deviation (%)
Stocks	60%	6.0%	16%
Bonds	40%	4.5%	6%



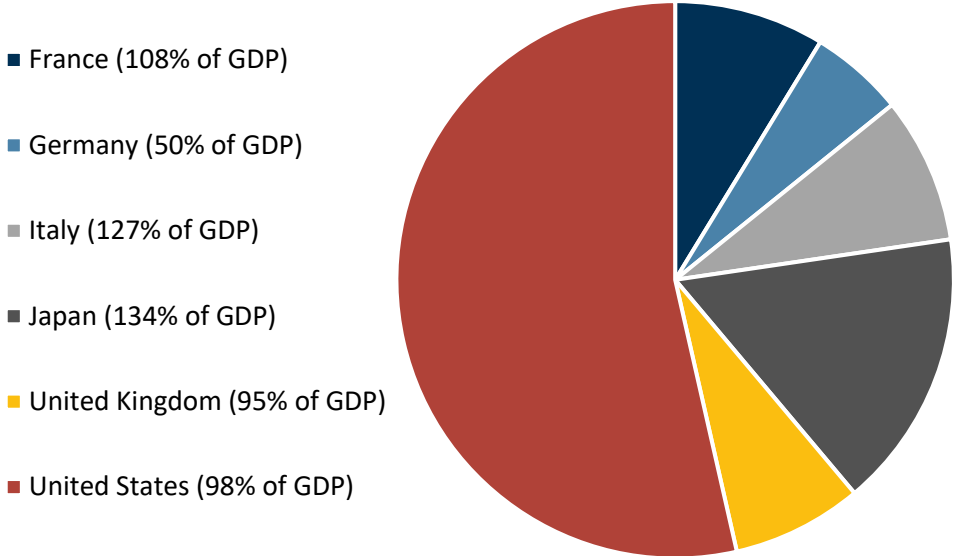
- **60/40 portfolio volatility is highly sensitive to the stock–bond correlation.** When the correlation was strongly negative (about -0.6 in 2015), bonds meaningfully reduced overall portfolio risk.
- Since the 2022 inflation shock, **correlation has turned modestly positive (~0.1)**, weakening diversification and raising portfolio volatility.
- **Even so, bonds remain a critical portfolio stabilizer:** an all-equity portfolio targeting the same return would carry 14.4% volatility versus 10.1% for the diversified 60/40 portfolio.

\*Note: The expected arithmetic one-year returns and volatilities of stocks and bonds in this stylized example are only for illustration.

# Treasuries and U.S. Dollar Remain Anchors of the Global Financial System

*Scale, liquidity, and legal certainty remain decisive advantages*

**Sovereign Debt Market\* (USD trillions)**



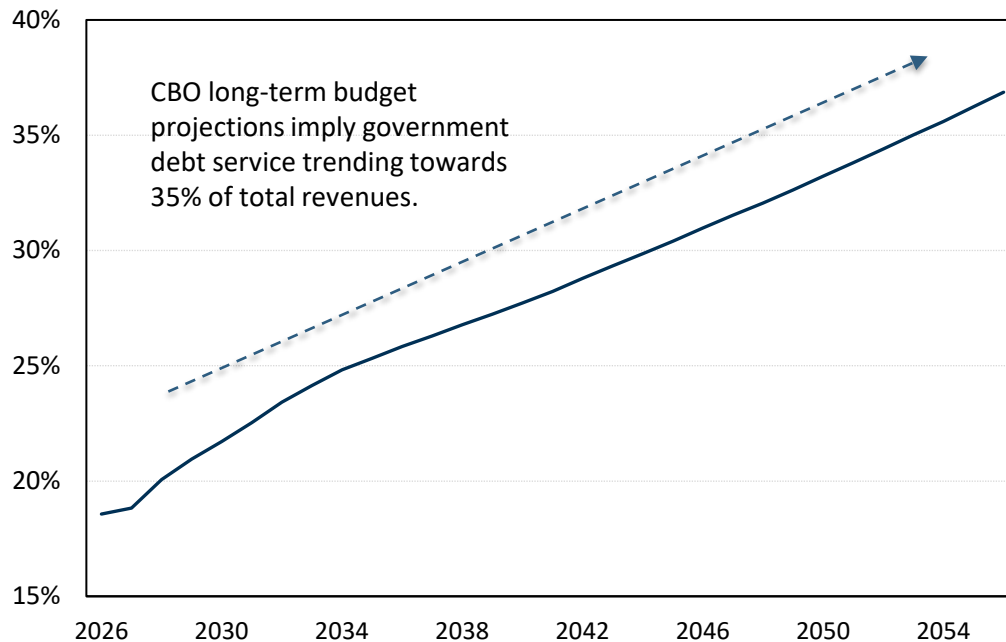
\* Pie chart represents the estimated size of government debt measured in US dollars as of end-2025. In the legend, numbers in brackets represent each country's net debt as a share of GDP for context.

- U.S. Treasuries are the largest sovereign government bond available (~\$30 trillion), more than three times the size of the next largest market (Japanese Government Bonds at ~\$9 trillion).
- No other sovereign market matches the depth, liquidity, and benchmark status of the Treasury market as the global risk-free asset.
- Most alternative sovereign issuers carry comparable or higher debt burdens relative to GDP.
- Global reserve managers rely on Treasuries for scale, liquidity, unrestricted capital access, and legal certainty.
- Gold is a possible rival, but it lacks yield and entails storage and liquidity frictions.

# Fiscal Risk Remains High Without a Course Correction

*Even with sustained demand for growing issuance, debt service will become unsustainable*

## Government Debt Service Absorbing a Rising Share of Revenues, Suggesting a Fiscal Consolidation is Needed



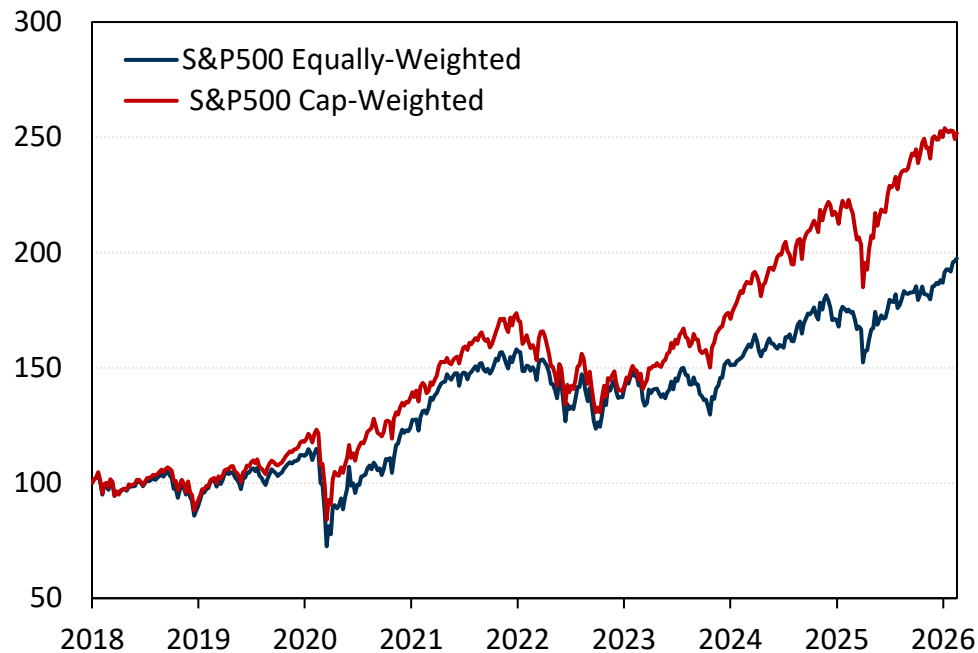
- Federal debt service is projected to exceed 35% of revenues, crowding out fiscal space for age-related spending, defense, and other priorities.
- As debt service absorbs over one-third of revenues, the government's capacity to respond to future cyclical shocks like the 2020 pandemic and 2008 financial crisis will be more constrained.
- Bond investors appear to be looking through the unsustainable long-term fiscal path, likely assuming policymakers have time and tools to course-correct.
- Treasuries and the U.S. dollar remain unmatched global reserve assets, but long-term fiscal sustainability will ultimately require policy adjustment.

# Evolution of Equity Risk

*Rich market valuation with concentrated AI sector contribution to total returns*

## Equity Concentration and Valuation Dispersion

Narrow Market Leadership and Rich Valuations Skew the Return Distribution



**S&P500 Equally Weighted:** 8.7% geometric average return

**S&P500 Cap Weighted:** 12% geometric average return

### What We Observe

- Returns are increasingly concentrated in a small number of stocks (“Magnificent 7” accounts for about 35% of S&P500)
- Equally-weighted S&P500 cumulative return signals narrow leadership in return contribution.
- Based on Shiller’s cyclically-adjusted P/E ratio, the current S&P500 valuation is in the 99<sup>th</sup> percentile of data since 1880.

### Implications

- Index returns more dependent on a limited number of stocks.
- Concentration and valuations increase downside risk asymmetry.

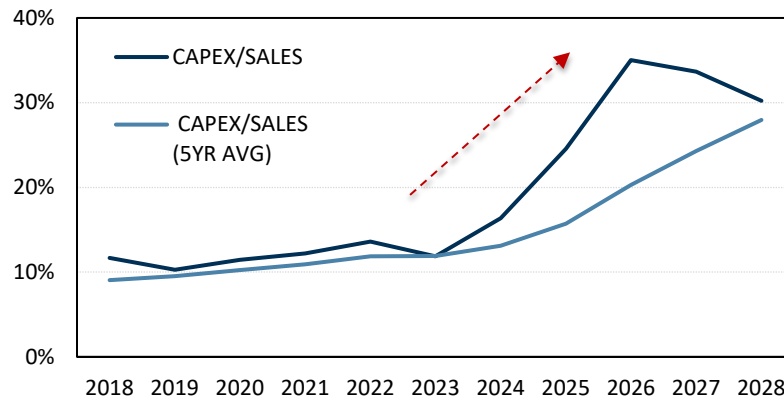
Returns are increasingly concentrated, valuation dispersion has widened.

# Evolution of Equity Risk

*Intensifying capex by the "hyperscalers" puts pressure on free cash flows*

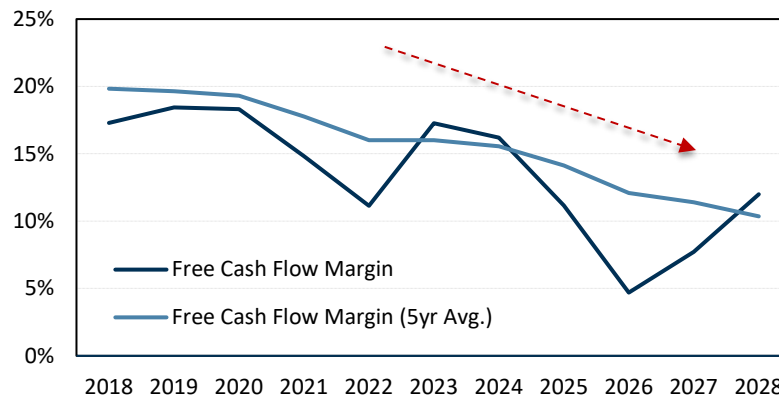
## Free Cash Flows and Capex Investment Boom

High AI Investment of the "hyperscalers" Reduces Expected Free Cash Flow Margins



### What's Different this Cycle:

- Strong starting fundamentals, including high free cash flows and margins
- Expected annual capex spending rising from about \$415B in 2025 to \$765B by 2028
- Rich valuations still below the 2000 'dot com' era



### Evolving Equity Risk:

- Driven by AI, capex intensity of "hyperscalers" is expected to increase sharply during 2026 to 2028
- Current market valuations depend on sustaining high returns on investment

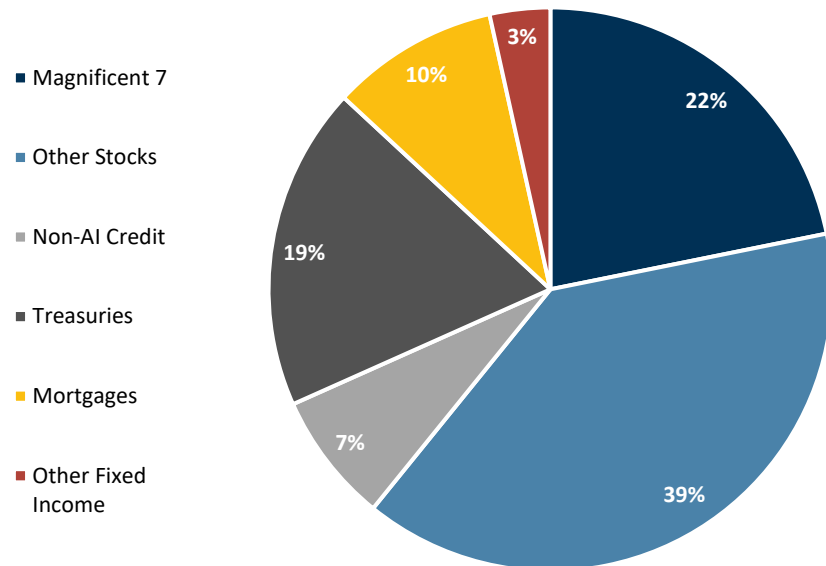
# Managing Structural Shifts in U.S. Equity Risk

*Global diversification reduces concentration risk relative to a home-biased portfolio*

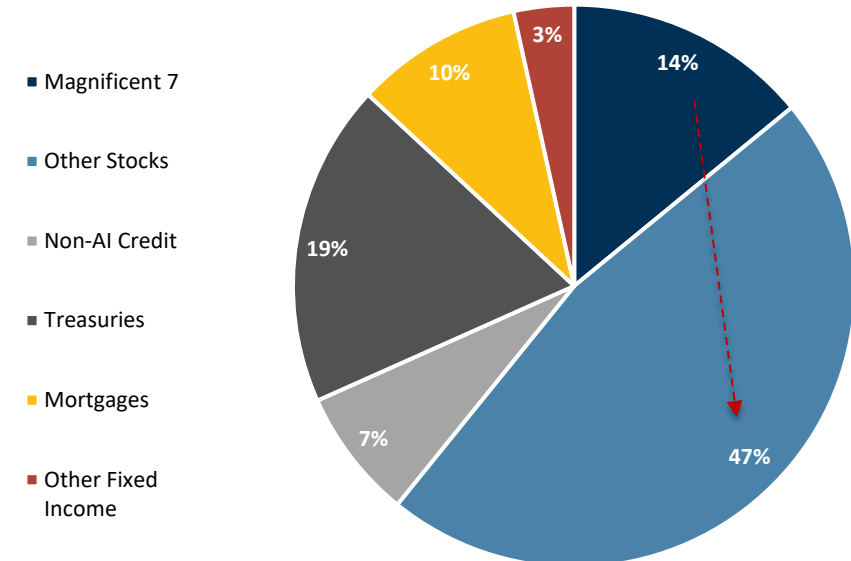
## Global Diversification Reduces Concentration

International Equities Reduce Sensitivity to Magnificent 7 and AI Concentration Risk

U.S. Home-Biased Equity in a 60/40 Portfolio

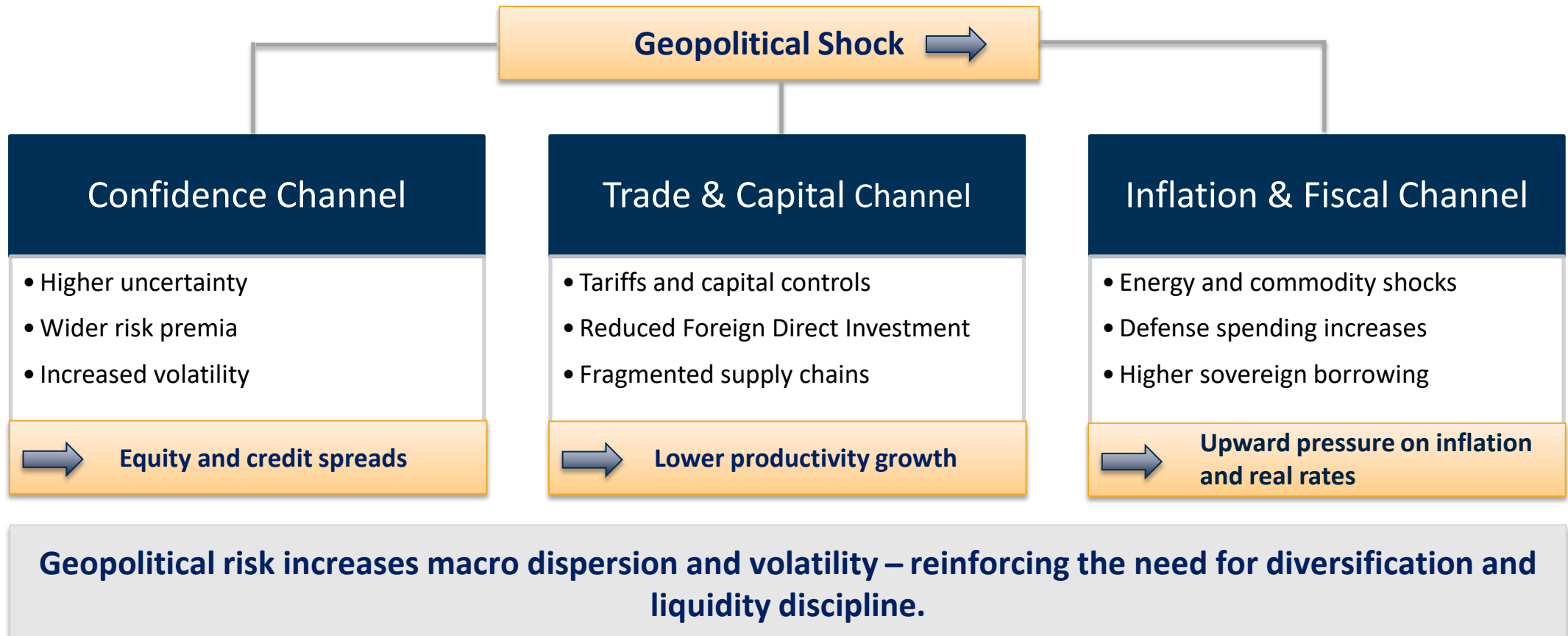


Globally Diversified Equity in a 60/40 Portfolio



# Increasing Geopolitical Fragmentation

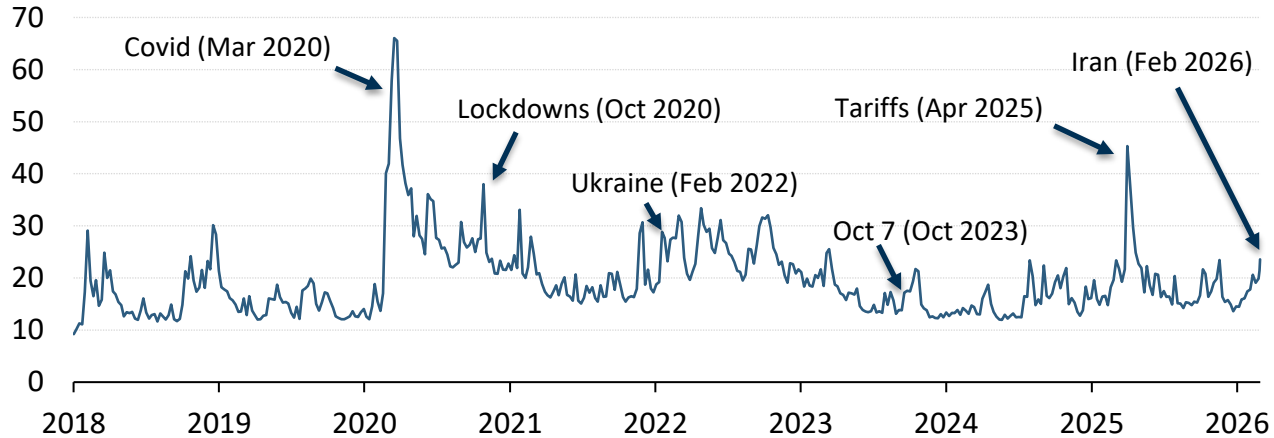
*Geopolitical "ruptures" have increasingly relevant economic and market transmission mechanisms*



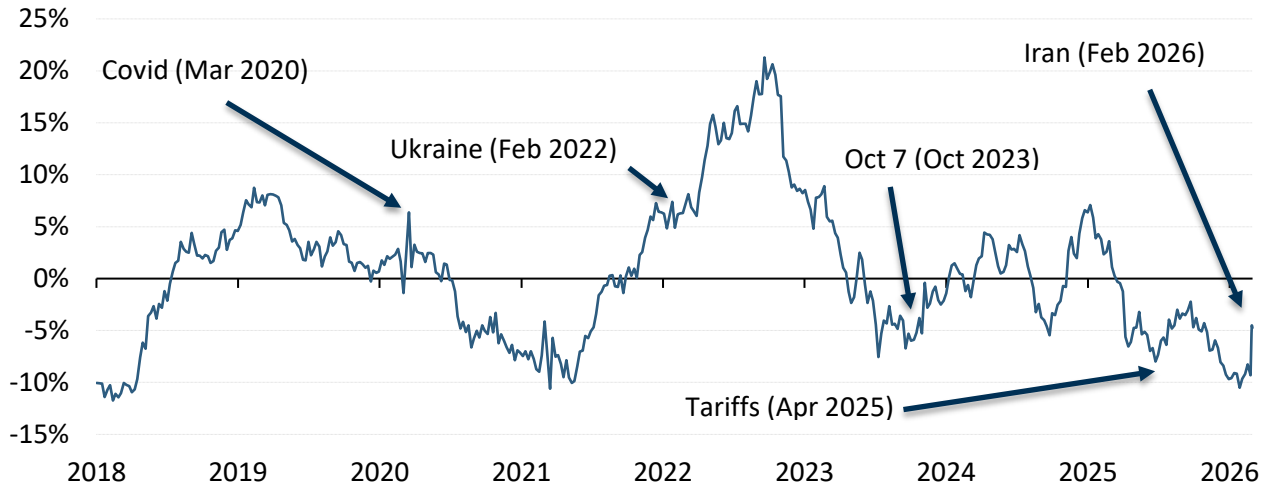
# Geopolitical Risk Events: Mixed Impact

*Equities have largely shrugged off geopolitical events while U.S. dollar uncertainty has increased*

### Geopolitical Risk Events and S&P500 Volatility (VIX)



### Geopolitical Risk Events and the U.S. Dollar (y-y%)



### What We Observe:

- Transmission of geopolitical shocks to financial markets is not uniform – markets react differently to events impacting fundamentals (e.g., Covid, trade tariffs)
- When equity market volatility (VIX) does spike, it is typically short-lived
- U.S. dollar movements have recently been affected by FX reserve diversification and lower Fed rates

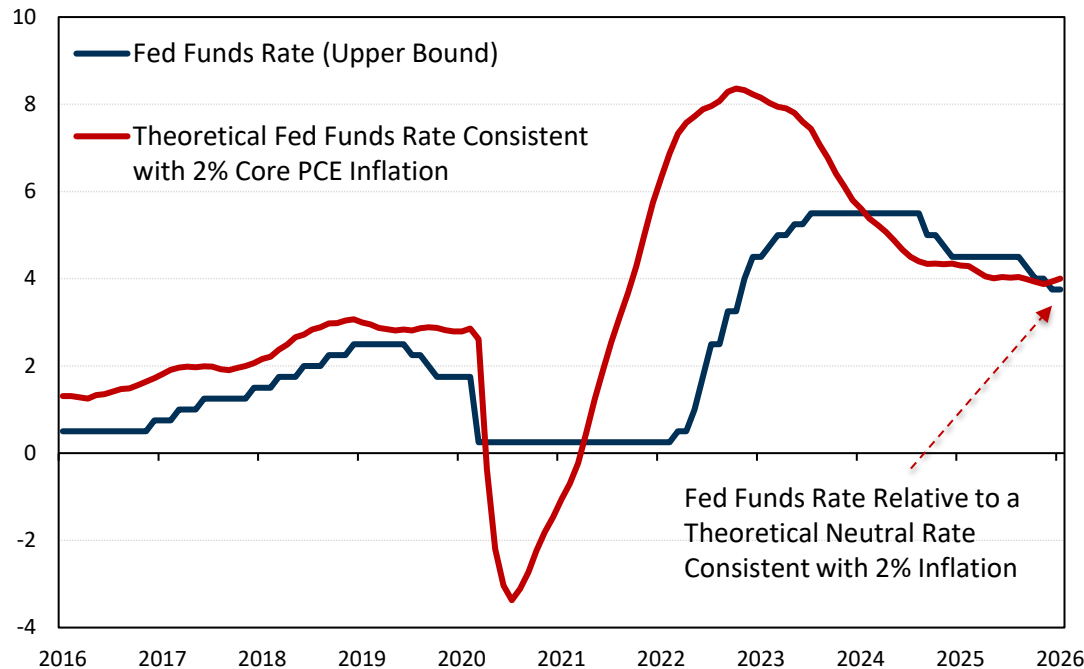
### Implications:

- Geopolitical risk involves a “double forecasting” problem: forecasting the outcome (e.g., an important election or referendum outcome) *and* the market reaction to the outcome
- Diversification, liquidity, and risk monitoring of concentrations are usually the best mitigators

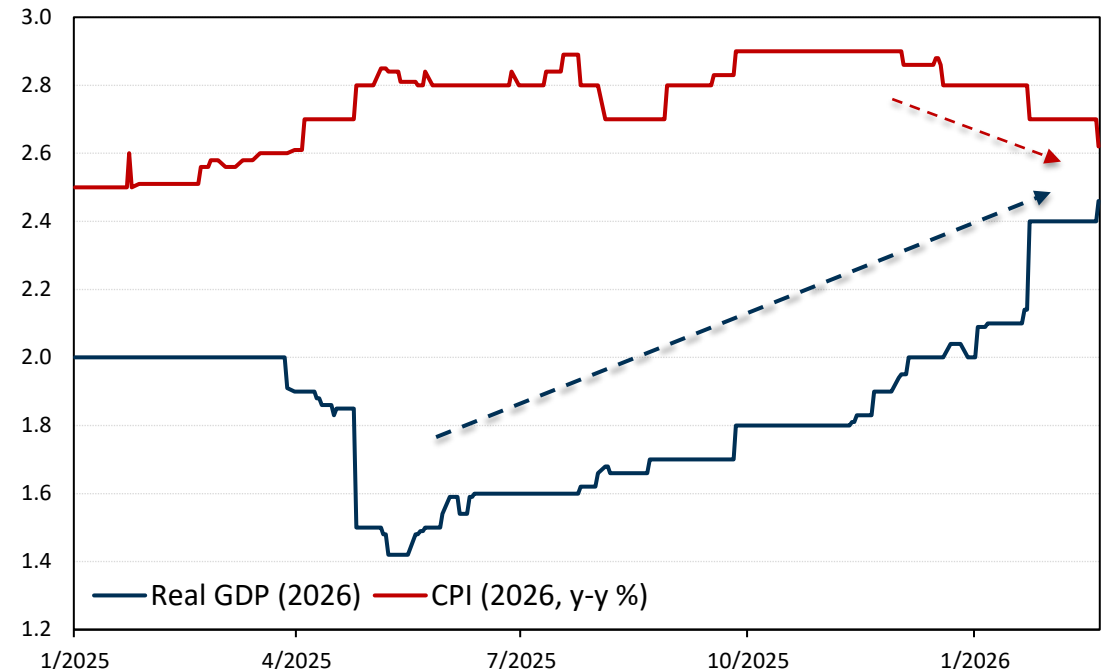
# Robust Macroeconomic Conditions Offset Geopolitics

*Expected U.S. economic growth remains robust and supported by a neutral Fed rate policy*

### Easing Federal Reserve Interest Rates From a Moderately Restrictive Stance



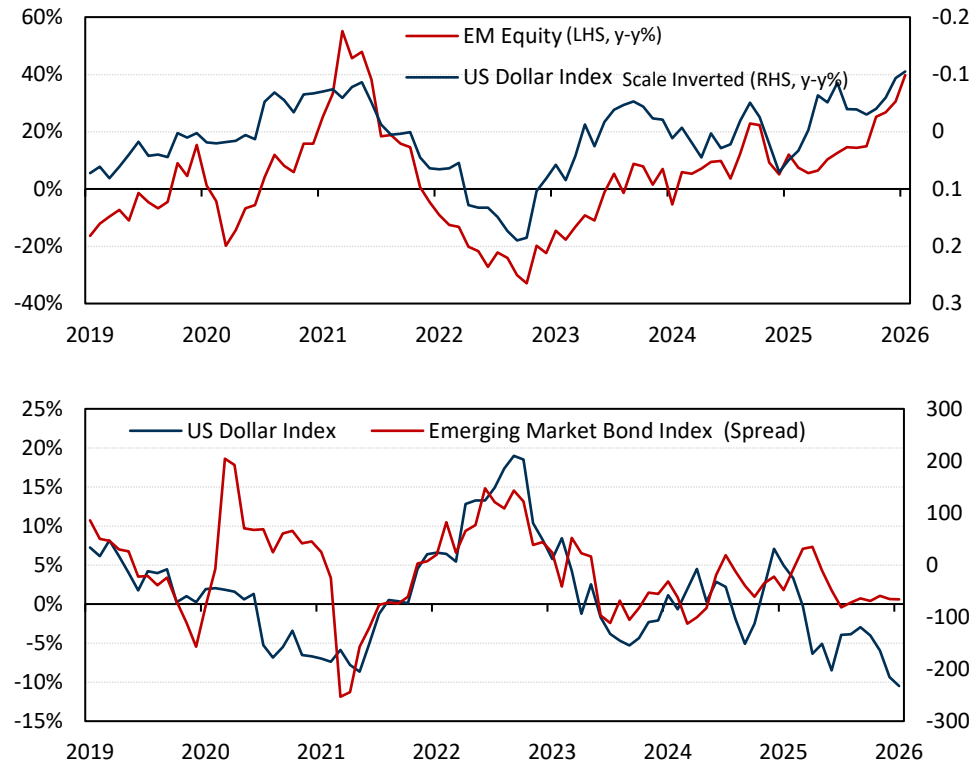
### Economists Forecast Higher 2026 Economic Growth and CPI Inflation Above the 2% Target



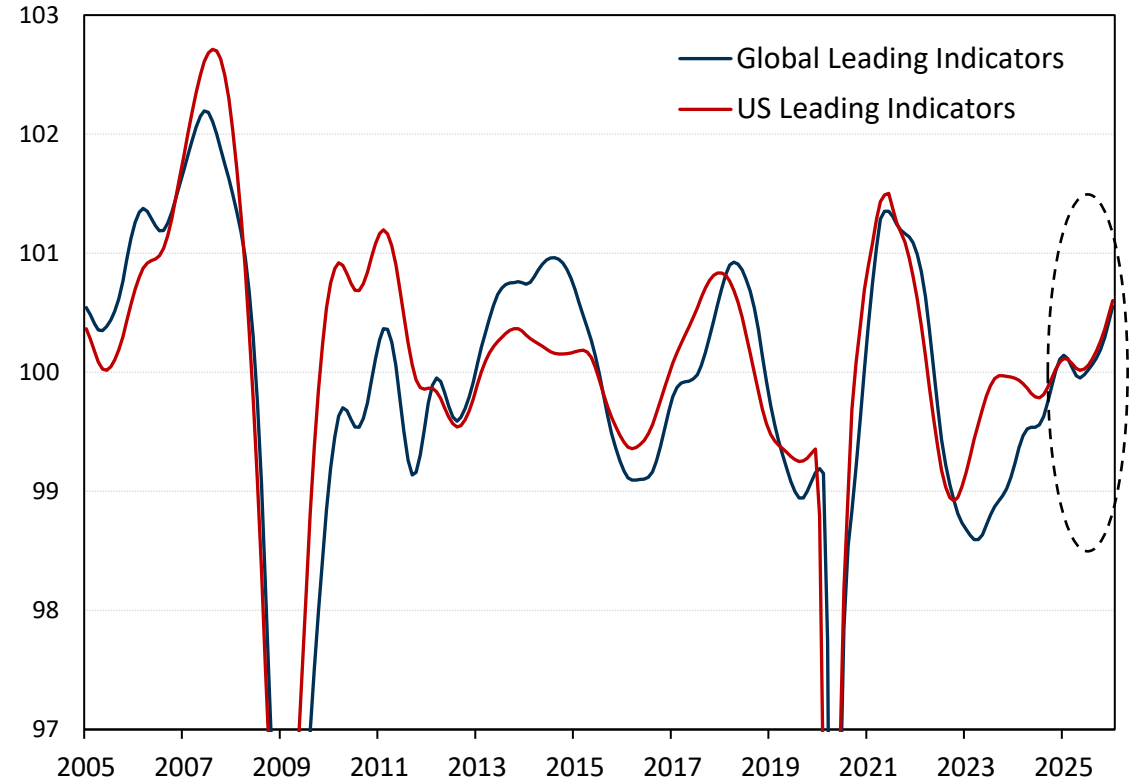
# U.S. Macroeconomy Supporting Global Growth

*Weaker US dollar eases global financial conditions, providing a global economic tailwind*

## Softer U.S. Dollar is a Tailwind for International Financial Conditions



## No Sign of Decoupling: U.S. and Global Leading Economic Indicators Remain Tightly Connected



# Emerging Economic and Geopolitical Risks

*Risks include rising credit default rates, AI disruption, and fallout from the Iran conflict*

## Credit Cycle Shifts

- Rapid credit growth and weaker underwriting may have increased the tail risk of a default cycle.
- UBS tail risk scenario has default rates for U.S. High Yield, Leveraged Loans, and Private Credit reaching 3-6%, 8-10%, and 14-15%.

## AI Disruption

- Productivity gains from AI likely to be uneven across sectors.
- AI already disrupting software and business services. Lev. Loans and Private Credit tend to have high exposure to these sectors.
- 'Block' cut about 40% of its workforce.

## Persistent Iran Conflict

- A persistent Iran conflict would likely raise global energy prices.
- Higher energy costs add inflationary pressure and slow global economic activity.

## Credit Default Rates

- Potential spillover into broader credit markets and public equities.

## Credit and Employment

- Sharp labor displacement could dampen demand and negatively affect AI-concentrated equities.

## Fed Policy Conflict

- High inflation and job losses create a policy dilemma given its dual mandate: higher-for-longer rates vs supporting employment.

**The AI capex boom has offset geopolitical headwinds, but a protracted Iran conflict could create a significant new headwind for growth, employment, inflation, credit, and markets.**

# Integrated WRS Resilience Framework

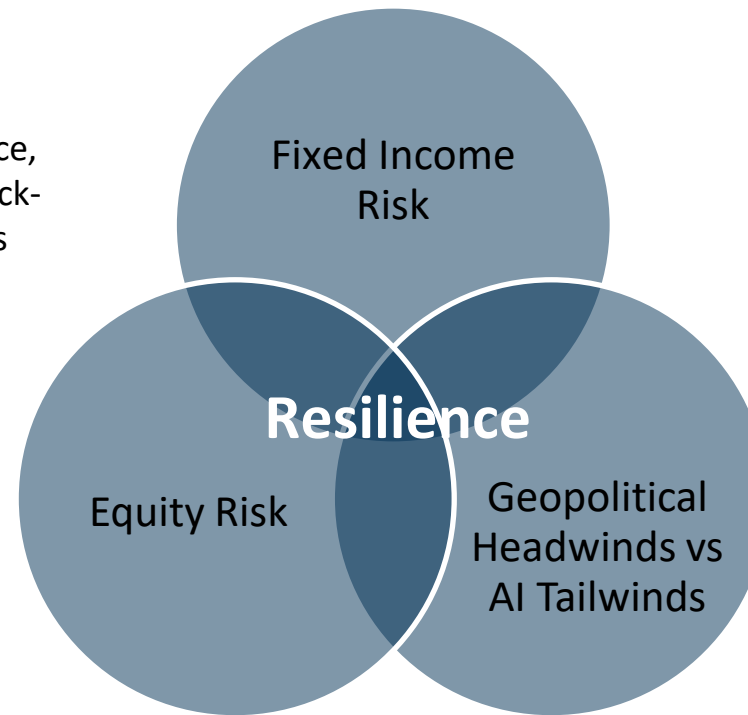
*Evolving fixed income, equity, geopolitical, and macro forces impact WRS assets and liabilities*

## Fixed Income

- Despite rising sovereign bond issuance, inflation uncertainty, and weaker stock-bond diversification, sovereign bonds remain core diversifying assets to hedge equity risk and WRS liabilities.

## Equity

- Sector concentration, rich valuations, and pressure on margins are long-term headwinds. However, equities remain core long-term return drivers.



## Geopolitics

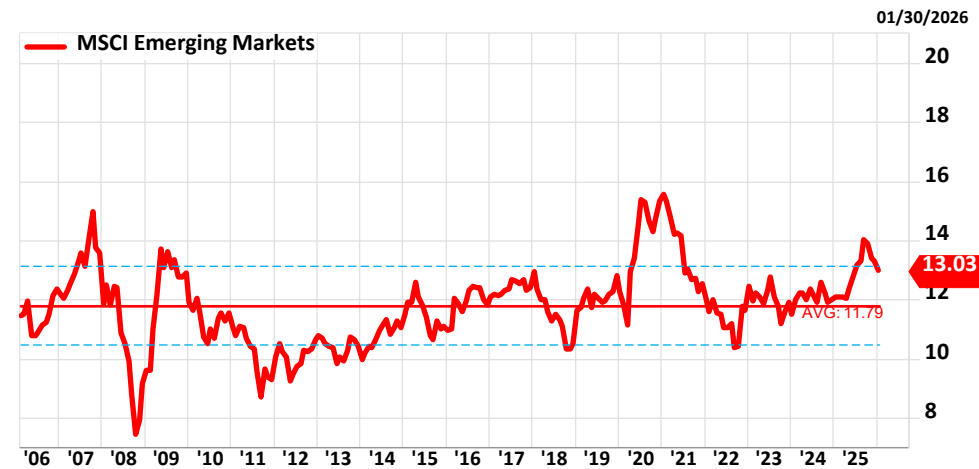
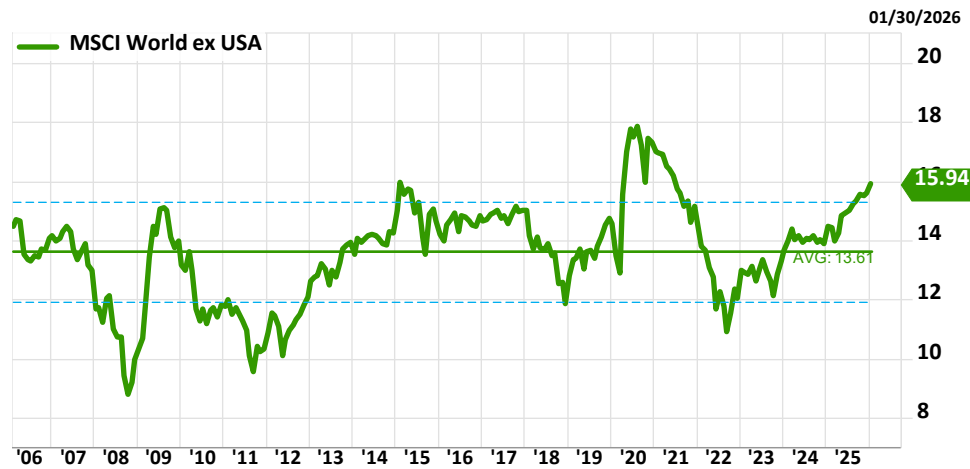
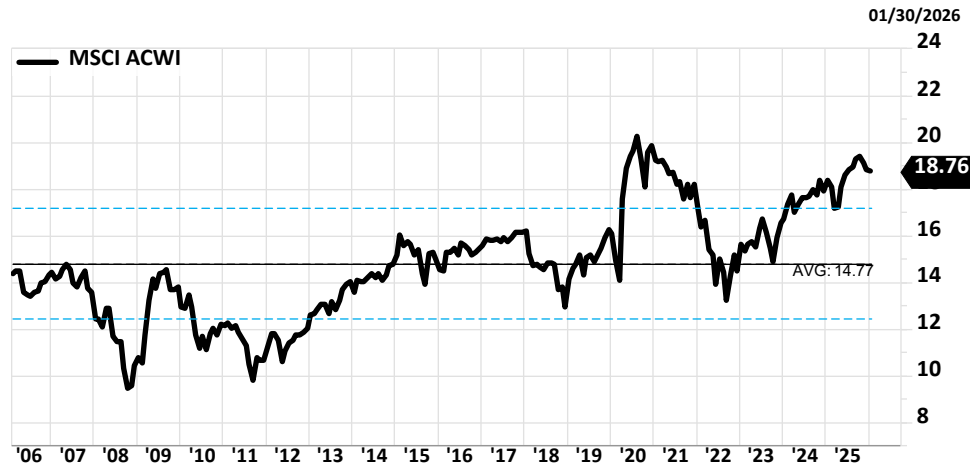
- Geopolitical “ruptures” due to deglobalization and uncertain policy and security arrangements may reduce productivity and raise prices. Strong U.S. cyclical conditions are providing an offset to these headwinds.

**In future work, we will deepen our analysis of how macroeconomic and capital market factors influence WRS assets and liabilities.**

# Asset Class Review

# Global Equities - Valuation

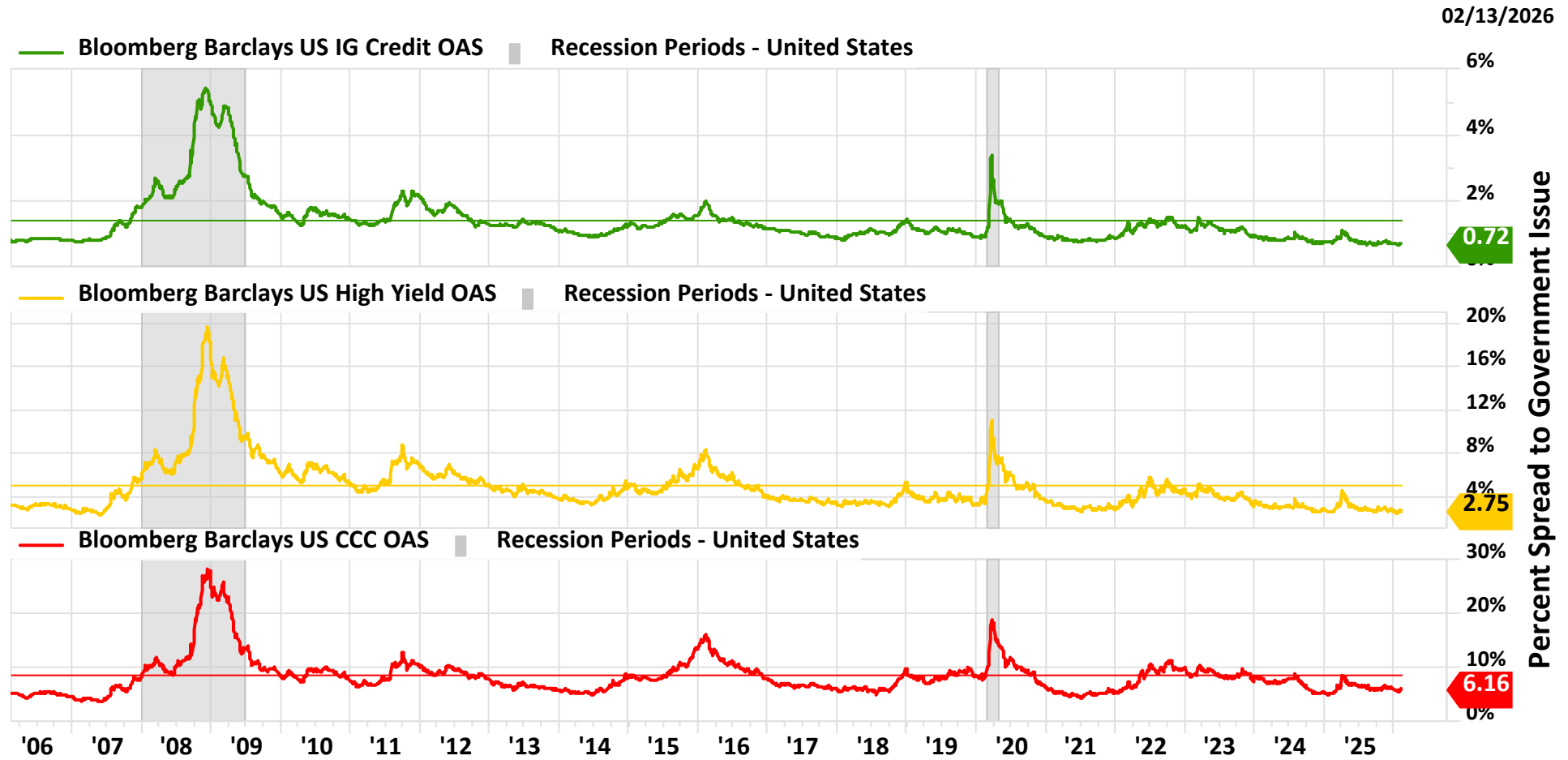
*US P/E ratio is 1.7 standard deviations above its 20-year average*



Source: FactSet Market Aggregates - Next Twelve Month P/E Ratio, monthly, 20-year Average with 1 Std. Dev. Bands

# Credit Sectors

*Spread levels are below the long run averages*



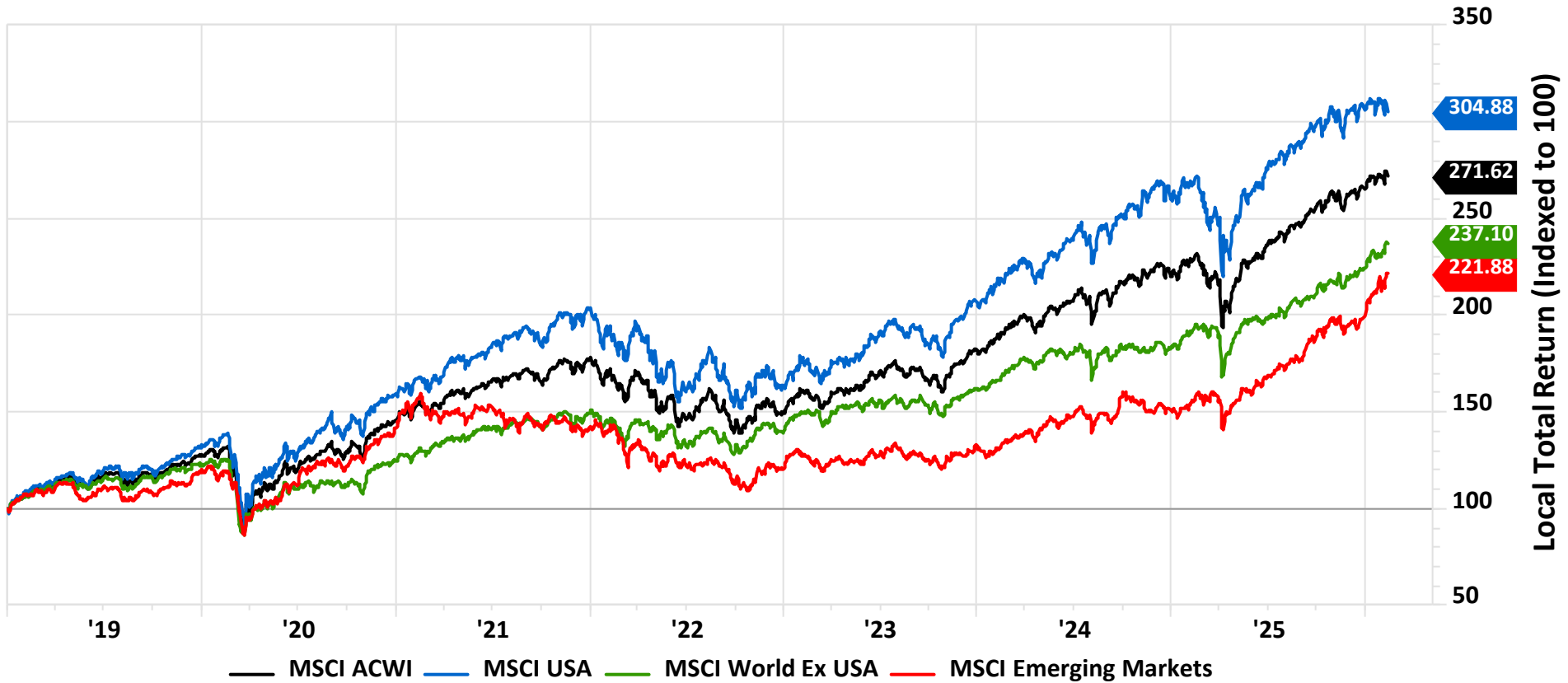
Source: FactSet

# Global Equities - Performance

*Both DM and EM equities have increased in the last few months*

02/13/2026

## Local Equity Performance



Source: FactSet

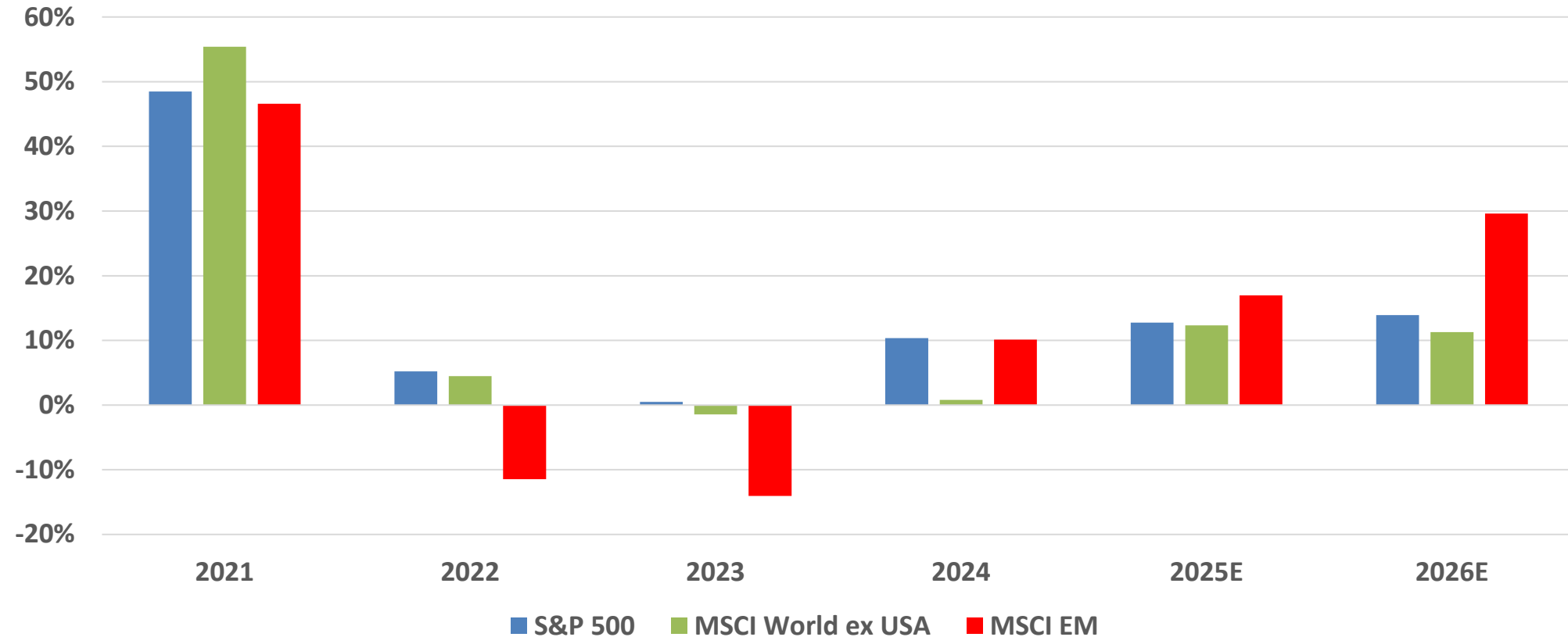
# Earnings Growth

*EM leads expectations for earnings growth*

## Global Earnings

Updated: 02/13/2026

Per Share Y/Y Growth



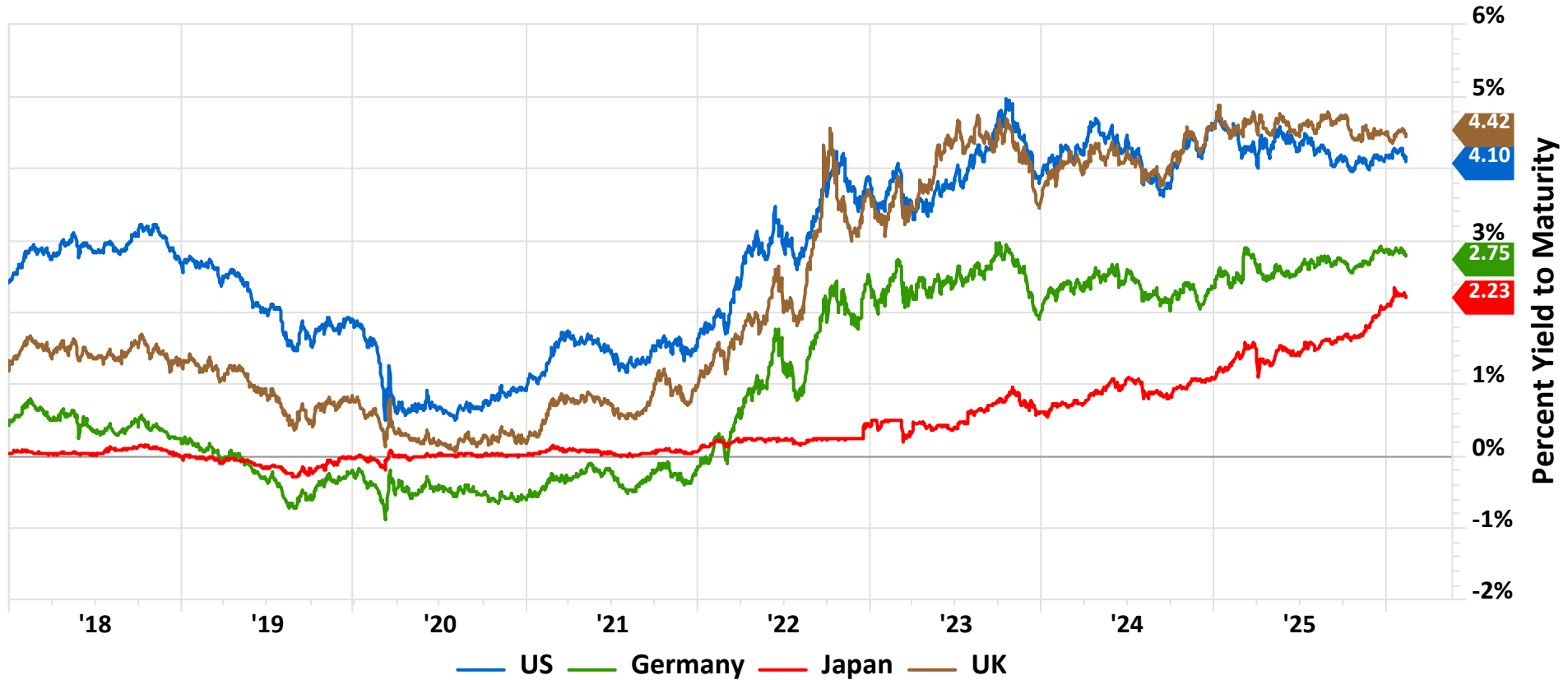
Source: Analyst Consensus, FactSet

# Global Bonds

*DM yields have been largely steady in recent weeks*

02/13/2026

## 10-Year Government Bond Yields

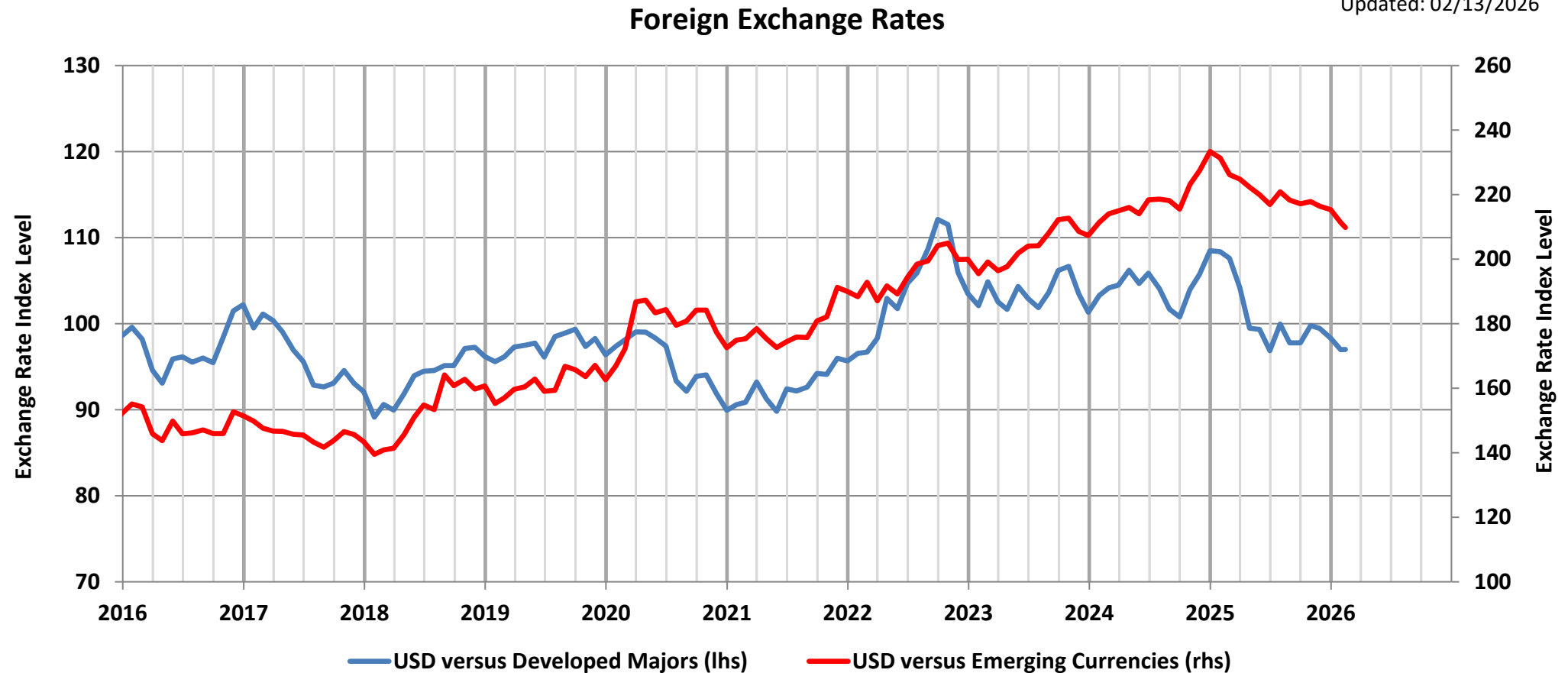


Source: FactSet

# Currency Performance

*US Dollar in moderate decline over recent weeks*

Updated: 02/13/2026



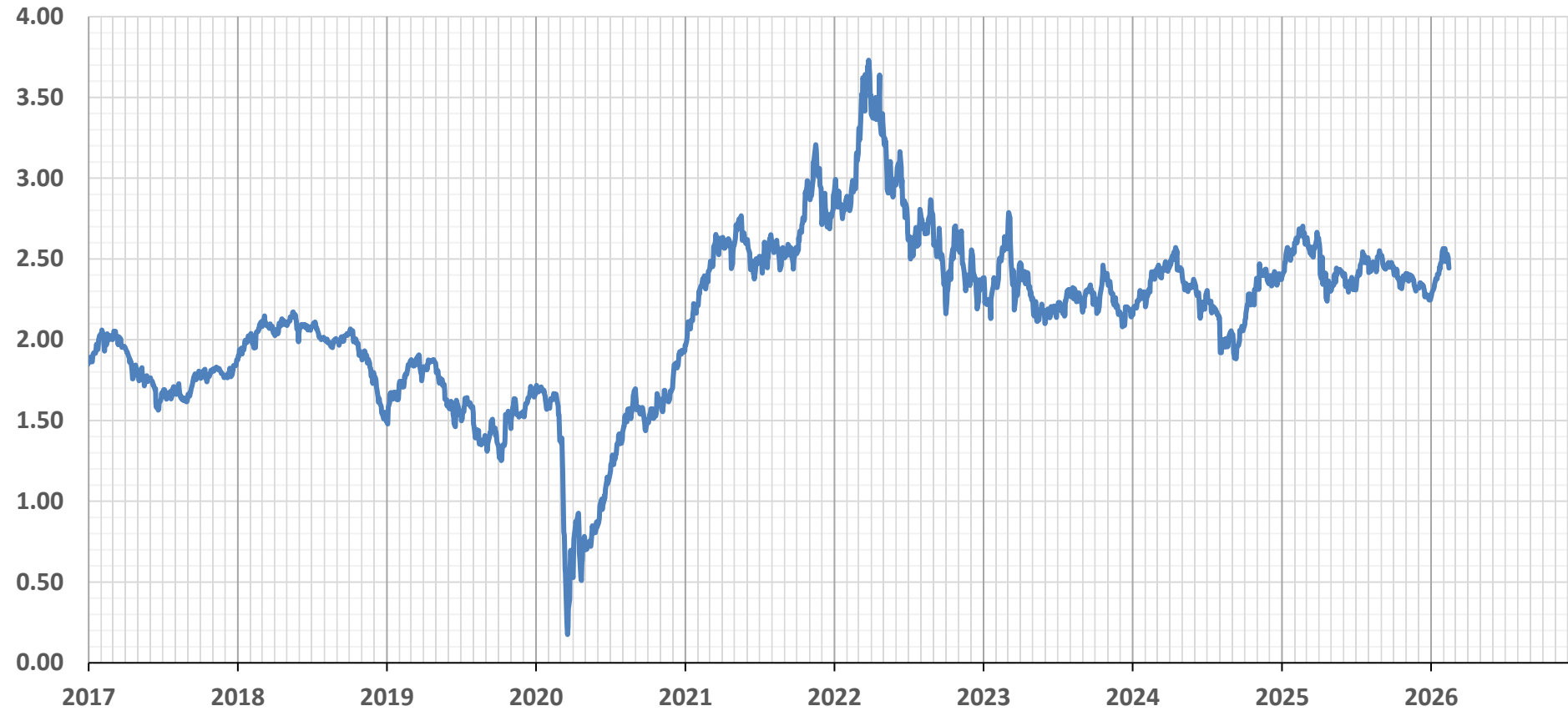
Source: Bloomberg, DXY Index, JPM Emerging Markets Currency Index (Inverted)

# U.S. Inflation

*Inflation expectations higher in recent weeks*

As of: 02/13/2026

### US 5 Year Breakeven Inflation

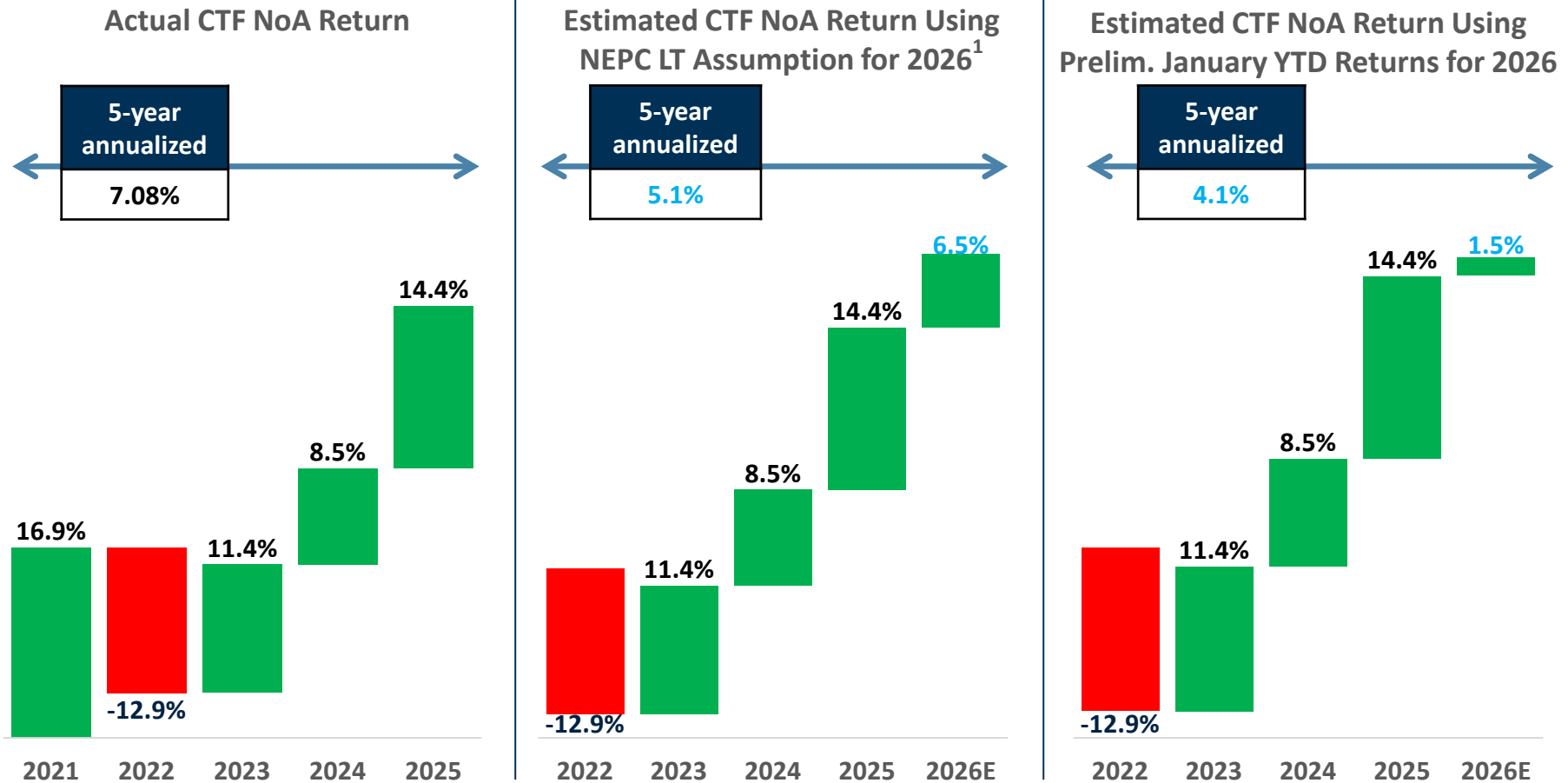


Source: Bloomberg

# Appendix

# CTF 5-Year NoA Return Estimate

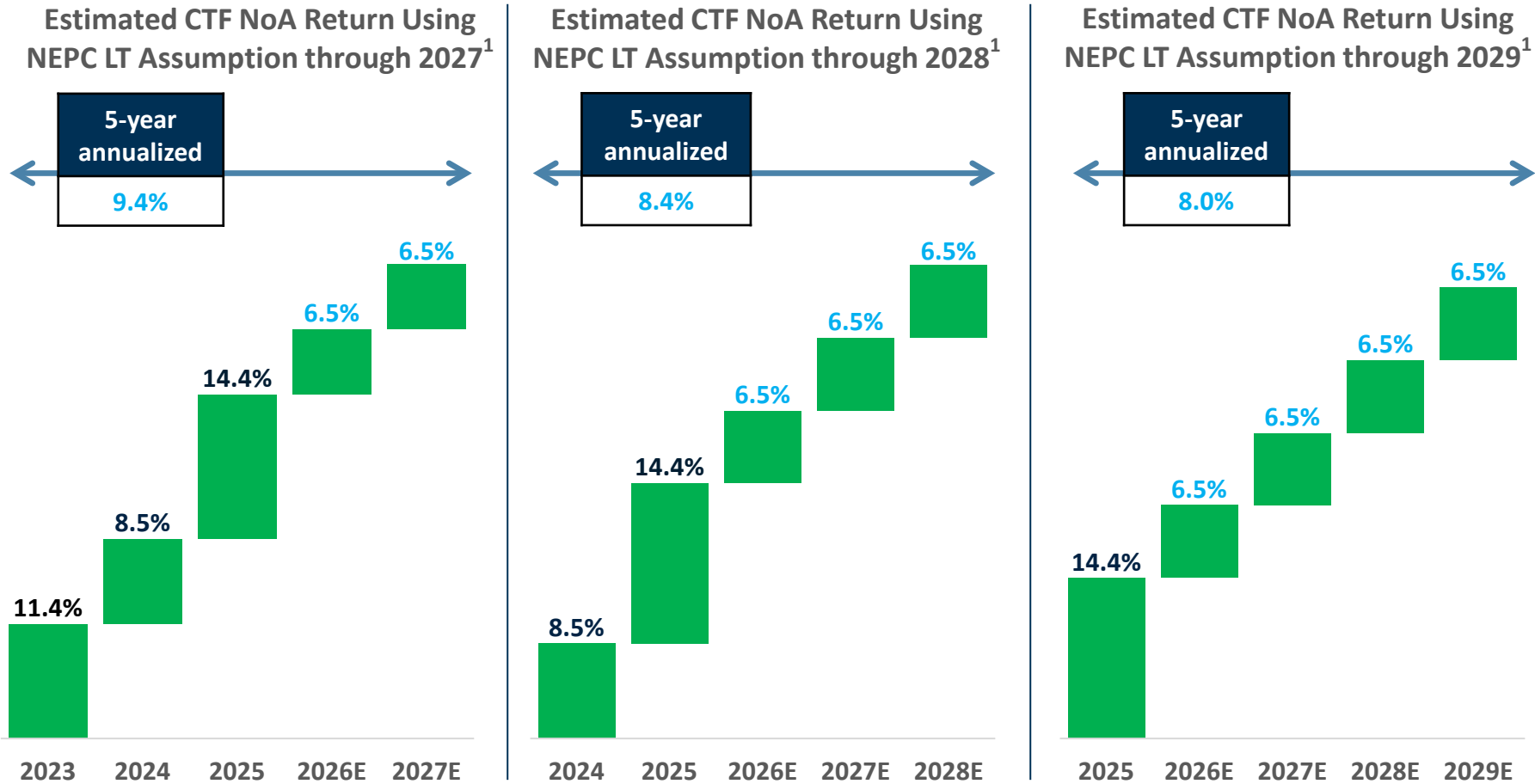
*Calendar year and 5-year annualized returns*



<sup>1</sup> 6.5% is NEPC's 10-year expected return for SWIB's 2026 policy portfolio and is used to estimate future year performance through 2029. SWIB's asset allocation process balances risk and expected return to set its asset allocation. The 10-year expected return does not always equal or exceed the WRS assumed rate of return, currently 6.8%. SWIB's actual results may be more or less than the NEPC 10-year expected return.

# CTF 5-Year NoA Return Forward Estimate

*Calendar year and 5-year annualized returns*



<sup>1</sup> 6.5% is NEPC's 10-year expected return for SWIB's 2026 policy portfolio and is used to estimate future year performance through 2029. SWIB's asset allocation process balances risk and expected return to set its asset allocation. The 10-year expected return does not always equal or exceed the WRS assumed rate of return, currently 6.8%. SWIB's actual results may be more or less than the NEPC 10-year expected return.

Thank you

## Board Meeting

### Tab 9 – Announcement of Matters Taken Up in Closed Session

## Board Meeting

### Tab 10 – Governance Updates

- A. Amendments to WRS Investment Policy
- B. Amendments to Investment Board Procedures

Board of Trustees

**WISCONSIN RETIREMENT SYSTEM  
INVESTMENT POLICY**

Updated

~~June 15, 2022~~

[\[March 18, 2026\]](#)

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### APPENDIX 1. ASSET ALLOCATION

## I. INTRODUCTION

The State of Wisconsin Investment Board (“SWIB”) is an independent state agency responsible for the management and investment of all funds entrusted to it, including assets of the Wisconsin Retirement System (“WRS”), the State Investment Fund, and the assets of various other state agencies and programs. ~~In its role as investment manager for these funds, SWIB is held to a high standard of fiduciary duty by the Wisconsin Statutes.~~

SWIB was created by the Wisconsin Legislature for the sole purpose of providing professional investment management of trusts and public funds under its control ~~pursuant to the~~. ~~In its role as investment manager for these funds, SWIB is held to the~~ “prudent expert” standard of fiduciary duty ~~found~~ outlined in Section 25.15(2) of the Wisconsin Statutes. ~~The~~ , which requires SWIB to (i) manage the money and property with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity, with the same resources, and familiar with like matters exercises in the conduct of an enterprise of a like character with like aims; (ii) diversify investments in order to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so, considering each trust’s or fund’s portfolio as a whole at any point in time; and (iii) administer assets of each trust or fund solely for the purpose of ensuring the fulfillment of the purpose of each trust or fund at a reasonable cost and not for any other purpose.

SWIB’s Board of Trustees (the “Board” or “Trustees”) has established the investment policy set forth herein for the WRS, pursuant to a comprehensive and ongoing evaluation of the appropriate risk and return standards for the WRS.

This Board of Trustees WRS Investment Policy (“WRS Investment Policy”) is intended to assist in development of a diversified portfolio of investments, tailored to accomplish the purpose of the WRS within acceptable risk parameters. This WRS Investment Policy represents a delegation of standing authority to SWIB staff ~~within the organization~~ to promote efficient and ~~cost effective~~ cost-effective operations of the two WRS trust funds. In addition to the WRS funds managed internally by SWIB staff, external managers are used for certain active and passive investment strategies. This document will be reviewed periodically and updated as necessary by the Board to reflect changes in SWIB’s investment strategy and to reflect best industry practices ~~for prudent investors~~.

Accordingly, the Trustees hereby delegate to the Executive Director/Chief Investment Officer (“ED/CIO”) and ~~the~~ SWIB investment staff ~~of SWIB~~ standing authority to make prudent investments pursuant to this WRS Investment Policy ~~and to sections~~, Sections 15.02(4) and 25.15(2) of the Wisconsin Statutes, and ~~section IB-2.02~~ relevant provisions of the Wisconsin Administrative Code. The ED/CIO shall identify and delegate in writing the individual ~~professional~~ SWIB investment staff members who have authority to manage each of the specific asset classes and internal portfolios and who have authority to direct, hire, and terminate external managers.

In addition to this WRS Investment Policy, the Trustees have also adopted the State Investment Fund and Separately Managed Funds Investment Policy and Guidelines (“SIF & SMF Investment Policy”) to govern the administration of the other funds that ~~the Board~~ SWIB manages pursuant to the Wisconsin Statutes. Further, the Trustees have delegated to SWIB’s Investment Committee the establishment and maintenance of guidelines for the

management of internal WRS portfolios and for external managers of WRS assets pursuant to the SWIB Investment Committee WRS Investment Guidelines (“IC Guidelines”). ~~Such Administration of such~~ IC Guidelines ~~are~~ is hereby delegated to ~~the~~SWIB’s Investment Committee or SWIB investment staff, as applicable, as part of the standing authority delegated pursuant to this WRS Investment Policy and the Investment Committee’s charter approved by the Trustees.

## II. WISCONSIN RETIREMENT SYSTEM

The assets of the WRS constitute a large majority of the total funds invested by SWIB. ~~The retirement~~ These funds are invested globally in both long-term and short-term investments, across a wide range of asset types and classes. Pursuant to the Wisconsin Statutes, WRS assets are divided into two funds—: a Core Retirement Investment Trust (the “Core Fund”) and a Variable Retirement Investment Trust: (the “Variable Fund”). The Core Fund is a broadly diversified portfolio of stocks, bonds, non-public securities, real estate and other holdings. The Variable Fund is an equity-focused portfolio primarily invested in global stocks.

### A. ~~Core Retirement Investment Trust (“The Core Fund”)~~

The Core Fund is a pooled fund consisting of the retirement contributions made by and on behalf of participants in the WRS. Participants include state, school, and local government employees (with the exception of the City and County of Milwaukee). All participant contributions are invested in the Core Fund unless the participant has elected to contribute to the Variable Fund. (Wis. Stat. § 40.04(7))

### B. ~~Variable Retirement Investment Trust (“The Variable Fund”)~~

The Variable Fund, like the Core Fund, is a pooled fund consisting of retirement contributions made by or on behalf of the participants of the WRS. An active participant can elect to credit 50% of the total future monthly retirement contributions made by or on behalf of the participant to the Variable Fund, with the balance going to the Core Fund. The purpose of the Variable Fund is to permit participants to increase their exposure to the public equity markets beyond the allocation to public equities in the Core Fund. However, unlike the Core Fund, the Variable Fund does not pursue diversification across a variety of different asset classes and could be subject to greater volatility of earnings. (Wis. Stat. § 25.17(5))

## III. STATEMENT OF PURPOSE AND INVESTMENT PHILOSOPHY

This WRS Investment Policy is intended to summarize the fundamental investment objectives, philosophies, and directives relative to the implementation and oversight of the investment of the WRS assets managed by SWIB. ~~Key areas are elaborated upon and general investment guidelines are articulated. The WRS Investment Policy is intended~~ and to provide an outline of the common and critical components of successful administration of a large pool of public assets. Supplemental policies and guidelines pertaining to derivatives use,

rebalancing assets, and portfolio-specific guidelines are set forth within the IC Guidelines [that are](#) maintained and approved by SWIB's Investment Committee.

## A. Broad Investment Objectives

SWIB's overall objectives in managing WRS assets are:

1. To maximize long-term investment returns with a prudent level of risk to ensure that sufficient funds are available to meet pension fund obligations;
2. To seek aggregate returns in excess of the Core Fund's and Variable Fund's benchmarks over all cumulative time periods constructed with a prudent level of risk; and
3. To comply with all applicable fiduciary and legal standards.

## B. Key Investment Philosophies

[\[Reserved.\]](#)

- ~~1. Investment returns are a function of risk; thus, losses are inevitable. The optimal SWIB strategic asset allocation policy should reflect a probability of losses that is consistent with SWIB's investment return expectations.~~
- ~~2. Asset classes and sub-asset classes are broadly defined to gain exposure to the entire investable opportunity set and capture the greatest depth of available investment opportunities to the extent they offer a risk-return trade-off commensurate with SWIB's return objectives and risk tolerance.~~
- ~~3. Through quantitative asset/liability modeling and qualitative evaluation, an appropriate strategic asset allocation mix can be selected. Application of a rebalancing regimen after allowing a predetermined amount of "drift" around targets effectively contains allocation risk and can add value by enforcing an efficient allocation at the asset class level.~~
- ~~4. A well-diversified asset mix in the Core Fund historically has been a favorable position for meeting long-term objectives, recognizing that strategies will not always appear to add value over shorter time frames. It is essential to hold to the investment program during difficult times, and the diversified asset mix should mitigate the impact of negative market environments.~~
- ~~5. Including an allocation to passive investments within major asset classes is a relatively efficient way to provide benchmark returns, adjust risk within the overall fund, provide a liquid and low cost pool of assets, and facilitate timely fund rebalancing.~~
- ~~6. Positive returns can be gained from active management and supplement the returns earned from the allocation to passive investments. Over the long term, active management can add value beyond market-neutral benchmarks at the asset class, sector, and security levels by exploiting market inefficiencies and their resulting valuation opportunities.~~
- ~~7. Risk management and performance benchmarking are integral to the entire investment process. SWIB manages and monitors risk at multiple levels. The primary risk~~

~~resulting from WRS drawdowns is lower dividend annuities and higher employee and employer contributions. Fund-level absolute and relative return volatility are other key risks that affect the WRS.~~

- ~~8. Ex-ante (forecasted) and ex-post (actual) total fund risk, and component contributions to risk, are assessed and considered in the structuring of the investment program and monitored by SWIB staff. Performance benchmarking compares actual investment results to expected results.~~
- ~~9. Fund and portfolio results are most appropriately measured against investable market indices, representing neutral, or passive, market positions. Peer comparisons are fraught with difficulties due to differences in liability structure, investment style, risk preferences, and inconsistencies over time and are generally used as secondary comparisons. Results are evaluated on the basis of investment return as well as return for the level of assumed risk.~~
- ~~10. Cost optimization is a component of investment results, and costs are optimized through lower cost internal management, external fee negotiations, and a focus on net performance. Maintenance of an internal team of investment professionals is an appropriate strategy to optimize costs and retain better control of the assets compared to outsourcing asset management. When SWIB does use external managers, it negotiates competitive fee arrangements that are driven by pay for performance metrics.~~

#### **IV. RESPONSIBILITIES**

SWIB's investment responsibilities break down into these primary areas:

- A. Setting the Asset Allocation and Investment Strategy**
- B. Asset Allocation Rebalancing**
- C. Establishing the Active Risk Target**
- D. Risk Monitoring and Compliance; Waivers**
- E. Investment Performance Monitoring and Benchmarking**
- F. Cost Management and Optimization**

The roles for each of SWIB's fiduciaries with respect to these responsibilities are outlined in Section V.

##### **A. Setting the Asset Allocation and Investment Strategy**

~~The SWIB~~ [Together with the Asset & Risk Allocation \("ARA"\) division and the Board's asset allocation consultant](#), Trustees undertake an in-depth review of the strategic asset allocation plan for the WRS every other year, ~~including asset/liability modeling~~, to determine a suitable target allocation for each asset class included in the Core Fund and the Variable Fund (subject to the statutory restrictions of the Variable Fund). [The Wisconsin Department of Employee Trust Funds' independent actuaries provide information with respect to asset/liability modeling.](#) These reviews contemplate a long-term time horizon over which

potential results are evaluated. This exercise is not an attempt to predict short-term market movements, but to better understand the long-term impacts of poor, normal, and above average market results. In the “off year” of the two-year cycle, structural asset allocation adjustments and other funding initiatives are considered. In addition to the potential future market impact, ~~SWIB~~ Trustees also contemplate the impact of actuarial analysis, the soundness of investment return and risk expectations, and the asset allocation policies of ~~its~~ peers. SWIB’s peers. The Board will periodically consider and evaluate the cadence of asset allocation reviews and make adjustments as needed, without amendment to this WRS Investment Policy.

The recommended asset allocation targets are approved on an annual basis in the asset allocation memorandum attached to this WRS Investment Policy as *Appendix 1*. Each year upon approval by the Board, *Appendix 1* shall be updated without amendment to this WRS Investment Policy. The recommended asset allocation targets and Trustee-approved ~~financial~~ policy leverage (for the Core Fund) constitute the policy portfolio for each of the Core Fund and Variable Fund (each, the “Policy Portfolio”).

Portfolios within each of the approved asset classes will be structured in a manner that attempts to effectively cover the universe represented by appropriate benchmarks and provide adequate flexibility to deviate from the benchmarks to generate active returns by taking active risk. This is accomplished through the active risk budgeting process approved by the Investment Committee for each asset class. Index funds and actively managed portfolios will be combined in a manner that attempts to accomplish desired performance objectives within acceptable risk parameters.

## **B. Asset Allocation Rebalancing**

When a major liquid asset class (i.e., Total Public Equities, Total Public Fixed Income, or ~~Inflation-Sensitive~~ Inflation-Sensitive Assets) falls outside of a rebalance range approved annually by the Board, as reflected in *Appendix 1*, as of a month end, a mandatory rebalancing will be initiated. ~~A rebalancing task force, consisting of the ED/CIO and heads of Asset and Risk Allocation (ARA), Global Public Markets Strategies (GPMS) and Private Markets & Funds Alpha (PMFA) (collectively, Investment Division Heads), will review and approve the mandatory rebalancing.~~ In a mandatory rebalancing, an asset class in excess of its target will be adjusted to a level recommended by the Asset & Risk Allocation CIO, in consultation with the head of Liquidity Management and Beta Implementation (“LMBI”) as needed and approved by the ED/CIO and head of ARA, so that the asset class is returned to a level within its target allocation range.

A ~~The ED/CIO and head of ARA may also from time to time initiate~~ discretionary rebalancing may also be initiated pursuant to procedures described in the IC Guidelines to use or reduce active risk or to minimize asset allocation drift from the Policy Portfolio, ~~as recommended by the Asset & Risk Allocation CIO, in consultation with the head of LMBI as needed and approved by the ED/CIO.~~

Whenever a rebalancing is triggered (mandatory or discretionary), ~~a plan will be developed~~ the ARA division, in consultation with the LMBI division as needed, will develop and recommend a rebalancing plan, subject to approval by the ED/CIO, whereby specific dollar amounts will be considered for movement based on the degree of the

over/underweight, liquidity characteristics, and current market conditions. The LMBI division will then implement the rebalancing plan.

WRS asset allocations will be reviewed at least monthly for potential rebalancing. When feasible, index funds may also be used to facilitate rebalancing to minimize opportunity and trading costs. Derivative securities may be used to implement adjustments. When active portfolios are used in a rebalance, ~~portfolio managers~~applicable SWIB investment staff will be consulted and included in the process.

### C. Establishing the Active Risk Target

As part of the strategic asset allocation, the Trustees approve a ~~fund level~~fund-level active risk target for the WRS. Active risk represents a measurement of the added risk of actively investing ~~the~~ assets, rather than replicating the benchmark, to achieve returns beyond market returns. ~~The active risk target for the Core Fund is 120 bps +/- 60 bps. The active risk target for the Variable Fund is 60 bps +/- 30 bps.~~ Guidelines for individual portfolios will be constructed so that the aggregate risk of the portfolios is within the range established for the ~~fund level~~fund-level risk objective. The Investment Committee approves an active risk budget that allocates the active risk target to the Core ~~Trust~~ Fund's portfolios and monitors the allocation of active risk.

### D. Risk Monitoring and Compliance; Waivers

~~Risk~~Investment risk is a consideration and factor in the management of the WRS assets, and such risk is considered throughout the investment process from asset allocation to performance evaluation. SWIB's approach to investment risk management ~~policy~~ is detailed in Section VI.

The Investment Risk Management ~~Division~~division will also measure soft risk parameters established by the IC Guidelines for asset classes and portfolios. Soft risk parameters refer to desired characteristics and/or risk exposures. ~~Investment~~SWIB investment staff are permitted to deviate from soft risk parameters in pursuit of excess return. However, anything outside of the soft risk parameters will be discussed with the Investment Committee to determine whether the exposure should be maintained. All such Investment Committee discussions will be documented in the Investment Committee's meeting minutes.

Portfolio ~~managers~~Managers are responsible for the compliance of their portfolios with this WRS Investment Policy, IC Guidelines, ~~as well as~~and the Wisconsin Statutes ~~and Administrative Code~~. SWIB's Compliance division will review portfolios and asset classes on a daily and monthly basis for compliance with ~~investment guidelines~~the IC Guidelines and other applicable regulatory requirements. Portfolios out of compliance with ~~guidelines~~IC Guidelines will be brought into compliance immediately, or a plan for doing so or a waiver will be discussed and approved by the ED/CIO pursuant to the IC Guidelines. Violations and the status of any remediation plans or waivers will be discussed at the next scheduled Enterprise Risk and Compliance Committee meeting and reported to the Investment Committee, and documented in the minutes for such meetings.

### E. Investment Performance Monitoring and Benchmarking

The Trustees will review investment performance at least quarterly. Performance reviews will be conducted compared to the benchmarks approved by the Trustees. Quarterly results

will be evaluated to review progress toward ~~longer-term~~[longer-term](#) objectives. It is understood that there are likely to be intermittent periods when portfolio performance deviates from market indexes. During such times, comparisons with specific peer groups also will be considered. A third-party performance benchmarking consultant analyzes SWIB's performance in comparison to its peers, and the Trustees shall review such analysis quarterly.

#### F. Cost Management and Optimization

Costs reduce investment returns. SWIB is committed to managing the WRS in a prudent and cost-efficient manner. Retaining internal investment management ~~of a significant amount of SWIB assets is key to managing~~[when appropriate is one tool to manage](#) costs efficiently. ~~External management fees~~[Economic arrangements with external managers](#) are negotiated to ensure that manager interests are aligned with ~~SWIB~~[SWIB's interests](#) and that SWIB's net performance is optimized. Fees for all individual vendors and external managers are reported to Trustees for their review by SWIB management on a quarterly basis. A third-party cost benchmarking consultant is retained by SWIB management to analyze SWIB's costs in comparison to peers ~~and the net of cost value added given the level of risk taken.~~

### V. ROLES AND RESPONSIBILITIES OF SWIB FIDUCIARIES

The following section provides the delineation of roles and responsibilities among SWIB's fiduciaries. Each employee of SWIB ~~also~~ has a definitive job description which describes all of the employee's specific job responsibilities, and the Trustees have a ~~governance manual~~["SWIB Trustee Manual"](#) that outlines all responsibilities for ~~the~~ Trustees. This section supplements both. Below, the primary investment management responsibilities as they relate to each person's fiduciary obligations are highlighted for purposes of defining those fiduciary obligations and where the roles are distinctive and where they overlap.

#### Trustees

~~SWIB~~ Trustees are fiduciaries of the WRS. Trustees are responsible for the overall professional investment management of the assets entrusted to them under Wisconsin state law. Trustees must manage the investment of ~~trust~~ assets pursuant to the prudent expert standard as set forth in Section 25.15(2) of the Wisconsin Statutes. ~~The~~ Trustees have the following investment responsibilities:

- Establish and approve this WRS Investment Policy
- Review and approve:
  - asset allocation for the Policy Portfolio as recommended by the Board's Asset Allocation Consultant, Investment Committee, ED/CIO, and ~~head of ARA~~[Asset & Risk Allocation CIO](#)
  - sub-asset class allocation policy for public equities and public fixed income asset classes, as well as any other sub-asset classes set forth in the asset allocation memorandum attached to this WRS Investment Policy as [Appendix 1](#)

- ~~the~~ mandatory rebalancing ~~trigger~~ranges for major asset classes
- ~~the~~ total fund absolute risk exposure through approving the asset allocation policy and active risk ~~target~~targets
- total fund policy-level ~~financial~~ leverage (as established by the asset allocation)
- total fund active risk ~~target~~targets and ~~range~~ranges
- total fund, asset class and portfolio performance benchmarks, as recommended by the Board's Benchmark and Performance Committee (the "Benchmark Committee") and Benchmark Consultant
- incentive compensation payments based on investment performance, as recommended by the Board's Compensation and Workforce Development Committee (the "Compensation Committee")
- SWIB's total cost of management budget, as recommended by the Board's Audit and Finance Committee (the "Audit Committee")
- Delegate the establishment and approval of portfolio-specific investment guidelines to the Investment Committee through the IC Guidelines
- Through updates and reports provided at ~~board~~Board meetings, monitor and be informed of:
  - investment performance and risk metrics of the WRS
  - investment performance against a simplified reference portfolio used to evaluate the efficacy of the Policy Portfolio's complexity and diversification
  - significant investment strategy and processes and infrastructure implemented to enable them
  - spending on investment activities
  - approved actions and recommendations arising out of Board Committees and the Investment Committee
- Approve the Investment Committee ~~Charter~~charter

#### Executive Director/Chief Investment Officer

The ED/CIO assists the Trustees in meeting their fiduciary and statutory duties by monitoring issues and trends and making recommendations to the Trustees. The ED/CIO is also responsible for establishing investment strategy, investment priorities, achieving investment performance targets and managing the associated investment risks. In addition to the overall management of the agency and duties prescribed by statute, the ED/CIO has the following responsibilities:

- Implements the investment strategy approved by the Board
- Develops, identifies and leads strategic initiatives to enable SWIB's investment strategy

- Identifies and reports to the Board material issues or risks related to the investment policy or strategy ~~to the Board~~
- Manages and monitors investment risk at both the total fund and asset class level
- Approves the implementation of new internal leverage strategies
- Leads the organization and evaluates its performance against its annual objectives
- Leads the SWIB Management Council and evaluates their performance
- Leads ~~the investment~~SWIB staff and evaluates their performance
- Serves as ~~Chairperson~~Chair of the Investment Committee and sets the Investment Committee agenda
- Reports the business of the Investment Committee to the Board and presents quarterly market trends and other macroeconomic conditions
- Recommends, with the ~~head of ARA, the WRS~~Asset & Risk Allocation CIO, the Policy Portfolio to the Investment Committee and the Board
- Designs and approves the implementation of the Policy Portfolio approved by the Board and by doing so sets overall investment direction, strategies and priorities for each asset class
- Determines the implementation of the Policy Portfolio set by the Board by approving the allocation between:
  - active versus passive management, and
  - internal versus external management
- Approves the portfolios established or eliminated in each internal asset class
- Reviews and approves annual scorecards for each investment ~~division's strategy prior to its presentation to, and approval by, the Investment Committee~~division
- Approves the monthly asset allocation memo which details the movement of assets across all portfolios
- Approves the implementation of mandatory and discretionary rebalancing
- Approves ~~investment portfolio commitments at varying thresholds for~~certain investments, as required by the IC Guidelines, for the private markets and funds alpha ("PMFA") ~~investments~~division and exposure management portfolios
- Develops, in consultation with the Investment Division ~~Heads~~Leaders, the appropriate active risk target for each asset class and the active risk budget prior to its presentation to, and approval by, the Investment Committee
- ~~Manages and monitors risk at both the total fund and asset class level~~
- ~~Develops, recommends, and approves exposure management implementation strategies pursuant to the IC Guidelines~~
- ~~Approves all internal strategies for achieving fund level financial leverage~~

- ~~Monitors and manages liquidity risk and approves the implementation of internal leverage strategies~~
- Approves all new derivatives counterparties
- Collaborates with the Deputy Executive Director and Human Resources division regarding talent acquisition, development and retention
- Ensures the appropriate implementation of the incentive compensation program approved by the Board
- Ensures that prudent investment processes are implemented and works with the Section 25.167 CIO to monitor [SWIB](#) investment staff compliance with investment policies and guidelines
- Ensures, with the Section 25.167 CIO, that operating procedures have been developed and implemented that are intended to ensure that investment policies and guidelines are followed
- Ensures, with the Section 25.167 CIO, that investments are completely and accurately reported on all management and financial reports and that any information requested by the Board is provided on a timely basis

[As permitted by the Wisconsin Statutes, the ED/CIO may delegate any of the responsibilities described above to SWIB staff, as appropriate.](#)

### Management Council

The Management Council was established by the Board as an advisory council to assist the ED/CIO in leading the organization. It consists of the ED/CIO and other senior leaders from investment management and investment services. The membership of the Management Council (including the number of members) will be set by the ED/CIO, and the ED/CIO will provide notice to the Board any time a change is made to the membership of the Management Council.

- Assists the ED/CIO in implementing SWIB's investment strategy
- Assists the ED/CIO in developing, identifying and leading key initiatives to enable SWIB's investment strategy
- Assists the ED/CIO in identifying and reporting [to the Board any](#) issues or risks related to ~~the~~[SWIB's](#) investment policy or strategy ~~to the Board~~

### Section 25.167 CIO

The Section 25.167 CIO is ~~an~~ [SWIB](#) investment ~~management~~ staff member designated by the ED/CIO to assist with the fulfillment of certain statutory duties. The ED/CIO retains oversight of those responsibilities delegated to the Section 25.167 CIO, which include the following:

- Monitors activities of ~~the~~[SWIB](#) investment staff for compliance with investment policies and guidelines

- Develops and implements operating procedures that are intended to ensure that investment policies and guidelines are followed
- Ensures that investments are completely and accurately reported on all management and financial reports and that any information requested by the Board is provided on a timely basis

### Investment Committee

The Investment Committee provides oversight of SWIB's investments within the parameters established by the Board. The Investment Committee is chaired by the ED/CIO and has ~~nine~~eleven additional voting members drawn from ~~the~~SWIB investment ~~management~~ staff as well as three non-voting members. The Investment Committee has the following investment responsibilities which are also outlined in its charter approved by the Board:

- Establishes and approves the IC Guidelines, which includes portfolio-level guidelines for all internally managed portfolios
- Fulfills the duties and purposes set forth in its charter approved by the Trustees
- Reviews annual scorecards for each investment division
- Reviews and ~~Approves~~approves:
  - the active risk budget, and the Net ~~Economic~~Excess Value Added ("EVA") target, for the Core Fund and Variable Fund
  - ~~the investment strategy for each division~~
  - ~~passive external manager guidelines and waivers therefrom~~
  - the use of new investment instruments or initiatives, including derivatives and leverage, in all SWIB portfolios
- Reviews and ~~Monitors~~monitors:
  - implementation of active risk budget
  - soft risk parameters for all internal portfolios
  - strategies and trades in the exposure management portfolios and the over and underweights to asset and sub-asset classes
  - sources of absolute and active risk through regular review of monthly risk reports
- Reviews and ~~Recommends~~recommends to the Trustees:
  - any proposed changes to this WRS Investment Policy
  - the annual asset allocation plan and strategies and any proposed changes during the year
  - annual benchmark recommendations ~~from~~, and any provisional benchmark recommendations, from the Board's Benchmark Consultant
- Sets the procedures for rebalancing included in the IC Guidelines

- Delegates approval for ~~active~~ external managers' guidelines to ~~the PMFA Division~~ SWIB investment staff, as applicable

#### Head of Asset and Risk Allocation (ARA) CIO

The ~~head of ARA~~ Asset & Risk Allocation CIO maintains the quantitative analysis and research that supports the policy allocation of capital and risk. The ~~head of ARA~~ Asset & Risk Allocation CIO has the following investment responsibilities:

- Recommends, with the ED/CIO and the Board's Asset Allocation Consultant, the ~~WRS~~ Policy Portfolio to the Trustees and Investment Committee
- ~~Heads the rebalancing task force to consider and approve the implementation of mandatory and discretionary rebalancing and coordinates rebalancing and monthly cash flow activities~~
- Considers and recommends mandatory and discretionary rebalancing, in consultation with the LMBI division
- Formulates, and recommends for IC approval, the active risk budget for the Core Fund and the Variable Fund
- Develops, recommends, and approves exposure management ~~implementation~~ strategies pursuant to the IC Guidelines
- ~~Manages the passive external manager relationships and implements internal leverage strategies~~
- Determines appropriate contingency plans and risk mitigation actions for stressed market environments or when Core Fund or Variable Fund risk levels exceed expectations
- Recommends to the Trustees, with the ED/CIO and with analysis and verification from the Board's RPM Consultant, the Relative Performance Maximums ~~to the Trustees~~

#### Head of Risk Liquidity Management and Beta Implementation

The head of LMBI is responsible for managing SWIB's passive public markets and short-term cash strategies as well as its trading, securities lending, financing, and collateral and liquidity management activities. The head of LMBI has the following primary responsibilities:

~~Upon the direction of the ED/CIO, the Risk Management Division will assume oversight of the organization's risk monitoring and risk management functions from ARA. Beginning at that time, the Head of Risk Management will have the following responsibilities:~~

- ~~Oversees risk monitoring for the WRS and ensures risk management measures are implemented~~
- ~~Monitors relative performance drawdowns for active portfolios and participates, with the ED/CIO and the head of ARA, in discussions regarding such drawdowns and the responses thereto~~

- ~~Conducts stress testing analysis and, in conjunction with the ED/CIO,~~ Manages and monitors ~~and manages~~ liquidity risk and oversees the implementation of internal leverage strategies
- Consults with the ARA division regarding rebalancing plans and, once approved by the ED/CIO, implements rebalancing plans and coordinates monthly cash flow activities
- Manages the passive external manager relationships, including review and approval of passive external manager guidelines and waivers therefrom
- ~~Monitors~~ Manages, and collaborates with SWIB investment risk management staff to ~~manage, counterparty risk~~ monitor SWIB's counterparties
- ~~Serves as Co-Chair of the Enterprise Risk & Compliance Committee and sets the Committee agenda~~
- ~~Establishes and maintains SWIB's enterprise risk management architecture, framework, and policies. Identifies, measures, and monitors the risks affecting SWIB's business.~~

#### Investment Division Heads/Leaders

~~The~~ In addition to any other responsibilities such person may have under this WRS Investment Policy, the primary responsibility of each Investment Division ~~Head is to develop an overall divisional strategy~~ Leader is to set the direction for the division and assure that the portfolios within the division are successfully managed. ~~The~~ Investment Division Heads/Leaders have the following responsibilities:

- ~~Report~~ Reports quarterly to the Investment Committee, and to the Board when requested, regarding performance and market trends
- ~~In collaboration with~~ Sets the division's annual scorecard, with approval by the ED/CIO, ~~determine an efficient and achievable division strategy~~
- ~~Review and approve the implementation of mandatory and discretionary rebalancing~~
- ~~Implement and monitor~~ Implements and monitors the division's ~~strategy~~ annual scorecard, and, as applicable, ~~approve~~ approves investment recommendations ~~for the PMFA division~~
- ~~Report annually to the Investment Committee regarding the division's strategy (may be delegated to Investment Managers as applicable) and report quarterly to the Board regarding market trends~~
- ~~Monitor~~ Manages and monitors investment risk and performance of the division
- ~~Assure~~ Assures compliance with all investment policies, guidelines and risk controls, including the IC Guidelines

- ~~Manage, and evaluate~~Manages and evaluates performance of, employees within the division
- ~~Manage and implement~~Manages and implements improvements to the investment analysis process for, and asset management within, each portfolio within ~~each~~the division

#### Investment Portfolio Managers and Managing Analysts (“Investment (“Portfolio Managers”)

The primary responsibility of each Investment Portfolio Manager is to invest assets in accordance with ~~written guidelines established by the Investment Committee~~the IC Guidelines and in accordance with the policies and guidelines established by the Trustees. ~~The Investment~~Portfolio Managers have the following responsibilities:

- Manage ~~the~~ portfolios in accordance with the guidelines and objectives contained within IC Guidelines
- ~~Develop and present asset class strategy for Investment Committee approval~~
- Exercise full investment discretion with respect to the purchase, sale and ongoing management of assets within their respective ~~guidelines~~portfolios to achieve established objectives subject to applicable IC Guidelines and direction from the ED/CIO and ~~head of ARA~~Asset & Risk Allocation CIO regarding appropriate risk levels
- Implement active risk budgets
- Manage and monitor drawdown levels and implement risk drawdown controls

#### Head of Risk Management

The Investment Risk Management division exercises oversight of the organization’s investment risk monitoring and investment risk management functions. The head of Risk Management has the following responsibilities:

- Oversees investment risk monitoring for the WRS and ensures investment risk management measures are implemented
- Monitors and reviews sources of investment risk, including, without limitation, market risk, valuation risk, event risk, liquidity risk, and counterparty risk
- Monitors relative performance drawdowns for active portfolios and participates, with the ED/CIO and the Asset & Risk Allocation CIO, in discussions regarding such drawdowns and the responses thereto
- Conducts stress testing analysis
- Identifies, measures, and monitors the risks affecting SWIB’s investments

#### Board Consultants with Investment Responsibilities

##### Asset Allocation Consultant

- Annually, conduct analysis and evaluation of SWIB's asset allocation plan and, together with the ARA division, provide ~~SWIB staff and~~ Trustees with any recommendations for adjustments.
- Every two years, together with the ARA division, present ~~full review of asset liability modeling process~~, results and recommendations for strategic asset allocation targets for the Core Fund and Variable ~~Trust Funds to SWIB staff and~~ Fund to Trustees ~~and coordinate with~~. The Wisconsin Department of Employee Trust Funds' independent actuaries ~~to ascertain the liabilities of the WRS~~ provide information with respect to asset/liability modeling.
- The Board may decide to adjust the cadence of the two preceding items as needed, without amendment to this WRS Investment Policy.

#### Benchmark ~~Consultants~~ Consultant

- Annually, and throughout the year as necessary, review ~~staff recommended~~ proposed benchmark changes or retentions, as well as benchmark changes resulting from updates to the asset allocation or investment strategy ~~changes~~ modifications. Make a recommendation to the Investment Committee and the Benchmark Committee regarding any modifications or updates to any existing benchmarks ~~or, adoption of new provisional benchmarks to the Investment Committee and Benchmark Committee, or retention of existing benchmarks~~.
- Every three to five years, conduct a comprehensive benchmark review. ~~Align to evaluate all Board-approved benchmarks, align~~ benchmarks to the investment strategies and asset allocation. ~~Consider staff recommended benchmark changes. Make, and make~~ a recommendation ~~regarding any modifications or updates to any benchmarks~~ to the Investment Committee and the Benchmark Committee regarding any proposed benchmark modifications, updates, or retentions.

#### SWIB Staff Consultants

- ~~Pursuant to the Board Consultant Services Policy, SWIB staff hire consultants for the Private Equity, Real Estate, Hedge Fund and Beta One Portfolios. These consultants may be terminated by the Board. These consultants make recommendations in accordance with the SWIB Investment Committee WRS Investment Guidelines.~~
- SWIB investment staff may engage consultants in accordance with the Board Consultant Services Policy.
- Staff consultants may provide updates to SWIB investment staff and, as requested by the Board, to Trustees regarding developments involving SWIB's investments and provide commentary regarding the impacts of such developments.
- ~~Staff consultants meet once a year with the Board's Strategic Planning and Corporate Governance Committee to report on their view of the applicable WRS portfolio and present relevant market commentary.~~

## VI. TOTAL FUND INVESTMENT RISK MANAGEMENT POLICY

### A. Introduction

~~Risk~~Investment risk is a consideration and factor in the management of the WRS assets, and such risk is considered throughout the investment process from asset allocation to performance evaluation. Risk management is integral to SWIB's investment processes and is guided by this WRS Investment Policy. However, investment risk evolves through time as markets and investment strategies change. SWIB also strives to evolve its investment risk monitoring to better analyze, measure, quantify, and report such risks over time.

### B. Risk Management Philosophy

Risk must be taken to achieve sufficient returns to meet financial obligations for the various funds under the purview of SWIB. Risk is viewed from multiple perspectives. It is most commonly viewed as the loss of capital or of not meeting objectives within the designated time frame. It is deconstructed between systematic (i.e., market) and unsystematic, or specific risk, at the total fund, asset class and portfolio levels. The sources and types of risk inherent in any strategy are evaluated and acknowledged prior to implementation. However, even with the most sophisticated risk measurement techniques, extreme events cannot easily be measured in advance. Accordingly, risk models may only provide limited predictive qualities but should provide investment professionals opportunities to test and challenge investment strategies and assumptions prior to implementation. Post implementation, investment risks are managed, measured, and monitored at all relevant levels. Benchmarking is employed to determine whether risks taken achieve expected rewards.

### C. Risk Management Objectives

The primary investment risk SWIB seeks to manage is drawdowns to the Core Fund and Variable Fund that could cause reduction in participant dividends, create volatility in contributions from both employers and employees, or cause the WRS to be less ~~thenthan~~ fully funded. SWIB's investment strategy is designed to take intentional risk, called active risk, and achieve investment results commensurate with the levels of risk taken. Expectations for active return earned per unit of active risk taken are set and monitored for all portfolios. A risk budgeting approach will be employed to set active risk targets for each asset class. Unintended risk due to asset allocation drift or other factors is to be minimized where feasible from an implementation and cost perspective. Risk will be managed through implementation of ~~investment guidelines~~IC Guidelines, soft risk parameters, multiple approaches to diversification, and investment risk analyses and measurement. Pursuant to SWIB's statutory fiduciary standard under Section 25.15(2)(b) of the Wisconsin Statutes, SWIB shall "diversify investments in order to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so...." Diversification is a significant tool to manage risk.

Risks that are assessed generally will include (but are not limited to):

1. Market risk: risk of drawdowns or swings in volatility
2. Valuation risk: trending towards or reaching extremes (e.g., historically wide credit spreads), pricing integrity

3. Event risk: e.g., sovereign downgrade, Lehman bankruptcy, Asian currency crisis, etc.
4. Liquidity risk: ability to quickly raise funds to support leveraged and synthetic exposures, asset/liability mismatch
5. Counterparty risk: risk of counterparty defaulting or otherwise not meeting their obligation to SWIB
6. ~~Operational~~Other investment risk: risk of failure in investment risk measurement/monitoring processes, systems or personnel responsible for managing and/or monitoring investment risk exposures

#### D. Risk Measurement

The Investment Risk Management ~~Division~~division will measure investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e. total fund, asset class and portfolio level). In addition, downside risk metrics identified through stress testing and scenario analyses will be employed. Financial and economic analysis will also be undertaken to better understand the current and potential risks of non-public markets.

#### E. Risk Monitoring and Reporting

The Investment Committee will ~~monitor, at each meeting, receive reporting from the Investment Risk Management division regarding~~ investment risk to evaluate sources of risk, and changes to sources of risk, ~~on a regular basis~~. In particular, regular stress testing and scenario analysis by the Investment Risk Management ~~Division~~division enables SWIB to identify potential weaknesses, or ‘tail risks’, in the investment program given extreme market environments that have occurred in the past. Risk monitoring will be conducted on both an absolute and relative risk basis. Assets that cannot be readily modeled will be subject to ~~unique~~other review ~~process~~processes to better ascertain the risks. Reports will be ~~assembled and~~ reviewed by ~~SWIB’s~~the Board and the Investment Committee at ~~least quarterly~~their respective meetings and will generally include summaries of key risk exposures and risk attribution and summaries of stress test and scenario analyses results.

#### F. Risk Mitigation

SWIB’s strategic asset allocation reflects SWIB’s philosophy that market risks must be taken to ensure sufficient asset growth to meet SWIB’s financial obligations. However, SWIB is cognizant of the fact that large drawdowns can significantly negatively impact funded status and future contributions. Thus, SWIB has adopted drawdown risk controls for ~~internally managed, public markets~~active strategies, which ~~comprise the majority of SWIB’s assets. The controls call for instituting action to adjust~~require holding discussions and, as applicable, formulating plans to mitigate the risk of a portfolio if the portfolio’s benchmark relative returns fall below a pre-specified downside ~~trigger. Appropriate~~threshold. Potential mitigating actions ~~would~~may be deployed at either the portfolio level or the Core ~~Trust~~Fund Levellevel.

#### G. Risk Resources

SWIB is committed to conducting periodic assessments of its analytic and personnel risk resources to ensure that SWIB maintains adequate tools and skills to sufficiently support a robust risk management framework.

## VII. GENERAL INVESTMENT GUIDELINES

The following compulsory guidelines are applicable to all internally managed portfolios. Individual portfolio guidelines are included in the IC Guidelines.

1. All investment decisions are subject to all applicable federal and state statutes and administrative rules and are subject to the prudent expert fiduciary standard as set forth in Wis. Stat. § 25.15(2).
2. SWIB ~~shall attempt to invest in organizations that adhere to prevailing local and national laws and generally accepted standards of conduct including the respect of human rights (Wis. Admin. Code s. IB 2.02 (7)).~~ SWIB will exercise its fiduciary duty to vote all proxies pursuant to its ownership in publicly held companies in accordance with the Board's Corporate Governance Policy [and SWIB's Corporate Governance Proxy Voting Guidelines](#).
3. Portfolios may utilize cash instruments or derivatives in their investment strategy. All investments used will be subjected to the risk analysis and monitoring processes at the portfolio, asset class and fund levels [and remain subject to the IC Guidelines](#).

## INVESTMENTSWIB BOARD OF TRUSTEES PROCEDURES

Revised March 9, 2005

Updated February 12, 2012, August 14, 2013, September 10, 2014, November 18, 2015 [, March 18, 2026]

### 1. Selection of Officers and Other Appointments

A. Wisconsin Stat. § 15.76 establishes the Board of Trustees (“Board”) for the State of Wisconsin Investment Board (“SWIB”), which consists of nine members (collectively, the “Trustees”) meeting specific statutory membership requirements.

B. ~~A.~~ Chair and Vice Chair: Wisconsin Stat. § 15.07(2)(a) provides that the Board’s Chair and Vice Chair are designated biennially by the Governor.

C. ~~B.~~ Secretary: Wisconsin Stat. § 15.07(2) provides that the Board’s Secretary must be elected at the Board’s first meeting in each year and that the Secretary may be reelected for successive terms.

D. ~~C.~~ Assistant Secretary: The Board ~~adopted~~maintains a policy ~~at its June 18, 1975 meeting~~ to elect a Trustee as Secretary and a staff member (typically the Chief Legal Counsel) as Assistant Secretary. The duties of the Assistant Secretary are to keep meeting minutes, certify resolutions of the Board, and certify officers’ authority as required for investment transactions. The Secretary will generally certify the minutes of the Board, except that the Assistant Secretary may do this in his or her absence.

E. Cyber Risk Liaison: The Board may designate a Trustee to serve as the liaison with SWIB staff on cyber risk and other cybersecurity matters. The liaison will work with SWIB staff from time to time on matters of interest to the Board, including communicating to the Board relevant decisions made by SWIB staff.

### 2. Frequency of Meetings

Wisconsin Stat. § 15.07(3)(a) requires that the Board meet at least quarterly. It may meet at other times on the call of the Chair or a majority of the Trustees. Meetings are generally held during the second week of each month, or as otherwise scheduled by the Board.

### 3. Quorum and Voting

Under Wisconsin Stat. § 15.07(4), a majority of the Trustees constitutes a quorum, and a majority of a quorum may act in any matter within the jurisdiction of the Board.

### 4. Agenda

The agenda for each meeting is prepared by the Executive Director/Chief Investment Officer, for approval by the Chair. Reviews of performance and risk ~~assessment~~management are scheduled at least quarterly. Reviews of investment strategies are generally done once per year and may be combined in a cross-asset class presentation. ~~A discussion of proxy voting issues is scheduled prior to each annual proxy season.~~ Other items are scheduled as necessary at the Board or Committee level.

5. Notice of Meetings  
 Under Wisconsin's Open Meetings Law, the Board must (i) give advance public notice of each of its meetings; and (ii) conduct all of its business in Open Session, unless an exemption applies.  
~~is~~ Public notice is required to be given to (a) the public, such as posting a notice in at least three ~~different locations within the State or by paid publication in a news medium in the State~~ places likely to give notice to persons affected or posting a notice in at least one public place likely to give notice to persons affected and placing a notice electronically on SWIB's website; (b) any members of the news media that have submitted a written request for such notice; and (c) the official newspaper designated pursuant to state statute. A public notice must set forth the time, date, place, and subject matter of the meeting, including that intended to be considered at any contemplated Closed Session, in such form as is reasonably likely to apprise members of the public and the news media thereof. Notice must be given at least 24 hours in advance of the meeting, unless for good cause such notice is impossible or impractical, in which case the ~~Open Meetings Law permits 2 hours' notice~~ notice should be given as soon as possible and no later than two hours in advance of the meeting.
  
6. Closed Session  
 All Board and Committee business is to be noticed for and conducted in Open Session to the fullest extent possible under the Open Meetings Law ~~and in accordance with the best interests of fund beneficiaries,~~ unless an exemption applies. With respect to Closed Session, the Open Meetings Law provides that a motion must be made and carried by a majority vote to convene in Closed Session. The vote of each Trustee on a motion to go into Closed Session must be ascertained and recorded in the meeting minutes. The subject matter to be discussed and the specific Open Meetings Law exemption(s) permitting Closed Session discussion must be stated and made part of the record.
  
7. Public Participation  
 Meeting locations must be reasonably accessible to the public. Members of the public may attend any Open Session of the Board ~~but may not have the floor unless specifically allowed by the Chair, with the expressed or implied consent of a majority of the Trustees.~~ If a member of the public or group wishes to address a ~~meeting, it is preferred that a request be made to the Executive Director/Chief Investment Officer prior to the meeting.~~ topic relevant to the Board, it can submit that comment directly via the Board Contact Portal: <https://www.swib.state.wi.us/board-contact>. Comments are collected prior to each Board meeting and provided to the Trustees in full for review and consideration.
  
8. Presiding Officer
  - A. If present, the Chair presides.
  - B. If the Chair is not present, the Vice Chair presides.
  - C. If neither the Chair nor the Vice Chair is present, the Secretary presides.
  - D. If no officer is present, the Board will designate a presiding officer.
  
9. Rules of Order

The Board has not adopted any rules of order. Rulings on questions of order are made by the Chair, but may be appealed to a majority vote of the Board by any Trustee.

10. Budget

Under Wisconsin Stat. § § 25.187(2)(b) and 16.505(2g), ~~the Board is responsible for establishing~~ SWIB may (i) establish the operating budget ~~and position authority and for monitoring~~ for operating expenditures and monitor the fiscal management ~~and general cost effectiveness of SWIB.~~ of the operating budget; and (ii) create or abolish full-time equivalent positions. The Executive Director/Chief Investment Officer is responsible for preparing an annual cost of management plan that will include an agency operating budget, projected use of external services and managers, and changes in staffing positions. SWIB is also required to provide budget information to the Department of Administration as part of the state's biennial budget process.

11. Committees

- A. Upon adoption of a motion to establish a Committee by vote of a majority of a quorum of the Board, the Chair shall appoint members of the Committee, and may designate appointees to serve as Committee Chair, Vice Chair, and Secretary. Each Committee shall be designated as an ad hoc or standing Committee of the Board. For standing Committees, Committee members shall serve for the terms designated by the Chair. Members of ad hoc Committees shall serve until the completion of the activity for which the Committee is formed.
- B. Committees shall have a minimum of 3 and a maximum of 5 members. ~~Committees that will consider investment proposals must include at least one appointed Board member with investment experience., unless otherwise determined by the Chair.~~ Vacancies on Committees shall be filled in a timely fashion by appointment of the Chair for the remainder of the unexpired term, as deemed appropriate by the Chair. Committee members may not hold over beyond the expiration of their term without reappointment by the Chair. The Chair may appoint members, including the Chair, to a Committee for less than a full term and/or on a temporary basis, as determined in the Chair's sole discretion.
- C. Committees shall meet on the call of the Committee Chair or a majority of the Committee's members. A majority of Committee members shall constitute a quorum. Any motion before a Committee may be passed by a majority vote of a quorum of the Committee. A Committee may act only within the scope of the assignment given it by the Board.
- D. Committees shall report to the full Board on their activities at the next meeting of the full Board. This report may be made in Open or Closed Session, depending upon the subject matter. Minutes of Committee meetings shall be taken and distributed to all Trustees. Any Trustee may attend any Committee meeting, but only Committee members may be counted for quorum or voting purposes.

- E. Unless otherwise provided herein, procedures applicable to agendas, meeting notices, Closed Session and conduct of Board meetings shall also apply to Committee meetings, with reference to the officers being to the respective officers of the Committee.

12. Media

The Chair (or the Vice Chair in the Chair's absence) is the only representative of the Board who is authorized to respond to media inquiries. The Chair will notify the Executive Director/Chief Investment Officer regarding any media inquiry. Additionally, ~~the Public Information Officer of SWIB~~SWIB's Communications team is available to assist the Chair in developing a response to media inquiries.

## Board Meeting

Tab 11 – In the Absence of Questions, the Following Reports will be filed without comment (for informational purposes):

- A. Quarterly Charges to Funds Reports, Q4 2025
- B. Private Markets and Funds Alpha Commitments, Q4 2025
- C. Board Contact Log

February 12, 2026

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

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

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

Representative Robert Wittke, Co-Chair  
 Joint Legislative Audit Committee  
 P.O. Box 8953  
 Madison, WI 53708

Secretary Kathy Blumenfeld  
 Department of Administration  
 101 East Wilson Street  
 P.O. Box 7864  
 Madison, WI 53707

Dear Senator Marklein, Senator Wimberger, Representative Born, Representative Wittke and Secretary Blumenfeld:

State statutes require the State of Wisconsin Investment Board (SWIB) to report all expenses charged to the trust funds under management and the number of full-time equivalent positions created or abolished during the quarter<sup>1</sup>. The information contained in this report is for the quarter ended December 31, 2025.

Total Cost of Management Summary	1Q 2025	2Q 2025	3Q 2025	4Q 2025	Trailing 4 Qtr Total	% of Total
<b>Internal Operating Expenses</b>						
Operating Budget Expenses	\$ 17,170,058	\$ 60,501,443	\$ 21,796,031	\$ 17,691,911	\$ 117,159,442	68.6%
Custodial, Investment Operations & Banking	926,620	1,663,283	1,529,906	1,638,936	5,758,745	3.4%
Legal	408,550	91,372	770,424	1,478,417	2,748,763	1.6%
Investment Research, Data & Consulting	9,515,341	9,676,291	10,217,743	10,461,680	39,871,055	23.3%
<b>Total Internal Operating Expenses</b>	<b>\$ 28,020,569</b>	<b>\$ 71,932,390</b>	<b>\$ 34,314,103</b>	<b>\$ 31,270,944</b>	<b>\$ 165,538,005</b>	<b>96.9%</b>
<b>Total Securities Lending Agent Expenses</b>	<b>\$ 1,430,511</b>	<b>\$ 1,104,449</b>	<b>\$ 1,227,404</b>	<b>\$ 1,593,830</b>	<b>\$ 5,356,194</b>	<b>3.1%</b>
<b>Total SWIB Operating Costs</b>	<b>\$ 29,451,080</b>	<b>\$ 73,036,839</b>	<b>\$ 35,541,507</b>	<b>\$ 32,864,774</b>	<b>\$ 170,894,199</b>	<b>100.0%</b>
<b>Supplemental Info - External Investment Management Fees</b>						
Real Estate	\$ 21,589,301	\$ 23,263,966	\$ 23,315,652	\$ 21,832,269	\$ 90,001,188	9.4%
Private Equity	47,392,129	55,162,651	51,936,175	57,553,732	212,044,688	22.2%
Venture Capital	8,226,788	10,553,219	9,873,604	9,900,812	38,554,422	4.0%
Current Return	6,792,512	8,756,046	8,858,242	8,326,735	32,733,534	3.4%
Hedge Funds	99,493,495	98,108,041	56,887,256	96,869,183	351,357,974	36.7%
Beta One & Other - External Funds	84,364,922	76,995,552	3,845,924	66,555,527	231,761,925	24.2%
<b>Total External Investment Management Fees</b>	<b>\$ 267,859,146</b>	<b>\$ 272,839,475</b>	<b>\$ 154,716,853</b>	<b>\$ 261,038,258</b>	<b>\$ 956,453,731</b>	<b>100.0%</b>
<b>Grand Total Cost of Management</b>	<b>\$ 297,310,226</b>	<b>\$ 345,876,313</b>	<b>\$ 190,258,359</b>	<b>\$ 293,903,032</b>	<b>\$ 1,127,347,930</b>	

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

SWIB operating costs are charged to the trust funds under management. Externally managed fund fees for commingled assets are netted against investment returns generated by SWIB’s external fund holdings. It is important to consider costs in the context of value-added investment returns. For example, during the five years ended December 31, 2025, after consideration of all expenses, costs, and fees, SWIB generated approximately \$3.8 billion in additional profits beyond what would have been generated by the benchmark portfolio SWIB is measured against. These profits all go directly into the Wisconsin Retirement System for the benefit of its beneficiaries.

Attachment A provides a breakdown of the amount and percentage of assets managed under each type of dedicated and commingled account or partnership, and the change in the amount and percentage from the prior calendar quarter. As of December 31, 2025, SWIB’s total authorized full-time equivalent positions are 298 as shown in the table below.

<b>Assets Under Management &amp; Positions</b>		
	<b>9/30/2025</b>	<b>12/31/2025</b>
Internal Management	47.5%	52.1%
External Management	52.5%	47.9%
<b>Total SWIB Positions</b>	<b>298</b>	<b>298</b>

In addition, Attachment B provides details of the services provided to SWIB and their associated quarterly costs. For definitions of the expense categories presented in the Total Cost of Management Summary table, please refer to Attachment C.

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

Sincerely,



Edwin Denson  
Executive Director/Chief Investment Officer

Attachments

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

<b>Total Assets Under Management</b>	<b>3/31/2025</b>		<b>6/30/2025</b>		<b>9/30/2025</b>		<b>12/31/2025</b>	
	Amount (in millions)	%	Amount (in millions)	%	Amount (in millions)	%	Amount (in millions)	%
<b>Wisconsin Retirement System (WRS)</b>								
Internally Managed Assets	\$52,649	37.6%	\$59,590	40.5%	\$63,104	41.4%	\$72,442	46.8%
Externally Managed Dedicated Assets	35,484	25.4%	33,540	22.8%	35,057	23.0%	25,723	16.6%
Externally Managed Commingled Assets	51,832	37.0%	54,102	36.7%	54,257	35.6%	56,461	36.5%
1. Passive Index	522	0.4%	543	0.4%	773	0.5%	593	0.4%
2. Limited Partnerships	37,430	26.7%	37,938	25.8%	36,718	24.1%	36,944	23.9%
3. Active Managed Commingled	13,879	9.9%	15,622	10.6%	16,766	11.0%	18,925	12.2%
<b>Total WRS Assets</b>	<b>\$139,964</b>	<b>100.0%</b>	<b>\$147,232</b>	<b>100.0%</b>	<b>\$152,417</b>	<b>100.0%</b>	<b>\$154,626</b>	<b>100.0%</b>
<b>Other Funds</b>								
State Investment Fund - Internally Managed	\$21,764		\$20,813		\$20,252		\$20,340	
Separately Managed Funds - Internally Managed	94		93		94		93	
Separately Managed Funds - Externally Managed	2,895		2,996		3,100		3,090	
<b>Total Other Funds</b>	<b>\$24,753</b>		<b>\$23,903</b>		<b>\$23,446</b>		<b>\$23,523</b>	
<b>Total Assets Under Management</b>	<b>\$164,718</b>		<b>\$171,136</b>		<b>\$175,863</b>		<b>\$178,149</b>	
<b>Supplemental AUM Breakout</b>								
<b>Total Internal Assets Under Management</b>	<b>\$74,507</b>	<b>45.2%</b>	<b>\$80,497</b>	<b>47.0%</b>	<b>\$83,450</b>	<b>47.5%</b>	<b>\$92,875</b>	<b>52.1%</b>
<b>Total External Asset Under Management</b>	<b>\$90,211</b>	<b>54.8%</b>	<b>\$90,639</b>	<b>53.0%</b>	<b>\$92,413</b>	<b>52.5%</b>	<b>\$85,274</b>	<b>47.9%</b>

**STATE OF WISCONSIN INVESTMENT BOARD**  
**Expenses for All Funds Under Management**  
**Quarter Ending December 31, 2025**

<b><u>EXPENSE CATEGORY</u></b>	<b><u>EXPENSES</u></b>
<b><u>Internal Expenses</u></b> <sup>1</sup>	
Staff Compensation	\$ 12,193,224
Fringe Benefits	2,512,165
Staff Travel	442,321
<b><u>Supplies, Services, and Facilities</u></b>	
3idcards.com	\$ 342
Advanced Systems Concepts	15,609
Amazon.com	2,776
American Registry for Internet Numbers	275
ASAP	199
AT&T Landline	4,743
Barrons	4
Bloomberg BusinessWeek	2,702
Bloomberg Finance LP	147
BrightSign LLC	695
Building Service, Inc.	4,204
Canva.com	120
Capital Data Inc.	19,659
Carahsoft Technology Corp	78,730
CDS MY Block 1 Office, LLC	494,964
CDW-G	170
Centurylink	39
Charter Communications (Spectrum Business)	6,750
Ciphereus LLC	3,000
CleanMark	44,575
Coffee Werks Machine Service and Sales	557
Column Software PBC	622
Complex Security Solutions Inc.	7,377
Concur Technologies, Inc.	30,752
DbSchema Database Designer	75
Dell Marketing LP	26,569
Department of Administration (DOA)	64,866
Department of Workforce Development (DWD)	2,549
Depreciation Expense	1,064,676
Diligent Corporation	12,463
Disa Global Solutions, Inc	1,862
Fed Ex	741
Foreign Affairs	45
Forte	27,545
GoDaddy.com	300
Gordon Flesch	14,475
Heymarket	1,310
IdentiSys	2,968
Info-Tech Research Group	40,671
Information Systems Audit and Control Association	175
InStockChairs.com	1,495
International CIO Leadership Association, LLC	5,500
International Corporate Governance Network	13,228
International Swaps and Derivatives Assn	11,458
JWC Building Specialties Inc.	1,705
KeyStone Peer Review Organization Inc	932
Klein-Dickert Glass	2,395
Lallas Shading Solutions	5,227
Legislative Audit Bureau (LAB)	(149,160)
LexisNexis	121

LinkedIn	\$	17,205
Macabacus.com		(360)
Madison Gas and Electric Company		36,396
Mathworks		44,754
Milwaukee Journal Sentinel		749
MRA The Management Association Inc		2,600
mxttoolbox.com		297
NASRA		3,550
National Association of Public Pension Attorneys		2,100
National Conference on Public Employee Retirement Systems		7,595
National Society of Compliance Professionals		2,000
New York Times		236
Next Electric		315
NRI		14,209
OpenAI LLC		36,000
Packerland Rent-A-Mat, Inc.		579
Planeteria Media LLC		9,750
Practising Law Institute		11,550
SailPoint Technologies, Inc.		6,141
Shelton AI, Inc.		1,000
Shred-it		385
Software House Intl		447,680
Spherion		2,875
Staples Advantage		1,056
SurveyMonkey.com		372
The Alphabet Shop		35
The Association of Corporate Counsel		435
The Economist		4,582
The Morning Pulse		40
The National Association of Government Archives and Records Administrators, Inc.		89
Thomson Reuters		11,490
Turtlecase.com		702
US Bank		(101)
Verizon Wireless		793
Wisconsin Independent Network		1,350
Wisconsin State Journal		158
WIX.com		1,968
Yubico.com		425
<b>Total Supplies, Services, and Facilities</b>	<b>\$</b>	<b>2,544,201</b>
<b>Total Operating Budget Expenses</b>	<b>\$</b>	<b>17,691,911</b>
<b><u>Custodial, Investment Operations &amp; Banking</u></b>		
Albourne America LLC	\$	187,500
BNY Asset Servicing - Custody		703,106
BNY Asset Servicing - Investment Operations		557,048
Markit NA		4,142
S&P Global Limited (Markit Group Limited)		187,140
<b>Total Custodial, Investment Operations &amp; Banking</b>	<b>\$</b>	<b>1,638,936</b>
<b><u>Legal</u></b>		
Axiom Global Inc	\$	23,048
Axley Brynelson, LLP		40,960
Chapman & Cutler LLP		213,080
Cox Castle & Nicholson LLP		45,031
DLA Piper LLP (US)		550,212
Foley & Lardner LLP		303,766
Godfrey and Kahn SC		7,165
Latham & Watkins LLP		300,034
Legal Services Expense Accrual		(263,363)
Neal Gerber Eisenberg		2,087
Purrington Moody Weill LLP		73,308
Quarles & Brady		102,911

Vedder Price PC	\$	48,370
Winston & Strawn LLP		31,810
<b>Total Legal</b>	<b>\$</b>	<b>1,478,417</b>

**Investment Research, Data & Consulting**

12358433 Canada Inc.	\$	103,355
22V Research LLC		5,000
AE Business Solutions		147,947
Aksia LLC		388,382
Alembic Global Advisors		2,000
Alex Solutions		45,667
Apex Systems, LLC		76,995
AquaFold		1,896
Arcana Analytics, Inc.		16,667
Australian Super		5,000
Axonomy Limited		15,120
B Riley FBR Inc		7,000
BackStop Solutions Group		48,474
Barrington Research Associates Inc		6,400
BCA Research Inc		30,375
Blackrock Financial Management Inc		91,721
Bloomberg Finance LP		1,470,715
BMO Capital Markets Corp		5,500
BNP Paribas		9,812
Bridge Consulting Partners Ltd		54,120
BTIG, LLC		11,000
Callan Associates Inc		6,250
Canoe Software Inc.		16,500
Capital Economics LTD		15,965
Carahsoft Technology Corp		177,172
CBJL Incorporated		101,270
CBOE Global Markets, Inc.		1,635
CEM Benchmarking Inc		(38,425)
CFRA Research		18,750
Charles River System Inc		468,986
Citrini Research		200
CJS Securities, Inc.		4,000
CLO Research Group		3,600
Compass Point Research & Trading, LLC		5,250
Copp Clark		4,057
CoStar Portfolio Strategy		24,171
Council of Institutional Investors		31,200
Craig-Hallum Capital Group		7,000
CUSIP Global Services		16,250
Cutter Associates		20,000
DA Davidson & Co		10,224
Dacheng Xiu		62,475
Deloitte Consulting LLP		4,254
Deutsche Bank		13,250
DiatomC LLC		27,600
DTCC EPN		3,600
DTCC ITP LLC		2,471
EFront Financial Solutions Inc		208,750
Elevation LLC		8,750
Empirical Research Partners LLC		40,000
EquiLend Holdings LLC		27,820
Ernst & Young LLP		40,679
Evercore Group LLC		8,400
FactSet Research Systems Inc		1,277,389
FBN Securities, Inc.		9,000
Finarch LLC		113,941
FIS Data Systems Inc.		46,159
Fitch Solutions Inc		20,672

FTSE Fixed Income LLC	\$	40,733
Funston Advisory Services LLC		14,500
Furey Research Partners LLC		5,500
Gabriel Roeder Smith & Company		115,000
Gallagher		15,875
Green Street Advisor		32,888
Guggenheim Securities LLC		4,500
Haver Analytics		25,180
Hawking LLC		5,352
ICE Data Indices, LLC		46,766
ICE Data Pricing & Reference Data, LLC		193,247
Infopro Digital Services Limited		4,243
Institutional Shareholder Services Inc		44,412
Intex Solutions, Inc.		30,600
Investment Research Expense Accrual		(248,788)
IPC Systems Inc		10,594
Jefferies Research Services LLC		26,236
Joyce C. Knauff & Associates		36,250
JP Morgan		15,000
JPSB Consulting Limited		76,160
Keefe Bruyette & Woods (KBW)		24,500
KeyBanc Capital Markets Inc		5,500
KeyStone Consulting Inc		74,240
Lake Street Capital Markets, LLC		3,500
Loop Capital Markets LLC		7,000
Makor Securities London LTD		12,000
Manalo Advisors Limited		3,750
McLagan Partners Inc		26,500
Microsoft, Inc.		(197,327)
Moodys Analytics		138,216
MorningStar Inc		5,712
MSCI - Barra		56,250
MSCI Inc - Risk Metrics Solutions		293,500
MSCI, Inc.		129,161
My Data Outlet International, LLC		54,600
n-Tier Financial Services, LLC		6,225
Needham & Company LLC		6,550
NEPC LLC		53,333
Newsfile		1,125
NoBS LLC		5,000
Northcoast Research Partners, LLC		4,500
Northland Securities		10,000
NYSE Market Inc		6,107
Octus Intelligence, Inc.		57,500
OptionMetrics		20,250
Options Price Reporting Authority		1,670
Oxford Economics USA INC		18,059
Piper Sandler & Co		31,600
Pitchbook Data Inc		21,000
PivotalPath Inc.		17,500
Preyer		168,750
RavenPack International S.L.U.		30,000
Raymond James		7,100
Refinitiv		309,177
Renaissance Macro Research		8,100
RIMES Technologies Corporation		96,821
RIMS JobBank		540
Robert W. Baird & Co.		50,375
Rosenblatt Securities Inc		6,350
Roth Capital Partners		9,324
Russell Investment Group		9,423
S&P Global Limited (Markit Group Limited)		73,918
S&P Global Market Intelligence		171,100

S&P Global Valuations Limited	\$	221,476
SailPoint Technologies, Inc.		93,995
Seaport Global Holdings, LLC		9,030
SEI Investments		23,006
Sharp Decisions Inc		162,900
Sheffield Haworth Inc		125,000
Sidoti & Company LLC		7,050
Simcorp USA, Inc.		1,287,896
Snowflake Inc		112,165
Software House Intl		33,159
Spherion		12,100
Standards Board for Alternative Investments Limited		2,680
State Street		25,000
Stephens Inc		10,550
Stepstone Group		2,309
Stepstone Group Real Estate		60,813
SWIFT SC		773
TechVest Global Solutions Inc.		151,593
Telsey Advisory Group		5,712
The Bachrach Group		48,472
The Benchmark Company LLC		5,900
The Financial Times Limited		825
The Loan Syndications and Trading Association		15,450
The Nasdaq Stock Market, LLC		6,800
The Yield Book Inc		30,282
Toronto Stock Exchange		13,438
TradeWeb		11,481
Trivariate Research LP		2,000
Tudor Pickering Holt & Co		2,500
Unit4 Business Software Inc		56,661
Urban Land Institute		1,175
Verity LLC		50,873
Vertical Research Partners		2,000
Virtu ITG Analytics LLC		28,000
Wall Street Journal		1
Wolfe Trahan		26,300
Wolverine Execution Services LLC		1,047
Workday, Inc.		52,574
WorldBridge Partners Inc		63,440
Worth Charting LLC		10,100
<b>Total Investment Research, Data &amp; Consulting</b>	<b>\$</b>	<b>10,461,680</b>
<b><u>Securities Lending Agent Expenses</u></b>		
Securities Lending Agent Fees	\$	1,593,830
<b>Total Securities Lending Agent Expenses</b>	<b>\$</b>	<b>1,593,830</b>
<b>TOTAL QUARTERLY CHARGES TO FUNDS</b>	<b>\$</b>	<b>32,864,774</b>

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

## Explanation of Expenses

### **Internal Operating Expenses**

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

### **Custodial, Investment Operations & Banking**

*Wisconsin Certificate of Deposit Program:* Under a contract with SWIB, Bankers' Bank administers the program under which the State Investment Fund (SIF) purchases certificates of deposit from Wisconsin-based banks and thrifts. Most administrative costs are paid by the participating banks. SWIB's expenses help underwrite other administrative costs, such as insurance that SWIB requires to be purchased. There are currently no investments in Bankers' Bank certificates of deposit and no fees were incurred.

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

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

### **Legal**

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

### **Investment Research, Data & Consulting**

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

### **Securities Lending Agent Expenses**

Securities lending programs generally earn income through the reinvestment of cash collateral posted by borrowers and through the collection of fees for loans where non-cash collateral is posted. SWIB's securities lending income is shared with the agent to pay the costs associated with the administration of the program. Securities lending agent fees are reported as expenses.

### **External Investment Management Fees**

Some external asset managers have been granted delegated authority to determine investment strategy and purchase securities in SWIB's name in accordance with approved investment guidelines. These investment vehicles are known as separately managed accounts (SMAs). Fees for managing SMAs are typically assessed as a percentage of the market value of assets under management and in some cases, fees are based on investment performance. These costs are actual expenses to SWIB that are, in accordance with accounting guidelines generally accepted in the U.S., recognized as expenses on the WRS Statement of Changes in Net Investment Position.

SWIB also invests in separate legal entities managed by external investment managers to gain exposure to select strategies including Public Markets, Private Markets<sup>1</sup>, and Hedge Funds. These investment vehicles are known as "commingled" accounts. In exchange for their investment management services, the external managers charge a fee within the entity they manage. These fees generally do not require SWIB to remit payment. Fees are typically assessed as a percentage of the market value of assets under management, commitments, and in some cases are based on investment performance. While the fees charged to these external vehicles do not meet the statutory definition of a cost or expense to SWIB, they are included in SWIB's total cost of management reporting as a supplemental reporting item that falls outside the statutory requirements of this report.

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<sup>1</sup> External Investment Management Fees for private markets, encompassing Private Equity, Venture Capital, Current Return and Real Estate asset classes, are reported on a net of fee basis rather than gross. Net fees reflect fee offsets, waivers, and deferrals.

# Private Equity Fund Commitments\*

*October 2025 – December 2025*

<i>Investment</i>	<i>Commitment (millions)</i>
Blackstone GP Stakes Fund III	\$100.0
Blackstone GP Stakes III – W (Overage)	\$50.0
Blackstone Tactical Opportunities Fund V	\$125.0
Carnelian Acquisition and Development	\$35.0
CB Madison IV	\$50.0
Fortino III	€45.0
Green Equity Investors X	\$50.0
Harvest Structured Capital Fund IV	\$75.0
Merit Capital Partners VIII	\$100.0
Quantum Energy Partners VII (add-on)	\$39.0
SCF IV Bucky Co-Invest	\$75.0
Shamrock Capital Content Fund IV	\$75.0
STG Allegro II	\$55.0
Updata Partners VIII	\$100.0
Warwick Partners V (add-on)	\$50.0

\*Includes Current Return Portfolio

# Private Equity Co-Investment Commitments\*

*October 2025 – December 2025*

<i>Investment</i>	<i>Commitment (millions)</i>
Industrials Co-Investment (add-on)	\$10.0
Industrials Co-Investment	\$30.0
IT Co-Investment	\$25.0
Consumer Co-Investment	\$30.0
Consumer Co-Investment	\$25.0
Business Services Co-Investment	\$30.0
Financial Services Co-Investment	\$15.0

*\*Includes Current Return Co-Investment Portfolio*

# Private Debt Investments/Commitments

*October 1, 2025 to December 31, 2025 (Fourth Quarter)*

<i>Investment</i>	<i>Investment/Commitment</i>
Food/Agriculture	\$7,000,000
Real Estate/Information Technology	\$25,000,000
Maritime Logistics	\$12,000,000
Financial Services	\$5,000,000
Financial Services (Residential)	\$10,000,000
<b>Total</b>	<b>\$59,000,000</b>

# Real Estate Commitments

*October 2025 – December 2025*

<i>Investment</i>	<i>Commitment (millions)</i>
Rockwood Mixed Use Partners II, LP	\$15
Silver Creek Manufactured Housing Communities, LLC	100
BLV II Co-Invest W, LP	38
Greystar Essential Housing Fund I, LP	100
QCP Income & Growth Fund, LP	100
US Strategic Industrial Fund III, LP	100
SRE Wilson Industrial Holdings, LLC	50
High Street Real Estate Fund VIII, LP	45
<b>Total</b>	<b>\$548</b>

# Funds Alpha Commitments\*

*October 1 – December 31, 2025*

<b>Manager</b>	<b>Commitment (Millions)</b>
Artisan International Value Fund	\$ 250
DE Shaw Cogence	\$ 100
BadgerMax Series B (Warehouse)	\$ 30
Blue Owl Season and Sell	\$ 250
<b>Total</b>	<b>\$ 630</b>

*\*Includes Hedge Funds and Beta One*

Board Contact Log – March 2026 Board Meeting

DATE OF INBOUND COMMUNICATION	DATE COMMUNICATED TO THE BOARD	COMMUNICATION SOURCE	TOPIC	WRS PARTICIPANT*
December 9, 2025	March 9, 2026	Scott Springman	Divestment from Musk-related companies	Yes
February 26, 2026	March 9, 2026	Anne Steinberg	Concerns about data centers and risks of climate change	Yes
February 27, 2026	March 9, 2026	Judith Stadler	Concerns about data centers and risks of climate change	No
March 2, 2026	March 9, 2026	Peter Knotek	Request for Public Comments at SWIB Board Meetings	Yes

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\* Comment submitters indicate whether they are or are not WRS Participants when submitting the comment.

## Board Meeting

### Tab 12 – Future Items for Discussion

# 2026 Board Meeting and Agenda Plan

March 2026

<b>Audit &amp; Finance</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Annual Charters Review</li> <li>• Open Audit Issues Report(s)</li> <li>• Approval of Draft Audit Report(s)</li> <li>• 2026 Internal Audit Plan Status</li> <li>• 2026 Internal Audit Goals</li> <li>• Compliance and Operational Risk Updates</li> <li>• Financial Reporting</li> <li>• Administrative Reports</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• Evaluation of Head of Internal Audit</li> <li>• Head of Internal Audit Compensation Recommendation</li> </ul>
<b>Compensation &amp; Workforce Development</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Annual Committee Charter Review</li> <li>• Strategic Results Scorecard Approval</li> <li>• Incentive Compensation Program Review and Division Scorecards Results</li> <li>• Incentive Compensation Award Recommendations</li> <li>• Talent Acquisition Update and People Metrics</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• Incentive Compensation Award Recommendations for Specific Individuals</li> <li>• Long-Term Incentive Plan Awards</li> <li>• Deputy Executive Director/Chief Operating Officer Incentive Compensation Award Recommendation</li> <li>• ED/CIO Evaluation and Compensation</li> </ul>
<b>SPCG</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Corporate Governance Program Update</li> <li>• June Investment Forum Preview</li> <li>• Innovation and Projects Update</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• ED/CIO Goals Review</li> </ul>
<b>Board Meeting</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Committee Reports</li> <li>• Election of Secretary and Assistant Secretary</li> <li>• Annual Committee Assignments</li> <li>• Proposed Meeting Dates for Next Year</li> <li>• Investment Performance and Market Updates; Callan Annual Report</li> <li>• Committee Open Session Business</li> <li>• Quarterly Investment Update (Economic Update)</li> <li>• Q4 Direct Charges to Funds / PMFA Commitments / Board Contact Log</li> </ul> <p><b>Closed Session</b></p> <ul style="list-style-type: none"> <li>• Risk Management Update</li> <li>• Committee Closed Session Business</li> </ul>

# 2026 Board Meeting and Agenda Plan

June 2026	
<b>Audit &amp; Finance</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• WRS Audited Financial Statements</li> <li>• Open Audit Issues Report(s)</li> <li>• Approval of Draft Audit Report(s)</li> <li>• Annual Affirmations and Disclosures</li> <li>• 2026 Internal Audit Plan Status</li> <li>• Five-Year Audit Summary</li> <li>• Financial Reporting</li> <li>• Administrative Reports</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• LAB Review of Statements of Economic Interest</li> </ul>
<b>Compensation &amp; Workforce Development</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Talent Acquisition and Employee Engagement Update</li> </ul>
<b>SPCG</b>	<p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• ED/CIO Goals Review</li> </ul>
<b>INVESTMENT FORUM</b>	
<b>Board Meeting</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Committee Reports</li> <li>• Investment Performance and Market Updates; Callan Quarterly Report</li> <li>• Committee Open Session Business</li> <li>• Quarterly Investment Update (Private Markets Strategy Reports and Market Outlook)</li> <li>• Q1 Direct Charges to Funds / PMFA Commitments / Board Contact Log</li> </ul> <p><b>Closed Session</b></p> <ul style="list-style-type: none"> <li>• Risk Management Update</li> <li>• Committee Closed Session Business</li> </ul>
<b>INVESTMENT FORUM</b>	

# 2026 Board Meeting and Agenda Plan

September 2026	
<b>Audit &amp; Finance</b>	<b>Open Session</b> <ul style="list-style-type: none"> <li>• Open Audit Issues Report(s)</li> <li>• Approval of Draft Audit Report(s)</li> <li>• 2026 Internal Audit Plan Status and Plan Update</li> <li>• 2027 Internal Audit Plan Preview</li> <li>• Financial Reporting</li> <li>• Administrative Reports</li> </ul>
<b>Benchmark &amp; Performance</b>	<b>Open Session</b> <ul style="list-style-type: none"> <li>• NEPC 2026 Benchmark Review and Recommendation</li> </ul>
<b>Compensation &amp; Workforce Development</b>	<b>Open Session</b> <ul style="list-style-type: none"> <li>• Talent Acquisition Update and People Metrics</li> </ul>
<b>SPCG</b>	<b>Open Session</b> <ul style="list-style-type: none"> <li>• Annual Corporate Governance Policy Review and Corporate Governance 2026 Proxy Voting Review</li> <li>• October Workshop Preview</li> <li>• Trustee Manual and Policies Review</li> </ul> <b>Closed Session</b> <ul style="list-style-type: none"> <li>• Data Management and Information Technology Update</li> <li>• Board/Staff Consultant Annual Reporting</li> </ul> <b>Executive Closed Session</b> <ul style="list-style-type: none"> <li>• Targeted Strategic Planning</li> <li>• ED/CIO Goals Review</li> </ul>
<b>Board Meeting</b>	<b>Open Session</b> <ul style="list-style-type: none"> <li>• Committee Reports</li> <li>• Investment Forum Recap</li> <li>• Biennial Ethics Training</li> <li>• Fiduciary &amp; Public Records Training</li> <li>• Investment Performance and Market Updates; Callan Quarterly Report</li> <li>• Committee Open Session Business</li> <li>• Quarterly Investment Update (Economic Update)</li> <li>• Q2 Direct Charges to Funds / PMFA Commitments / Board Contact Log</li> </ul> <b>Closed Session</b> <ul style="list-style-type: none"> <li>• Risk Management Update</li> <li>• Board/Staff Consultant Annual Reporting</li> <li>• Committee Closed Session Business</li> </ul> <b>Executive Closed Session</b> <ul style="list-style-type: none"> <li>• Board Self-Evaluation with Governance Consultant</li> </ul>

<b>OCTOBER BOARD WORKSHOP</b>	
<ul style="list-style-type: none"> <li>• Outside Speakers</li> <li>• Asset Allocation Review</li> </ul>	

# 2026 Board Meeting and Agenda Plan

December 2026	
<b>Audit &amp; Finance</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• SIF Audited Financial Statements</li> <li>• Open Audit Issues Report(s)</li> <li>• Approval of Draft Audit Report(s)</li> <li>• 2026 Internal Audit Plan Status</li> <li>• Proposed 2026 Internal Audit Plan</li> <li>• Annual Presentation on Cost Benchmarking</li> <li>• Financial Reporting, including Budget and Position Request</li> <li>• Administrative Reports</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• LAB Review of Statements of Economic Interests</li> </ul>
<b>Benchmark &amp; Performance</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Annual Committee Charter, Policies, and Benchmarking Philosophy Review</li> <li>• Benchmark Consultant Report and Annual Benchmark Review and Recommendation</li> </ul>
<b>Compensation &amp; Workforce Development</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Annual RPM Review</li> <li>• Compensation Philosophy Review</li> <li>• Compensation Consultant Report</li> <li>• Incentive Compensation Plan Changes for Next Performance Year</li> <li>• Incentive Compensation Projections</li> <li>• Talent Acquisition and Employee Engagement Update</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• Succession Planning</li> </ul>
<b>SPCG</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Annual Committee Charter Review</li> </ul> <p><b>Executive Closed Session</b></p> <ul style="list-style-type: none"> <li>• Targeted Strategic Planning</li> <li>• ED/CIO Goals Review</li> </ul>
<b>Board Meeting</b>	<p><b>Open Session</b></p> <ul style="list-style-type: none"> <li>• Committee Reports</li> <li>• Investment Performance and Market Updates; Callan Quarterly Report</li> <li>• Asset Allocation Recommendation</li> <li>• Quarterly Investment Update (Funds Alpha Strategy Reports and Market Outlook)</li> <li>• Committee Open Session Business</li> <li>• Q3 Direct Charges to Funds / PMFA Commitments / Board Contact Log</li> </ul> <p><b>Closed Session</b></p> <ul style="list-style-type: none"> <li>• Asset Allocation Discussion</li> <li>• Annual Review of Expected Tail Loss Analysis</li> <li>• Risk Management Update</li> <li>• Committee Closed Session Business</li> </ul>