# Global Fixed Income Annual Program Review

As of Quarter Ending on June 30th, 2025

Arnold B. Phillips

Managing Investment Director

David Bader, Investment Director

Richard Fiebrandt, Investment Manager

Brian Parks, Investment Manager

Todd Smith, Investment Manager

Investment Committee September 15, 2025



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### Program Overview

### Role

Serve as a long-term economic diversifier to equity risk and be a reliable source of income and liquidity

### Key Metrics

- Five Global Fixed Income (GFI) Segments in the Total Fund Strategic Asset Allocation (SAA) totaling \$168.6B in AUM and 30.3% of the Total Fund as of June 30, 2025
  - Approximately 77.4% internally managed
- CalPERS Short Term Investment Fund (STIF) portfolio had \$20.9B in AUM as of June 30, 2025

### Investment Beliefs

- A long investment horizon is a responsibility and an advantage (IB 2)
- CalPERS will take risk only where we have a strong belief we will be rewarded for it (IB 7)
- Costs matter and need to be effectively managed (IB 8)
- Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives (IB 10)



### Market Environment

### **Investment Themes**

- Valuation Paradox
- Federal Reserve's Dual Mandate
- U.S. Consumer

### **Current Concerns**

- Geopolitics
- Federal Reserve Independence
- U.S. Budget Deficits





# Strategy and Portfolio Positioning

Segment/Portfolio	% of PERF	Market Value	5-Yr Active Dollar Value Added	Internal / Externally Managed	Mandate
Treasury (UST) Segment	7.9%	\$43.9B		100% Internal	Passive
Mortgage-Backed Securities (MBS) Segment	5.8%	\$32.0B	\$267.4M	<ul><li>98.6% Internal</li><li>1.4% External</li></ul>	Active
Investment Grade Corporates (IG Corp) Segment	6.1%	\$34.0B	\$1.8M	100% Internal	Active
High Yield (HY) Segment	5.3%	\$29.3B	\$100.6M	<ul><li> 89.4% External</li><li> 10.6% Internal</li></ul>	Active Passive
Emerging Markets Sovereign Bonds (EM Sov) Segment	5.3%	\$29.4B	\$241.1M¹	~ 60.8% Internal ~ 39.2% External	Active
CalPERS-STIF	N/A²	\$20.9B		100% Internal	Active





## Performance and Risk Analysis

	10-	Year	5-Y	'ear	3-Y	'ear	1-	Year		
Program/Segment	Total Return (%)	Excess Return (bps)	Total Return (%)	Excess Return (bps)	Total Return (%)	Excess Return (bps)	Total Return (%)	Excess Return (bps)	Forecasted Volatility (%)	Forecasted Tracking Error (bps)
Income	2.49	29	-1.17	18	3.36	10	6.48	21	6.3	31
UST	0.27	-2	-6.36	3	-2.13	0	3.04	0	10.3	6
MBS	1.74	36	-0.28	20	2.71	28	6.86	28	5.4	75
IG Corp	3.32	29	-1.38	-1	3.45	-8	6.48	31	9.4	37
HY¹	-	-	5.59	11	9.43	10	9.33	18	4.9	44
EM Sov <sup>2</sup>	-	-	-	-	-	-	7.88	32	7.3	39



## Looking Back on Business & Key Initiatives

#### What Worked



- Provided seed capital to a new High Yield ETF managed by JP Morgan
- Cross asset-class collaboration (ID secondment, Insurance-Linked Securities and Investment Grade Private Credit)
- Strategy re-design to generate higher alpha in EM Sov Program
- All spread segments had positive dollar value added over the fiscal year
- Enhanced partnership with Investment Treasury Group
- Staff Development and Culture Building

### Areas for Refinement



- Strategy re-design to generate higher alpha
- Data and Tech integration



# Key Initiatives – Looking Ahead

- Continue to review potential external managers
- Continue to collaborate with the Sustainable Investments
- Continue to explore additional value-add strategies
- Continue to collaborate with INVO's Data & Technology

Modernization Initiative



## **Key Initiatives** Integration of Governance and Sustainability

Activities	Description / Status
EM Sov Segment	<ul> <li>Use of ESG factor-based scorecard for economic, political, social rankings – Implemented</li> <li>Labor Rights Screen – Implemented</li> <li>All external managers attested to compliance with Labor Rights Principles</li> </ul>
IG Corp & HY Segments	<ul> <li>Collaborate with Corporate Governance on issues, including Labor Rights – Implemented         <ul> <li>All HY external managers attested to compliance with Labor Rights Principles</li> </ul> </li> <li>Utilize internal ESG risk screen based on rating agency scores – Implemented</li> <li>ESG Questionnaire – Implemented</li> <li>ESG Integration – Ongoing</li> </ul>
MBS Segment	ESG Integration – Ongoing



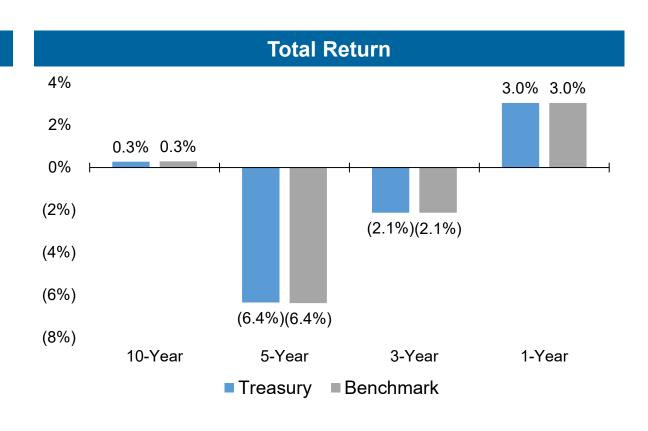
# Appendix





### Performance | Treasury Segment

# **Asset Type Allocation Total Market Exposure: \$43.9B** ■ UST Cash Bonds | 86.3% UST Futures | 13.7%

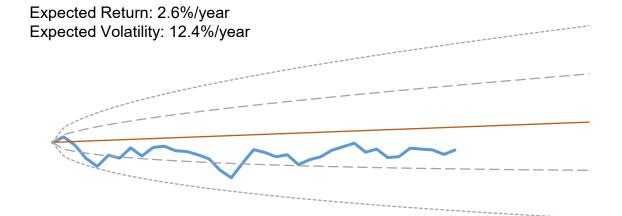






### Performance | Treasury Segment (cont.)

#### **Cumulative Total Return vs 2021 SAA Expectations**





### **Key Metrics**

Realized 10 Year Sharpe Ratio

(0.2)

Forecasted Volatility

10.3%



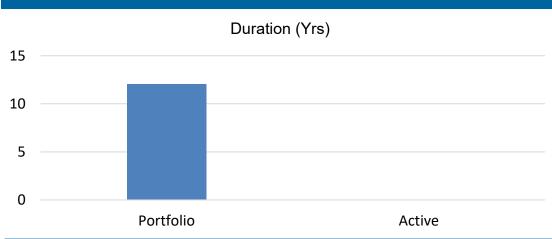


### Treasury Segment Risk Summary

### **Segment Risk Statistics (Forecasted)**

Forecasted Volatility	10.3%
Benchmark Volatility	10.3%
Tracking Error	0.06%

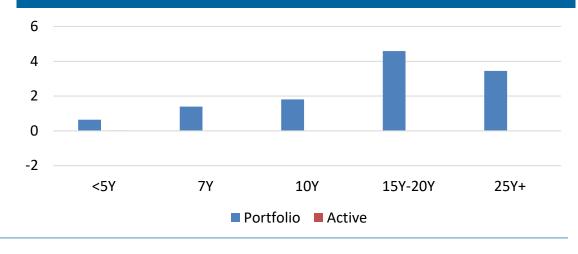
### **Key Portfolio Characteristics**



### **Risk Decomposition (Forecasted)**

	Portfolio Risk Contribution	% Risk	Active Risk Contribution	% Risk
Total Segment Risk	10.3%	100.0%	0.06%	100.0%
US Interest Rates	10.3%	99.9%	0.00%	0.7%
Money Market Factors	0.0%	0.0%	0.00%	6.0%
Convexity	0.0%	0.0%	0.00%	0.0%
Idiosyncratic	0.0%	0.0%	0.06%	93.2%

### **Key Interest Rate Durations**

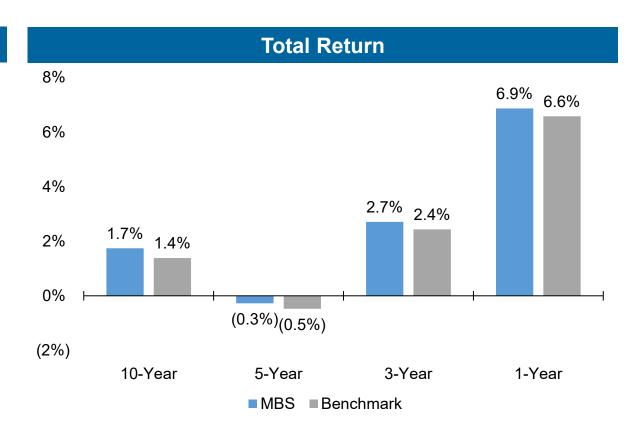






### Performance | Mortgage-Backed Securities Segment

## **Asset Type Allocation**<sup>1</sup> **Total Market Exposure: \$32.0B** ■ Agency MBS | 94.1% **CMBS | 3.0%** ■ Non-Agency MBS | 2.4% ■ ABS | 0.4% **CLO | 0.1%**



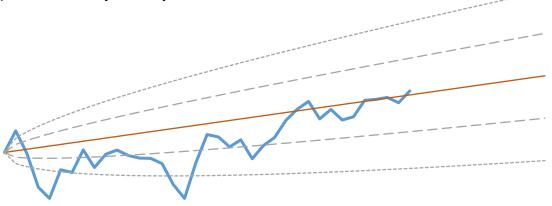




### Performance | Mortgage-Backed Securities Segment (cont.)

#### **Cumulative Total Return vs 2021 SAA Expectations**

Expected Return: 2.8%/year Expected Volatility: 3.1%/year





#### **Key Metrics**

Realized 10 Year Sharpe Ratio

0.0

Realized 5 Year Info Ratio

0.7

Forecasted Volatility

5.4%

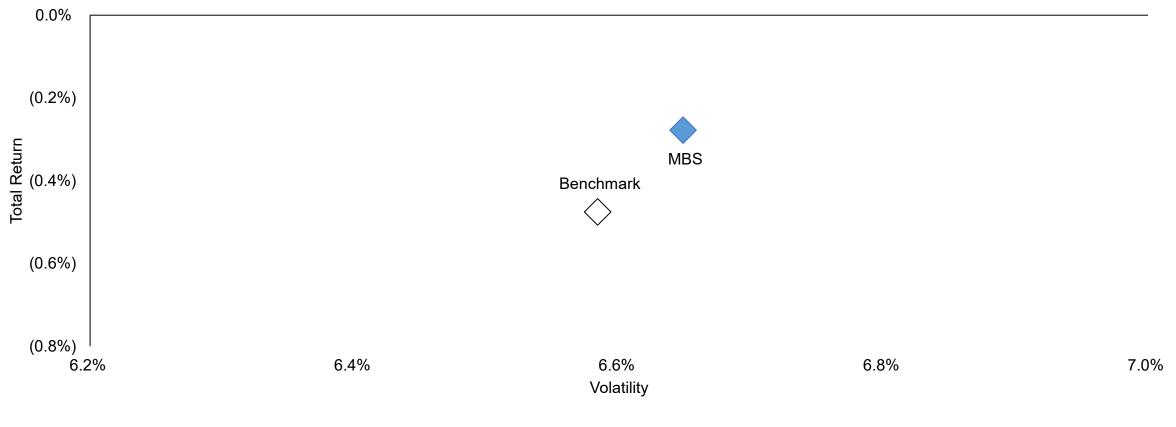
Forecasted Tracking Error

75 bps





### 5 Year Mortgage-Backed Securities Segment Risk-Return



			Sharpe	Tracking	Information
	Return	Volatility	Ratio	Error	Ratio
MBS	(0.28%)	6.65%	(0.46)	28 bps	0.71



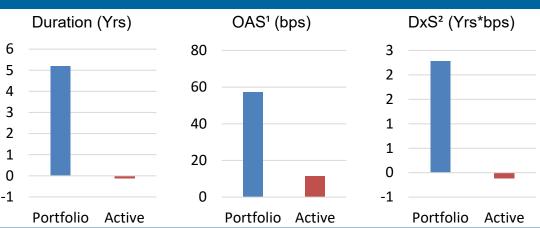


### Mortgage-Backed Securities Segment Risk Summary

#### **Segment Risk Statistics (Forecasted)**

Forecasted Volatility	5.4%
Benchmark Volatility	5.8%
Tracking Error	0.75%

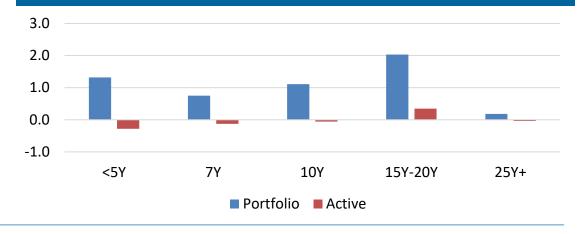
### **Key Portfolio Characteristics**



#### **Risk Decomposition (Forecasted)**

	Portfolio Risk		Active Risk	
	Contribution	% Risk	Contribution	% Risk
Total Segment Risk	5.4%	100.0%	0.75%	100.0%
US Interest Rates	3.9%	72.3%	0.16%	21.2%
Mortgage	1.2%	22.8%	0.33%	43.6%
CMBS	0.1%	2.1%	0.18%	23.8%
ABS	0.0%	0.0%	0.00%	0.2%
US Credit	0.0%	0.0%	0.00%	0.0%
Idiosyncratic	0.0%	0.0%	0.01%	0.9%
Others	0.1%	2.7%	0.08%	10.3%

#### **Key Interest Rate Durations**





<sup>1</sup>OAS: option adjusted spread

<sup>2</sup>DxS: spread duration multiplied by spread

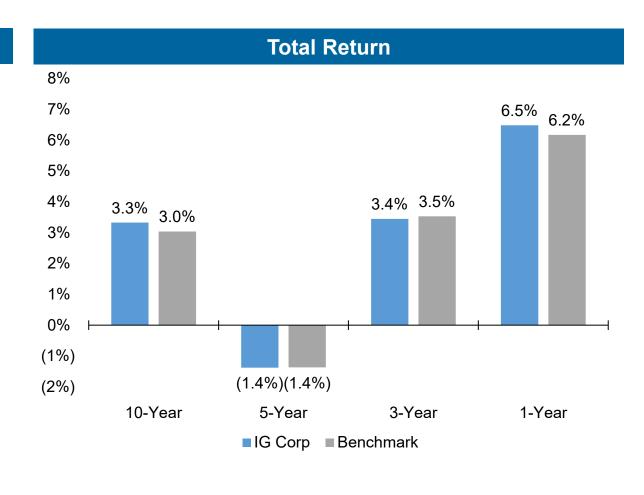


### Performance | Investment Grade Corporates Segment

### **Asset Type Allocation** Total Market Exposure: \$34.0B ■ Financial | 26.1% Utilities | 15.8% Consumer Non Cyclicals | 14.0% Energy | 10.0% Communications | 8.4% ■ Technology | 6.7% Capital Goods | 5.5% ■ Consumer Cyclicals | 4.9% Cash Securities/UST | 3.9% ■ Transportation | 2.5% ■ Basic | 1.8%

■ Muni | 0.2%

Other Industrials | 0.2%

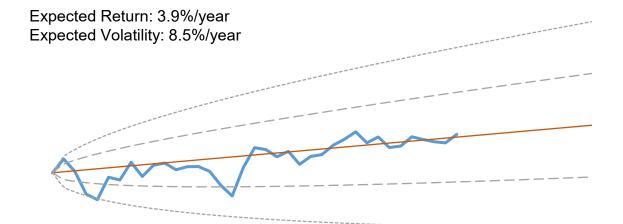






### Performance | Investment Grade Corporates Segment (cont.)

#### **Cumulative Total Return vs 2021 SAA Expectations**





Realized 10 Year Sharpe Ratio

0.1

Realized 5 Year Info Ratio

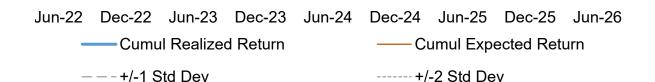
0.0

Forecasted Volatility

9.4%

Forecasted Tracking Error

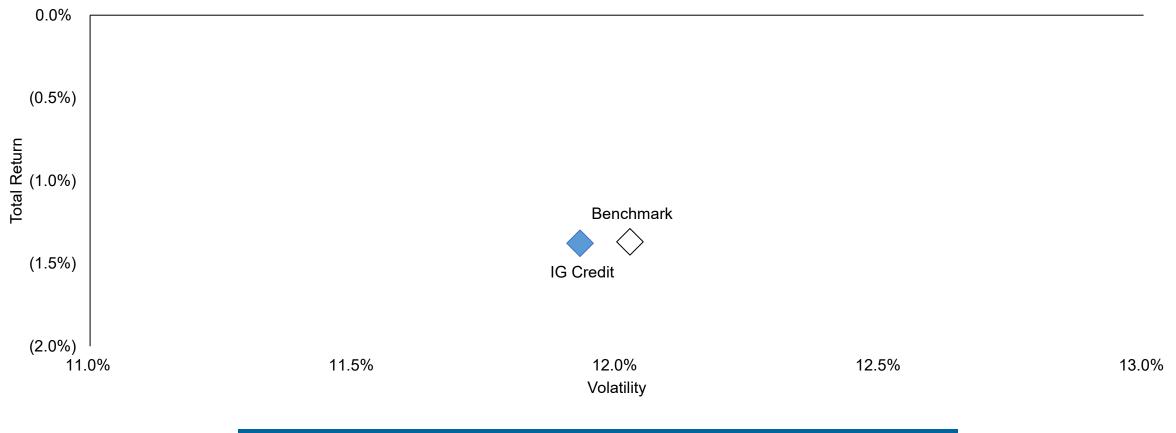
37 bps







### 5 Year Investment Grade Corporates Segment Risk-Return



			Sharpe	Tracking	Information
	Return	Volatility	Ratio	Error	Ratio
IG Corp	(1.38%)	11.93%	(0.34)	26 bps	(0.04)



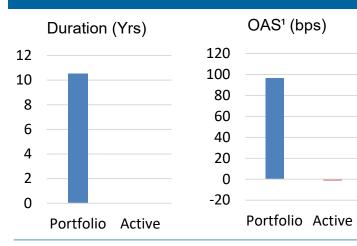


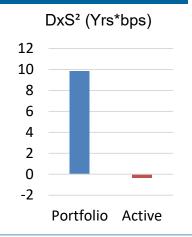
### Investment Grade Corporates Segment Risk Summary

#### **Segment Risk Statistics (Forecasted)**

Forecasted Volatility	9.4%
Benchmark Volatility	9.4%
Tracking Error	0.37%

### **Key Portfolio Characteristics**

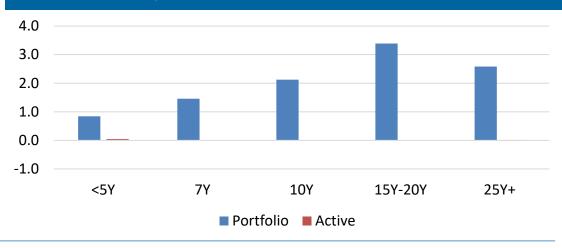




#### **Risk Decomposition (Forecasted)**

	Portfolio Risk Contribution	% Risk	Active Risk Contribution	% Risk
Total Segment Risk	9.4%	100.0%	0.37%	100.0%
US Interest Rates	7.3%	77.6%	0.01%	3.5%
US Credit	2.1%	22.2%	0.21%	57.4%
Idiosyncratic	0.0%	0.1%	0.09%	24.0%
Others	0.0%	0.1%	0.06%	15.1%

#### **Key Interest Rate Durations**





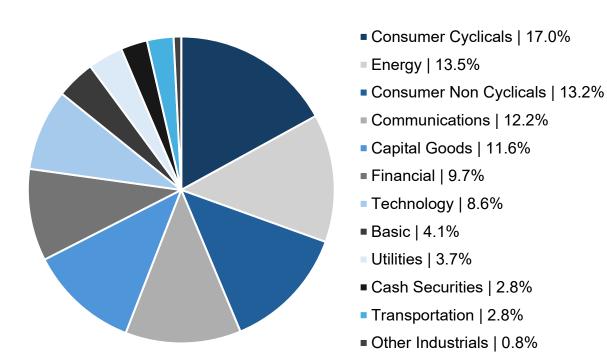
<sup>1</sup>OAS: option adjusted spread

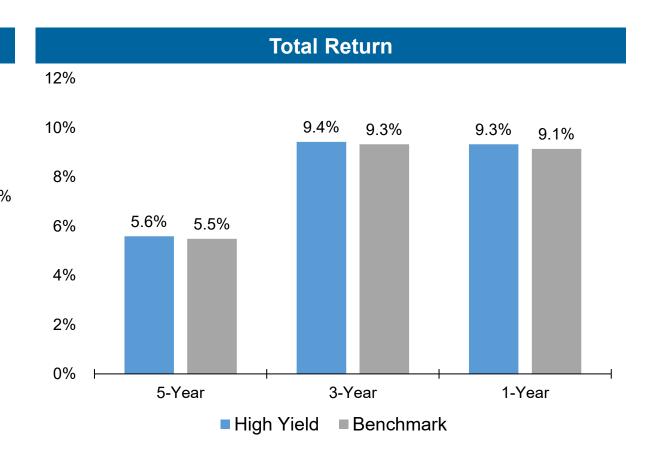
<sup>2</sup>DxS: spread duration multiplied by spread



### Performance | High Yield Segment

# Asset Type Allocation Total Market Exposure: \$29.3B



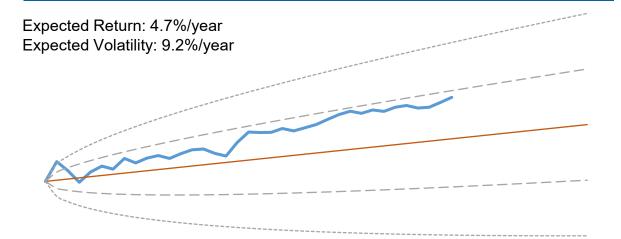






### Performance | High Yield Segment (cont.)

#### **Cumulative Total Return vs 2021 SAA Expectations**





Realized 5 Year Sharpe Ratio

0.4

Realized 5 Year Info Ratio

0.6

Forecasted Volatility

4.9%

Forecasted Tracking Error

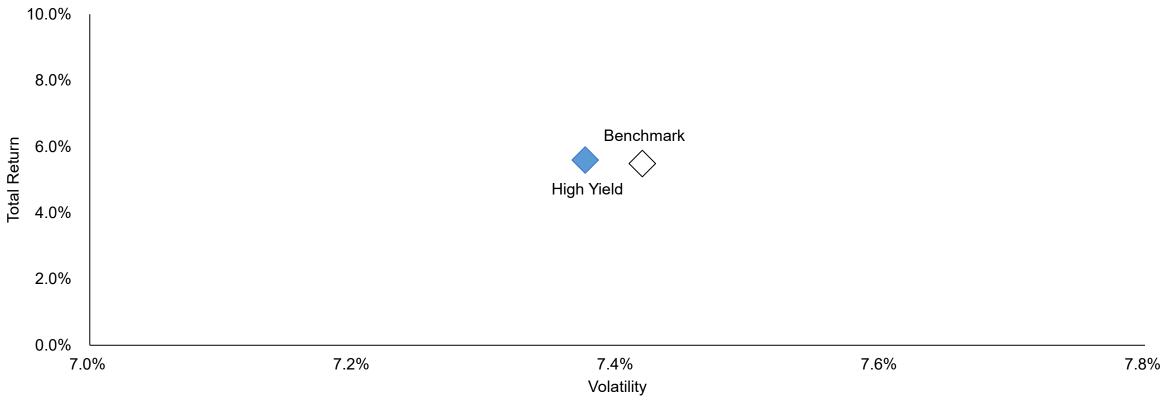
44 bps







### 5 Year High Yield Segment Risk-Return



	Return	Volatility	Sharpe Ratio	Tracking Error	Information Ratio
High Yield	5.59%	7.38%	0.38	18 bps	0.57



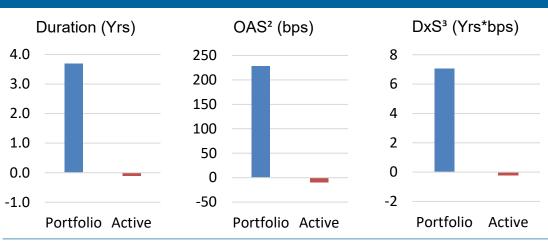


### High Yield Segment Risk Summary<sup>1</sup>

#### **Segment Risk Statistics (Forecasted)**

Forecasted Volatility	4.9%
Benchmark Volatility	5.2%
Tracking Error	0.44%

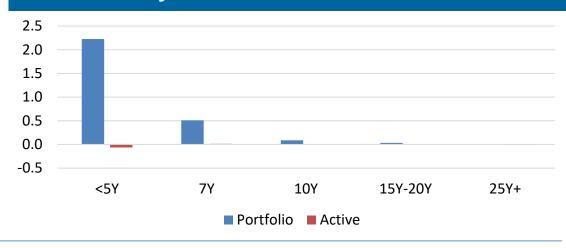
### **Key Portfolio Characteristics**



#### **Risk Decomposition (Forecasted)**

	Portfolio Risk Contribution	% Risk	Active Risk Contribution	% Risk
Total Segment Risk	4.9%	100.0%	0.44%	100.0%
US High Yield	4.6%	94.4%	0.36%	82.9%
US Interest Rates	0.1%	1.9%	-0.01%	-2.2%
Idiosyncratic	0.0%	0.7%	0.11%	26.2%
Others	0.1%	3.0%	-0.03%	-7.0%

### **Key Interest Rate Durations**





<sup>1</sup>High Yield is as of 7/16/2025.

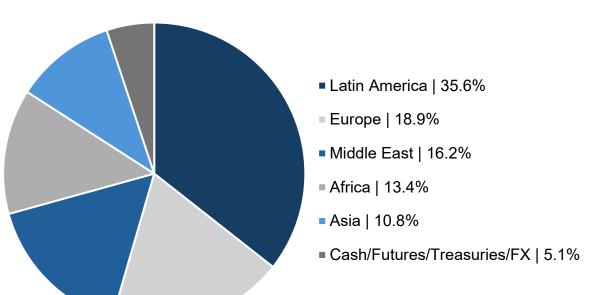
<sup>2</sup>OAS: option adjusted spread

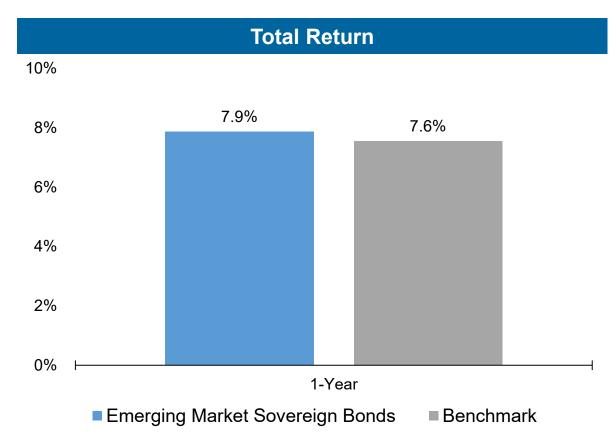
<sup>3</sup>DxS: spread duration multiplied by spread



### Performance | Emerging Markets Sovereign Bonds Segment<sup>1</sup>

# Asset Type Allocation Total Market Exposure: \$29.4B





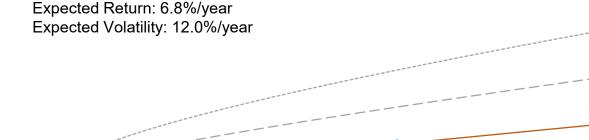




# Performance | Emerging Markets Sovereign Bonds Segment<sup>1</sup>

(cont.)

#### **Cumulative Total Return vs 2021 SAA Expectations**





Realized 10 Year Sharpe Ratio

n/a

Realized 5 Year Info Ratio

n/a

Forecasted Volatility

7.3%

Forecasted Tracking Error

39 bps





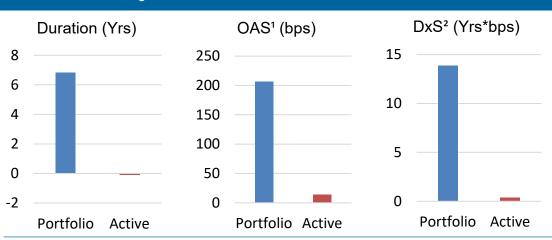


### Emerging Markets Sovereign Bonds Segment Risk Summary

#### **Segment Risk Statistics (Forecasted)**

Forecasted Volatility	7.3%
Benchmark Volatility	7.3%
Tracking Error	0.39%

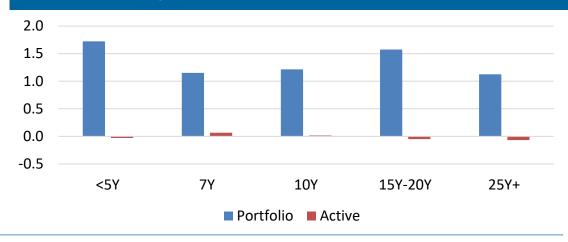
### **Key Portfolio Characteristics**



#### **Risk Decomposition (Forecasted)**

	Portfolio Risk Contribution	% Risk	Active Risk Contribution	% Risk
Total Segment Risk	7.3%	100.0%	0.39%	100.0%
EM Sovereigns	5.3%	72.5%	0.11%	27.6%
US Interest Rates	1.9%	26.7%	0.00%	0.5%
Idiosyncratic	0.0%	0.3%	0.25%	64.8%
Others	0.0%	0.6%	0.03%	7.2%

#### **Key Interest Rate Durations**





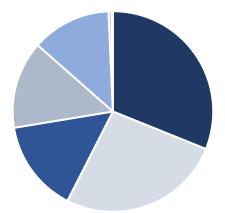
<sup>1</sup>OAS: option adjusted spread

<sup>2</sup>DxS: spread duration multiplied by spread



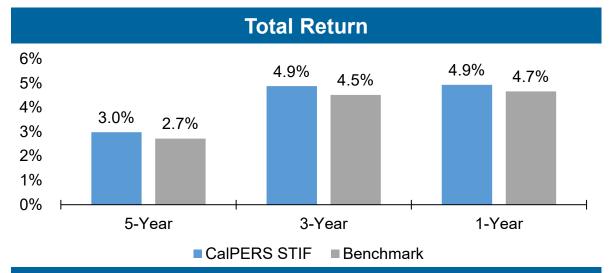
### Performance | CalPERS Short Term Investment Fund





### **Total Market Exposure: \$20.9B**

- Repo | 31.1%
- SSgA STIF | 26.4%
- CP A1/P1 | 14.9%
- Time Deposit | 14.1%
- CD A1/P1 | 12.8%
- Treasury Bills | 0.5%
- Foreign Bills | 0.2%



#### **Portfolio Characteristics**

Weighted Ave Days to Maturity (2A7)	10
Weighted Ave Life (2A7)	51
Overnight Liquidity	58%
7 Day Liquidity	60%
30 Day Liquidity	66%
Net Yield	4.48%

#### **Maturity Schedule**

