

Investment Committee
Friday, October 10, 2025, 9:00 a.m.

Virtual Only

[Click here to join the meeting](#)

AGENDA

- I. CALL TO ORDER AND ACCEPTANCE OF AGENDA – (Committee Action)**
 - A. Roll Call & Conflict of Interest Disclosure
 - B. Introduction of New Staff
- II. ACCEPTANCE OF MINUTES (September 12, 2025) – (Committee Action)**
- III. STRATEGY REVIEW (45 minutes)**
 - A. Risk/IT – Mr. Vaidya, Mr. Hambrick – (Information Only)
- (Break)
- IV. INVESTMENT GUIDELINES¹ (15 minutes) – (Committee Action)**
 - A. Public Markets – Mr. Chin, Mr. Posch
- V. INTERNAL ENHANCEMENT MODEL¹ (45 minutes) – (Committee Action)**
 - A. Internal Equity – Mr. Dukart, Mr. Moss
- VI. DISCUSSION**
- VII. ADJOURNMENT**

¹ Executive Session pursuant to N.D.C.C. 44-04-19.2, 44-04-18.4 (2)(a) and N.D.C.C. 44-04-18.4(2)(d) to review and discuss confidential commercial information and trade secrets.

**STATE INVESTMENT BOARD
INVESTMENT COMMITTEE
MEETING MINUTES OF THE
SEPTEMBER 12, 2025, MEETING**

MEMBERS PRESENT: Thomas Beadle, State Treasurer, Chair
Prodosh Simlai, External Representative, Vice Chair
Scott Anderson, Chief Investment Officer
Eric Chin, Deputy Chief Investment Officer
Pete Jahner, External Representative
Todd Van Orman, External Representative

STAFF PRESENT: Jac Collins, Senior Investment Analyst
Cory Cox, Investment Analyst
Derek Dukart, Senior Investment Analyst
Jennifer Ferderer, Fiscal Operations Admin
Chirag Gandhi, Portfolio Manager
Shiv Khare, Investment Intern
Robbie Morey, Investment Operations Analyst
George Moss, Portfolio Manager
Chuck Napp, Sr Investment Operations Manager
Daphne Pfeiger, Investment Accountant
Matt Posch, Portfolio Manager
Jodi Smith, Executive Director
Nitin Vaidya, Chief Risk Officer
Alexander Weissman, Investment Analyst
Lance Zietlow, Portfolio Manager

GUESTS: Eileen Neil, Verus
Members of the Public

CALL TO ORDER

Treasurer Beadle called the State Investment Board (SIB) Investment Committee (IC) meeting to order at 9:04 a.m. on Friday, September 12, 2025. The meeting was held virtually.

The following members were present representing a quorum: Mr. Anderson, Treasurer Beadle, Mr. Chin, Mr. Jahner, Dr. Simlai, and Mr. Van Orman

AGENDA

The agenda was considered for the September 12, 2025, meeting.

IT WAS MOVED BY DR. SIMLAI AND SECONDED BY MR. CHIN AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA FOR THE SEPTEMBER 12, 2025, MEETING AS DISTRIBUTED.

**AYES: MR. ANDERSON, MR. CHIN, MR. JAHNER, DR. SIMLAI, MR. VAN ORMAN, AND
TREASURER BEADLE
NAYS: NONE
MOTION CARRIED**

MINUTES

The minutes were considered for the August 8, 2025, meeting.

**IT WAS MOVED BY MR. JAHNER AND SECONDED BY MR. VAN ORMAN AND CARRIED BY
A VOICE VOTE TO APPROVE THE MINUTES FOR THE AUGUST 8, 2025, MEETING AS
DISTRIBUTED.**

**AYES: MR. ANDERSON, MR. CHIN, MR. JAHNER, DR. SIMLAI, MR. VAN ORMAN, AND
TREASURER BEADLE
NAYS: NONE
MOTION CARRIED**

STRATEGY REVIEW

Mr. Anderson provided a performance update, beginning with a review of the benchmark indices, followed by asset allocation and performance summaries for PERS, TFFR, the Legacy Fund, and WSI. He then presented a strategy overview, outlining current opportunities identified by the investment team and the foundational elements guiding future initiatives. He concluded with a summary of high-priority items aligned with the current strategic plan.

Mr. Gandhi delivered an internal investment strategy update, covering the planned sequence of capability development over the next two years. His presentation included an overview of the enhanced fixed income strategy, portfolio construction and risk management considerations, fixed income guideline parameters, and tracking error analysis. Mr. Moss concluded with the equity roadmap and guidelines.

The Committee recessed at 10:43 a.m. and reconvened at 10:50 a.m.

MANAGER RECOMMENDATION

**IT WAS MOVED BY DR. SIMLAI AND SECONDED BY MR. JAHNER AND CARRIED BY A
ROLL CALL VOTE TO ENTER INTO EXECUTIVE SESSION PURSUANT TO N.D.C.C. 44-04-
18.4(2)(B) AS FINANCIAL INFORMATION THAT HAS NOT BEEN PREVIOUSLY PUBLICLY
DISCLOSED AND THAT IF THE INFORMATION WERE TO BE DISCLOSED WOULD IMPAIR
THE PUBLIC ENTITY'S FUTURE ABILITY TO OBTAIN NECESSARY INFORMATION OR
WOULD CAUSE SUBSTANTIAL COMPETITIVE INJURY TO THE PERSON FROM WHICH THE
INFORMATION WAS OBTAINED.**

**AYES: MR. ANDERSON, MR. JAHNER, MR. CHIN, MR. VAN ORMAN, DR. SIMLAI, AND
TREASURER BEADLE
NAYS: NONE
MOTION CARRIED**

The executive session began at 10:54 a.m. and ended at 11:21 a.m. The session was attended by Committee members, Mr. Collins, Mr. Cox, Mr. Dukart, Ms. Ferderer, Mr. Gandhi, Mr. Khare, Mr. Moss, Mr. Posch, Ms. Smith, Mr. Vaidya, Mr. Weissman, and Mr. Zietlow.

IT WAS MOVED BY MR. JAHNER AND SECONDED BY DR. SIMLAI AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE STAFF RECOMMENDATION AND ENTER INTO A CONTRACT NEGOTIATIONS AND LEGAL REVIEW WITH FUND MANAGER AND THEN FOR STAFF TO REPORT BACK AT A FUTURE MEETING.

AYES: DR. SIMLAI, MR. CHIN, MR. VAN ORMAN, MR. JAHNER, MR. ANDERSON, AND TREASURER BEADLE

NAYS: NONE

MOTION CARRIED

INVESTMENT GUIDELINES

Mr. Zietlow provided an overview of the Ares ND Credit Strategies Fund and the proposed investment guidelines.

IT WAS MOVED BY DR. SIMLAI AND SECONDED BY MR. VAN ORMAN AND CARRIED BY A ROLL CALL VOTE TO APPROVE THE PROPOSED CHANGE TO THE ARES CREDIT INVESTMENT GUIDELINES.

AYES: MR. VAN ORMAN, MR. ANDERSON, DR. SIMLAI, MR. CHIN, AND MR. JAHNER, AND TREASURER BEADLE

NAYS: NONE

MOTION CARRIED

MANAGER UPDATE

Mr. Zietlow presented a manager update, noting that the Private Markets team has onboarded Guidepost Growth Equity IV, L.P. with a total commitment of \$60 million, with a \$20 million allocation to the Pension Pool and \$40 million to the Legacy Fund.

DISCUSSION

Mr. Anderson provided an update on performance reporting and benchmark methodology. He noted that performance is independently calculated based on board-approved benchmark memos.

ADJOURNMENT

With no further business to come before the committee, Treasurer Beadle adjourned the meeting at 11:39 a.m.

Prepared by:

Jennifer Ferderer, Assistant to the Board

INVESTMENT COMMITTEE

RISK ALLOCATION AND MANAGEMENT

Nitin Vaidya, CFA

Chief Risk Officer

Ross Hambrick, CFA

Portfolio Manager of Quantitative Risk
and Funds Management

October 10, 2025



INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

AGENDA

- **Market Risk Monitor**
- Portfolio Risk

MARKET RISK MONITOR: OVERVIEW

Very Low
Composite
Risk

Very Low
Risk
Perception
Across Many
Measures



RIO Risk Composite

- Macro-Economic indicators (30%)**
 - Chicago Fed Financial Conditions Index
 - 2-10 Yield Curve
 - FX Change Forecast
- Systemic Financial Risk indicators (50%)**
 - 5-yr Credit Default Swaps
 - Bank of America GFSI Liquidity Risk
 - BAA 10-yr Spread
 - Cleveland Fed Average Distance to Default
- Capital Market Dynamics indicators (10%)**
 - CBOE VIX (Volatility) Index
 - US Composite Put/Call Ratio
 - CBOE 3-mo Correlation
- Sentiment indicators (10%)**
 - AAll Bullish Sentiment
 - Percent Short Interest Relative to Float

MARKET RISK MONITOR: MACRO-ECONOMIC INDICATORS

Chicago Fed Fin Conditions Index



2-10 Yield Curve



FX Change Forecast



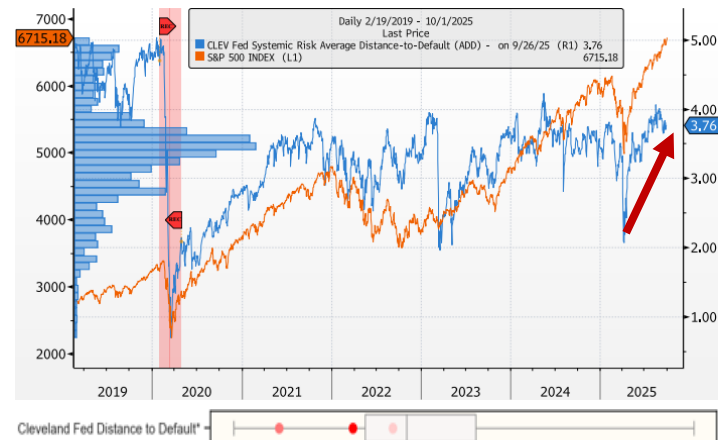
- Financial Conditions again began declining since April when tariffs were announced and are now near low levels
- Yield curve steepening has stalled since even as odds of Fed rate cuts have improved this quarter from two to three; for context in April expectations of the markets expected four cuts this year.
- 1-yr dollar swap rates had strengthened some following the election but have resumed decline since April
- Yet, when taken together, these continue to indicate benign perception of the macro-economic environment.

MARKET RISK MONITOR : SYSTEMIC FINANCIAL RISK INDICATORS

5-yr Credit Default Swaps



Cleveland Fed Avg Distance to Default



- Systemic financial risk indicators mostly indicating very low risk; having rebounded from higher levels in April
- Cheap credit default swaps, level of liquidity risk are near historic lows.
- Distance to default has also rebounded from a low in April
- Credit spreads are wider than lows but have narrowed again since April

BAA 10-yr Spread



BofA GFSI Liquidity Risk

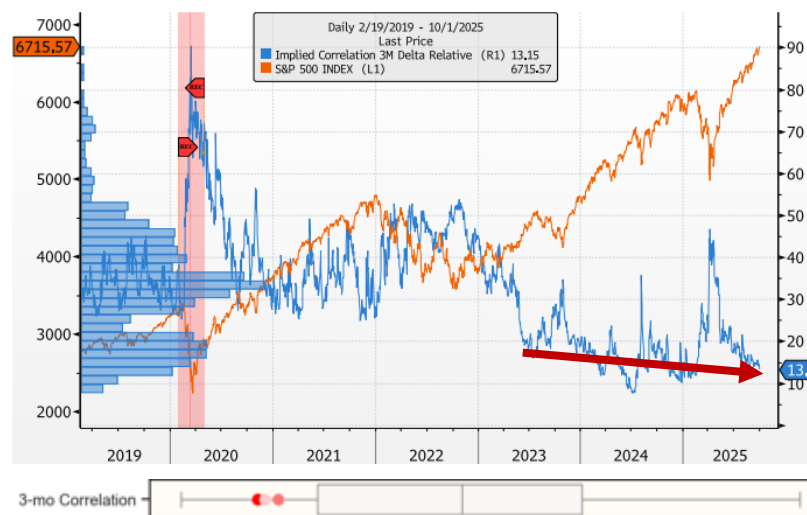


MARKET RISK MONITOR : CAPITAL MARKET DYNAMICS INDICATORS

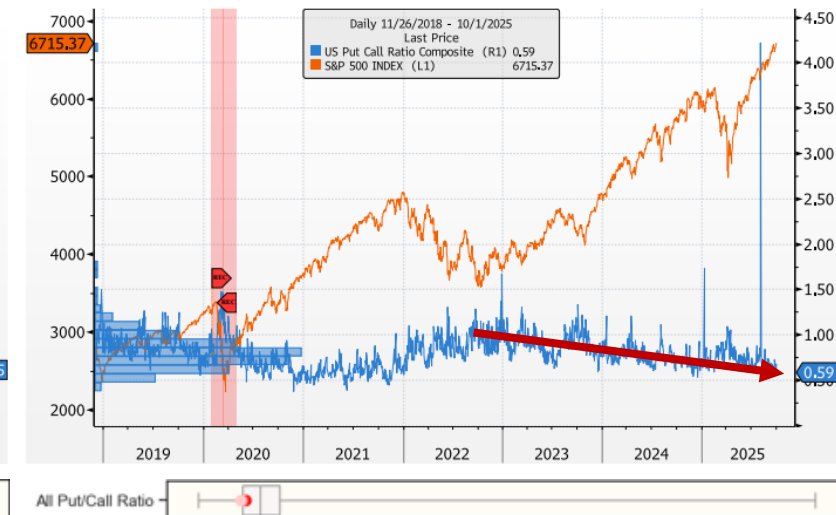
CBOE VIX (Volatility) Index



CBOE 3-mo Implied Correlation Index



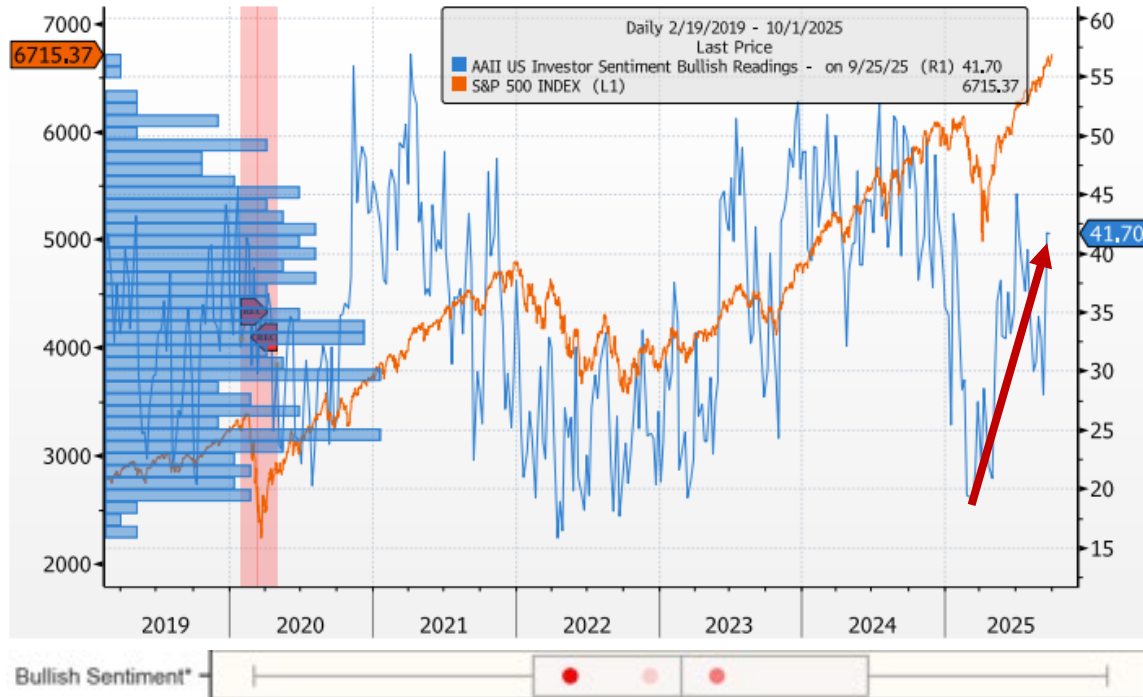
US Put Call Ratio Composite



- All capital market indicators are at very low levels. Together, capital market dynamics indicators are showing a low perception of risk.
- After spiking in April, VIX index has returned to near all time lows.
- Similarly, correlations are near historic lows after spiking in April.
- Put-call ratio has been near lows and in a slightly declining trend for nearly three years.

MARKET RISK MONITOR: SENTIMENT INDICATORS

AII US Investor Sentiment

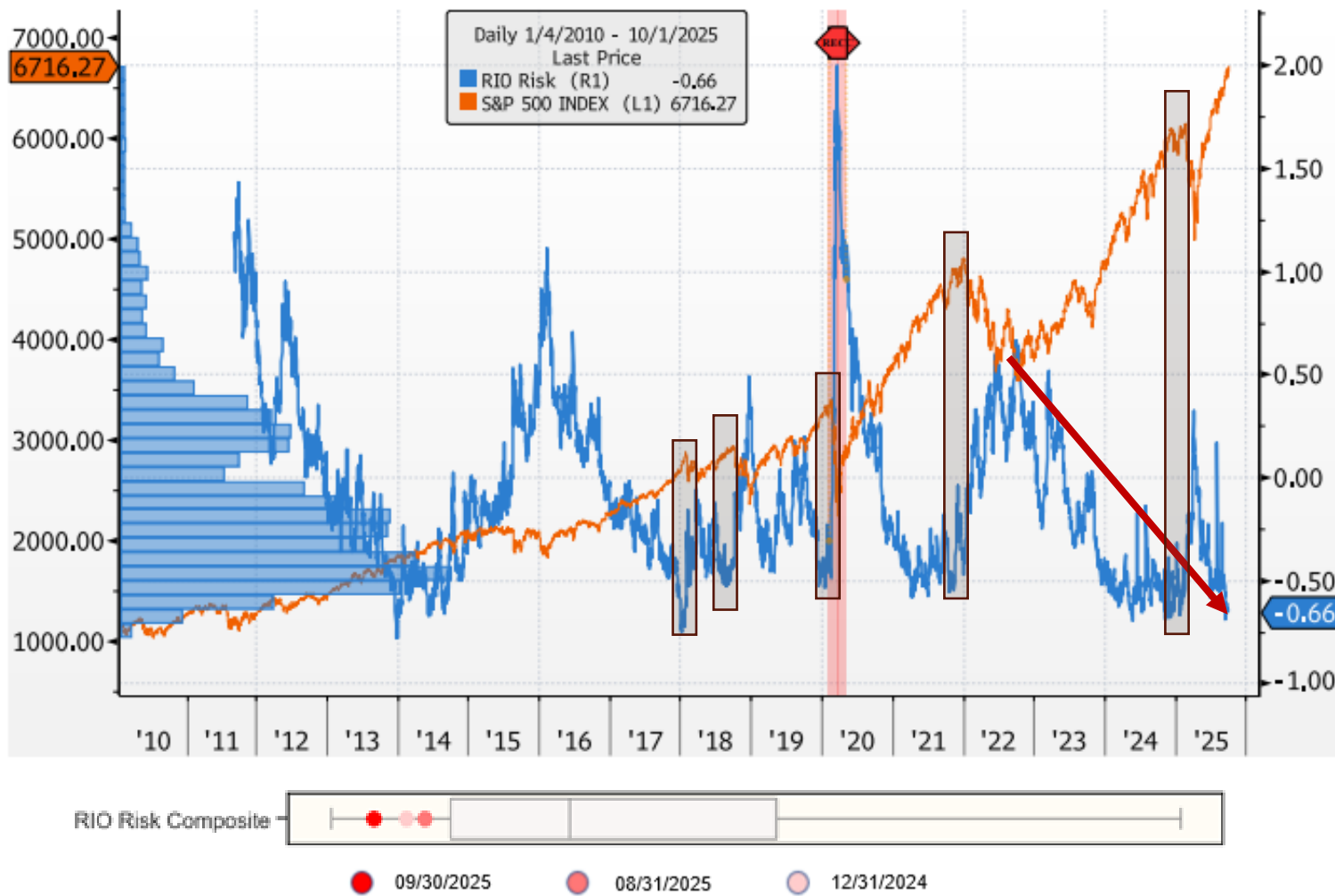


Percent Short Interest Relative to Float



- Sentiment indicators tend to be more volatile. Investor sentiment dropped in April in but has recovered nearly completely since.
- Short interest is also volatile and fell after April although a rising trend remains for the past 3+ years.
- Together, these indicate that sentiment is somewhat biased towards risk-taking rather than risk-aversion.

MARKET RISK MONITOR: RIO RISK COMPOSITE



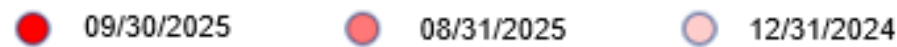
- Composite of Individual Market Risk Indicators weighted as below:
 - Macro-Economic indicators – 30%
 - Systemic Financial Risk indicators – 50%
 - Capital Market Dynamics indicators – 10%
 - Sentiment indicators – 10%
- Has a marginal negative correlation with SPX future performance (refer gray bars). But it is more correlated with the past than with the future.
- Current value remains close to historical lows indicating low market perception of systemic and/or macro-economic risk.

REFERENCE: MARKET RISK MONITOR OVERVIEW EXPLANATION

- Data for each indicator is sourced from Bloomberg using available indices.
- For each bar, left hand side indicates low risk perception while the right-hand side indicates a high-risk perception. However, the scale for each bar is different.
- The grey rectangle inside each bar indicates the 25th to 75th percentile range; i.e., the range within which the metric commonly lies. It also shows a median value for the metric.



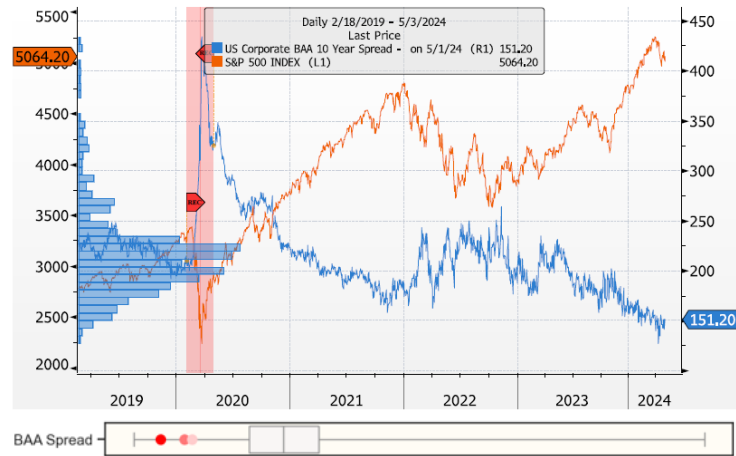
- Three values for each metric are shown on the bar to indicate how the metric has changed over time.



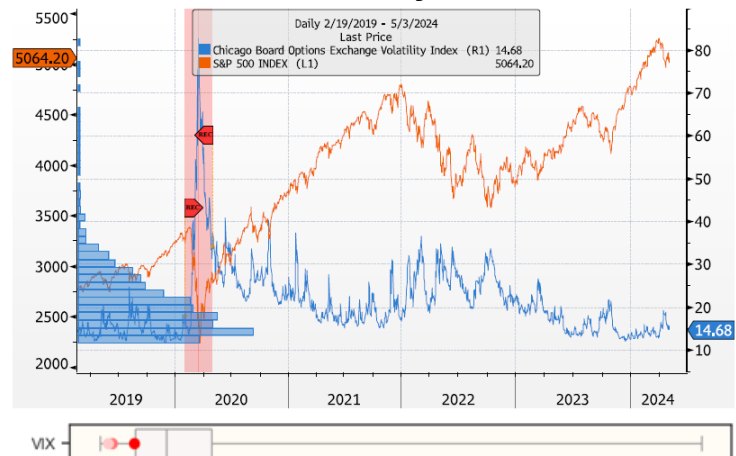
- The supporting charts depict time series of raw observations for each metric. Some of the metrics on the bar charts have been inverted so that all “high risk perception” is on the right side of each bar.

REFERENCE: MARKET RISK MONITOR TIME SERIES CHARTS EXPLANATION

BAA 10-yr Spread



CBOE VIX (Volatility) Index



- Each of the charts depicts a 5-yr time series of the underlying raw data for that indicator.
- Each chart shows S&P 500 performance (in amber) for the previous five years (using left-axis) along with the value of the risk indicator (in blue) over the same period.
- Additionally, a histogram shows the frequency distribution over time of the risk indicator. Most indicators are not normally distributed.
- For example, in the top left chart, low credit spread suggests credit risk is perceived to be low.
- Similarly, low levels of VIX index in the bottom left chart suggests market discounting a low risk.

INVESTMENTS: RISK ALLOCATION AND MANAGEMENT

AGENDA

- Market Risk Monitor
- **Portfolio Risk**

RISK STATISTICS

Realized Risk Statistics

Legacy Fund		
	Fund	Index
Beta	1.0	1.0
Standard Deviation	9.3%	9.3%
Tracking Error	1.3%	0.0%

Pension Trust		
Consolidated	Fund	Index
Beta	0.9	1.0
Standard Deviation	8.4%	8.9%
Tracking Error	1.2%	0.0%
PERS	Fund	Index
Beta	0.9	1.0
Standard Deviation	8.7%	9.1%
Tracking Error	1.2%	
TFFR	Fund	Index
Beta	0.9	1.0
Standard Deviation	8.1%	8.6%
Tracking Error	1.2%	

Insurance Trust		
Consolidated	Fund	Index
Beta	1.0	1.0
Standard Deviation	5.4%	5.4%
Tracking Error	0.7%	
WSI	Fund	Index
Beta	1.0	1.0
Standard Deviation	6.9%	6.9%
Tracking Error	0.7%	

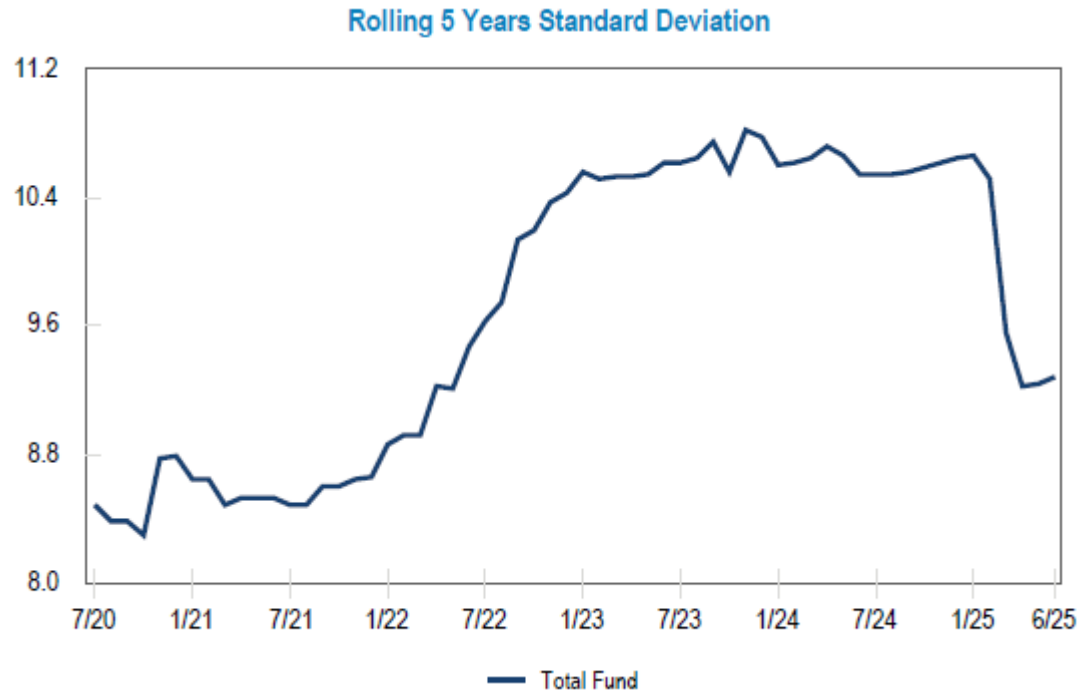
Source: Verus. Note: Beta, Tracking Error vs. respective policy indices for 5-years ending June 2025.

RISK STATISTICS

Total Portfolio Risk is driven by Asset Class Risks and Correlations

Legacy Fund Realized Risk

- Meaningful drop in realized standard deviation recently



Source: Verus

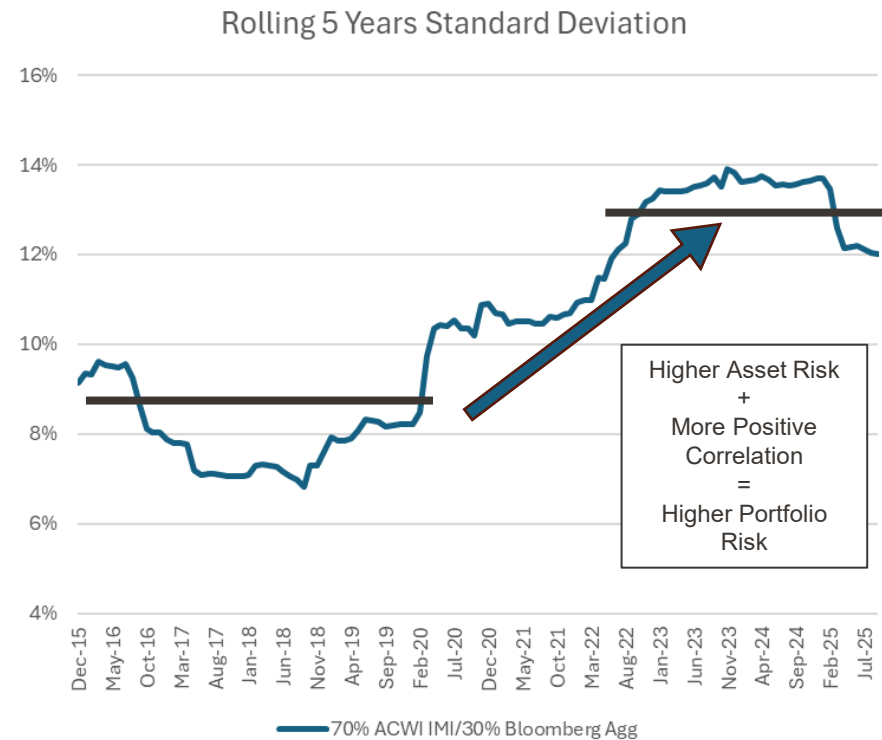
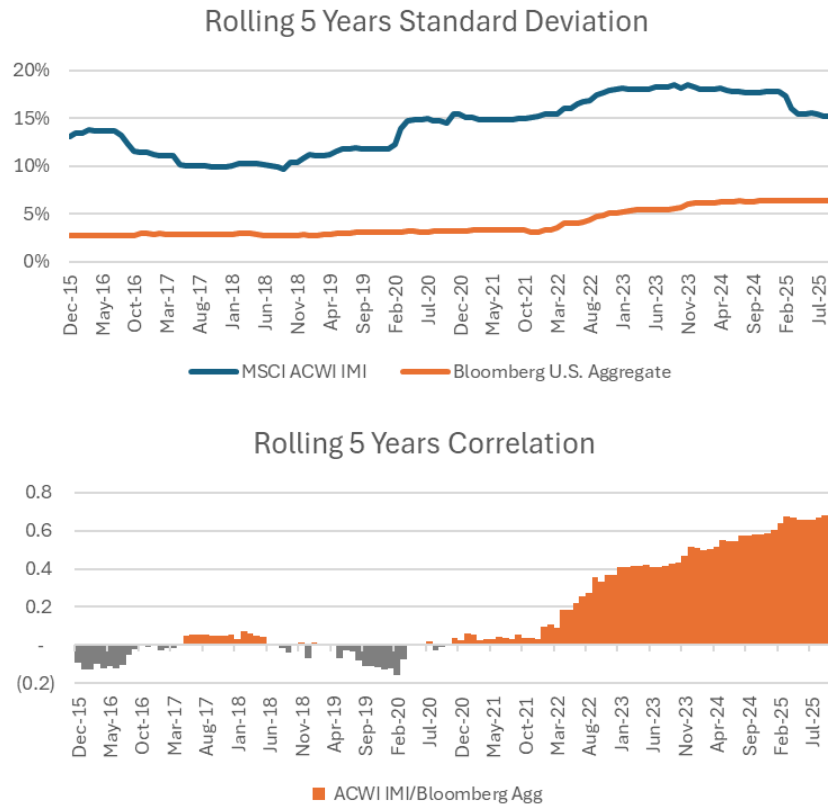
Market Explanation

- Given the 5-year window, the early-2020 market volatility is falling out of the most recent window
- Higher overall risks (especially bonds) and positive stock/bond correlation are contributing to higher levels of market risk than prior to Covid – see example on next page

RISK STATISTICS

Market-based Example of Current Investment Environment

- Reduced diversification from fixed income has increased the volatility of a simple 70% Equity, 30% Fixed Income Portfolio



Source: Bloomberg

PORTFOLIO RISK MONITORING

Measure and Monitor Risk to Enhance Risk-Adjusted Returns

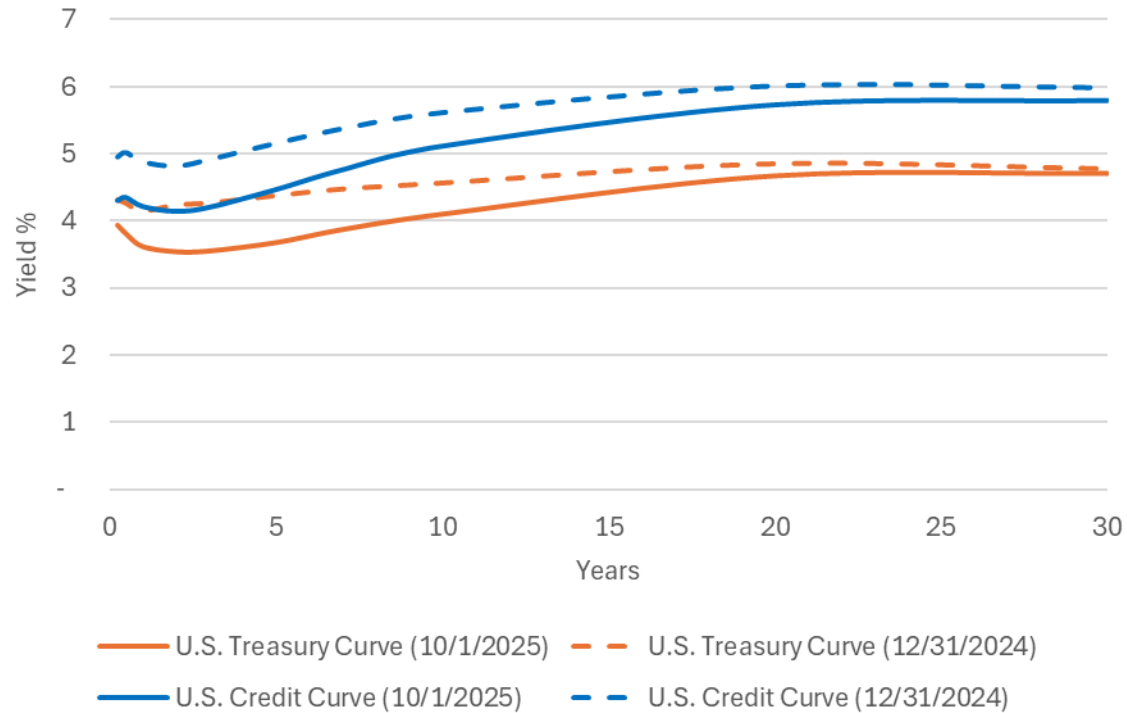
- Collaborative process where risk insights are utilized to manage portfolios
- Aladdin – Source of total portfolio plus asset class risk reports
- Venn – Additional source of factor analysis for external managers
- Continue to develop tools and processes to analyze multi-asset portfolios

PORTFOLIO RISK EXPOSURE REPORTS (EXAMPLES)

Changes in Credit and Treasury Yields Drive Risk

Year to Date Changes in Yield Curves

- Rates have fallen most at the front end of the curve



Source: Bloomberg U.S. Treasury and U.S. Corporate BBB Credit yield curves

Year to Date Change in U.S. IG Credit Spreads

- Credit spreads have fallen since last update



Source: Bloomberg U.S. Aggregate Corporate Average Spread

PORTFOLIO RISK EXPOSURE REPORTS (EXAMPLES)

Changes in Credit and Treasury Yields Drive Risk

- The Core funds have durations that vary around the benchmark
- The High Yield funds are very consistent with the High Yield index in both duration and spread duration

Description	Credit Rating	Duration	Key Rate Duration			Yield	OAS	Spread Duration	Absolute Risk	Active Risk
			Short	Medium	Long					
BBG U.S. Aggregate Index	AA-	5.9	0.5	2.2	3.2	4.3	28.9	3.3	478	-
Allspring Capital Medium Quality Credit	BBB	0.8	(0.1)	0.3	0.7	0.8	81.8	3.5	538	157
PIMCO Core Plus Constrained	A	0.3	(0.0)	0.3	(0.1)	(0.5)	30.8	(0.4)	457	35
Prudential Core Fixed Income	A+	(0.7)	(0.0)	(0.2)	(0.4)	(0.1)	55.0	(0.1)	389	88
WAMCO US Core Fixed Income	A	(0.3)	(0.2)	0.6	(0.7)	0.1	55.3	0.5	430	62
BBG US Corp High Yield 2% Issuer Capped Index	B+	2.8	0.3	1.4	0.2	6.7	275.6	2.9	319	-
Nomura	B+	0.0	0.2	0.7	0.1	(0.1)	(8.4)	(0.0)	308	25
PineBridge	BB-	(0.0)	0.2	0.8	(0.0)	(0.0)	(8.1)	(0.1)	312	37

Source: Blackrock Risk System as of September 30, 2025.

Executive Session information is sent directly to committee members.