

Investment Committee
Friday, September 12, 2025, 9:00 a.m.

Virtual Only

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AGENDA

- I. **CALL TO ORDER AND ACCEPTANCE OF AGENDA – (Committee Action)**
- II. **ACCEPTANCE OF MINUTES (August 8, 2025) – (Committee Action)**
- III. **STRATEGY REVIEW (90 minutes) – (Information Only)**
 - A. Investment Strategy – *Mr. Anderson*
 - B. Internal Investment Strategy – *Mr. Gandhi, Mr. Moss*
- (Break)
- IV. **MANAGER RECOMMENDATION¹ (30 minutes) – (Committee Action)**
 - A. Private Markets – *Mr. Collins, Mr. Zietlow*
- V. **INVESTMENT GUIDELINES¹ (30 minutes) – (Committee Action)**
 - A. Private Markets – *Mr. Collins, Mr. Zietlow*
- VI. **MANAGER UPDATE (5 minutes) – (Information Only)**
 - A. Private Markets – *Mr. Collins, Mr. Zietlow*
- VII. **DISCUSSION**
- VIII. **ADJOURNMENT**

¹ 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.

**STATE INVESTMENT BOARD
INVESTMENT COMMITTEE
MEETING MINUTES OF THE
AUGUST 8, 2025, MEETING**

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

MEMBERS ABSENT: Eric Chin, Deputy Chief Investment Officer

STAFF PRESENT: Jin Xi Chen, Investment Intern
Jac Collins, Senior Investment Analyst
Cory Cox, Investment Analyst
Derek Dukart, Senior Investment Analyst
Shiv Khare, Investment Intern
Missy Kopp, Executive Admin
George Moss, Portfolio Manager
Sarah Mudder, Communications/Outreach Director
Matt Posch, Portfolio Manager
Emmalee Riegler, Procurement & Records Coordinator
Jodi Smith, Executive Director
Nitin Vaidya, Chief Risk Officer
Alexander Weissman, Investment Analyst
Lance Zietlow, Portfolio Manager

GUESTS: Robert Goldthorpe, NEPC
Joe Nankof, NEPC
Sami Khader, Weaver
Bruce Mills, Weaver
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, August 8, 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 August 8, 2025, meeting.

IT WAS MOVED BY MR. JAHNER AND SECONDED BY DR. SIMLAI AND CARRIED BY A VOICE VOTE TO APPROVE THE AGENDA FOR THE AUGUST 8, 2025, MEETING AS DISTRIBUTED.

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

ABSENT: MR. CHIN

NAYS: NONE

MOTION CARRIED

MINUTES

The minutes were considered for the July 11, 2025, meeting.

IT WAS MOVED BY MR. ANDERSON AND SECONDED BY DR. SIMLAI AND CARRIED BY A VOICE VOTE TO APPROVE THE MINUTES FOR THE JULY 11, 2025, MEETING AS DISTRIBUTED.

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

ABSENT: MR. CHIN

NAYS: NONE

MOTION CARRIED

INTRODUCTION

Todd Van Orman was introduced to the IC as an external representative. Mr. Van Orman is a Professor of Finance at the University of Mary and sits on the SIB Audit Committee.

INTERNAL MANAGEMENT

Mr. Anderson of RIO and Mr. Khader of Weaver presented the Trade Approvals and Escalations Procedures to the Investment Committee. This new procedure outlines trading protocols for the internal investment team. The presentation covered alert types and definitions, including intraday compliance alerts, internal overnight alerts, external manager overnight alerts, and associated documentation requirements. Committee discussion followed the presentation.

STRATEGY REVIEW

Asset Allocation

Mr. Goldthorpe and Mr. Nankof from NEPC presented the Asset-Liability Analysis and Asset Allocation Recommendation. The presentation addressed the analysis of the six pension plans, including each plan's liability structure, funded status, discount rate, and return expectations across the range of plans.

IT WAS MOVED BY DR. SIMLAI AND SECONDED BY MR. VAN ORMAN AND CARRIED BY A ROLL CALL VOTE TO ACCEPT THE MIX 1 RECOMMENDATION AND DIRECT STAFF TO

BRING THAT RECOMMENDATION TO OUR CLIENT BOARDS FOR FEEDBACK AND CONVERSATION.

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

ABSENT: MR. CHIN

NAYS: NONE

MOTION CARRIED

Public Markets

Mr. Cox and Mr. Posch presented the AFM Performance and Strategy Update. The presentation included an overview of U.S. and international equity markets, the impacts of tariffs and inflation, currency effects, and recent equity performance and changes. They also reviewed the U.S. fixed income markets, including the U.S. Treasury yield curve, corporate high yield and investment grade option-adjusted spreads (OAS), yield to worst (YTW), and overall fixed income performance.

MANAGER UPDATE

Mr. Zietlow provided a manager update, noting recent investment commitments. A \$35 million commitment was made to OrbiMed Royalty and Credit Opportunities Fund V on behalf of the Legacy Fund. Additionally, a \$60 million commitment was made to Chicago Pacific Founders Fund IV, with \$20 million allocated from the Pension Pool and \$40 million from the Legacy Fund.

QUARTERLY REPORTS

Mr. Anderson provided an overview of contracts signed during Quarter 2 of 2025. The report included vendor names, execution dates, descriptions, and costs of the contracts signed. Committee discussion followed.

DISCUSSION

Ms. Smith provided a staffing update for Chief Financial and Operating Officer and Deputy CFO.

ADJOURNMENT

With no further business to come before the committee, Treasurer Beadle adjourned the meeting at 11:14 a.m.

Prepared by:

Jennifer Ferderer, Assistant to the Board

INVESTMENT PERFORMANCE

Scott M. Anderson, CFA – Chief Investment Officer

September 12, 2025

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Retirement & Investment

PERFORMANCE – BENCHMARK INDICES

Summary of Returns June 30, 2025					
Benchmark Indices (% change, annualized)	YTD	1 Yr	5 Yr	10 Yr	10 Yr Volatility
Russell 3000	5.8%	15.3%	16.0%	12.9%	18.7%
Russell 1000	6.1%	15.7%	16.3%	13.3%	18.6%
Russell 2000	-1.8%	7.7%	10.0%	7.1%	23.5%
S&P 500	6.2%	15.2%	16.6%	13.6%	18.4%
MSCI ACWI IMI Net	9.8%	15.9%	13.4%	9.7%	14.7%
MSCI World ex US	19.0%	18.7%	11.5%	6.6%	14.8%
MSCI Emerging Markets	15.3%	15.3%	6.8%	4.8%	16.1%
Bloomberg Aggregate	4.0%	6.1%	-0.7%	1.8%	4.8%
Bloomberg Gov/Credit	3.9%	5.9%	-0.8%	1.9%	5.1%
Bloomberg US High Yield	4.6%	10.3%	6.0%	5.4%	5.2%
NCREIF Property Index	2.5%	4.2%	3.7%	5.2%	4.0%

Source: Bloomberg

PERFORMANCE – BENCHMARK INDICES

Summary of Returns September 08, 2025					
Benchmark Indices (% change, annualized)	YTD	1 Yr	5 Yr	10 Yr	10 Yr Volatility
Russell 3000	11.1%	21.7%	15.4%	14.0%	18.6%
Russell 1000	11.2%	22.0%	15.6%	14.4%	18.4%
Russell 2000	8.2%	15.9%	11.2%	9.0%	23.4%
S&P 500	11.2%	21.4%	15.9%	14.6%	18.2%
MSCI ACWI IMI Net	14.9%	20.5%	12.8%	11.0%	14.5%
MSCI World ex US	23.2%	18.6%	11.0%	7.9%	14.6%
MSCI Emerging Markets	20.7%	21.2%	5.8%	7.4%	15.9%
Bloomberg Aggregate	6.0%	2.8%	-0.5%	1.9%	4.8%
Bloomberg Gov/Credit	5.8%	2.6%	-0.7%	2.0%	5.1%
Bloomberg US High Yield	6.7%	8.3%	5.3%	5.8%	5.2%
NCREIF Property Index (06/30/2025)	2.5%	4.2%	3.7%	5.2%	4.0%

Source: Bloomberg

PERFORMANCE

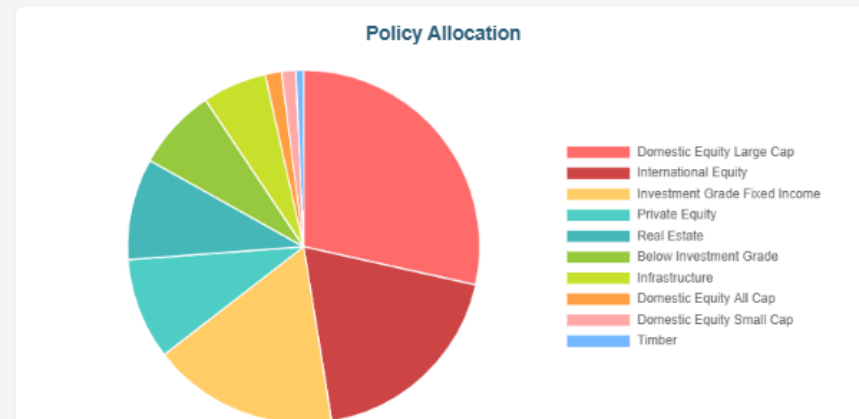
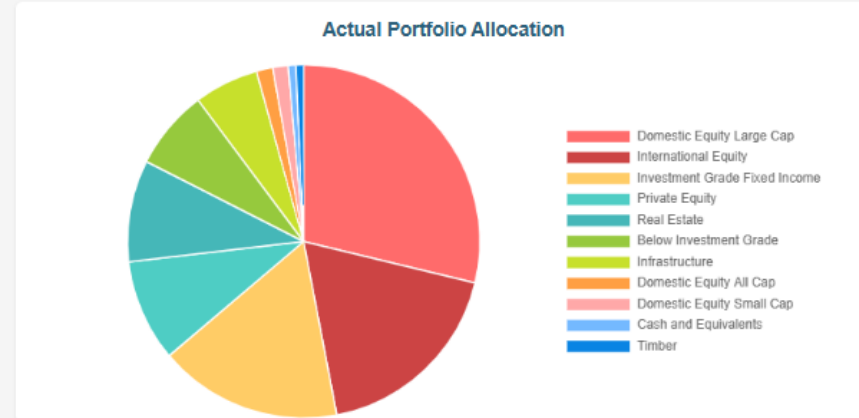
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Retirement & Investment

PERS ASSET ALLOCATION

PERS Asset Allocation vs. Policy

Asset Category	Current Balance (\$)	Actual %	Policy %	% Difference	Difference (\$)
Domestic Equity	\$921	0.0%	0.0%	0.0%	\$921
Domestic Equity All Cap	\$87,074,369	1.5%	1.5%	0.0%	\$7,061
Domestic Equity Large Cap	\$1,311,291,667	28.7%	28.5%	0.2%	\$8,934,936
Domestic Equity Small Cap	\$65,841,162	1.4%	1.3%	0.1%	\$6,891,788
International Equity	\$831,380,504	18.2%	19.0%	-0.8%	-\$34,102,793
Investment Grade Fixed Income	\$768,634,415	16.8%	17.1%	-0.3%	-\$10,104,236
Below Investment Grade	\$335,521,174	7.3%	7.5%	-0.2%	-\$5,157,012
Real Estate	\$426,628,213	9.3%	9.3%	0.0%	\$27,173
Timber	\$33,055,128	0.7%	0.7%	0.0%	\$852
Infrastructure	\$268,980,910	5.9%	5.9%	0.0%	\$6,850
Private Equity	\$423,744,124	9.3%	9.3%	0.0%	\$19,353
Cash and Equivalents	\$33,375,126	0.7%	0.0%	0.7%	\$33,375,126
Total	\$4,565,507,714	100.0%	100.0%	0.0%	\$0



1. April 2025 values – Verus

PERS PERFORMANCE

June 30, 2025

PERS \$4.9 Billion

Total Fund Return - Net

Policy Benchmark Return

Total Relative Return¹

**Year to
Date**

1 Year

3 year

5 Year

10 Year

**Risk
(5 Year)**

7.8%

12.0%

9.6%

9.4%

7.8%

8.4%

6.5%

10.6%

9.3%

8.8%

7.3%

8.8%

1.3%

1.4%

0.3%

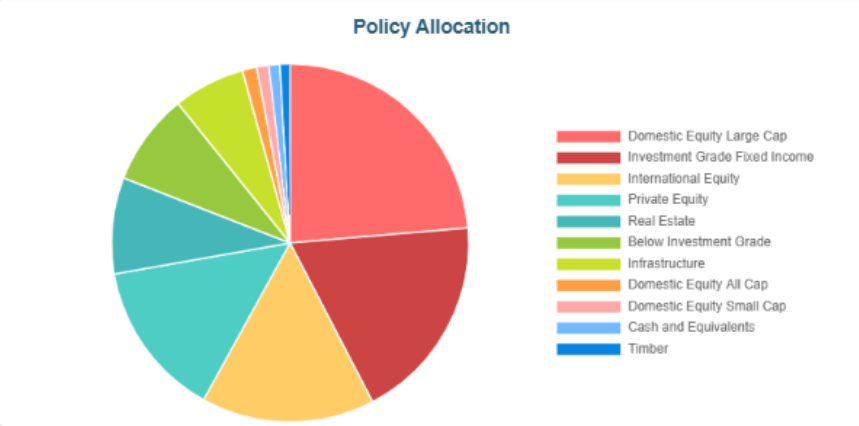
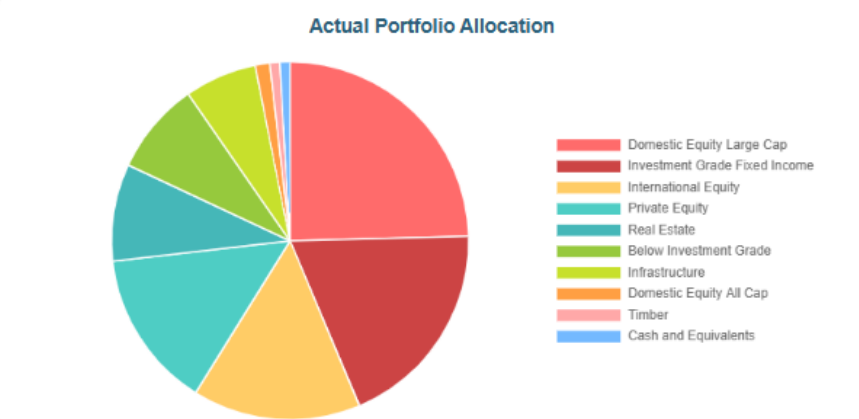
0.6%

0.5%

TFFR ASSET ALLOCATION

TFFR Asset Allocation vs. Policy

Asset Category	Current Balance (\$)	Actual %	Policy %	% Difference	Difference (\$)
Domestic Equity	\$578	0.0%	0.0%	0.0%	\$578
Domestic Equity All Cap	\$42,528,930	1.3%	1.3%	0.0%	-\$4,393
Domestic Equity Large Cap	\$822,539,833	24.4%	23.7%	0.7%	\$24,027,332
Domestic Equity Small Cap	\$31,031,513	0.9%	1.1%	-0.2%	-\$5,054,298
International Equity	\$508,844,749	15.1%	15.7%	-0.6%	-\$22,686,760
Investment Grade Fixed Income	\$638,803,064	18.9%	18.7%	0.2%	\$8,634,754
Below Investment Grade	\$279,315,190	8.3%	8.3%	0.0%	-\$763,365
Real Estate	\$292,647,920	8.7%	8.7%	0.0%	\$11,907
Timber	\$29,505,954	0.9%	0.9%	0.0%	\$2,681
Infrastructure	\$220,332,827	6.5%	6.5%	0.0%	\$3,464
Private Equity	\$480,530,881	14.2%	14.2%	0.0%	\$5,403
Cash and Equivalents	\$29,579,304	0.9%	1.0%	-0.1%	-\$4,177,301
Total	\$3,375,660,542	100.0%	100.0%	0.0%	\$0



1. April 2025 values – Verus

TFFR PERFORMANCE

June 30, 2025

TFFR \$3.6 Billion

Total Fund Return - Net

Policy Benchmark Return

Total Relative Return¹

**Year to
Date**

1 Year

3 year

5 Year

10 Year

**Risk
(5 Year)**

7.4%

11.4%

9.0%

8.9%

7.6%

8.1%

5.9%

9.7%

8.6%

8.3%

7.1%

8.5%

1.5%

1.7%

0.4%

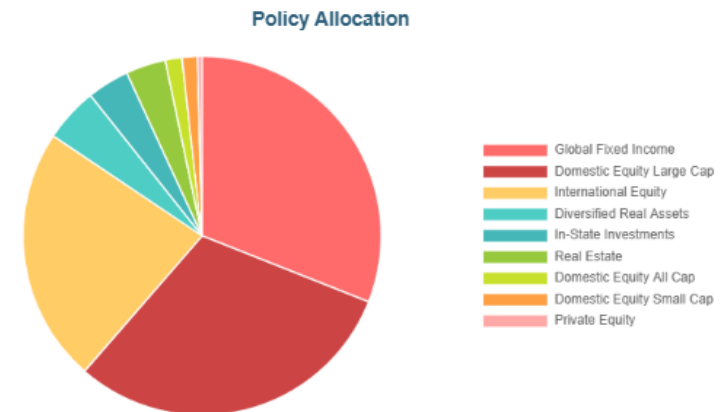
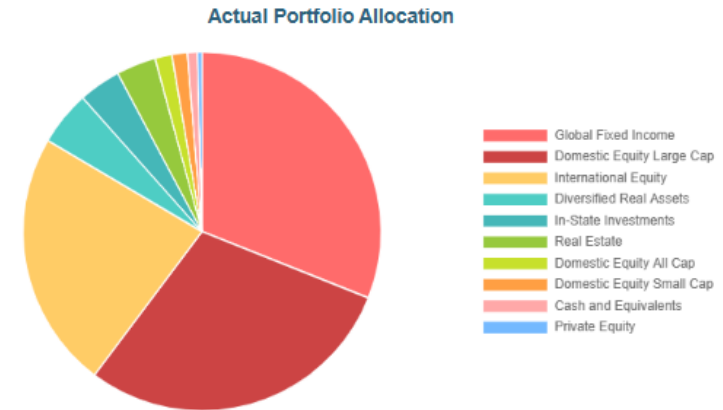
0.6%

0.5%

LEGACY ASSET ALLOCATION

LEGACY Asset Allocation vs. Policy

Asset Category	Current Balance (\$)	Actual %	Policy %	% Difference	Difference (\$)
Domestic Equity	\$2,987	0.0%	0.0%	0.0%	\$2,987
Domestic Equity All Cap	\$179,144,900	1.5%	1.5%	0.0%	-\$47,647
Domestic Equity Large Cap	\$3,521,623,168	29.2%	30.4%	-1.2%	-\$147,540,308
Domestic Equity Small Cap	\$165,026,913	1.4%	1.4%	0.0%	-\$771,443
International Equity	\$2,801,797,752	23.2%	23.0%	0.2%	\$28,476,340
Global Fixed Income	\$3,746,186,401	31.0%	31.0%	0.0%	\$9,088,626
Real Estate	\$436,275,086	3.6%	3.6%	0.0%	\$58,887
Private Equity	\$49,709,572	0.4%	0.4%	0.0%	-\$5,801
In-State Investments	\$462,321,747	3.8%	3.8%	0.0%	\$41,177
Diversified Real Assets	\$594,099,727	4.9%	4.9%	0.0%	\$49,285
Cash and Equivalents	\$110,649,896	0.9%	0.0%	0.9%	\$110,649,896
Total	\$12,066,838,150	100.0%	100.0%	0.0%	\$0



1. April 2025 values – Verus

LEGACY PERFORMANCE

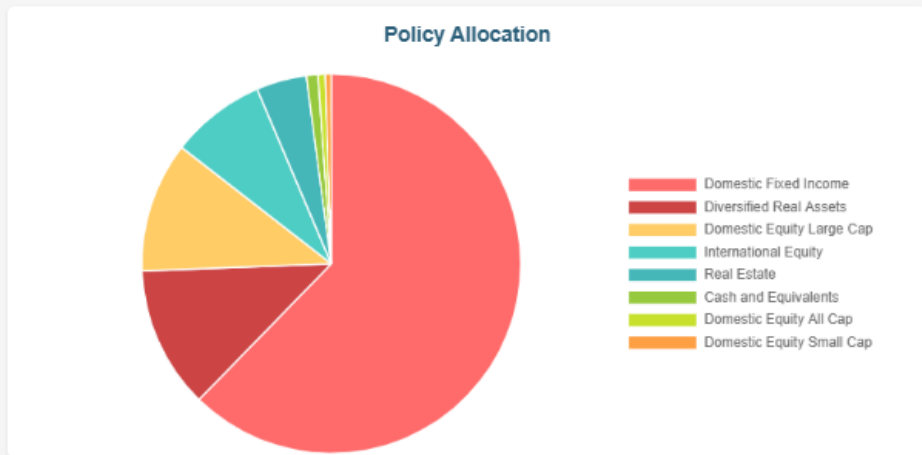
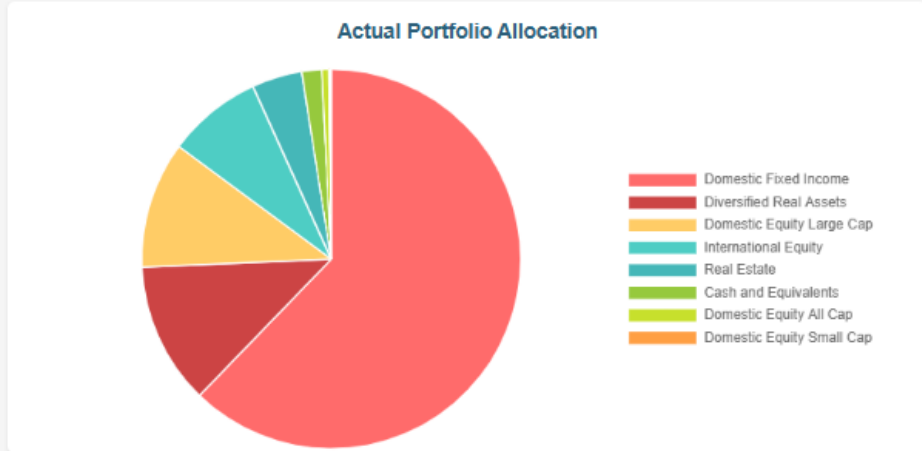
June 30,2025	Year to Date	1 Year	3 year	5 Year	10 Year	Risk (5 Year)
Legacy Fund \$13.0 Billion						
Total Fund Return - Net	8.3%	12.7%	10.6%	8.3%	7.1%	9.3%
Policy Benchmark Return	7.7%	12.1%	9.6%	7.3%	6.4%	9.6%
Total Relative Return¹	0.6%	0.6%	1.0%	1.0%	0.7%	

1. Corridor benchmark applied only in year-to-date numbers

WSI ASSET ALLOCATION

WSI Asset Allocation vs. Policy

Asset Category	Current Balance (\$)	Actual %	Policy %	% Difference	Difference (\$)
Domestic Equity	\$298	0.0%	0.0%	0.0%	\$298
Domestic Equity All Cap	\$12,635,987	0.6%	0.6%	0.0%	-\$187,765
Domestic Equity Large Cap	\$237,441,423	10.8%	11.1%	-0.3%	-\$6,429,818
Domestic Equity Small Cap	\$3,733,625	0.2%	0.5%	-0.3%	-\$7,288,443
International Equity	\$178,579,281	8.1%	8.1%	0.0%	\$124,570
Domestic Fixed Income	\$1,369,477,069	62.3%	62.3%	0.0%	-\$530,724
Real Estate	\$94,518,415	4.3%	4.3%	0.0%	\$987
Diversified Real Assets	\$268,912,611	12.1%	12.1%	0.0%	-\$10,589
Cash and Equivalents	\$36,315,626	1.7%	1.0%	0.7%	\$14,319,483
Total	\$2,199,614,335	100.0%	100.0%	0.0%	\$0



1. April 2025 values – Verus

WSI PERFORMANCE

June 30, 2025

WSI \$2.3 Billion

Total Fund Return - Net

Policy Benchmark Return

Total Relative Return¹

**Year to
Date**

1 Year

3 year

5 Year

10 Year

**Risk
(5 Year)**

5.7%

8.7%

5.8%

3.7%

4.9%

7.5%

5.2%

7.8%

4.9%

2.8%

3.8%

7.0%

0.5%

0.9%

0.9%

0.9%

1.1%

INVESTMENT STRATEGY REVIEW

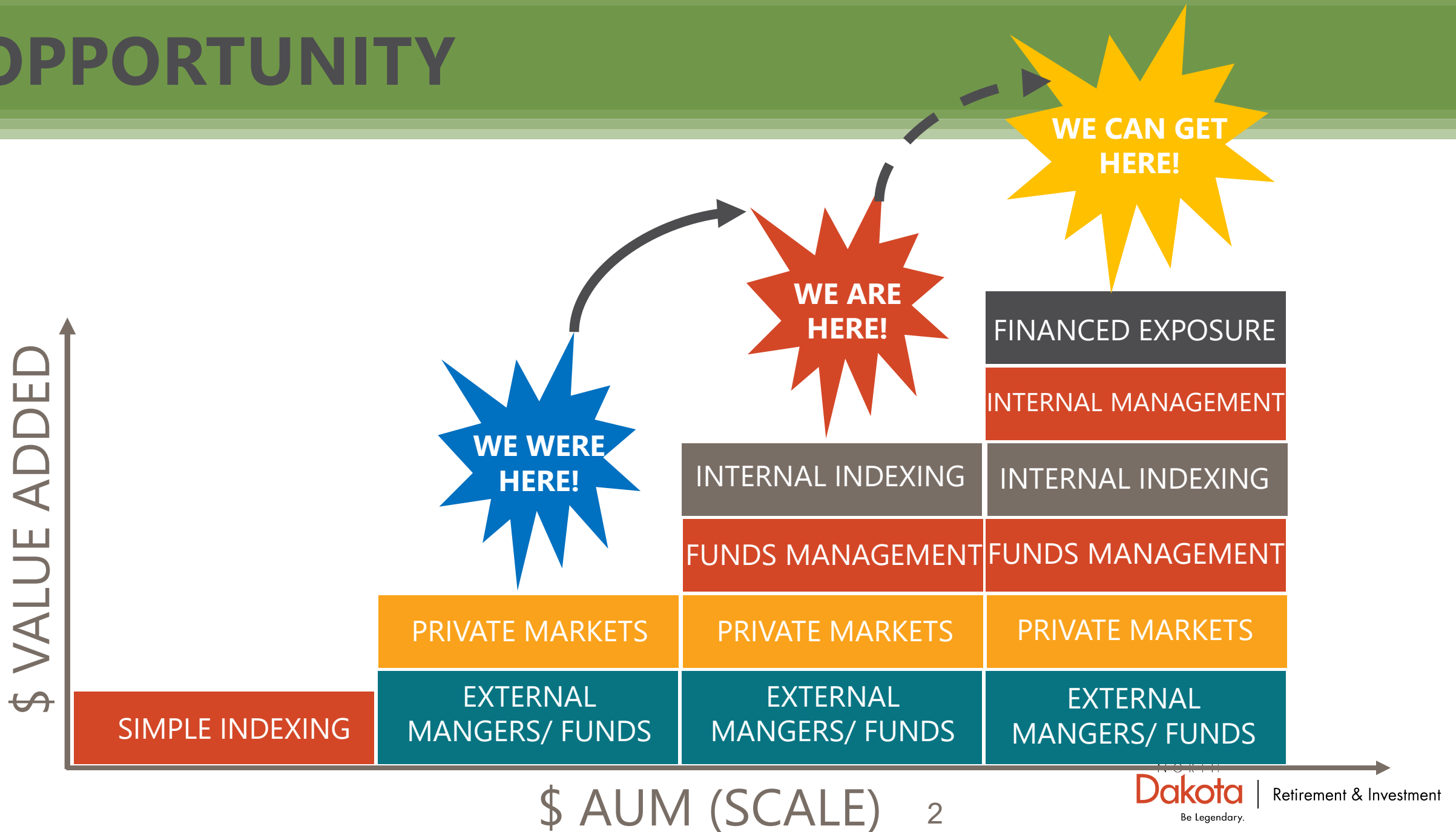
Scott M. Anderson, CFA – Chief Investment Officer

Sep 12, 2025

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OPPORTUNITY



FOUNDATION FOR THE FUTURE

Harvest Results

Reduce Dimensions

- Group and harmonize similar asset allocations
- One asset class and sub-asset class allocation
- One asset allocation process, with one set of capital market assumptions and one philosophy for investment
- One portfolio construction of manager implementations by sub-asset class
- Pool and unitize where possible
- One rebalance and exposure management process

Underwrite Portfolios

- Comprehensive strategy, selection, monitoring, management and termination process
- Detailed due diligence at all steps of the management process incorporating qualitative and quantitative assessment
- Custom tools and analytics to identify top of the fund value added performance and risk
- Comprehensive performance, risk and cost assessment
- Fully documented and governance vetted

Build Capabilities

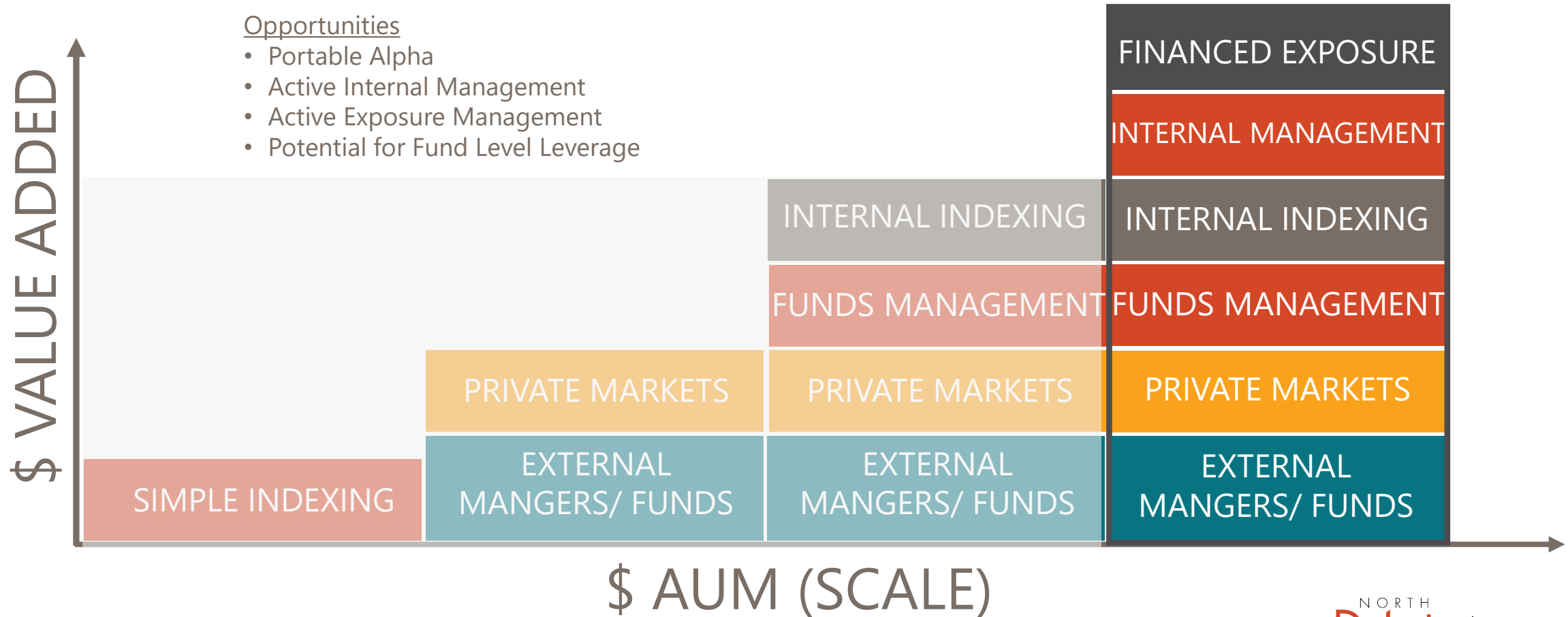
- Continue to recruit and retain the best staff with a culture of performance
- Optimal make versus buy decisions along the value chain of investments
- Direct to GP private markets for lower cost and better allocation
- Precise and higher frequency, lower cost exposure management
- Integrated accounting, performance, risk, portfolio management, order management and data management
- Daily and higher frequency data for advanced funds management
- Optimize the cost and return on liquidity

FUTURE OPPORTUNITY

Harvest Results

Opportunities

- Portable Alpha
- Active Internal Management
- Active Exposure Management
- Potential for Fund Level Leverage



OPPORTUNITY

ADVANCED FUNDS MANAGEMENT	DIRECT TO GP	ENHANCED INDEXING TO ACTIVE INTERNAL	TECHNOLOGY ENABLEMENT
<ul style="list-style-type: none"> • Manage to benchmark target risks – equity, credit, rates, currency, liquidity • Continuous asset allocation process • Risk allocation process to active sources of return • Portable alpha construction • Develop an internal liquidity management capability – buy and sell liquidity • Dynamically allocated to active return sources • Actively manage exposures – equity, credit, rates, currency, liquidity • Create custom factor completion portfolios • Potential for fund level leverage 	<ul style="list-style-type: none"> • Develop one private markets allocation with unitization • Portfolio management across and within private market asset classes • Commit consistently but allocate commitments according valuation, opportunity and changes in liquid asset classes • Utilize fund managers for deal sourcing and diligence where value added • Fully implement the research and portfolio management capabilities of private market software platforms • Incorporate appropriate private market risk proxies on the enterprise risk platform for plan level stress test, and portfolio management 	<ul style="list-style-type: none"> • Indexing for liquidity management and rebalancing using lowest cost implementation • Enhanced indexing with simple rules-based strategies and judgement • Leverage externally sourced model portfolios and rules if there is a business case • Begin to develop active strategies that do not require specialization and scale • Apply portable alpha techniques when beneficial • Use portfolio construction techniques to refine results 	<ul style="list-style-type: none"> • Incorporate machine learning tools and techniques • Leverage LLM coding tools to provide efficiencies • Automate initial information retrieval for research • Begin to use AI agents when helpful in orchestrating not decision workflows • Build out a high-quality data environment for information retrieval and analysis • Fully utilize vendor solutions • Integrate with straight thru accounting solutions

HIGH PRIORITY ITEMS FROM CURRENT STRATEGY

1. **Ensure continuity in succession for any promotions, retirements or changes in individual team members; continue to recruit and retain the best**
2. **Harmonize pension asset allocations**
3. **Scale up the internal investment program assets incorporating enhanced indexing**
4. ***Daily cash flow and data quality process from custodian for client allocations and daily performance***
5. ***Build out the advanced funds management including exposure management and the direct to GP capability including fund manager sourcing arrangements***
6. ***Continue to develop risk scenarios, stress tests and portfolio management tools***
7. ***Implement data warehouse project and incorporate capabilities for machine learning and AI where appropriate***

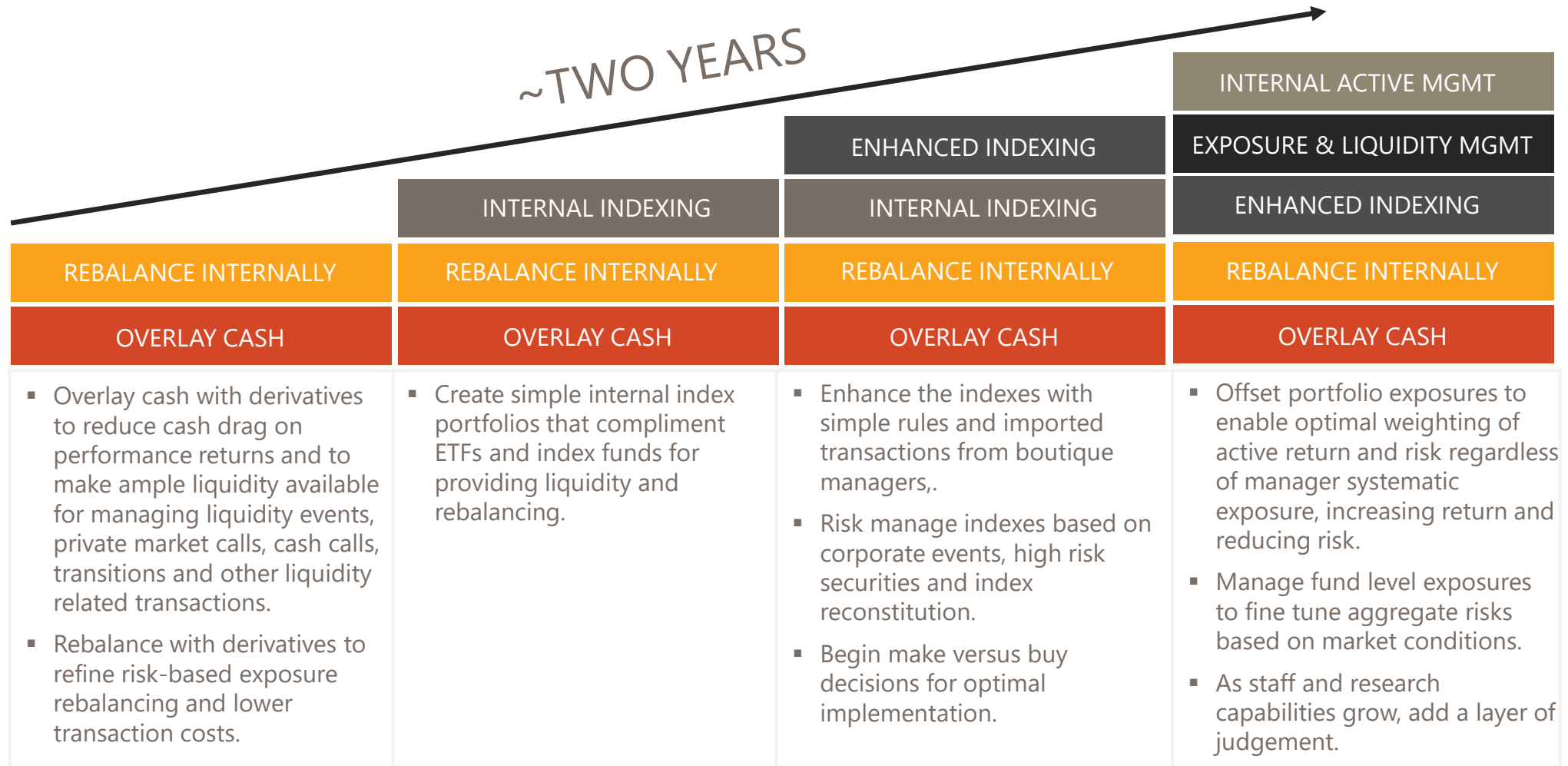
INTERNAL INVESTMENT MANAGEMENT ENHANCEMENT STRATEGY

Scott Anderson, CFA – Chief Investment Officer
Chirag Gandhi, CFA – Portfolio Manager, Internal Fixed Income
George Moss – Portfolio Manager, Internal Equity
September 12, 2025

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SEQUENCE OF CAPABILITY



ENHANCED FIXED INCOME STRATEGY

Investment Process:

- Investment process involves fundamental macroeconomic analysis and portfolio risk management to generate alpha performance.
- Analysis of market consensus, risk sentiment, investment flows, technical and behavioral factors help enhance overall information coefficient of the portfolio.
- Focus on diversification provides edge in ability of increase the information ratio.

$$IR = IC * \sqrt{Br}$$

IR – Information Ratio is the measurement of active return per unit of active risk

IC – Information Coefficient is the measure of forecasting skill

Br – Breadth - number of independent decisions

ENHANCED FIXED INCOME STRATEGY

Enhanced Index is a less complex, low active risk version of Actively Managed Portfolio.

	Index Strategy	Enhanced Index Strategy	Active Management
Tracking Error	0-25 bps	10-50 bps	25-150 bps
Out of Benchmark	No	No	Yes
Complexity of Strategies	Low	Low	High
Use of Derivatives	None	Low	Medium/High

ENHANCED FIXED INCOME STRATEGY

Examples of active strategies:

- Duration management
- Interest rate curve views – e.g. 2yr vs. 10yr flattener
- Credit over or underweight
- Relative credit sector views – maturity, rating, sectors

Most of the strategies are expected to be expression of the top-down macro views.

FIXED INCOME PORTFOLIO CONSTRUCTION AND RISK MANAGEMENT

- Qualitative and Quantitative assessment of correlation across active strategies.
- Stress test across historical, hypothetical and market shock scenarios.
- Sizing the trades based on the risk and correlation.
- Portfolio constructed with target tracking error under 50 bps inline with the enhanced index mandate.

FIXED INCOME GUIDELINES PARAMETERS

GUIDELINES:

Bloomberg U.S. Government / Credit Index Benchmarked Strategy:

	Soft Limits (staff review)	Hard Limits (corrective action)
Benchmark-relative Parameters		
Corporate Bonds		+/- 10%
Credit Rating of BBB+ to BBB- (S&P)		+/- 5%
U.S. Government & Agency Obligations		+/- 10%
Effective Duration		+/- 1yr
Tracking error (long-term ex-ante)	25 bps	50 bps
Absolute Parameters		
Single-issue corporate bond		5%
Average credit rating (S&P)		>= BBB

FIXED INCOME PORTFOLIO RISK MANAGEMENT: TRACKING ERROR ANALYSIS

Title	Standalone Risk			Risk Contribution		
	Portfolio (bp)	Benchmark (bp)	Active (bp)	Portfolio (bp)	Benchmark (bp)	↑ Active (bp)
∨ ND_L_INFI	484.75	477.97	13.32	484.75	477.97	13.32
> Volatility	0.61	0.64	0.03	0.44	0.46	-0.01
∨ Spreads	62.48	57.33	6.75	-6.67	-7.03	2.56
> USD EM	2.53	5.04	2.73	-1.15	-1.74	0.03
> Other Spreads	0.15	1.20	1.11	-0.03	-0.36	0.10
> Corporate	60.62	52.63	8.58	-5.50	-4.93	2.43
∨ Rates	494.91	487.89	12.46	490.98	484.54	10.78
> Unexpected Convexity	5.44	4.52	1.14	0.06	0.04	0.10
> Idiosyncratic	4.57	0.69	4.44	0.04	0.00	1.48
> USD Int Rates	494.86	487.86	11.58	490.87	484.49	9.20

EQUITY ROADMAP

- Continuing to develop portfolio management process and procedures (trading, corporate actions, cash flows / rebalancing, dividends, securities lending).
- Begin with a small allocation to an “off-the-shelf” active model(s)
- Learn from these managers/models while we continue building out the fiscal/operations and investment teams.
- Continue building out our capabilities in-house to allow us to gather and analyze data in order to:
 - Capitalize on industry standardized factors
 - Build our own factors and models that are specific to our needs

"OFF-THE-SHELF" MODEL EXAMPLE

- Under consideration is a factor-based model that shifts factor exposures based on economic regime.
- Based on 25 years of historical performance, such a model married to an index at less than a 10% allocation would have generated a risk/return profile at the portfolio level similar to that of one of our active large cap domestic managers, but with less than one-tenth of the fees (based on the standard fees).
- The model's historical tracking error (TE) is 922bps, but we currently have a hard limit on TE of 50bps on the total portfolio (soft limit at 25bps). Therefore, an allocation size of 2.5-5.0% of the internal equity portfolio is more appropriate.
- The model's historical information ratio (IR) is 0.99, so immense value can be added at the portfolio level with minimal cost, particularly considering roughly 30% of the domestic public equity exposure is indexed (zero alpha).
- Remains highly liquid as the active model uses securities we already hold (large cap domestic), without being large enough exposures as a whole to cause any size-based liquidity problems.
- At a 2.5% allocation, 9.22% TE, and 0.99 IR for the model, the historical-based expectations at the portfolio level would be 24bps of TE and 24bps of alpha while maintaining a beta of 1.

EQUITY GUIDELINES

Russell 1000 Index Benchmarked Strategy:

Benchmark-relative Parameters	Soft Limits (staff review)	Hard Limits (corrective action)
Risk Metrics:		
Tracking Error (long-term ex-ante)	25 bps	50 bps
Beta (long-term ex-ante)	<0.95 or >1.05	<0.9 or >1.1
Portfolio Construction:		
Non-benchmark exposure		0%
Concentration (single security)	+ 3%	+ 5%
Sector Thresholds		+/- 10%
Absolute Parameters		
Cash		2%

Confidential materials will be sent separately to
Committee members via secure link.



Ares Credit Fund Investment Guidelines

INVESTMENT STAFF
September 12, 2025

NORTH
Dakota
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Retirement & Investment

- The Ares ND Credit Strategies Fund LLC (“Ares Credit”) is a separate account established in 2017 that is managed by Ares Management (“Ares”). Ares Credit is primarily focused on lending capital on a senior secured basis to lower middle market and middle market companies backed by a private equity sponsor. Ares is a global leader in private markets with over \$570 billion in assets under management of which over \$377 billion (65.9% of total AUM) is in credit strategies.
- The industry concentration limits established in 2017 are inhibiting Ares’ ability to allocate capital to investments with the best risk adjusted returns in Ares Credit. As a result, Ares Credit is incurring punitive fees for under utilizing the credit facility.
- When we compare our sector guidelines vs. other Ares credit funds and the Morningstar LTSA Leverage Loan Index, RIO believes we can relax the sector concentrations without increasing the overall risk in the Fund.

ARES FUND GUIDELINE PROPOSAL

- The proposed guidelines would allow Ares to allocate to investment opportunities with best risk adjusted returns while remaining diversified by sector. It should also allow to Ares to fully utilize the credit facility on the account and avoid future punitive fees.
- Ares Credit is well diversified by issuer with maximum exposure limit of 1%.
- The RIO investment team is also allocating capital to new credit strategies that will further diversify the private credit program by strategy and sectors.

	ND Guidelines (Current)	ND Credit Allocations % as of Q2 2025	ND Guidelines (Proposal)
GICS Sector Mapping			
Information Technology	Max 20%	17.5%	Max 25%
Health Care	Max 20%	19.1%	Max 25%
Industrials	Max 15%	10.2%	Max 20%
Consumer Discretionary	Max 15%	13.7%	Max 20%
Financials	Max 15%	12.6%	Max 20%
Consumer Staples	Max 15%	7.0%	Max 20%
Communication Services	Max 15%	3.6%	Max 20%
Materials	Max 15%	3.3%	Max 20%
Utilities	Max 15%	0.1%	Max 20%
Energy	Max 15%	0.0%	Max 20%
Uncommitted Capital		13.1%	

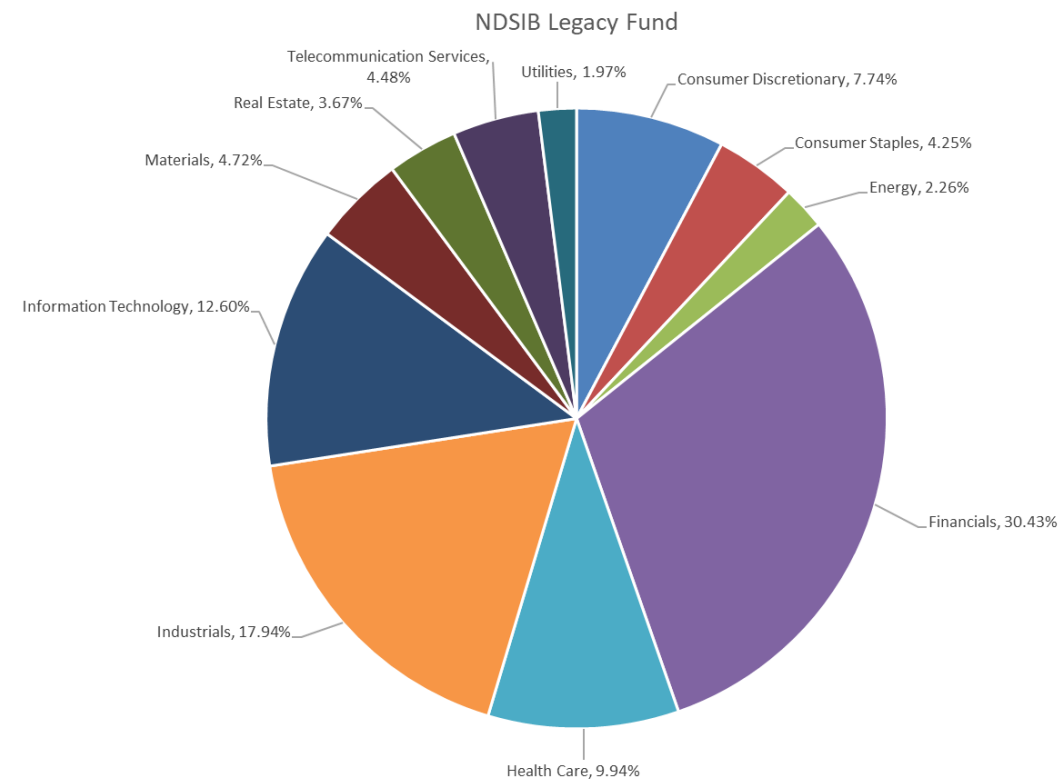
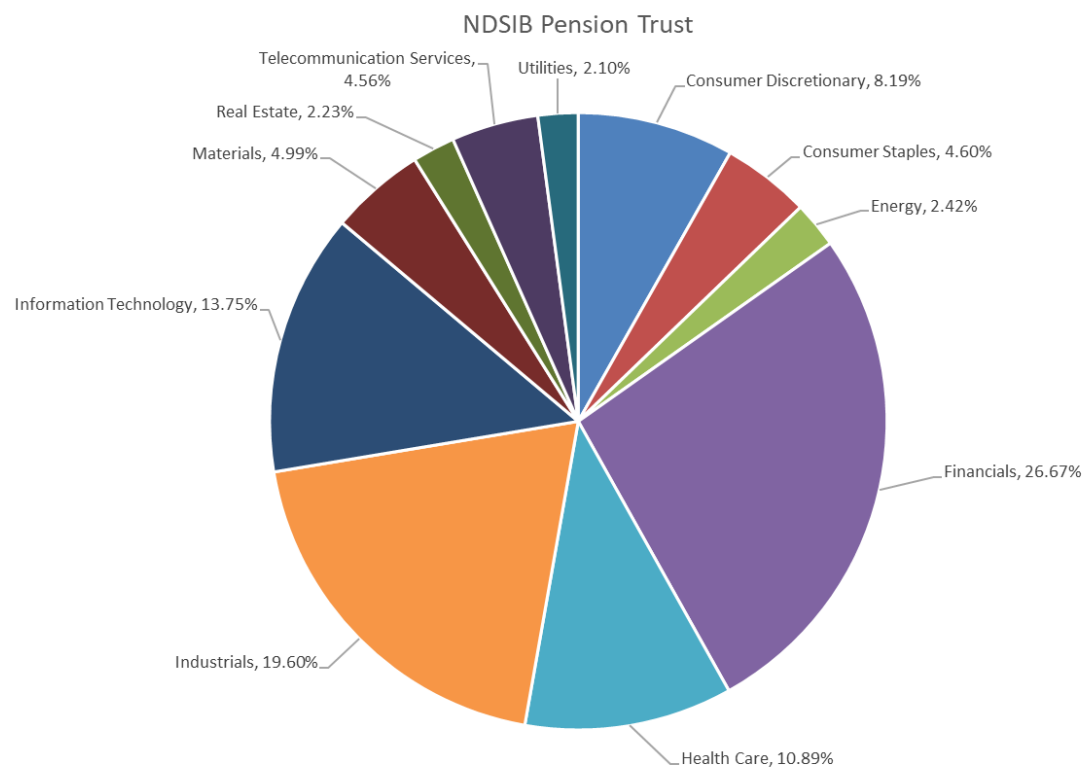
RECOMMENDATION

- Investment Staff recommends that the SIB Investment Committee approve the proposed change to the Ares Credit investment guidelines.

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PRIVATE CREDIT ALLOCATIONS BY SECTOR



- The Pension Trust and Legacy Fund Private Credit portfolios are well diversified.
- Relaxing the Ares investment guidelines does not create any diversifications concerns.
- Note, managers that invest in asset backed loans are lumped into the financial sector per GICs standards.

PRIVATE MARKETS MANAGER UPDATE

Private Equity Investment

- Guidepost Growth Equity IV, L.P.
- Focus on growth-stage technology investments.
- Commitment: \$60 million total (Pension Pool: \$20 million/Legacy Fund: \$40 million).