

# MONTANA

## BOARD OF INVESTMENTS

REGULAR BOARD MEETING  
FEBRUARY 26, 2025

### COMMITTEE MEETINGS

- A. **Audit Committee – Mark Barry, Chair** 9:30 AM  
Committee Members – Iverson, Younkin
1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
  2. Approval of November 20, 2024, Committee Minutes
  3. Executive Director Comments
  4. Audit Checklist
  5. FY24 Financial Statements - **Decisions**
  6. Financial Compliance Audit Reports

- B. **Loan Committee – Tim Kober, Chair** 10:00 AM  
Committee Members – Bennett, Milanovich
1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
  2. Approval of October 9, 2024, and December 5, 2024, Committee Meeting Minutes
  3. Executive Director Comments
  4. Commercial Loan Requests - **Decision**
  5. INTERCAP Loan Request - **Decision**

**BREAK** 10:30 AM

- Tab 1 CALL TO ORDER – Jeff Meredith, Chairman** 10:45 AM
- A. Notice of Video Recording of Meeting
  - B. Roll Call
  - C. Public Comment – *Public Comment on issues with Board Jurisdiction*
  - D. Approval of the November 20, 2024, and December 5, 2024, Meeting Minutes
  - E. Administrative Business
    1. Audit Committee Report - **Decisions**
    2. Loan Committee Report - **Decisions**
  - F. Comments from TRS and PERS Board Members
  - G. Comments from Board Legislative Liaisons

- Tab 2 EXECUTIVE DIRECTOR REPORTS – Dan Villa** 11:00 AM
- A. Member Requests from Prior Meeting
  - B. New Employee Introduction – Ethan Kittle, Investment Analyst
  - C. Monthly Snapshot
  - D. Ethics Policy 20.100 – Board Member Compliance
  - E. Disaster Recovery and Emergency Preparedness
  - F. Custodial Bank Relationship and Continuity
  - G. Fiduciary and Due Diligence Review - Update

- Tab 3 COMMERCIAL LOAN PROGRAM – Doug Hill** 11:30 AM
- A. Commercial and Residential Portfolios Report

<b>Tab 4 MUNICIPAL LOAN PROGRAM – Louise Welsh</b>	<b>11:45 AM</b>
A. INTERCAP	
1. Activity Report	
2. Staff Approved Loans Report	
B. MHIR Bond Program Portfolio Report	
<b>BREAK FOR LUNCH</b>	<b>12:00 PM</b>
<b>Tab 5 INVESTMENT POLICY STATEMENT – <i>Decision</i></b>	<b>1:00 PM</b>
<b>Tab 6 CASH MANAGEMENT OF STATE MONIES – John Carpenter, CPA, and Polly Boutin</b>	<b>1:30 PM</b>
<b>BREAK</b>	
<b>Tab 7 RVK</b>	<b>2:00 PM</b>
<b>Tab 8 INVESTMENT UPDATE</b>	<b>3:00 PM</b>
<b>RECAP OF STAFF TO DO LIST AND ADJOURNMENT – Jeff Meredith, Chairman</b>	



# MONTANA

## BOARD OF INVESTMENTS

### REGULAR BOARD MEETING MINUTES

NOVEMBER 20, 2024

Official meeting minutes are the recordings posted at <https://leg.mt.gov/lspd/>  
(timestamps may differ)

#### Call to Order

The Board of Investment's meeting was called to order by Board Chairman Jack Prothero at 10:07 a.m. on Wednesday, November 20, 2024.

#### Attendance

Board Members Present: Jack Prothero, Tim Kober, Mark Barry, Cindy Younkin, Maggie Peterson, Dwaine Iverson, Jeff Meredith, Dan Trost, Porter Bennett

Board Members Absent: None

Legislative Liaisons Present: None

Legislative Liaisons Absent: Senator Jeremy Trebas, Representative Bob Keenan

Board Staff Present: Brenda Thomas, Cort Jensen, Dan Villa, Doug Hill, Eron Krpan, Ethan Hurley, Jason Brent, Jessilynn Salois, John Carpenter, John Romasko, Jon Putnam, Julie Feldman, Ian Horwood, Kirsten Haswell, Louise Welsh, Mark Lodman, Matt Hoffman, Peggy MacEwen, Peggy Saarela, Polly Boutin, Sam Holman, Savannah Morgan, Sheli Jacoby, Steve Strong, Willie Gross

Interested Parties Present: Lieutenant Governor Kristen Juras – Governor's Office; Anita Milanovich, General Counsel - Governor's Office; Shawn Graham, Executive Director – Teacher's Retirement System; Bill Holohan, Executive Director – Montana Public Employee's Retirement Administration; Becky Gratsinger – RVK; Paige Blaser – RVK; Emily Gallagher – Financial Times; John Kevin Balaod – With Intelligence

#### **Tab 1 CALL TO ORDER** (00:04 – first recording)

##### **A. Notice of Video Recording** (00:10)

Chairman Prothero advised of audio and video recording of the meeting.

##### **B. Roll Call** (00:22)

The roll was taken. Nine Board members were present, forming a quorum.

##### **C. Public Comment** (01:23)

Chairman Prothero asked for public comment. None was given.

Chairman Prothero announced that Member Tim Kober has accepted the role of Vice Chair for the Board.

##### **D. Approval of Minutes** (02:45)

October 9, 2024, Regular Board Meeting Minutes

Member Peterson motioned to approve. Member Younkin seconded the motion, which passed unanimously.

## **E. Administrative Business**

### **1. Audit Committee Report (03:30)**

Committee Chair Barry briefed the Board.

Committee Chair Barry motioned for full Board approval of the Annual Statutory Compliance Checklist, the annual reaffirmation of the Audit Committee Charter, and approval of the FY24 Annual Report, pending any changes that may come upon the completed Financial Statements audit. Member Peterson seconded the motion, which passed unanimously.

### **F. Comments from Pension Board Members (06:37)**

Member Trost and Member Peterson briefed the Board.

### **G. Comments from Legislative Liaisons (07:19)**

Senator Jeremy Trebas and Representative Bob Keenan were absent.

*Due to the meeting proceeding earlier than anticipated, some items on the agenda were moved to comply with notice requirements.*

## **Tab 3 MONTANA LOAN PROGRAM (07:35)**

### **A. Commercial and Residential Portfolios Report**

Doug Hill briefed the Board and answered questions.

## **Tab 4 BOND PROGRAM (19:40)**

### **A. INTERCAP**

Louise Welsh briefed the Board and answered questions.

## **Tab 2 EXECUTIVE DIRECTOR REPORTS (24:40)**

*(Items on the agenda were rearranged to accommodate guests)*

### **A. Member Requests from Prior Meeting**

Executive Director Villa briefed the Board.

### **B. Monthly Snapshot**

Executive Director Villa briefed the Board.

### **D. 2025 Legislative Session**

Executive Director Villa briefed the Board.

### **C. Memorandum of Understanding**

Executive Director Villa introduced Lieutenant Governor Kristen Juras and Anita Milanovich, General Counsel for the Governor's Office. Executive Director Villa briefed the Board and answered questions.

### **E. LPAC Annual Reporting (01:11:17)**

Executive Director Villa briefed the Board.

### **F. Securities Litigation Annual Review (01:11:50)**

Executive Director Villa briefed the Board.

### **G. Policy 10.217 – Reauthorization of Investment Vendors (01:12:40)**

Executive Director Villa briefed the Board.

## **Tab 5 PENSION FUNDS RELATIONSHIP (01:25:56)**

Bill Holohan, Executive Director of Montana Public Employees Retirement Administration, and Shawn Graham, Executive Director of the Teacher's Retirement System, briefed the Board and answered questions.

**Tab 6 INVESTMENT POLICY STATEMENTS (02:13:30)**

Willie Gross, Fixed Income Investment Analyst, briefed the Board and answered questions.

Chairman Prothero asked for a motion to approve the recommended changes to Investment Policy Statement 40.946. Member Barry motioned for approval. Member Younkin seconded the motion, which passed unanimously.

Chairman Prothero asked for a motion to approve the recommended changes to Investment Policy Statement 40.945. Member Younkin motioned for approval. Member Barry seconded the motion, which passed unanimously.

**Tab 7 RVK (02:19:25)**

Becky Gratsinger and Paige Blaser briefed the Board and answered questions.

**Tab 8 INVESTMENT UPDATE (03:11:20)**

**CIO Update (03:11:23)**

Jon Putnam briefed the Board.

**Macro Attribution (03:30:30)**

Eron Krpan briefed the Board.

**Domestic Equity, International Equity, and Non-Core Fixed Income (03:32:51)**

Jason Brent briefed the Board.

**Real Estate and Real Assets (03:41:01)**

Ethan Hurley briefed the Board.

**Private Investments (03:53:52)**

Thomas Winkler briefed the Board.

**Core Fixed Income (04:05:58)**

John Romasko briefed the Board.

**RECAP OF STAFF TO-DO LIST AND ADJOURNMENT (04:09:48)**

Chairman Prothero adjourned the meeting at 3:48 p.m.

**MONTANA BOARD OF INVESTMENTS**

APPROVE: \_\_\_\_\_

Jeff Meredith, Chairman

ATTEST: \_\_\_\_\_

Dan Villa, Executive Director

DATE: \_\_\_\_\_

# MONTANA

## BOARD OF INVESTMENTS

### SPECIAL BOARD MEETING MINUTES

DECEMBER 5, 2024

Official meeting minutes are the recordings posted at <https://leg.mt.gov/lspd/>  
(timestamps may differ)

#### Call to Order

The Board of Investment's meeting was called to order by Board Chairman Jack Prothero at 10:28 a.m. on Thursday, December 5, 2024.

#### Attendance

Board Members Present: Jack Prothero, Jeff Meredith, Tim Kober, Cindy Younkin, Maggie Peterson, Dwaine Iverson

Board Members Absent: Dan Trost

Legislative Liaisons Present: None

Legislative Liaisons Absent: Senator Jeremy Trebas, Representative Bob Keenan

Board Staff Present: Brenda Thomas, Cort Jensen, Dan Villa, Doug Hill, Jessilynn Salois, John Carpenter, John Romasko, Kirsten Haswell, Louise Welsh, Peggy MacEwen, Peggy Saarela, Roberta Diaz, Sam Holman, Savannah Morgan, Sheli Jacoby, Tammy Lindgren, Tim House, Willie Gross

Interested Parties Present: None

#### **CALL TO ORDER (01:21)**

**1. Notice of Video Recording (01:33)**

Chairman Prothero advised of audio and video recording of the meeting.

**2. Roll Call (01:45)**

The roll was taken. Six members were present, forming a quorum.

**3. Public Comment (02:36)**

Chairman Prothero asked for public comment. None was given.

**4. Loan Committee Report (01:46)**

Committee Chair Meredith briefed the Board on the Special Loan Committee.

Chair Meredith motioned to approve the participation loan request to Blood Brothers Properties, LLC, and the infrastructure loan to Missoula County. Member Younkin seconded the motion, which passed unanimously.

**5. Investment Policy Statement/Building Purchase – *Decision* (05:52)**

Executive Director Dan Villa briefed the Board and answered questions.

Chairman Prothero asked for a motion to approve the new Investment Policy Statement 40.955 as amended during the discussion. Member Younkin motioned for approval. Member Meredith seconded the motion, which passed unanimously.

Chairman Prothero asked for a motion to approve the buy-sell agreement, contingent on Member Younkin's review after Cort Jensen made the corrections discussed. Member Iverson motioned for approval. Member Younkin seconded the motion, which passed unanimously.

**6. Revision to Contract Maximum/Workforce Housing – Decision (29:51)**

Executive Director Dan Villa briefed the Board and answered questions.

Chairman Prothero asked for a motion from the Board. Member Younkin motioned to approve the plan to build 28 units as originally proposed. Member Iverson seconded the motion, which passed unanimously.

**ADJOURNMENT (43:45)**

Chair Prothero adjourned the meeting at 11:08 a.m.

**MONTANA BOARD OF INVESTMENTS**

APPROVE: \_\_\_\_\_  
JEFF MEREDITH, Chairman

ATTEST: \_\_\_\_\_  
DAN VILLA, Executive Director

DATE: \_\_\_\_\_



# MONTANA

## BOARD OF INVESTMENTS

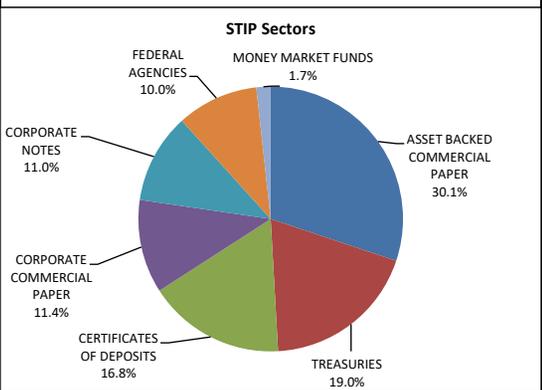
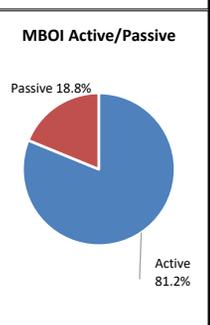
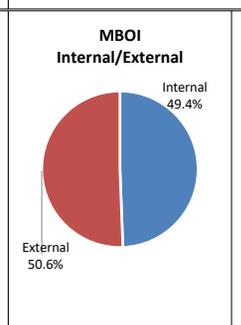
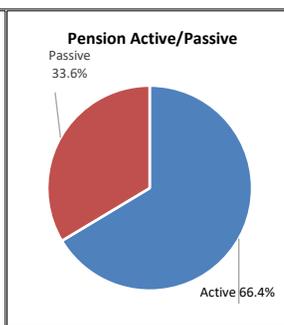
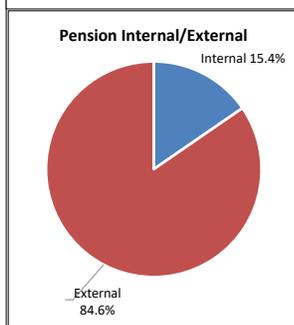
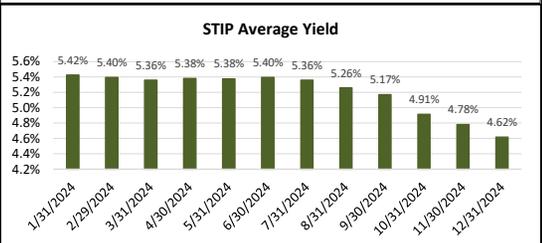
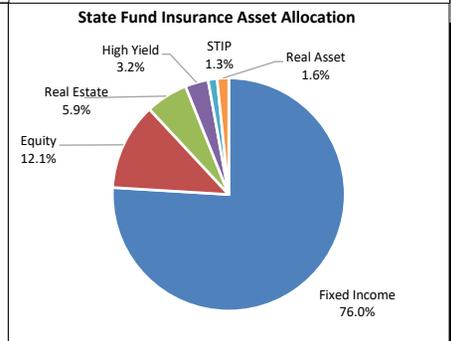
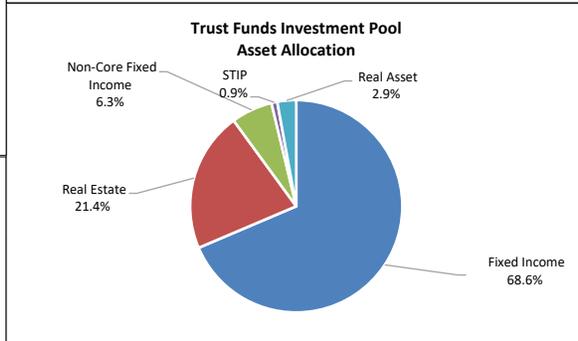
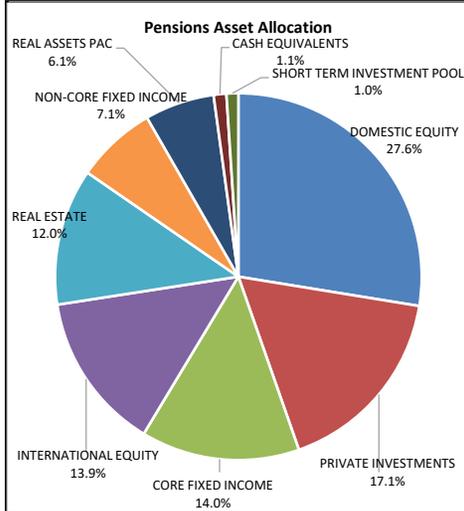
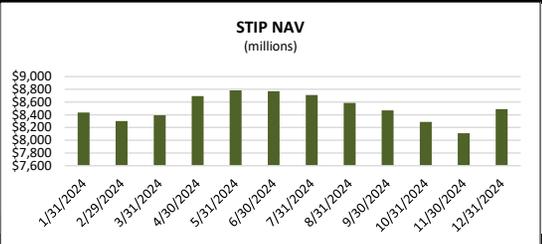
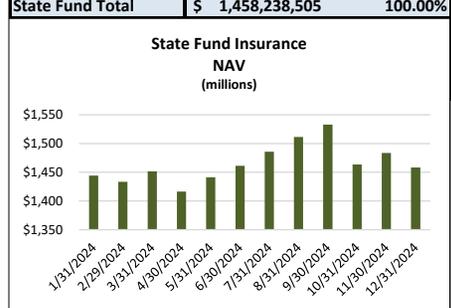
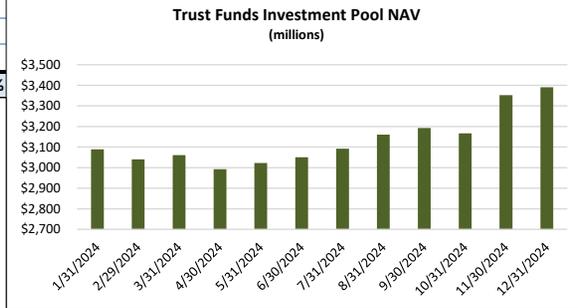
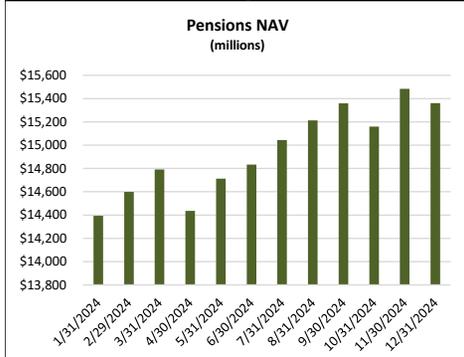
**To:** Members of the Board  
**From:** Dan Villa, Executive Director  
**Date:** February 26, 2025  
**Re:** Executive Director Report

- A. Member Requests from Prior Meeting
- B. Monthly Snapshot – *Attached*
- C. Ethics Policy 20.100 - Board Member Compliance - *Attached*
- D. Disaster Recovery and Emergency Preparedness - *Attached*
- E. Custodial Bank Relationship and Continuity - *Attached*
- F. Fiduciary and Due Diligence Review – Update - *Attached*

**MBOI Snapshot**  
**Asset Management View**  
**12/31/2024 Unaudited**  
**Assets Under Management \$28,672,271,931**



Pensions	NAV	%	TFIP	NAV	%	State Fund	NAV	%	Other Fixed Income & Pending	\$	(45,320,813)
DOMESTIC EQUITY	\$ 4,232,920,226	27.6%	Fixed Income	\$ 2,326,079,675	68.60%	Fixed Income	\$ 1,107,607,594	75.96%			
PRIVATE INVESTMENTS	\$ 2,624,144,941	17.1%	Real Estate	\$ 724,003,654	21.35%	Equity	\$ 176,625,524	12.11%	STIP*		
CORE FIXED INCOME	\$ 2,149,330,357	14.0%	Non-Core Fixed Income	\$ 213,187,881	6.29%	Real Estate	\$ 85,594,051	5.87%	ASSET BACKED COMMERCIAL PAPER	\$2,562,358,022	30.12%
INTERNATIONAL EQUITY	\$ 2,138,674,879	13.9%	Real Asset	\$ 97,186,769	2.87%	High Yield	\$ 46,785,513	3.21%	TREASURIES	\$1,615,632,141	18.99%
REAL ESTATE	\$ 1,849,869,070	12.0%	STIP	\$ 30,379,242	0.90%	Real Asset	\$ 23,349,561	1.60%	CERTIFICATES OF DEPOSITS	\$1,428,197,759	16.79%
NON-CORE FIXED INCOME	\$ 1,089,314,452	7.1%	<b>TFIP Total</b>	<b>\$ 3,390,837,220</b>	<b>100.00%</b>	STIP	\$ 18,276,262	1.25%	CORPORATE COMMERCIAL PAPER	\$971,867,102	11.42%
REAL ASSETS PAC	\$ 943,397,194	6.1%				<b>State Fund Total</b>	<b>\$ 1,458,238,505</b>	<b>100.00%</b>	CORPORATE NOTES	\$933,659,901	10.97%
CASH EQUIVALENTS	\$ 172,352,045	1.1%							FEDERAL AGENCIES	\$848,429,570	9.97%
SHORT TERM INVESTMENT POOL	\$ 160,179,485	1.0%							MONEY MARKET FUNDS	\$148,189,875	1.74%
<b>Pensions Total</b>	<b>\$ 15,360,182,649</b>	<b>100.0%</b>							<b>STIP Total</b>	<b>\$8,508,334,370</b>	<b>100.00%</b>



Definition of NAV: Net Asset Value is the total value of the account including assets held, adjusted for payables, receivables and liabilities

(1) Other Holdings column on page two represents the value of securities, receivables, payables and liabilities that comprise the Net Asset Value for the asset owner.

\*Difference of \$224,750,219 is attributable the portion of STIP held within CAPP \$170,715,362 and TFIP \$30,292,533 as a cash investment and distributions held over month end \$23,742,324. Such value is represented in the NAV for the CAPP and STIP columns.

MBOI Snapshot Asset Ownership View 12/31/2024 Unaudited										
Total Funds \$(000)	CAPP Holdings		STIP Holdings*		TFIP Holdings		Other Holdings <sup>1</sup>		Total Net Asset Value	
	\$15,200,003	53.01%	\$8,283,584	28.89%	\$3,390,844	11.83%	\$1,797,841	6.27%	\$28,672,272	
<b>Pensions</b>										
	CAPP	%	STIP	%	TFIP	%	Other	%	Total	
FIREFIGHTERS RETIREMENT	\$ 720,906	98.93%	\$ 7,823	1.07%	\$ -	0.00%	\$ -	0.00%	\$ 728,730	
GAME WARDENS RETIREMENT	\$ 360,731	98.99%	\$ 3,690	1.01%	\$ -	0.00%	\$ -	0.00%	\$ 364,421	
HIGHWAY PATROL RETIREMENT	\$ 227,755	98.99%	\$ 2,317	1.01%	\$ -	0.00%	\$ -	0.00%	\$ 230,072	
JUDGES RETIREMENT	\$ 140,539	98.99%	\$ 1,430	1.01%	\$ -	0.00%	\$ -	0.00%	\$ 141,969	
POLICE OFFICERS RETIREMENT	\$ 641,225	98.93%	\$ 6,952	1.07%	\$ -	0.00%	\$ -	0.00%	\$ 648,176	
PUBLIC EMPLOYEES RETIREMENT	\$ 7,309,903	98.96%	\$ 76,802	1.04%	\$ -	0.00%	\$ -	0.00%	\$ 7,386,705	
SHERIFFS RETIREMENT	\$ 576,082	98.93%	\$ 6,224	1.07%	\$ -	0.00%	\$ -	0.00%	\$ 582,306	
TEACHERS RETIREMENT	\$ 5,167,951	98.96%	\$ 54,384	1.04%	\$ -	0.00%	\$ -	0.00%	\$ 5,222,334	
VOL FIREFIGHTERS RETIREMENT	\$ 54,912	98.99%	\$ 559	1.01%	\$ -	0.00%	\$ -	0.00%	\$ 55,470	
<b>Total</b>	<b>\$ 15,200,003</b>	<b>98.96%</b>	<b>\$ 160,179</b>	<b>1.04%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ 15,360,183</b>	
<b>Trust Funds</b>										
	CAPP	%	STIP	%	TFIP	%	Other	%	Total	
ABANDONED MINE RECLAMATION	\$ -	0.00%	\$ 8,157	99.61%	\$ -	0.00%	\$ 32	0.39%	\$ 8,189	
BARKER HUGHESVILLE ST RESPONSE	\$ -	0.00%	\$ 1,804	19.14%	\$ 7,579	80.46%	\$ 38	0.40%	\$ 9,420	
BELT WATER TREATMENT PLANT	\$ -	0.00%	\$ 6,017	21.52%	\$ 21,832	78.08%	\$ 111	0.40%	\$ 27,960	
BUTTE AREA ONE REST	\$ -	0.00%	\$ 1,140	19.38%	\$ 4,720	80.22%	\$ 23	0.40%	\$ 5,883	
BUTTE AREA REDEVELOP AUTHORITY	\$ -	0.00%	\$ 1,892	14.13%	\$ 11,447	85.47%	\$ 53	0.40%	\$ 13,392	
CLARK FORK REST	\$ -	0.00%	\$ 5,319	21.33%	\$ 19,515	78.27%	\$ 99	0.40%	\$ 24,933	
CLARK FORK SITE RESP ACTION	\$ -	0.00%	\$ 6,343	12.19%	\$ 45,499	87.41%	\$ 208	0.40%	\$ 52,050	
COAL TAX PARK TRUST FUND	\$ -	0.00%	\$ 2,875	9.29%	\$ 27,961	90.31%	\$ 124	0.40%	\$ 30,960	
CULTURAL TRUST FUND	\$ -	0.00%	\$ 586	3.46%	\$ 16,289	96.14%	\$ 68	0.40%	\$ 16,942	
DEBT AND LIABILITY FREE ACCOUNT	\$ -	0.00%	\$ 244,507	94.59%	\$ -	0.00%	\$ 13,979	5.41%	\$ 258,486	
E HELENA GREENWAY TRAIL MAINT	\$ -	0.00%	\$ 275	28.97%	\$ 671	70.63%	\$ 4	0.40%	\$ 950	
EAST HELENA COMPENSATION FUND	\$ -	0.00%	\$ 1,711	96.77%	\$ 50	2.84%	\$ 7	0.39%	\$ 1,768	
ENDOWMENT FOR CHILDREN	\$ -	0.00%	\$ 40	2.77%	\$ 1,408	96.82%	\$ 6	0.40%	\$ 1,454	
FLYING J CECRA FACILITIES FUND	\$ -	0.00%	\$ 533	19.48%	\$ 2,191	80.13%	\$ 11	0.40%	\$ 2,734	
FWP MITIGATION TRUST	\$ -	0.00%	\$ 3,297	31.98%	\$ 6,730	65.28%	\$ 283	2.74%	\$ 10,310	
HAROLD HAMM ENDOWMENT	\$ -	0.00%	\$ 9	18.04%	\$ 43	81.56%	\$ 0	0.40%	\$ 52	
INVASIVE SPECIES TRUST FUND	\$ -	0.00%	\$ 883	27.46%	\$ 2,319	72.14%	\$ 13	0.40%	\$ 3,215	
KIYIO POW WOW	\$ -	0.00%	\$ 120	40.20%	\$ 178	59.56%	\$ 1	0.24%	\$ 299	
LIBBY ASBESTOS SITE STATE COST	\$ -	0.00%	\$ 686	14.62%	\$ 3,989	84.98%	\$ 19	0.40%	\$ 4,694	
LUBRECHT FRST CRBN OFSET CREDIT	\$ -	0.00%	\$ 1,000	40.20%	\$ 1,482	59.56%	\$ 6	0.24%	\$ 2,488	
LUTTRELL PIT - OPER & MAINT	\$ -	0.00%	\$ 278	14.22%	\$ 1,667	85.38%	\$ 8	0.40%	\$ 1,952	
MONTANA HIST AND CIVICS ENDOW	\$ -	0.00%	\$ 221	14.28%	\$ 1,323	85.32%	\$ 6	0.40%	\$ 1,550	
MONTANA HISTORICAL SOCIETY	\$ -	0.00%	\$ 1,116	26.37%	\$ 3,100	73.23%	\$ 17	0.40%	\$ 4,233	
MONTANA STATE LIBRARY TRUST	\$ -	0.00%	\$ 183	13.05%	\$ 1,211	86.55%	\$ 6	0.40%	\$ 1,400	
MT HOUSING INFRASTRUCTURE	\$ -	0.00%	\$ 32,793	30.78%	\$ -	0.00%	\$ 73,753	69.22%	\$ 106,546	
MT POLE SUPERFUND SETTLEMENT	\$ -	0.00%	\$ 4,670	24.86%	\$ 14,039	74.74%	\$ 75	0.40%	\$ 18,784	
NOXIOUS WEED MGMT TRUST FUND	\$ -	0.00%	\$ -	0.00%	\$ 10,085	99.60%	\$ 41	0.40%	\$ 10,126	
OLDER MONTANANS TRUST FUND	\$ -	0.00%	\$ 9	2.73%	\$ 320	96.87%	\$ 1	0.40%	\$ 330	
POTTER TRUST FUND	\$ -	0.00%	\$ 46	17.82%	\$ 210	81.79%	\$ 1	0.40%	\$ 257	
PUBLIC SCHOOL TRUST	\$ -	0.00%	\$ 11,151	1.20%	\$ 916,763	98.40%	\$ 3,735	0.40%	\$ 931,649	
REAL PROPERTY TRUST FUND	\$ -	0.00%	\$ 401	5.65%	\$ 6,668	93.95%	\$ 28	0.40%	\$ 7,097	
RESOURCE INDEMNITY TRUST FUND	\$ -	0.00%	\$ 23	0.02%	\$ 103,522	99.58%	\$ 417	0.40%	\$ 103,962	
SMELTER HILL UPLANDS REST FUND	\$ -	0.00%	\$ 1,489	17.28%	\$ 7,094	82.33%	\$ 34	0.40%	\$ 8,617	
STREAMSIDE TAILINGS OU FUND	\$ -	0.00%	\$ 2,016	12.41%	\$ 14,168	87.19%	\$ 65	0.40%	\$ 16,249	
TOBACCO TRUST FUND	\$ -	0.00%	\$ 6,393	2.11%	\$ 295,449	97.49%	\$ 1,215	0.40%	\$ 303,057	
UPPER BLACKFT RESP ACT & REST	\$ -	0.00%	\$ 882	91.12%	\$ 82	8.49%	\$ 4	0.39%	\$ 968	
UPPER CLRK FK RIVER BASIN RES	\$ -	0.00%	\$ 490	2.19%	\$ 21,804	97.41%	\$ 90	0.40%	\$ 22,384	
UPPER CLRK FK RIVER BASIN REST	\$ -	0.00%	\$ 3,694	5.58%	\$ 62,290	94.02%	\$ 265	0.40%	\$ 66,249	
WILDLIFE HABITAT TRUST FUND	\$ -	0.00%	\$ 1,644	9.95%	\$ 14,814	89.65%	\$ 66	0.40%	\$ 16,524	
WORK FORCE HOUSING	\$ -	0.00%	\$ 11,306	94.93%	\$ -	0.00%	\$ 603	5.07%	\$ 11,909	
YELLOWSTONE PIPELINE CLEANUPFD	\$ -	0.00%	\$ 2,056	33.87%	\$ 3,989	65.73%	\$ 24	0.40%	\$ 6,069	
ZORTMAN/LANDUSKY LT WATER	\$ -	0.00%	\$ 17,545	99.61%	\$ -	0.00%	\$ 69	0.39%	\$ 17,613	
ZORTMAN/LANDUSKY LT WATER TRUST	\$ -	0.00%	\$ 22,818	99.61%	\$ -	0.00%	\$ 89	0.39%	\$ 22,907	
<b>Total</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ 408,416</b>	<b>18.94%</b>	<b>\$ 1,652,499</b>	<b>76.62%</b>	<b>\$ 95,699</b>	<b>4.44%</b>	<b>\$ 2,156,614</b>	
<b>Coal Severance</b>										
	CAPP	%	STIP	%	TFIP	%	Other	%	Total	
BIG SKY ECONOMIC DEV FUND	\$ -	0.00%	\$ 4,647	3.14%	\$ 142,785	96.46%	\$ 593	0.40%	\$ 148,025	
COAL SEVERANCE TAX PERM FUND	\$ -	0.00%	\$ 12,277	2.26%	\$ 333,872	61.33%	\$ 198,231	36.41%	\$ 544,379	
CONSERVATION DISTRICT FUND	\$ -	0.00%	\$ 8,238	25.96%	\$ 23,372	73.65%	\$ 125	0.39%	\$ 31,735	
MONTANA COAL ENDOWMENT FUND	\$ -	0.00%	\$ 3,069	1.15%	\$ 261,772	98.44%	\$ 1,067	0.40%	\$ 265,908	
MT COAL ENDOWMENT REGIONAL WAT	\$ -	0.00%	\$ 1,192	1.29%	\$ 90,601	98.31%	\$ 370	0.40%	\$ 92,162	
SCHOOL FACILITIES FUND	\$ -	0.00%	\$ 4,569	2.19%	\$ 203,058	97.41%	\$ 836	0.40%	\$ 208,463	
<b>Total</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ 33,992</b>	<b>2.63%</b>	<b>\$ 1,055,461</b>	<b>81.78%</b>	<b>\$ 201,221</b>	<b>15.59%</b>	<b>\$ 1,290,673</b>	
<b>Operating Funds</b>										
	CAPP	%	STIP	%	TFIP	%	Other	%	Total	
FWP GENERAL LICENSE ACCOUNT	\$ -	0.00%	\$ 66,084	68.07%	\$ 29,167	30.04%	\$ 1,833	1.89%	\$ 97,084	
MONTANA LOCAL GOVERNMENTS	\$ -	0.00%	\$ 2,092,838	99.64%	\$ -	0.00%	\$ 7,512	0.36%	\$ 2,100,350	
MONTANA STATE AGENCIES	\$ -	0.00%	\$ 2,488,448	99.61%	\$ -	0.00%	\$ 9,787	0.39%	\$ 2,498,235	
MONTANA STATE UNIVERSITY	\$ -	0.00%	\$ 305,395	84.25%	\$ 55,813	15.40%	\$ 1,296	0.36%	\$ 362,504	
MONTANA TECH	\$ -	0.00%	\$ 7,619	94.17%	\$ 440	5.44%	\$ 32	0.39%	\$ 8,090	
STATE TREASURER'S FUND	\$ -	0.00%	\$ 2,351,130	81.30%	\$ 517,027	17.88%	\$ 23,939	0.83%	\$ 2,892,096	
UNIVERSITY OF MONTANA	\$ -	0.00%	\$ 79,095	73.27%	\$ 28,434	26.34%	\$ 424	0.39%	\$ 107,953	
<b>Total</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ 7,390,609</b>	<b>91.62%</b>	<b>\$ 630,881</b>	<b>7.82%</b>	<b>\$ 44,823</b>	<b>0.56%</b>	<b>\$ 8,066,312</b>	
<b>Insurance Reserves</b>										
	CAPP	%	STIP	%	TFIP	%	Other	%	Total	
HAIL INSURANCE INVESTMENTS	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ 19	100.00%	\$ 19	
MONTANA STATE FUND	\$ -	0.00%	\$ 18,209	1.25%	\$ -	0.00%	\$ 1,440,029	98.75%	\$ 1,458,239	
MUS GROUP INSURANCE	\$ -	0.00%	\$ 85,608	85.38%	\$ 12,334	12.30%	\$ 2,327	2.32%	\$ 100,269	
MUS WORKERS COMPENSATION	\$ -	0.00%	\$ 10,048	71.95%	\$ 3,863	27.66%	\$ 55	0.39%	\$ 13,965	
OLD FUND LIABILITY DEFEASANCE	\$ -	0.00%	\$ 44,013	99.61%	\$ -	0.00%	\$ 173	0.39%	\$ 44,186	
PERS-DCRP LT DISABILITY PLAN	\$ -	0.00%	\$ 836	7.44%	\$ -	0.00%	\$ 10,395	92.56%	\$ 11,231	
STATE EMPLOYEE GROUP BENEFITS	\$ -	0.00%	\$ 129,875	76.95%	\$ 35,807	21.22%	\$ 3,094	1.83%	\$ 168,776	
SUBSEQUENT INJURY TRUST FUND	\$ -	0.00%	\$ 1,799	99.61%	\$ -	0.00%	\$ 7	0.39%	\$ 1,806	
<b>Total</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ 290,389</b>	<b>16.15%</b>	<b>\$ 52,003</b>	<b>2.89%</b>	<b>\$ 1,456,098</b>	<b>80.96%</b>	<b>\$ 1,798,491</b>	

Short Term Investment Pool			
Account	# Accounts	Total Market Value	%
Total State	370	6,410,731,642	75.3%
Total Local	202	2,097,602,729	24.7%
<b>Total STIP</b>	<b>572</b>	<b>\$ 8,508,334,370</b>	<b>100.0%</b>
STIP Reserve		\$ 97,604,075	
Prior month average STIP Yield		4.6150%	

Intercap Statistics	
Loans Outstanding	\$ 69,894,315
Bonds Outstanding	\$ 68,000,000
Number of Borrowers	129
Loan Rate	5.75%

# MONTANA

## BOARD OF INVESTMENTS

### BOARD ADOPTED POLICY

---

POLICY NUMBER: 20.100

EFFECTIVE DATE: April 20, 2022

TITLE: Code of Ethics

SUPERSEDES: November 30, 2021

BOARD ADOPTION: November 30, 2021

REVIEWED: March 3, 2022

---

#### I. Code of Ethics

- A. The Board shall create and annually confirm adherence to a Code of Ethics (Code) for its Board members and staff.
- B. The Code shall be designed to ensure that Board members and Board staff have no conflicting interests that would:
  1. Harm the integrity of the Board.
  2. Harm the clients for whom the Board invests funds.
  3. Interfere with the Board's fiduciary responsibility.

#### II. Purpose: To Protect and Honor the Public Trust

- A. The Board fully accepts its responsibility and obligation to follow all state laws regarding ethical conduct.
- B. The Board expects its Board members, employees, and all associated parties doing business with the Board to conduct themselves within the highest ethical standards that shall in all circumstances reflect well on the Board and the people it serves.
- C. All Board members and employees must obey state law and the additional requirements as to their conduct as further provided within this policy.

#### III. State Code of Ethic Provisions

- A. The Board's ethics policy complements and does not substitute for state law and Montana Operations Manual (MOM) Ethics Policy.
- B. Board members and employees are expected to be familiar with and obey all state laws and MOM policy, and understand and obey those regarding conduct, disclosure, and conflict of interest requirements of the state code of ethics. (See, Title 2, chapter 2, MCA.)

#### IV. Additional Areas Relating to Ethical Conduct at the Montana Board of Investments

##### A. Conflict of Interest

1. There shall be no action taken by a Board member or employee related to the affairs of the Board that would result in the receipt of a financial benefit to the Board member or employee or the appearance of a 'quid pro quo.'
2. Board members must disclose and recuse themselves from any situation involving a possible conflict.
3. Employees must disclose to their supervisor and avoid any situation involving a possible conflict.

---

Adopted: November 30, 2021

Revised: April 20, 2022

Reviewed: March 3, 2022

B. Protection of Information

1. Board members and employees must protect and may not disclose or use any investment information, internal control procedures, or any confidential personal information, except as allowed by Board procedures.

C. Use of Board's Assets

1. No person may use the physical or electronic assets of the Board for personal gain or for any use other than to fulfill the missions and programs of the Board.
  - a) This provision also pertains to all the fiduciary assets, including all investment or Board program information of every type.
2. All assets of the Board are exclusively for the benefit of the citizens and must be protected in all respects.

V. Specific Provisions Related to Gifts, Travel Meals, and Conferences

A. Gifts

1. All gifts received shall be addressed as provided by state law and as further limited by this Policy.
2. All gifts shall be logged with the date of receipt, a description, and final disposition noted.
3. All allowable gifts, i.e., those having values below the statutory limit of \$50, if perishable shall be shared with Board staff, if non-perishable shall be auctioned and the proceeds provided to a charity designated by the Executive Director.

B. Travel

1. All travel is to be approved by the Executive Director.
2. Reimbursement for travel expenses and for determining work time or overtime is subject to state policy.
  - a) Where the Board participates on a Limited Partner Advisory Committee (LPAC) and the limited partnership agreement or other legal documents entered into by the General Partner and the Limited Partners explicitly provide for LPAC members to be reimbursed for reasonable expenses related to travel, lodging, and meals incurred while attending LPAC meetings, such reimbursement may be accepted, but only with the express approval of the Executive Director.

(1) The Executive Director shall report such activity to the Board at least annually.

3. Meals

- a) Meals provided by vendors or other parties that are reasonably incidental to the conduct of the Board's business, such as during breakfast or lunchtime meetings or during conferences, may be accepted.
- b) Meals at restaurants are to be "no-host."

4. Conferences

- a) All Board members requests and permission to attend conferences are to be approved by the Chair after consulting with the Executive Director.
- b) All other conferences are to be approved by the Executive Director.

I have read and understand the Montana Board of Investments Code of Ethics and agree to comply with all its provisions; that it is my responsibility to abide both by the state ethics law Section 2-2-1, MCA, and MOM Ethics Policy.

It is also my responsibility to abide by the state's travel policy as provided in the MOM governing allowable travel reimbursement expenses and the rules for designating work or overtime hours.

<hr/>	<hr/>
Board member/staff	Date
<hr/>	
Title	

Authority: Montana Constitution, Article VIII, Section 13  
Title 2, chapter 2, MCA  
Section 2-15-1808, MCA  
Section 17-6-201, MCA  
Montana Operations Manual --  
[https://hr.mt.gov/docs/Policies/State\\_Ethics\\_Policy.pdf](https://hr.mt.gov/docs/Policies/State_Ethics_Policy.pdf)

# MONTANA

## BOARD OF INVESTMENTS

## BOARD ADOPTED POLICY

---

POLICY NUMBER: 20.300

EFFECTIVE DATE: April 20, 2022

TITLE: Confidentiality and Use of Position

SUPERSEDES: January 1, 2022

BOARD ADOPTION: November 30, 2021

REVIEWED: March 3, 2022

---

### I. Confidentiality and Use of Position

- A. Board members and staff in possession of nonpublic information may not purchase or sell securities of the concerned company or other publicly traded securities to which the information pertains.
- B. Board members and staff may not disclose nonpublic information to another person who could subsequently use that information for profit.
  - 1. Recommending purchases or sales of securities to which the nonpublic information relates, even without disclosing the basis for the recommendation, is prohibited.
  - 2. Information that is “nonpublic” includes information that an employee knows or reasonably should know:
    - a) Is routinely exempt from disclosure under the Freedom of Information Act or protected from disclosure by statute, including proprietary or trade secret information,
    - b) Is designated by a state agency, Board vendor or Board investment manager as confidential, or
    - c) Has not been disseminated to the general public and is not authorized to be made available to the general public.
- C. It is the policy of the Board that “front running” is prohibited.
  - 1. Front running occurs when a person enters into a trade of securities with advance knowledge of pending orders from other investors.
    - a) Front running could occur, for example, when any Board member or staff covered by this policy trades with the knowledge that a trade is pending on behalf of the Board.
  - 2. Front running, like insider trading, may subject Board members or staff to criminal and/or civil proceedings.
    - a) Front running may constitute a misappropriation of Board proprietary information for private or personal gain.
- D. Board members and staff may not place an order for a personal securities transaction in a company in which a Board securities transaction is pending.
  - 1. Board members and staff must wait until fifteen (15) days after such Board securities transaction is executed before placing an order for a personal securities transaction involving the same company.

- E. Board members and staff may not knowingly delay, hinder, modify, or cancel any internal Board buy or sell recommendation, decision, or trading order intending to facilitate a personal securities transaction.
  - 1. This action would otherwise constitute front running or violations of state or federal laws.
- F. Board members and staff in possession of nonpublic information relating to a tender offer may not trade in target company securities. Nonpublic information includes information acquired directly or indirectly from the bidder or target company.
  - 1. Board members and staff may not disclose such nonpublic information to another person where it is reasonably foreseeable that the recipient of the information could purchase or sell such company securities.
  - 2. Board members and staff in possession of nonpublic information may not purchase, directly or indirectly, any security in the initial public offering of such security.
    - a) Such new issue securities may only be purchased in the secondary trading market once such a market is established.
    - b) Board members and staff may not encourage, facilitate, or arrange such a purchase by or on behalf of any other person.
- G. Staff have a duty to protect and conserve Board property, and to use Board property only for authorized purposes.
  - 1. Board property includes material, equipment, real property, and all provided software and systems used to perform an employee's job function.
  - 2. Authorized purposes are those for which the Board property is used during the normal course of business, authorized in accordance with the duties and roles prescribed by the Board.

Authority: Montana Constitution, Article VIII, Section 13  
Title 2, chapter 2, MCA  
Section 2-15-1808, MCA  
Section 17-6-201, MCA  
ARM 8.97.311  
ARM 8.97.313  
Montana Operations Manual --  
[https://hr.mt.gov/docs/Policies/State\\_Ethics\\_Policy.pdf](https://hr.mt.gov/docs/Policies/State_Ethics_Policy.pdf)



# MONTANA

## BOARD OF INVESTMENTS

**TO:** Members of the Board  
**FROM:** Doug Hill, Director of Commercial Loans  
**DATE:** February 26, 2025  
**RE:** Commercial and Residential Loan Portfolios

The Participation Loan Program reflected an outstanding balance, as of December 31, 2024, of \$99,659,622 and represents 46 loans with a yield of 2.89%. There is one loan reservation for \$5,714,042 and two loans committed that total \$14,280,000. There are no past-due loans.

The Infrastructure Loan Program reflected an outstanding balance, as of December 31, 2024, of \$9,057,632 and represents 8 loans with a yield of 3.85%. There are no past-due loans.

The Intermediary Relending Program reflected an outstanding balance, as of December 31, 2024, of \$5,398,959 and represents 40 loans with a yield of 2.00%. There is one loan reservation for \$333,333 and one committed loan for \$250,000. There are no past-due loans.

The Science and Tech portfolio reflected an outstanding balance, as of December 31, 2024, of \$299,975 and represents one loan with a yield of 7.50%. There are no past-due loans.

The Montana Facility Finance Authority portfolio reflected an outstanding balance, as of December 31, 2024, of \$10,872,026 and represents 16 loans with a yield of 3.39%. There are two loan reservations that total \$2,156,651. There are no past-due loans.

The Veterans Home Loan Mortgage portfolio reflected an outstanding balance, as of December 24, 2024, of \$48,364,936 and represents 269 loans with a yield of 2.20%. There are three loan reservations that total \$816,844. There are five loans over 90 days past due totaling \$764,828, or 1.58% of the portfolio.

The Multifamily Coal Trust Homes Program reflected an outstanding balance, as of December 24, 2024, of \$34,529,696. There are 6 funded pre-HB819 loans that total \$11,899,461 with a yield of 2.21%. There is one reserved loan for \$1,932,000 with an interest rate of 2.00%. There are six loans funded post-HB819 that total \$22,630,235 with a yield of 3.65%. There are ten reserved loans totaling \$28,480,360 with a yield of 3.65%. The December minimum rate is 3.56%, and the average coal trust investment performance is 4.06%. There are no past-due loans.

The Residential loan portfolio reflected an outstanding balance, as of December 24, 2024, of \$1,006,168 and represents 32 loans with a yield of 6.24%. There are no loans over 90 days past due.

The Montana Down Payment Assistance Program reflected an outstanding balance, as of December 31, 2024, of \$81,505,321 and represents 138 loans. Repayment of these loans begins in January 2027.





<b>\$120M Bond Series 2022:</b>	
Current Bond Rate	5.049%
Outstanding	68,000,000
Available for Drawdown	52,000,000

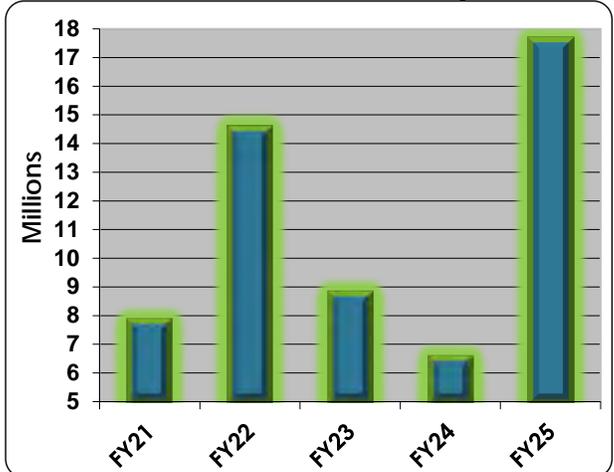
<b>Loans:</b>	
Current Loan Rate	5.75% auto
Outstanding	69,894,315
Pending Commitments	31,804,036

<b>Total Committed</b>	<b>754,071,513</b>
<b>Total Funded</b>	<b>722,267,477</b>

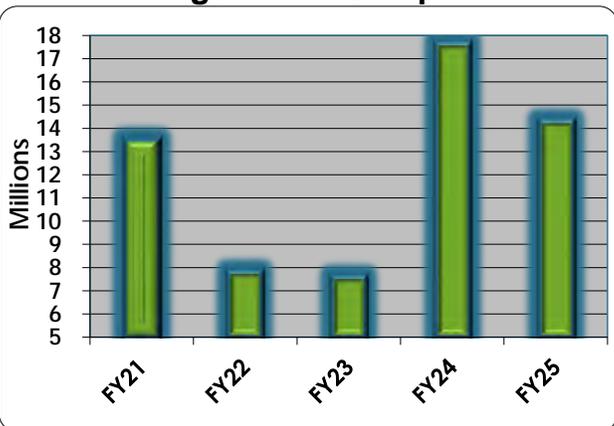
<b>Borrowers</b>	<b>129</b>
<b>Debt Service Schedules</b>	<b>253</b>
<b>Autopay</b>	<b>91%</b>

FY2025		
Month	Commitments	Fundings
July-24	300,000	7,486,040
August	11,436,720	1,137,340
September	2,180,000	430,401
October	247,042	1,365,269
November	2,227,692	2,863,167
December	1,202,000	1,078,415
January		
February		
March		
April		
May		
June-25		
<b>To Date</b>	<b>17,593,454</b>	<b>14,360,632</b>

**Commitments FY Q2 Comparison**



**Fundings FY Q2 Comparison**



Note: Commitments include withdrawn and expired loans.

**Variable Loan Rate History February 16, 2017 - February 15, 2025**

February 16, 2017 - February 15, 2018	<b>2.50%</b>	February 16, 2021 - February 15, 2022	<b>1.65%</b>
February 16, 2018 - February 15, 2019	<b>3.15%</b>	February 16, 2022 - February 15, 2023	<b>1.50%**</b>
February 16, 2019 - February 15, 2020	<b>3.37%</b>	February 16, 2023 - February 15, 2024	<b>5.75%**</b>
February 16, 2020 - February 15, 2021	<b>2.50%**</b>	February 16, 2024 - February 15, 2025	<b>5.75%**</b>

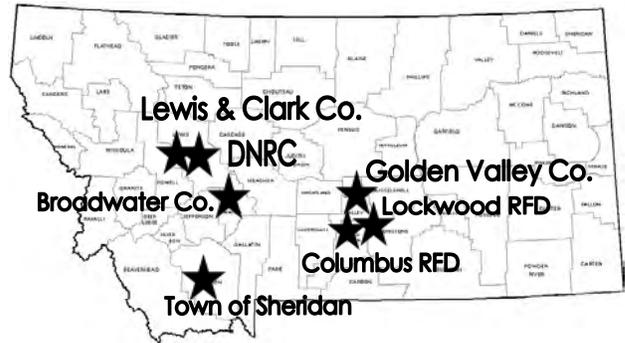
\*BOI decreased interest rates for INTERCAP loans to 1.00% until August 15, 2020 in response to the COVID-19 pandemic.

\*\*Autopay rates began in 2022. Existing borrower loans not set up for autopay in these years were charged 1.55%, 6.00% & 6.25% respectively for processing.

# MONTANA

BOARD OF INVESTMENTS

## I N T E R C A P



**TO:** Members of the Board

**FROM:** Louise Welsh,  
Director of Municipal Loans

**DATE:** February 26, 2025

**RE:** INTERCAP Staff Approved Loans Committed – Staff approved the following loans from October 1, 2024, to December 31, 2024.

Borrower:	Lewis & Clark County
Purpose:	Ryann's Lane Rural Improvement District (RID) road improvements
Staff Approval Date:	October 1, 2024
Board Loan Amount:	\$76,367
Other Funding Sources:	\$ 0
Total Project Cost:	\$76,367
Term:	15 years

Borrower:	Broadwater County
Purpose:	Solid waste hook lift truck
Staff Approval Date:	October 11, 2024
Board Loan Amount:	\$170,675
Other Funding Sources:	\$ 0
Total Project Cost:	\$170,675
Term:	7 years

Borrower:	Golden Valley County
Purpose:	Patrol Vehicles
Staff Approval Date:	November 13, 2024
Board Loan Amount:	\$ 65,000
Other Funding Sources:	\$ 65,000
Total Project Cost:	\$130,000
Term:	3 years

Borrower:	Department of Natural Resources and Conservation (DNRC)			
Purpose:	Coal Severance Tax (CST) Bond-RRGL (taxable)			
Staff approved:	\$ 2,000,000	Term:	10 years	Approval Date: November 18, 2024
BOI Policy 70.120 Staff Approval Authorization:		\$15,000,000		
New Commitment:		2,000,000		
Commitment Remaining:		12,088,000		
Loans Outstanding:		<u>40,438</u>		
Authorization Available:		\$ 871,562		

Borrower:	Lewis and Clark County
Purpose:	Olea Acres RID road improvements
Staff Approval Date:	November 25, 2024
Board Loan Amount:	\$49,705
Other Funding Sources:	\$ 0
Total Project Cost:	\$49,705
Term:	15 years

Borrower:	Lewis and Clark County
Purpose:	Fieldcross-Scratchgravel RID road improvements
Staff Approval Date:	November 25, 2024
Board Loan Amount:	\$112,987
Other Funding Sources:	\$ 0
Total Project Cost:	\$112,987
Term:	15 years

Borrower:	Columbus Rural Fire District
Purpose:	Purchasing property to expand the fire station
Staff Approval Date:	December 6, 2024
Board Loan Amount:	\$350,000
Other Funding Sources:	\$ 90,000
Total Project Cost:	\$440,000
Term:	15 years

Borrower:	Lockwood Rural Fire District
Purpose:	Fire apparatus
Staff Approval Date:	December 10, 2024
Board Loan Amount:	\$ 700,000
Other Funding Sources:	\$ 700,000
Total Project Cost:	\$1,400,000
Term:	10 years

Borrower:	Town of Sheridan
Purpose:	New structure engine fire truck
Staff Approval Date:	December 27, 2024
Board Loan Amount:	\$125,000
Other Funding Sources:	\$ 30,000
Total Project Cost:	\$155,000
Term:	10 years

# MONTANA

## BOARD OF INVESTMENTS

**TO:** Members of the Board  
**FROM:** Louise Welsh, Director of Municipal Loans  
**DATE:** February 26, 2025  
**RE:** Montana Housing Infrastructure Revolving (MHIR) Bond Program Portfolio

The MHIR Bond Program reflected an outstanding balance of approximately \$2,056,449 as of December 31, 2024. This balance represents one (1) loan with a yield of 1.71%. The loan is current, and there are no new loan commitments.



# MONTANA

## BOARD OF INVESTMENTS

**TO:** Members of the Board  
**FROM:** Jon Putnam, Chief Investment Officer  
Samantha Holman, Fixed Income Investment Analyst  
**DATE:** February 26, 2025  
**RE:** Investment Policy Statements

**NRDP Libby Asbestos**  
***New Separately Managed Account***

In 2023, the Montana Department of Justice Natural Resource Damage Program (NRDP) entered a settlement with the bankruptcy estate of W.R. Grace. NRDP will receive \$18.5 million plus interest (approx. \$21.3 million) over 10 years. Proceeds will be used to restore, replace, or acquire the equivalent of the natural resources injured by the Libby Asbestos Superfund Site operations.

NRDP expects significant expenditures over the next several years, necessitating a large allocation to the Short-Term Investment Pool. Some expenditures are expected in the 10-year or longer time frame, making an investment in the Trust Funds Investment Pool appropriate. Occasional large expenditures in the intermediate time frame are foreseeable which may best be funded with maturities from individual securities.

Staff expects to communicate regularly with the NRDP to understand the timing and magnitude of expected expenditures.

# MONTANA

## BOARD OF INVESTMENTS

### BOARD ADOPTED POLICY

---

POLICY NUMBER: 40.956

EFFECTIVE DATE: TBD

TITLE: NRDP Libby Asbestos  
Investment Policy Statement

SUPERSEDES: NEW

BOARD ADOPTION: TBD

REVIEWED: February 26, 2025

---

#### I. Introduction

- A. The purpose of this policy is to provide a framework for the NRDP Libby Settlement Account under the guidance of the Board.
- B. All Separately Managed Accounts are governed by the Separately Managed Accounts Investment Policy Statement, Policy 40.900.
- C. In 2023, the court entered a Settlement Agreement between the State of Montana and W.R. Grace (Grace; the Responsible Party) that resolved the State's natural resource damage claim in Grace's bankruptcy. The Settlement Agreement included \$18.5 million in natural resource damages (NRD) to restore, rehabilitate, replace, or acquire the equivalent of the State natural resources injured by the Libby Asbestos Superfund Site operations. The \$18.5 million, plus interest, will be paid to the State over 10 years.
- D. The Account is expendable.
- E. The Board will have full discretion to manage the NRDP Libby Settlement account consistent with this policy. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board at the next scheduled quarterly Board meeting.
- F. If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any situations where the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

#### II. Purpose

- A. The purpose of this policy statement is to:
  - 1. Establish the investment objectives and performance standards of the NRDP Libby Settlement Account; and
  - 2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

#### III. Investment Objectives

- A. Strategic - The objective of the NRDP Libby Settlement Account is to attain above benchmark total return within the parameters of this policy with an emphasis on investment income and preservation of principal.

- B. Performance - Success in achieving this objective will be measured by comparing the risk and return of the fund to the securities owned, weighted proportionately to the portfolio's holdings, over a five (5) year rolling average.
- C. Time Horizon - The NRDP Libby Settlement Account is an expendable account. The Board expects to meet or exceed all objectives over the long-term investment horizon. Over shorter periods, the anticipated market volatility, and specific actions, including risk mitigation efforts by the Board may lead to unfavorable, but expected deviation from these objectives.

#### IV. Permitted Investments

- A. The REIS Account may only invest in the following:
  - 1. STIP or any cash vehicle at the Custodial Bank,
  - 2. U.S. Treasury Obligations,
  - 3. Direct Obligations of the U.S. Agencies, and
  - 4. Trust Fund Investment Pool (TFIP).
- B. Direct Obligations of U.S. agencies shall consist of only the discount notes, notes and debentures of the agencies and does not include mortgage pass-through obligations. Coupons may be fixed or floating rate.

#### VIII. Other Restrictions

- A. A maximum of ninety-seven percent (97%) of the market value of the portfolio will be invested in the TFIP.
- B. The maximum maturity of the U.S. Treasury and Agency Bond will be six (6) years.

NEW

Authority: Montana Constitution, Article VIII, Section 13  
Section 2-15-1808, MCA  
Sections 17-6-201 through 17-6-205, MCA



# CASH MANAGEMENT OF STATE MONIES

Presented by:

Polly Boutin, Associate Financial Manager  
John Carpenter, CPA, Accounting Bureau Manager

Date: February 26, 2025

# Cash Management

## Background

- Unified Investment Program
  - The Montana Constitution requires that the Legislature provide for a Unified Investment Program for public funds. Section 17-6-201, MCA, established the Unified Investment Program, created the Montana Board of Investments (the “Board”), and gave the Board sole authority to invest state funds in accordance with state law and the state constitution.
  - With only a few exceptions, this program mandates that all state money, regardless of source or use, flows into or out of the Board of Investments.
  - The yearly velocity is in the billions of dollars, the number of transactions is in the tens of thousands.

# Cash Management

## Daily Cash Flow

### Key Entities

- Montana Board of Investments (BOI)
- Montana Department of Administration (DOA)
- State's depository bank (US Bank)
- State's custodial bank (State Street Bank)

### Key Considerations

- Current US Bank balance.
- Known activity at US Bank .
- Known STIP Participant activity at State Street Bank.
- Known STIP Portfolio maturities and calls.
- Projected US Bank balance is determined using the above information.
- STIP Portfolio purchases or sales are executed to bring US Bank balance to desired goal.

# Cash Management

## Daily Cash Flow Before Purchase Decisions

PURCHASES				
	MU41	(20,031,711.84)	US TREASURY N/B	"
	MU41	(14,981,720.04)	US TREASURY N/B	"
	MU36	TBD		"
	MU36	TBD		"
	MU36	TBD		"
TOTAL PURCHASES		<u>(35,013,431.88)</u>		
SALES				
TOTAL SALES		<u>0.00</u>		
CALLS				
TOTAL CALLS		<u>0.00</u>		
MATURITIES				
	MU36	45,000,000.00	ARMADA FDG CO LLC	BOI 25-1539
	MU36	60,000,000.00	BOSCH (ROBERT) FINC	"
	MU41	10,000,000.00	CATERPILLAR FINL SERVICE	BOI 25-1541
TOTAL MATURITIES		<u>115,000,000.00</u>		
OTHER MATURITIES				
TOTAL OTHER MATURITIES		<u>0.00</u>		
INCOME				
	MU41	373,793.75	DTC Income	BOI 25-1541
	MU41	15,625.00	FED Income	"
	MU36	7,602.68	31699B9L2 - FIDELITY	BOI 25-1538
	MU36	3,781.39	05999F9K6 - BLACKROCK LIQUI	"
	MU36	19,039.90	963GDG001 - MORGAN STANLEY	"
	MU36	9,668.30	Daily Interest	"
TOTAL INCOME		<u>429,511.02</u>		
OTHER				
	MU41	(65,100.00)	12.02 EW Silverbow capital contribution	BOI 25-1533
	MU99	45,806,382.80	MU97 ACH Payment	BOI 25-1536C
	MU36	TBD	BUY - IBDDA Increase	BOI 25-1539
TOTAL OTHER		<u>45,741,282.80</u>		
ENDING CASH		126,157,361.94		

# Cash Management

## Daily Cash Flow With Purchase Decisions

PURCHASES				
	MU41	(20,031,711.84)	US TREASURY N/B	"
	MU41	(14,981,720.04)	US TREASURY N/B	"
	MU36	(30,000,000.00)	ABC CORP	"
	MU36	(30,000,000.00)	MICKEY MOUSE	"
	MU36	(55,000,000.00)	GOOGLE	"
TOTAL PURCHASES		<u>(150,013,431.88)</u>		
SALES				
TOTAL SALES		<u>0.00</u>		
CALLS				
TOTAL CALLS		<u>0.00</u>		
MATURITIES				
	MU36	45,000,000.00	ARMADA FDG CO LLC	BOI 25-1539
	MU36	60,000,000.00	BOSCH (ROBERT) FINC	"
	MU41	10,000,000.00	CATERPILLAR FINL SERVICE	BOI 25-1541
TOTAL MATURITIES		<u>115,000,000.00</u>		
OTHER MATURITIES				
TOTAL OTHER MATURITIES		<u>0.00</u>		
INCOME				
	MU41	373,793.75	DTC Income	BOI 25-1541
	MU41	15,625.00	FED Income	"
	MU36	7,602.68	31699B9L2 - FIDELITY	BOI 25-1538
	MU36	3,781.39	05999F9K6 - BLACKROCK LIQUI	"
	MU36	19,039.90	963GDG001 - MORGAN STANLEY	"
	MU36	9,668.30	Daily Interest	"
TOTAL INCOME		<u>429,511.02</u>		
OTHER				
	MU41	(65,100.00)	12.02 EW Silverbow capital contribution	BOI 25-1533
	MU99	45,806,382.80	MU97 ACH Payment	BOI 25-1536C
	MU36	<u>TBD</u>	BUY - IBDDA Increase	BOI 25-1539
TOTAL OTHER		<u>45,741,282.80</u>		
ENDING CASH		11,157,361.94		

# Cash Management

## Background

- Short Term Investment Pool
  - The Board of Investments created the Short Term Investment Pool in 1973 to allow qualifying participants access to the highest possible return while maintaining liquidity.
  - State agencies and local governments are allowed to participate in STIP.
  - STIP participants buy and sell STIP at a fixed price of \$1.

# Cash Management

## Background

- Short Term Investment Pool
  - STIP participant transactions are initiated by a web portal accessed through the Board of Investments website.
  - STIP transactions must be entered by 2:00 PM MST.
  - STIP distributes income once a month to participants for disbursement or reinvestment.

**MONTANA**  
BOARD OF INVESTMENTS

[Home](#) [Board](#) [STIP](#) [Investments](#) [INTERCAP](#) [Loan Programs](#) [Contact](#)

### SHORT-TERM INVESTMENT POOL

The Short-Term Investment Pool (STIP) was created by the Legislature on July 1, 1973 as an investment vehicle to manage state and local government cash. Since its creation, the STIP has provided a safe, convenient way for state and local government agencies to invest and withdraw cash with 24-hour notice. Local governments have other investment options as permitted by law and use the STIP at their discretion.

STIP maintains a STIP reserve account that may be used to offset realized gains or losses. Additionally, the reserve will be available to limit fluctuations in the net asset value (NAV), to the extent deemed prudent by staff.

[STIP WEB PORTAL](#)

# Cash Management

## Short Term Investment Pool

- Our focus for the Short Term Investment Pool (STIP) is safety first, liquidity second, and income third.
- All transactions are executed with the strategic objective to achieve a high level of investment income compatible with:
  - Preservation of principal
  - Providing STIP participants with one-day liquidity
  - Prudent investment practices.
- Risk mitigation and liquidity are key and interrelated concepts for STIP.
- Cash management is closely related to managing STIP.

# Cash Management

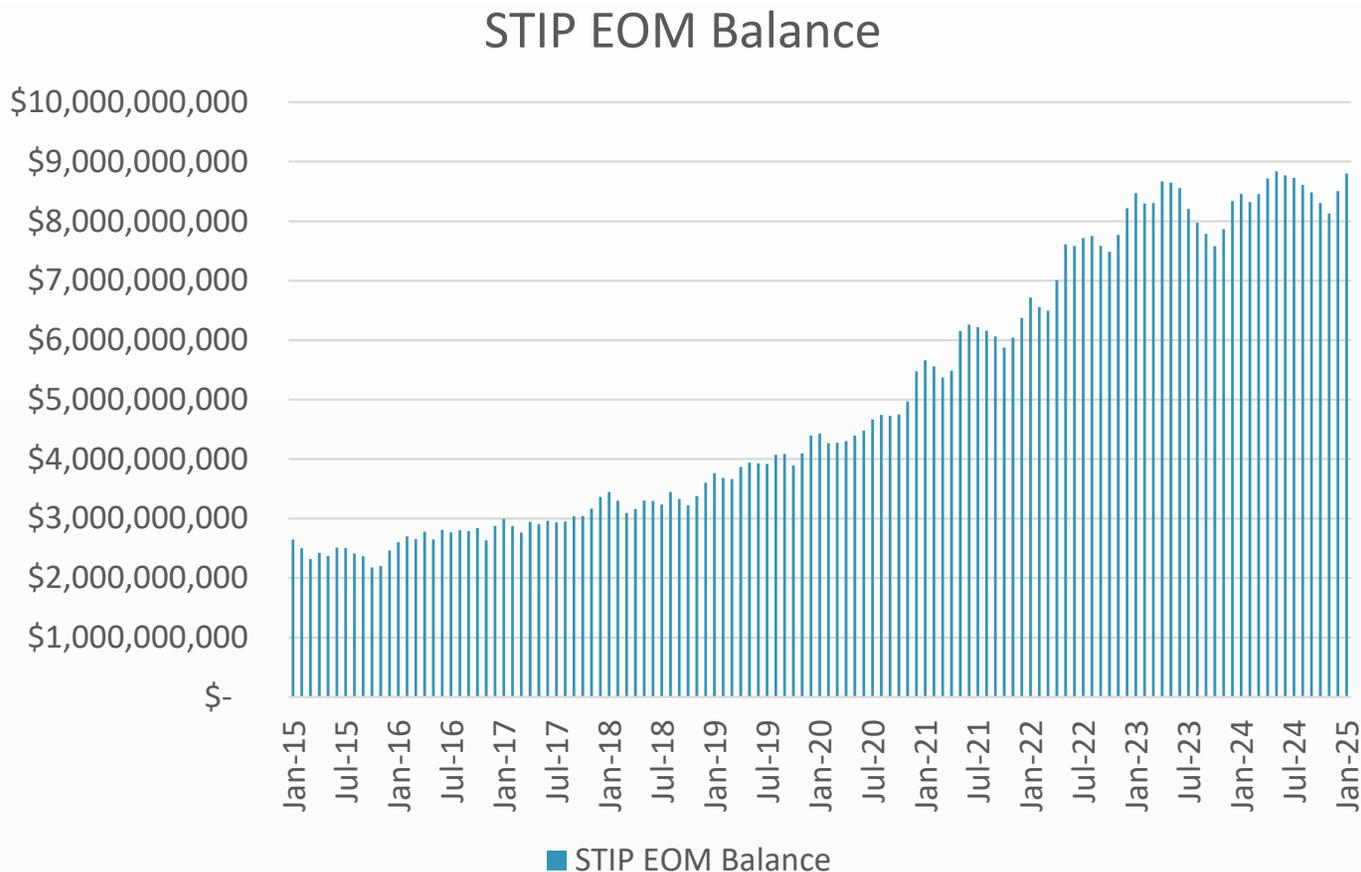
## Short Term Investment Pool

- STIP can purchase securities anywhere between a one-day maturity out to 2 years for floating rate notes.
- STIP Investment Policy Statement requires daily liquidity of 10% of the portfolio and weekly liquidity of 15%.
  - Daily liquidity includes cash held at the custodial bank, money market funds, U.S. Treasuries, and next-day maturities.
  - Weekly liquidity includes daily liquidity instruments, agency discount notes and one-week maturities.

# Cash Management

## Short Term Investment Pool

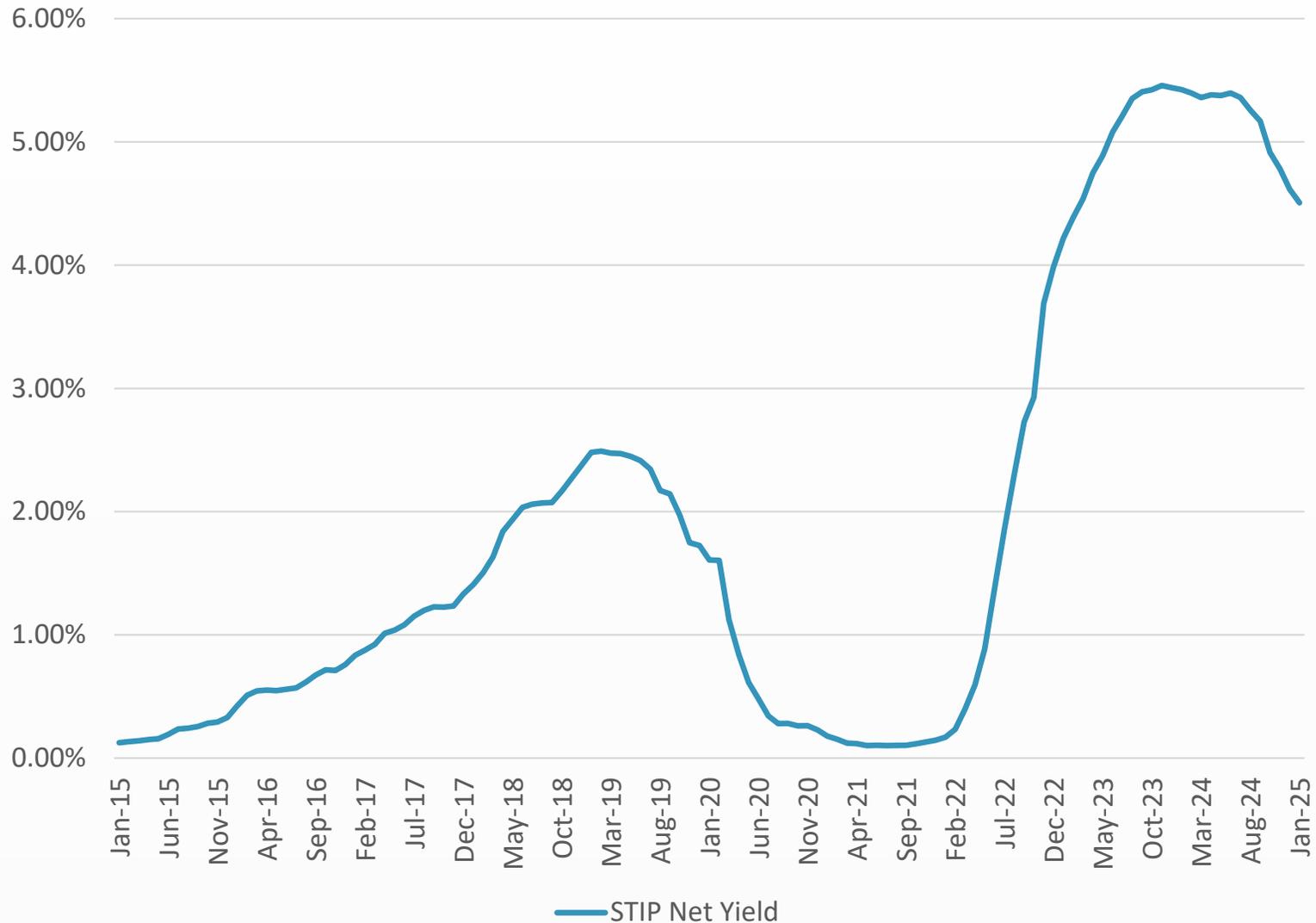
- The Short Term Investment Pool (STIP) portal participant processed 6,400 buys and 4,400 sales, totaling \$24.4 billion in calendar year 2024.
- STIP generated \$409.4 million in earnings for participants.



# Cash Management

## Short Term Investment Pool

STIP Net Yield



# Cash Management

## Short Term Investment Pool

- Top 10 State STIP Balances as of 1/31/2025

State/Local2	Name	Agency	Sum of Sum of Balance	Sum of Percentage
State	TREASURE ST. OF MT	Montana Board of Investments	2,717,505,845.80	30.88%
State	CAPITAL DEVELOPMENT 05031	Long Range Building	749,994,562.88	8.52%
State	ARPA STATE RECOVERY SEC 602	Governor's Office	443,727,235.79	5.04%
State	MT STATE UNIVERSITY	Montana State University	325,841,281.16	3.70%
State	DEBT AND LIABILITY FREE	Governor's Office	257,737,887.55	2.93%
State	CASH PENSION ASSET CLASS	Montana Board of Investments	170,152,977.48	1.93%
State	GROUP BENEFITS	Department of Administration	131,040,052.27	1.49%
State	AGENCY INSURANCE	Department of Administration	103,093,026.98	1.17%
State	SAFER ACCOUNT	Department of Transportation	92,543,436.43	1.05%
State	M.U.S. GROUP INSURAN	Commissioner of Higher Ed	84,317,147.93	0.96%
<b>State Total</b>			<b>5,075,953,454.27</b>	<b>57.68%</b>

# Cash Management

## Treasurer's Fund

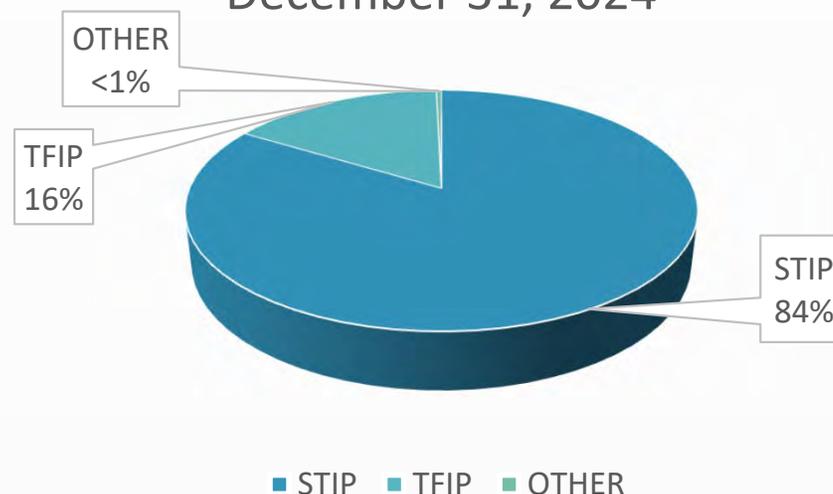
- The Treasurer's Fund Balance is comprised of cash invested from the General Fund as well as all State Agencies not otherwise permitted a separate STIP account.
- Allowable investments include:
  - STIP or any cash vehicle at custodial bank
  - Deposits held at the state's depository bank
  - U.S. Treasuries (3-year maximum)
  - Agency discount notes (3-year maximum)
  - State general fund warrants
  - Trust Funds Investment Pool.

# Cash Management

## Treasurer's Fund Constraints

- The maximum market value of securities and TFIP is equal to the lowest 12-month average balance over the past ten years.
- If threshold is exceeded, no further purchases would be allowed.
- Current limit \$660 million, current long-term exposure \$532 million as of December 31, 2024.

Treasurer's Fund Balance Allocation  
December 31, 2024

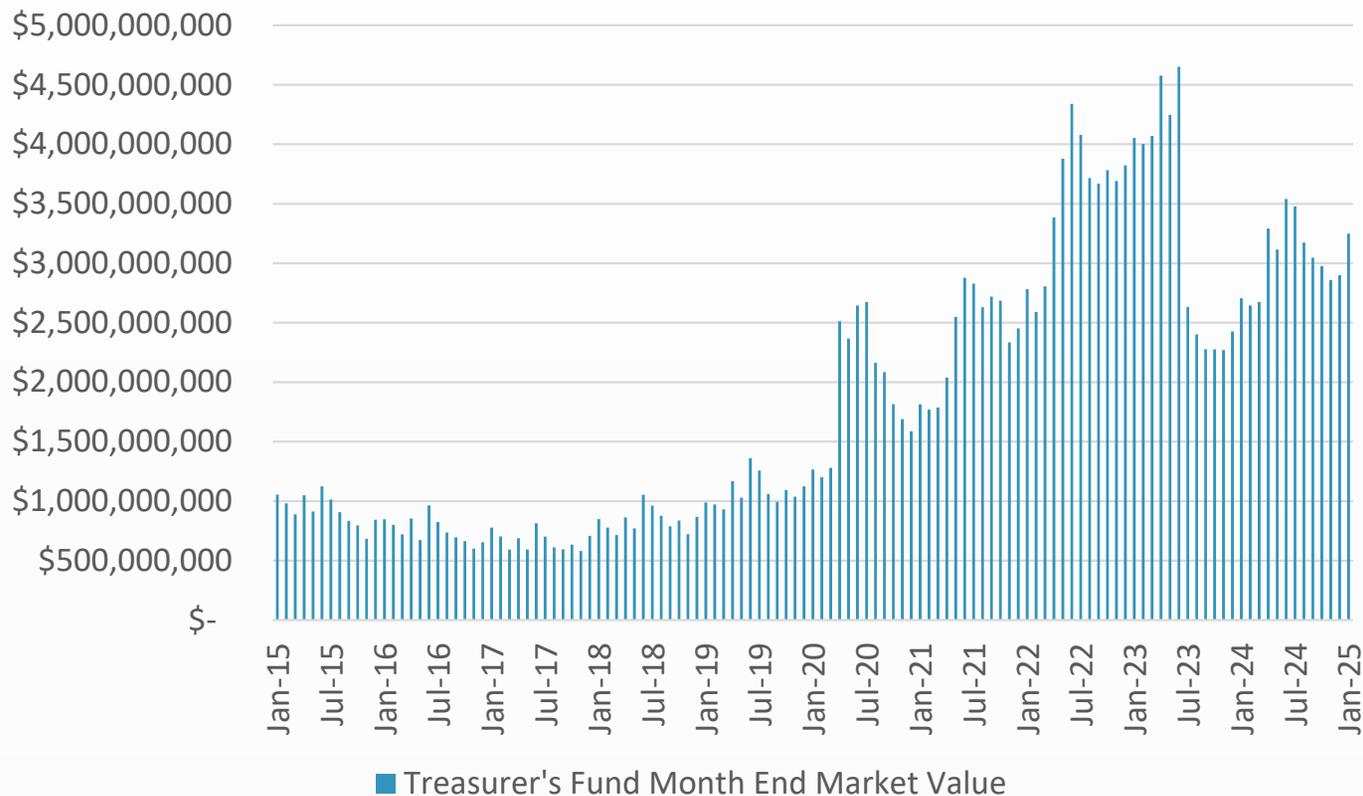


# Cash Management

## Treasurer's Fund Assets

- Assets fluctuate significantly, seasonally, and with the condition of State finances.

Treasurer's Fund Month End Market Value



# Cash Management

## Trust Funds Investment Pool Objectives

- Strategic Objective
  - Provide a diversified investment vehicle for participants that offers a return that assists in supporting client missions.
- Investment Objectives
  - Provide investment income by assuming a prudent amount of risk.
  - Preserve principal by diversifying the portfolio across risk factors.
- Calendar Year Activity
  - There were 90 buy/sell transactions in TFIP during calendar year 2024 totaling \$483.2 million.
  - TFIP distributed \$118.9 million to participants.

# Cash Management

## Other Separately Managed Accounts

Name	AUM Millions	Name	AUM Millions
<b>Trust Funds - Permanent</b>		<b>Trust Funds - Expendable (Continued)</b>	
COAL SEVERANCE TAX PERM FUND	\$ 1,294.0	EAST HELENA COMPENSATION FUND	\$ 1.8
COAL TAX PARK TRUST FUND	\$ 31.2	FLYING J CECRA FACILITIES FUND	\$ 2.7
CULTURAL TRUST FUND	\$ 16.9	LIBBY ASBESTOS SITE STATE COST	\$ 4.7
ENDOWMENT FOR CHILDREN	\$ 1.5	LUTTRELL PIT - OPER & MAINT	\$ 2.0
FWP MITIGATION TRUST	\$ 10.4	MT POLE SUPERFUND SETTLEMENT	\$ 18.8
HAROLD HAMM ENDOWMENT	\$ 0.1	MT HOUSING INFRASTRUCTURE	\$ 104.5
INVASIVE SPECIES TRUST FUND	\$ 3.2	SMELTER HILL UPLANDS REST FUND	\$ 8.7
MONTANA HISTORICAL SOCIETY	\$ 4.3	STREAMSIDE TAILINGS OU FUND	\$ 16.3
MONTANA HISTORY AND CIVICS ENDOWMENT	\$ 1.6	UPPER BLACKFT RESP ACT & REST	\$ 0.8
MONTANA STATE LIBRARY TRUST	\$ 1.4	UPPER CLRK FK RIVER BASIN RES	\$ 22.5
NOXIOUS WEED MGMT TRUST FUND	\$ 10.1	UPPER CLRK FK RIVER BASIN REST	\$ 66.8
OLDER MONTANANS TRUST FUND	\$ 0.3	YELLOWSTONE PIPELINE CLEANUPFD	\$ 6.1
POTTER TRUST FUND	\$ 0.3	ZORTMAN/LANDUSKY LT WATER	\$ 17.7
PUBLIC SCHOOL TRUST	\$ 928.1	ZORTMANLANDUSKY LT WATER TRUST	\$ 23.0
REAL PROPERTY TRUST FUND	\$ 7.2	<b>Insurance Funds</b>	
RESOURCE INDEMNITY TRUST FUND	\$ 104.1	MONTANA STATE FUND	\$ 1,507.1
TOBACCO TRUST FUND	\$ 303.7	MUS GROUP INSURANCE	\$ 98.7
WILDLIFE HABITAT TRUST FUND	\$ 16.7	MUS WORKERS COMPENSATION	\$ 14.0
<b>Trust Funds - Expendable</b>		STATE EMPLOYEE GROUP BENEFITS	\$ 169.6
ABANDONED MINE RECLAMATION	\$ 8.1	HAIL INSURANCE INVESTMENTS	\$ 1.4
BARKER HUGHESVILLE ST RESPONSE	\$ 9.5	<b>Operating Funds</b>	
BELT WATER TREATMENT PLANT	\$ 28.1	FWP GENERAL LICENSE ACCOUNT	\$ 97.6
BUTTE AREA ONE REST	\$ 5.9	KYIYO POW WOW	\$ 0.3
BUTTE AREA REDEVELOP AUTHORITY	\$ 13.5	LUBRECHT EXPERIMENTAL FOREST	\$ 2.5
CLARK FORK REST	\$ 25.1	MONTANA STATE UNIVERSITY	\$ 362.8
CLARK FORK SITE RESP ACTION	\$ 52.4	MONTANA TECH	\$ 8.1
DEBT AND LIABILITY FREE ACCOUNT	\$ 269.8	STATE TREASURER'S FUND	\$ 3,249.5
E HELENA GREENWAY TRAIL MAINT	\$ 0.9	UNIVERSITY OF MONTANA	\$ 107.9

# Cash Management

## Conclusion

- Accounting works cooperatively within BOI, state and local government, and financial institutions to process a significant volume of transactions.
- Safety and Liquidity are the primary goals for the Treasurer's Fund.
- STIP is a critical component for both state and local governments.
- Communication between clients, key entities, and BOI is essential.



RVK

# Quarterly Investment Performance Analysis

Montana Board of Investments

December 31, 2024

Montana Board of Investments  
Comparative Performance  
Retirement Plans

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Public Employees' Retirement - Net</b>	<b>-0.42</b>	<b>3.97</b>	<b>8.73</b>	<b>3.51</b>	<b>7.87</b>	<b>7.51</b>	<b>7.62</b>	<b>7.02</b>	<b>11.46</b>	<b>-8.48</b>	<b>17.61</b>	<b>11.94</b>	<b>16.77</b>	<b>7.76</b>	<b>07/01/1994</b>
Public Employees' Benchmark	-1.01	4.52	8.94	3.09	6.94	6.85	7.33	N/A	12.75	-10.81	13.79	12.22	20.26	N/A	
Difference	0.59	-0.55	-0.21	0.43	0.92	0.66	0.28	N/A	-1.28	2.33	3.82	-0.28	-3.49	N/A	
<b>Public Employees' Retirement - Gross</b>	<b>-0.27</b>	<b>4.31</b>	<b>9.64</b>	<b>4.26</b>	<b>8.58</b>	<b>8.20</b>	<b>8.24</b>	<b>7.57</b>	<b>12.21</b>	<b>-7.89</b>	<b>18.32</b>	<b>12.53</b>	<b>17.44</b>	<b>8.14</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	26	16	14	8	11	29	38	29	37	42	37	
<b>Teachers' Retirement - Net</b>	<b>-0.42</b>	<b>3.97</b>	<b>8.74</b>	<b>3.50</b>	<b>7.85</b>	<b>7.50</b>	<b>7.61</b>	<b>7.02</b>	<b>11.44</b>	<b>-8.52</b>	<b>17.61</b>	<b>11.93</b>	<b>16.78</b>	<b>7.77</b>	<b>07/01/1994</b>
Teachers' Benchmark	-1.01	4.52	8.95	3.06	6.92	6.84	7.32	N/A	12.71	-10.86	13.78	12.21	20.27	N/A	
Difference	0.59	-0.54	-0.21	0.44	0.93	0.66	0.29	N/A	-1.27	2.34	3.83	-0.28	-3.49	N/A	
<b>Teachers' Retirement - Gross</b>	<b>-0.27</b>	<b>4.32</b>	<b>9.65</b>	<b>4.24</b>	<b>8.56</b>	<b>8.19</b>	<b>8.24</b>	<b>7.57</b>	<b>12.19</b>	<b>-7.93</b>	<b>18.32</b>	<b>12.52</b>	<b>17.45</b>	<b>8.15</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	11	29	38	29	37	42	37	
<b>Police Retirement - Net</b>	<b>-0.42</b>	<b>3.98</b>	<b>8.75</b>	<b>3.53</b>	<b>7.87</b>	<b>7.52</b>	<b>7.62</b>	<b>7.00</b>	<b>11.49</b>	<b>-8.48</b>	<b>17.58</b>	<b>11.95</b>	<b>16.80</b>	<b>7.65</b>	<b>07/01/1994</b>
Police Benchmark	-1.00	4.53	8.97	3.11	6.95	6.86	7.34	N/A	12.77	-10.80	13.73	12.23	20.30	N/A	
Difference	0.59	-0.55	-0.22	0.42	0.92	0.66	0.28	N/A	-1.29	2.32	3.85	-0.29	-3.51	N/A	
<b>Police Retirement - Gross</b>	<b>-0.26</b>	<b>4.33</b>	<b>9.66</b>	<b>4.27</b>	<b>8.58</b>	<b>8.21</b>	<b>8.25</b>	<b>7.55</b>	<b>12.24</b>	<b>-7.89</b>	<b>18.28</b>	<b>12.54</b>	<b>17.47</b>	<b>8.02</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	18	38	26	16	14	8	15	29	38	29	37	41	55	

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$5B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Retirement Plans

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Firefighters' Retirement - Net</b>	<b>-0.42</b>	<b>3.98</b>	<b>8.74</b>	<b>3.53</b>	<b>7.87</b>	<b>7.52</b>	<b>7.62</b>	<b>7.01</b>	<b>11.49</b>	<b>-8.47</b>	<b>17.58</b>	<b>11.95</b>	<b>16.79</b>	<b>7.64</b>	<b>07/01/1994</b>
Firefighters' Benchmark	-1.00	4.53	8.96	3.11	6.95	6.86	7.34	N/A	12.77	-10.80	13.73	12.23	20.29	N/A	
Difference	0.59	-0.55	-0.22	0.42	0.92	0.66	0.28	N/A	-1.28	2.32	3.86	-0.28	-3.50	N/A	
<b>Firefighters' Retirement - Gross</b>	<b>-0.26</b>	<b>4.32</b>	<b>9.65</b>	<b>4.27</b>	<b>8.58</b>	<b>8.21</b>	<b>8.25</b>	<b>7.56</b>	<b>12.24</b>	<b>-7.88</b>	<b>18.28</b>	<b>12.53</b>	<b>17.46</b>	<b>8.02</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	18	38	26	16	14	8	12	29	38	29	37	41	55	
<b>Sheriffs' Retirement - Net</b>	<b>-0.42</b>	<b>3.96</b>	<b>8.72</b>	<b>3.51</b>	<b>7.87</b>	<b>7.51</b>	<b>7.62</b>	<b>7.01</b>	<b>11.45</b>	<b>-8.47</b>	<b>17.61</b>	<b>11.94</b>	<b>16.75</b>	<b>7.67</b>	<b>07/01/1994</b>
Sheriffs' Benchmark	-1.01	4.51	8.94	3.06	6.93	6.84	7.33	N/A	12.67	-10.81	13.79	12.22	20.23	N/A	
Difference	0.59	-0.55	-0.21	0.45	0.94	0.67	0.29	N/A	-1.23	2.34	3.82	-0.28	-3.48	N/A	
<b>Sheriffs' Retirement - Gross</b>	<b>-0.27</b>	<b>4.31</b>	<b>9.63</b>	<b>4.26</b>	<b>8.57</b>	<b>8.20</b>	<b>8.25</b>	<b>7.56</b>	<b>12.20</b>	<b>-7.87</b>	<b>18.32</b>	<b>12.53</b>	<b>17.42</b>	<b>8.05</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	12	29	38	29	37	42	53	
<b>Highway Patrol Retirement - Net</b>	<b>-0.42</b>	<b>3.97</b>	<b>8.73</b>	<b>3.51</b>	<b>7.86</b>	<b>7.51</b>	<b>7.62</b>	<b>7.02</b>	<b>11.42</b>	<b>-8.46</b>	<b>17.62</b>	<b>11.94</b>	<b>16.78</b>	<b>7.67</b>	<b>07/01/1994</b>
Highway Patrol Benchmark	-1.01	4.52	8.95	3.05	6.92	6.84	7.33	N/A	12.59	-10.79	13.80	12.24	20.26	N/A	
Difference	0.59	-0.55	-0.22	0.46	0.94	0.67	0.29	N/A	-1.17	2.33	3.83	-0.30	-3.49	N/A	
<b>Highway Patrol Retirement - Gross</b>	<b>-0.27</b>	<b>4.31</b>	<b>9.64</b>	<b>4.25</b>	<b>8.57</b>	<b>8.20</b>	<b>8.24</b>	<b>7.57</b>	<b>12.17</b>	<b>-7.87</b>	<b>18.33</b>	<b>12.53</b>	<b>17.45</b>	<b>8.04</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	11	29	38	29	37	42	54	

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$5B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Retirement Plans

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Game Wardens' Retirement - Net</b>	<b>-0.42</b>	<b>3.97</b>	<b>8.73</b>	<b>3.51</b>	<b>7.86</b>	<b>7.51</b>	<b>7.61</b>	<b>6.99</b>	<b>11.43</b>	<b>-8.48</b>	<b>17.62</b>	<b>11.91</b>	<b>16.77</b>	<b>7.68</b>	<b>07/01/1994</b>
Game Wardens' Benchmark	-1.01	4.52	8.95	3.04	6.91	6.83	7.32	N/A	12.60	-10.82	13.79	12.18	20.25	N/A	
Difference	0.59	-0.55	-0.22	0.47	0.95	0.68	0.30	N/A	-1.17	2.35	3.82	-0.27	-3.49	N/A	
<b>Game Wardens' Retirement - Gross</b>	<b>-0.27</b>	<b>4.32</b>	<b>9.64</b>	<b>4.25</b>	<b>8.57</b>	<b>8.19</b>	<b>8.24</b>	<b>7.54</b>	<b>12.18</b>	<b>-7.88</b>	<b>18.32</b>	<b>12.50</b>	<b>17.44</b>	<b>8.06</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	17	29	38	29	38	42	53	
<b>Judges' Retirement - Net</b>	<b>-0.43</b>	<b>3.97</b>	<b>8.74</b>	<b>3.51</b>	<b>7.87</b>	<b>7.51</b>	<b>7.62</b>	<b>7.02</b>	<b>11.46</b>	<b>-8.50</b>	<b>17.63</b>	<b>11.94</b>	<b>16.78</b>	<b>7.68</b>	<b>07/01/1994</b>
Judges' Benchmark	-1.02	4.52	8.96	3.08	6.94	6.85	7.33	N/A	12.73	-10.84	13.80	12.22	20.27	N/A	
Difference	0.59	-0.55	-0.22	0.43	0.93	0.66	0.28	N/A	-1.28	2.35	3.83	-0.28	-3.49	N/A	
<b>Judges' Retirement - Gross</b>	<b>-0.27</b>	<b>4.32</b>	<b>9.65</b>	<b>4.25</b>	<b>8.58</b>	<b>8.20</b>	<b>8.25</b>	<b>7.57</b>	<b>12.21</b>	<b>-7.91</b>	<b>18.34</b>	<b>12.53</b>	<b>17.45</b>	<b>8.05</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	11	29	38	29	37	42	53	
<b>Volunteer Firefighters' Retirement - Net</b>	<b>-0.43</b>	<b>3.98</b>	<b>8.74</b>	<b>3.50</b>	<b>7.86</b>	<b>7.51</b>	<b>7.60</b>	<b>7.00</b>	<b>11.44</b>	<b>-8.50</b>	<b>17.61</b>	<b>11.94</b>	<b>16.79</b>	<b>7.51</b>	<b>07/01/1994</b>
Volunteer Firefighters' Benchmark	-1.02	4.53	8.96	3.05	6.92	6.84	7.33	N/A	12.66	-10.86	13.85	12.18	20.31	N/A	
Difference	0.59	-0.55	-0.21	0.46	0.94	0.67	0.27	N/A	-1.22	2.36	3.76	-0.24	-3.52	N/A	
<b>Volunteer Firefighters' Retirement - Gross</b>	<b>-0.27</b>	<b>4.32</b>	<b>9.65</b>	<b>4.25</b>	<b>8.57</b>	<b>8.19</b>	<b>8.23</b>	<b>7.55</b>	<b>12.19</b>	<b>-7.91</b>	<b>18.31</b>	<b>12.53</b>	<b>17.46</b>	<b>7.88</b>	<b>07/01/1994</b>
All Public Plans (>\$5B) Total Fund Median	-0.67	3.88	9.24	3.40	7.40	7.13	7.43	6.98	11.34	-9.52	16.83	12.05	17.25	8.07	
Rank	32	19	38	27	16	14	8	15	29	38	29	37	41	62	

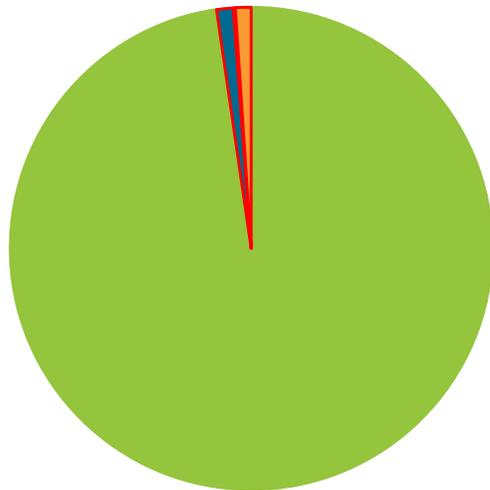
Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$5B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
 Asset Allocation by Segment  
 Retirement Plans

As of December 31, 2024

	Consolidated Asset Pension Pool (CAPP)		Short Term Investment Pool (STIP)		Total Fund	
	(\$)	%	(\$)	%	(\$)	%
Public Employees' Retirement	7,309,903,368	48.09	76,801,536	47.95	7,386,704,904	48.09
Teachers' Retirement	5,167,950,684	34.00	54,383,535	33.95	5,222,334,219	34.00
Firefighters' Retirement	720,906,466	4.74	7,823,068	4.88	728,729,534	4.74
Police Retirement	641,224,529	4.22	6,951,554	4.34	648,176,083	4.22
Sheriffs' Retirement	576,082,133	3.79	6,223,817	3.89	582,305,950	3.79
Game Wardens' Retirement	360,730,653	2.37	3,690,369	2.30	364,421,022	2.37
Highway Patrol Retirement	227,754,731	1.50	2,317,132	1.45	230,071,863	1.50
Judges' Retirement	140,538,963	0.92	1,429,812	0.89	141,968,775	0.92
Volunteer Firefighters' Retirement	54,911,625	0.36	558,662	0.35	55,470,287	0.36
<b>Retirement Plans Total Fund Composite</b>	<b>15,200,003,152</b>	<b>98.96</b>	<b>160,179,485</b>	<b>1.04</b>	<b>15,360,182,638</b>	<b>100.00</b>

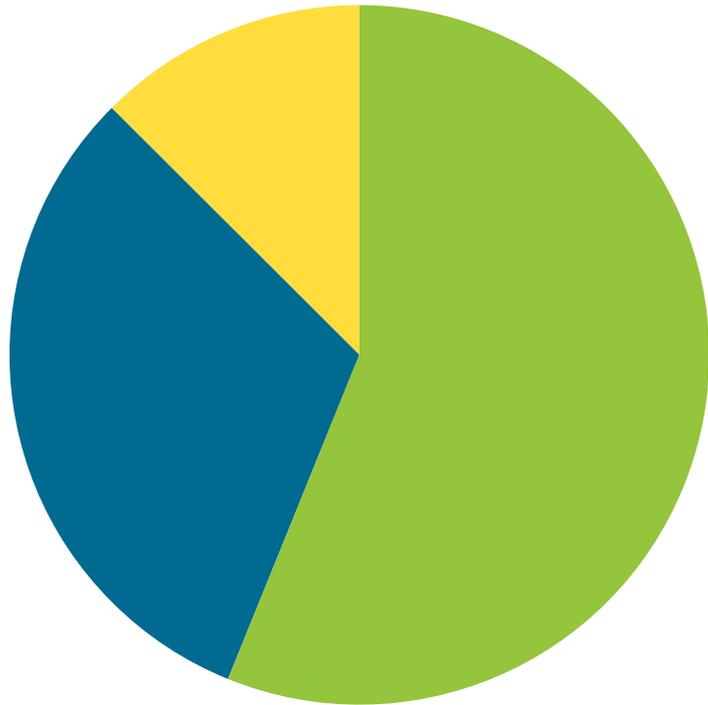
December 31, 2024 : \$15,360,182,638



Segments	Market Value (\$)	Allocation (%)
CAPP Ex Cash	15,008,129,653	97.71
CAPP Cash Pension	172,352,043	1.12
CAPP Asset Class Cash	19,521,456	0.13
Short Term Investment Pool (STIP)	160,179,485	1.04
Total Cash	352,052,984	2.29

Allocations shown may not sum up to 100% exactly due to rounding. Retirement Plan market values may differ from State Street due to uninvested amounts not included in segment totals.

December 31, 2024 : \$27,080,661,318



	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	15,200,003,164	56.13
Short Term Investment Pool	8,489,820,934	31.35
Trust Funds Investment Pool	3,390,837,220	12.52

Allocations shown may not sum up to 100% exactly due to rounding. Market values do not include pending transactions.

Montana Board of Investments  
Comparative Performance  
Investment Pools

As of December 31, 2024

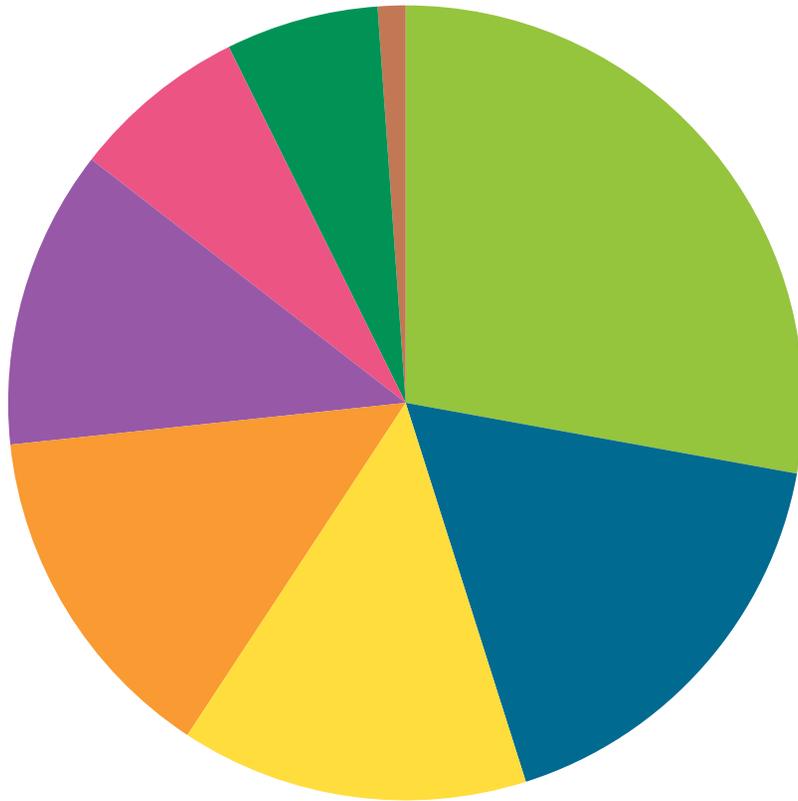
	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Consolidated Asset Pension Pool (CAPP)</b>	<b>-0.44</b>	<b>3.99</b>	<b>8.77</b>	<b>3.50</b>	<b>7.93</b>	<b>7.59</b>	<b>N/A</b>	<b>11.53</b>	<b>-8.60</b>	<b>17.83</b>	<b>12.10</b>	<b>17.12</b>	<b>8.21</b>	<b>04/01/2017</b>
CAPP Custom Benchmark	-1.04	4.54	9.00	3.05	6.98	6.91	N/A	12.80	-10.99	13.95	12.38	20.70	7.63	
Difference	0.59	-0.55	-0.22	0.45	0.95	0.68	N/A	-1.28	2.39	3.87	-0.28	-3.57	0.58	
<b>Trust Funds Investment Pool</b>	<b>-1.80</b>	<b>1.99</b>	<b>0.73</b>	<b>-1.06</b>	<b>1.06</b>	<b>2.07</b>	<b>2.43</b>	<b>2.59</b>	<b>-6.26</b>	<b>1.49</b>	<b>7.23</b>	<b>8.98</b>	<b>5.22</b>	<b>10/01/1995</b>
Trust Fund Custom Benchmark	-2.20	1.58	-0.36	-1.42	0.73	1.73	1.88	1.24	-5.04	0.71	7.51	8.72	4.41	
Difference	0.40	0.41	1.09	0.37	0.33	0.33	0.55	1.35	-1.22	0.78	-0.28	0.26	0.81	
<b>Short Term Investment Pool</b>	<b>1.20</b>	<b>2.55</b>	<b>5.33</b>	<b>4.03</b>	<b>2.57</b>	<b>2.44</b>	<b>1.90</b>	<b>5.13</b>	<b>1.67</b>	<b>0.11</b>	<b>0.73</b>	<b>2.28</b>	<b>2.48</b>	<b>04/01/1997</b>
Short Term Custom Index	1.20	2.57	5.42	4.12	2.53	2.39	1.86	5.28	1.69	0.04	0.36	2.14	2.41	
Difference	0.01	-0.02	-0.09	-0.09	0.04	0.05	0.04	-0.15	-0.02	0.07	0.37	0.14	0.07	
iMoney.net Money Fund (Gross) Median	1.21	2.54	5.35	4.17	2.66	2.56	1.99	5.38	1.83	0.15	0.73	2.45	2.48	
Difference	-0.01	0.00	-0.02	-0.14	-0.09	-0.12	-0.09	-0.25	-0.16	-0.05	0.00	-0.17	-0.01	

Performance shown is net of all manager fees and expenses (Net-All). Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. See the Addendum for custom index specification. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
 Asset Allocation  
 Consolidated Asset Pension Pool (CAPP)

As of December 31, 2024

December 31, 2024 : \$15,200,003,299



	Market Value (\$)	Allocation (%)
Domestic Equity	4,232,920,219	27.85
Private Investments	2,624,144,938	17.26
Core Fixed Income	2,149,330,357	14.14
International Equity	2,138,674,874	14.07
Real Estate	1,849,869,220	12.17
Non-Core Fixed Income	1,089,314,451	7.17
Real Assets	943,397,197	6.21
Cash Pension	172,352,043	1.13

Allocations shown may not sum up to 100% due to rounding.

Montana Board of Investments  
Comparative Performance  
Consolidated Asset Pension Pool (CAPP)

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Domestic Equity</b>	<b>2.38</b>	<b>8.87</b>	<b>22.86</b>	<b>7.76</b>	<b>13.83</b>	<b>12.78</b>	<b>12.17</b>	<b>25.70</b>	<b>-18.98</b>	<b>27.17</b>	<b>20.09</b>	<b>30.75</b>	<b>10.45</b>	<b>05/01/2003</b>
Domestic Equity Custom Index	2.62	8.96	23.82	8.08	14.04	13.31	12.73	26.25	-19.22	26.12	21.10	31.14	11.12	
Difference	-0.23	-0.08	-0.96	-0.33	-0.21	-0.52	-0.56	-0.55	0.24	1.04	-1.01	-0.40	-0.67	
<b>International Equity</b>	<b>-6.43</b>	<b>1.05</b>	<b>6.45</b>	<b>0.26</b>	<b>4.26</b>	<b>3.66</b>	<b>5.19</b>	<b>14.91</b>	<b>-17.62</b>	<b>7.83</b>	<b>13.35</b>	<b>22.86</b>	<b>4.80</b>	<b>04/01/1997</b>
International Equity Custom Index	-7.61	-0.05	5.23	0.50	4.12	3.46	4.91	15.62	-16.58	8.53	11.12	21.63	5.02	
Difference	1.17	1.10	1.22	-0.24	0.13	0.20	0.27	-0.71	-1.04	-0.70	2.23	1.23	-0.22	
<b>Core Fixed Income</b>	<b>-3.41</b>	<b>1.54</b>	<b>1.18</b>	<b>-2.05</b>	<b>0.03</b>	<b>1.11</b>	<b>1.41</b>	<b>5.43</b>	<b>-11.91</b>	<b>-1.54</b>	<b>8.23</b>	<b>6.90</b>	<b>4.95</b>	<b>04/01/1995</b>
Core Fixed Income Custom Index	-3.06	1.98	1.25	-2.41	-0.33	0.75	1.10	5.53	-13.01	-1.54	7.51	6.39	4.34	
Difference	-0.35	-0.44	-0.07	0.36	0.35	0.36	0.30	-0.10	1.10	0.00	0.73	0.50	0.60	
<b>Non-Core Fixed Income</b>	<b>-0.65</b>	<b>4.61</b>	<b>7.21</b>	<b>1.87</b>	<b>3.02</b>	<b>3.74</b>	<b>4.15</b>	<b>11.10</b>	<b>-11.25</b>	<b>3.21</b>	<b>6.37</b>	<b>13.98</b>	<b>6.61</b>	<b>06/01/2009</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	7.70	
Difference	-0.82	-0.86	-0.99	-1.05	-1.18	-0.92	-1.01	-2.35	-0.07	-2.05	-0.68	-0.34	-1.09	
<b>Real Assets</b>	<b>1.77</b>	<b>4.08</b>	<b>8.18</b>	<b>10.79</b>	<b>7.37</b>	<b>5.70</b>	<b>N/A</b>	<b>8.48</b>	<b>15.88</b>	<b>21.24</b>	<b>-13.43</b>	<b>-2.18</b>	<b>5.93</b>	<b>04/01/2017</b>
Real Assets Custom Index	-7.37	-0.03	2.60	2.78	1.53	1.05	1.86	4.39	1.36	13.32	-12.32	13.06	2.85	
Difference	9.15	4.12	5.58	8.01	5.85	4.64	N/A	4.09	14.52	7.91	-1.11	-15.24	3.09	
<b>Real Estate</b>	<b>-0.42</b>	<b>0.20</b>	<b>-2.42</b>	<b>0.99</b>	<b>4.26</b>	<b>5.33</b>	<b>6.92</b>	<b>-5.76</b>	<b>12.00</b>	<b>20.00</b>	<b>-0.35</b>	<b>6.97</b>	<b>4.17</b>	<b>06/01/2006</b>
Real Estate Custom Index	0.02	-0.64	-8.04	-1.04	-2.42	0.87	3.41	-12.88	20.96	13.64	-19.66	25.84	3.92	
Difference	-0.45	0.84	5.62	2.03	6.68	4.46	3.51	7.13	-8.96	6.36	19.31	-18.87	0.25	
<b>Cash Pension</b>	<b>1.56</b>	<b>2.67</b>	<b>6.28</b>	<b>4.76</b>	<b>3.03</b>	<b>2.77</b>	<b>N/A</b>	<b>6.01</b>	<b>2.06</b>	<b>0.13</b>	<b>0.84</b>	<b>2.28</b>	<b>2.62</b>	<b>05/01/2017</b>
Short Term Custom Index	1.20	2.57	5.42	4.12	2.53	2.39	1.86	5.28	1.69	0.04	0.36	2.14	2.30	
Difference	0.36	0.09	0.86	0.65	0.50	0.38	N/A	0.72	0.37	0.08	0.47	0.14	0.32	
<b>Private Investments*</b>	<b>2.03</b>	<b>3.35</b>	<b>5.14</b>	<b>5.72</b>	<b>12.87</b>	<b>12.69</b>	<b>11.84</b>	<b>6.08</b>	<b>5.94</b>	<b>39.81</b>	<b>10.91</b>	<b>12.95</b>	<b>12.40</b>	<b>05/01/2002</b>
Private Investments Custom Index	1.34	8.64	11.52	4.11	9.35	8.70	10.41	17.46	-13.86	16.54	18.90	27.38	10.88	
Difference	0.69	-5.30	-6.38	1.61	3.52	4.00	1.42	-11.38	19.79	23.27	-7.99	-14.42	1.52	

\*Performance is based on the prior quarter's fair market value adjusted for cash flows during the most recent quarterly period.

Performance shown is net of all manager fees and expenses (Net-All). Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Please see Addendum for custom index specification. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Investment Pools

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Domestic Equity</b>	<b>2.39</b>	<b>8.89</b>	<b>23.05</b>	<b>7.85</b>	<b>13.99</b>	<b>13.00</b>	<b>12.41</b>	<b>25.77</b>	<b>-18.95</b>	<b>27.47</b>	<b>20.37</b>	<b>31.13</b>	<b>10.71</b>	<b>05/01/2003</b>
All Public Plans-US Equity Segment Median	1.67	8.13	20.73	6.42	12.12	11.67	11.24	23.18	-18.06	24.45	18.90	30.04	10.53	
Rank	35	16	30	23	22	25	22	21	63	30	31	29	29	
Population	67	67	66	59	53	51	47	61	65	70	67	65	9	
<b>International Equity</b>	<b>-6.42</b>	<b>1.08</b>	<b>6.66</b>	<b>0.43</b>	<b>4.50</b>	<b>3.93</b>	<b>5.48</b>	<b>15.06</b>	<b>-17.46</b>	<b>8.18</b>	<b>13.71</b>	<b>23.28</b>	<b>5.19</b>	<b>04/01/1997</b>
All Public Plans-Intl. Equity Segment Median	-7.18	0.19	5.59	1.22	5.11	4.67	6.10	17.01	-16.87	9.33	12.71	23.68	N/A	
Rank	28	21	35	68	67	75	79	75	57	73	44	60	N/A	
Population	64	64	62	58	55	54	51	60	65	69	68	65	N/A	
<b>Core Fixed Income</b>	<b>-3.40</b>	<b>1.56</b>	<b>1.21</b>	<b>-2.02</b>	<b>0.07</b>	<b>1.16</b>	<b>1.45</b>	<b>5.47</b>	<b>-11.87</b>	<b>-1.48</b>	<b>8.29</b>	<b>6.94</b>	<b>5.07</b>	<b>04/01/1995</b>
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-2.99	2.16	1.91	-2.01	0.24	1.47	1.85	5.98	-12.95	-1.24	8.34	9.17	4.91	
Rank	96	99	93	51	71	79	83	86	14	63	53	98	25	
Population	124	124	124	122	122	119	116	138	146	152	160	162	53	
<b>Non-Core Fixed Income</b>	<b>-0.64</b>	<b>4.63</b>	<b>7.67</b>	<b>2.19</b>	<b>3.41</b>	<b>4.19</b>	<b>4.63</b>	<b>11.43</b>	<b>-11.05</b>	<b>3.64</b>	<b>6.91</b>	<b>14.65</b>	<b>7.12</b>	<b>06/01/2009</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	7.74	
Rank	97	61	65	92	93	88	83	75	83	91	45	41	80	
Population	130	130	128	127	124	118	112	159	171	172	185	197	85	
<b>Trust Funds Investment Pool</b>	<b>-1.76</b>	<b>2.08</b>	<b>1.07</b>	<b>-0.78</b>	<b>1.26</b>	<b>2.24</b>	<b>2.57</b>	<b>2.84</b>	<b>-6.02</b>	<b>1.59</b>	<b>7.30</b>	<b>9.06</b>	<b>5.31</b>	<b>10/01/1995</b>
All Public Plans-US Fixed Income Segment Median	-2.64	1.95	1.98	-1.13	1.11	1.99	2.18	5.79	-11.80	-0.11	8.62	9.25	N/A	
Rank	24	45	71	41	39	36	30	87	14	12	78	53	N/A	
Population	67	66	65	61	54	52	50	63	70	73	74	68	N/A	
<b>Real Estate</b>	<b>-0.38</b>	<b>0.58</b>	<b>-1.42</b>	<b>2.08</b>	<b>5.47</b>	<b>6.71</b>	<b>8.35</b>	<b>-4.54</b>	<b>13.02</b>	<b>21.37</b>	<b>1.11</b>	<b>8.65</b>	<b>5.56</b>	<b>06/01/2006</b>
All Public Plans-Real Estate Segment Median	0.28	1.02	-1.90	1.65	5.48	6.41	7.67	-6.02	13.88	20.84	1.66	7.65	N/A	
Rank	71	65	44	45	51	41	36	41	56	47	72	39	N/A	
Population	48	43	40	37	29	22	18	40	42	41	38	35	N/A	

Performance shown is gross of fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Equity Composites

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Domestic Large Cap Equity - Net</b>	<b>2.73</b>	<b>8.81</b>	<b>25.06</b>	<b>8.68</b>	<b>14.88</b>	<b>13.98</b>	<b>13.16</b>	<b>27.18</b>	<b>-19.30</b>	<b>28.39</b>	<b>21.44</b>	<b>31.06</b>	<b>10.33</b>	<b>12/01/2006</b>
S&P 500 Index (Cap Wtd)	2.41	8.44	25.02	8.94	14.53	13.83	13.10	26.29	-18.11	28.71	18.40	31.49	10.40	
Difference	0.32	0.38	0.04	-0.26	0.36	0.14	0.06	0.89	-1.19	-0.32	3.04	-0.43	-0.07	
<b>Domestic Large Cap Equity - Gross</b>	<b>2.73</b>	<b>8.82</b>	<b>25.07</b>	<b>8.69</b>	<b>14.97</b>	<b>14.10</b>	<b>13.29</b>	<b>27.19</b>	<b>-19.29</b>	<b>28.61</b>	<b>21.66</b>	<b>31.29</b>	<b>10.52</b>	<b>12/01/2006</b>
IM U.S. Large Cap Equity (SA+CF) Median	2.08	8.03	22.91	8.41	13.88	13.25	12.79	25.14	-16.99	27.43	18.31	30.48	10.44	
Rank	36	33	35	44	32	34	35	35	68	37	34	43	47	
<b>Domestic Mid Cap Equity - Net</b>	<b>0.41</b>	<b>7.41</b>	<b>13.83</b>	<b>4.82</b>	<b>10.35</b>	<b>9.35</b>	<b>9.27</b>	<b>16.39</b>	<b>-13.07</b>	<b>25.15</b>	<b>13.53</b>	<b>28.03</b>	<b>9.06</b>	<b>01/01/2005</b>
Russell Mid Cap Index	0.62	9.89	15.34	3.79	9.92	9.65	9.63	17.23	-17.32	22.58	17.10	30.54	9.59	
Difference	-0.21	-2.48	-1.51	1.03	0.43	-0.29	-0.36	-0.84	4.24	2.57	-3.57	-2.51	-0.54	
<b>Domestic Mid Cap Equity - Gross</b>	<b>0.41</b>	<b>7.41</b>	<b>13.83</b>	<b>4.82</b>	<b>10.35</b>	<b>9.44</b>	<b>9.53</b>	<b>16.39</b>	<b>-13.07</b>	<b>25.15</b>	<b>13.53</b>	<b>28.11</b>	<b>9.43</b>	<b>01/01/2005</b>
IM U.S. Mid Cap Equity (SA+CF) Median	0.10	7.90	13.91	4.00	10.37	10.12	10.17	18.30	-13.95	24.74	14.25	30.30	10.34	
Rank	42	54	51	46	51	59	70	67	43	45	58	66	79	
<b>Domestic Small Cap Equity - Net</b>	<b>0.66</b>	<b>9.73</b>	<b>11.69</b>	<b>3.16</b>	<b>9.63</b>	<b>8.60</b>	<b>9.24</b>	<b>18.15</b>	<b>-16.81</b>	<b>27.56</b>	<b>13.07</b>	<b>25.76</b>	<b>11.25</b>	<b>03/01/2003</b>
Russell 2000 Index	0.33	9.64	11.54	1.24	7.40	6.91	7.82	16.93	-20.44	14.82	19.96	25.53	10.17	
Difference	0.33	0.10	0.15	1.92	2.22	1.69	1.42	1.22	3.62	12.74	-6.89	0.23	1.08	
<b>Domestic Small Cap Equity - Gross</b>	<b>0.67</b>	<b>9.75</b>	<b>11.72</b>	<b>3.18</b>	<b>9.80</b>	<b>8.86</b>	<b>9.61</b>	<b>18.18</b>	<b>-16.79</b>	<b>28.00</b>	<b>13.50</b>	<b>26.25</b>	<b>11.71</b>	<b>03/01/2003</b>
IM U.S. Small Cap Equity (SA+CF) Median	0.36	9.37	12.42	3.02	9.70	9.08	9.67	17.48	-16.55	23.78	17.62	25.83	12.10	
Rank	45	42	57	48	49	55	53	45	52	33	59	48	59	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all composites. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Equity Composites

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>International Large Cap Passive - Net</b>	<b>-7.71</b>	<b>-0.48</b>	<b>5.33</b>	<b>0.83</b>	<b>4.13</b>	<b>3.58</b>	<b>5.03</b>	<b>15.68</b>	<b>-15.86</b>	<b>7.76</b>	<b>10.81</b>	<b>21.59</b>	<b>6.05</b>	<b>06/01/2009</b>
MSCI ACW Ex US Index (USD) (Net)	-7.60	-0.15	5.53	0.82	4.10	3.53	4.80	15.62	-16.00	7.82	10.65	21.51	5.89	
Difference	-0.11	-0.34	-0.21	0.01	0.02	0.05	0.23	0.07	0.14	-0.06	0.16	0.07	0.16	
<b>International Large Cap Passive - Gross</b>	<b>-7.70</b>	<b>-0.47</b>	<b>5.36</b>	<b>0.87</b>	<b>4.17</b>	<b>3.63</b>	<b>5.09</b>	<b>15.71</b>	<b>-15.82</b>	<b>7.82</b>	<b>10.87</b>	<b>21.66</b>	<b>6.11</b>	<b>06/01/2009</b>
<b>International Equity Active - Net</b>	<b>-5.53</b>	<b>2.09</b>	<b>7.45</b>	<b>-0.40</b>	<b>4.30</b>	<b>3.84</b>	<b>5.79</b>	<b>13.90</b>	<b>-19.26</b>	<b>7.77</b>	<b>15.91</b>	<b>25.83</b>	<b>3.93</b>	<b>04/01/1997</b>
MSCI ACW Ex US Index (USD) (Net)	-7.60	-0.15	5.53	0.82	4.10	3.53	4.80	15.62	-16.00	7.82	10.65	21.51	N/A	
Difference	2.06	2.23	1.92	-1.22	0.20	0.31	0.98	-1.72	-3.26	-0.05	5.25	4.31	N/A	
<b>International Equity Active - Gross</b>	<b>-5.41</b>	<b>2.34</b>	<b>7.99</b>	<b>0.12</b>	<b>4.83</b>	<b>4.38</b>	<b>6.33</b>	<b>14.48</b>	<b>-18.82</b>	<b>8.30</b>	<b>16.50</b>	<b>26.48</b>	<b>4.45</b>	<b>04/01/1997</b>
IM International Large Cap Core Equity (SA+CF) Median	-7.19	-0.22	6.20	1.85	5.70	4.81	6.03	17.94	-15.93	11.88	11.76	23.63	6.89	
Rank	20	19	31	76	75	68	39	88	75	79	29	31	100	
<b>International Value - Net</b>	<b>-4.28</b>	<b>4.33</b>	<b>11.15</b>	<b>3.54</b>	<b>5.81</b>	<b>4.69</b>	<b>5.99</b>	<b>14.97</b>	<b>-13.14</b>	<b>9.32</b>	<b>9.31</b>	<b>20.76</b>	<b>3.45</b>	<b>11/01/2006</b>
MSCI ACW Ex US Val Index (USD) (Net)	-7.31	1.27	6.04	4.37	4.50	3.13	4.07	17.30	-8.59	10.46	-0.77	15.72	2.92	
Difference	3.03	3.05	5.11	-0.84	1.31	1.56	1.92	-2.34	-4.55	-1.14	10.09	5.04	0.53	
<b>International Value - Gross</b>	<b>-4.17</b>	<b>4.56</b>	<b>11.64</b>	<b>4.01</b>	<b>6.31</b>	<b>5.19</b>	<b>6.52</b>	<b>15.49</b>	<b>-12.73</b>	<b>9.85</b>	<b>9.87</b>	<b>21.37</b>	<b>4.01</b>	<b>11/01/2006</b>
IM International Large Cap Value Equity (SA+CF) Median	-7.86	0.97	5.18	3.95	5.38	4.66	5.95	18.77	-8.96	12.36	4.44	21.12	4.76	
Rank	5	2	5	49	33	28	29	81	71	68	26	45	77	
<b>International Growth - Net</b>	<b>-8.16</b>	<b>-1.67</b>	<b>0.73</b>	<b>-4.49</b>	<b>2.16</b>	<b>2.97</b>	<b>4.85</b>	<b>13.80</b>	<b>-23.99</b>	<b>3.79</b>	<b>23.08</b>	<b>31.39</b>	<b>3.31</b>	<b>11/01/2006</b>
MSCI ACW Ex US Grth Index (USD) (Net)	-7.88	-1.51	5.07	-2.67	3.44	3.71	5.35	14.03	-23.05	5.09	22.20	27.34	4.19	
Difference	-0.27	-0.16	-4.34	-1.81	-1.27	-0.74	-0.50	-0.23	-0.94	-1.31	0.88	4.05	-0.89	
<b>International Growth - Gross</b>	<b>-8.04</b>	<b>-1.42</b>	<b>1.24</b>	<b>-3.99</b>	<b>2.70</b>	<b>3.52</b>	<b>5.42</b>	<b>14.39</b>	<b>-23.58</b>	<b>4.33</b>	<b>23.74</b>	<b>32.10</b>	<b>3.85</b>	<b>11/01/2006</b>
IM International Large Cap Growth Equity (SA+CF) Median	-7.33	-0.64	3.97	-2.17	5.04	5.63	6.95	17.08	-22.55	10.86	22.83	29.59	5.58	
Rank	71	59	77	76	93	90	88	82	53	85	48	25	100	
<b>International Small Cap - Net</b>	<b>-4.98</b>	<b>2.60</b>	<b>8.93</b>	<b>-0.92</b>	<b>4.46</b>	<b>3.24</b>	<b>5.99</b>	<b>14.01</b>	<b>-21.69</b>	<b>11.57</b>	<b>14.63</b>	<b>23.91</b>	<b>4.73</b>	<b>09/01/2006</b>
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	-7.66	0.56	3.36	-1.47	4.30	3.07	5.66	15.66	-19.97	12.93	14.24	22.42	5.07	
Difference	2.67	2.04	5.57	0.54	0.16	0.17	0.32	-1.65	-1.71	-1.36	0.39	1.49	-0.34	

Gross of fees performance is not available (N/A) for the International Small Cap composite which currently consists of Acadian Ex US Small Cap (SA) and BlackRock ACW Ex US Sm Cap Index (CF).

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all composites. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Domestic Equity Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Domestic Large Cap Equity</b>														
<b>BlackRock MSCI US Equity Index (SA) - Net</b>	2.61	8.68	24.83	8.52	14.50	N/A	N/A	27.11	-19.46	26.95	21.33	N/A	15.36	04/01/2019
MSCI US Index (USD) (Gross)	2.79	8.88	25.08	8.59	14.56	13.86	13.08	27.10	-19.46	26.97	21.37	31.64	15.41	
Difference	-0.18	-0.20	-0.25	-0.07	-0.06	N/A	N/A	0.01	0.00	-0.02	-0.05	N/A	-0.05	
<b>BlackRock MSCI US Equity Index (SA) - Gross</b>	2.61	8.68	24.84	8.53	14.52	N/A	N/A	27.12	-19.45	26.96	21.34	N/A	15.37	04/01/2019
IM U.S. Large Cap Core Equity (SA+CF) Median	2.31	8.08	24.42	8.88	14.34	13.57	12.97	24.70	-16.48	27.77	17.72	30.13	15.22	
Rank	40	36	45	56	44	N/A	N/A	30	78	56	29	N/A	46	
<b>Northern Trust MSCI US Index (SA) - Net</b>	2.78	8.87	25.05	8.58	14.55	N/A	N/A	27.12	-19.46	26.97	21.34	31.70	15.33	11/01/2018
MSCI US Index (USD) (Gross)	2.79	8.88	25.08	8.59	14.56	13.86	13.08	27.10	-19.46	26.97	21.37	31.64	15.33	
Difference	-0.01	-0.02	-0.03	0.00	-0.01	N/A	N/A	0.02	0.00	0.00	-0.03	0.06	0.00	
<b>Northern Trust MSCI US Index (SA) - Gross</b>	2.79	8.87	25.06	8.59	14.56	N/A	N/A	27.13	-19.45	26.98	21.36	31.71	15.34	11/01/2018
IM U.S. Large Cap Core Equity (SA+CF) Median	2.31	8.08	24.42	8.88	14.34	13.57	12.97	24.70	-16.48	27.77	17.72	30.13	15.15	
Rank	32	31	42	56	42	N/A	N/A	30	78	56	29	31	41	
<b>iShares:Core S&amp;P Tot USM (ITOT) - Net</b>	2.76	9.08	23.71	7.99	N/A	N/A	N/A	26.41	-19.46	N/A	N/A	N/A	9.08	12/01/2021
S&P Tot Mkt Index	2.71	9.03	23.88	7.91	13.78	13.08	12.48	26.06	-19.53	25.66	20.79	30.90	9.00	
Difference	0.05	0.04	-0.17	0.08	N/A	N/A	N/A	0.35	0.07	N/A	N/A	N/A	0.08	
<b>iShares:Core S&amp;P 500 (IVV) - Net</b>	2.42	8.38	24.88	9.22	N/A	N/A	N/A	25.74	-17.03	N/A	N/A	N/A	10.55	12/01/2021
S&P 500 Index (Cap Wtd)	2.41	8.44	25.02	8.94	14.53	13.83	13.10	26.29	-18.11	28.71	18.40	31.49	10.24	
Difference	0.01	-0.06	-0.14	0.28	N/A	N/A	N/A	-0.55	1.08	N/A	N/A	N/A	0.31	
<b>Domestic Mid Cap Equity</b>														
<b>iShares:Core S&amp;P Md-Cp (IJH) - Net</b>	0.41	7.41	13.83	4.82	10.35	8.57	N/A	16.39	-13.07	25.15	13.53	26.24	9.32	07/01/2017
S&P Mid Cap 400 Index (Cap Wtd)	0.34	7.31	13.93	4.87	10.34	9.06	9.68	16.44	-13.06	24.76	13.66	26.20	9.78	
Difference	0.07	0.10	-0.09	-0.05	0.02	-0.49	N/A	-0.05	-0.01	0.39	-0.12	0.04	-0.45	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
 Comparative Performance  
 Domestic Equity Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Domestic Small Cap Equity</b>														
<b>BlackRock MSCI USA Small Cap Index (SA) - Net</b>	<b>0.88</b>	<b>9.77</b>	<b>11.98</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>18.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.77</b>	<b>09/01/2022</b>
MSCI US Sm Cap Index (USD) (Net)	0.80	9.58	11.57	2.73	8.85	8.19	8.75	17.86	-17.55	19.11	18.32	26.74	11.29	
Difference	0.08	0.18	0.41	N/A	N/A	N/A	N/A	0.54	N/A	N/A	N/A	N/A	0.47	
<b>BlackRock MSCI USA Small Cap Index (SA) - Gross</b>	<b>0.89</b>	<b>9.79</b>	<b>12.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>18.43</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.80</b>	<b>09/01/2022</b>
IM U.S. Small Cap Core Equity (SA+CF) Median	0.15	9.53	12.30	3.05	10.29	9.17	9.79	17.25	-16.11	24.25	18.89	25.88	12.15	
Rank	40	46	55	N/A	N/A	N/A	N/A	38	N/A	N/A	N/A	N/A	58	
<b>iShares:Core S&amp;P Sm-Cp (IJR) - Net</b>	<b>-0.52</b>	<b>9.57</b>	<b>8.50</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>15.85</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.62</b>	<b>11/01/2022</b>
S&P Sm Cap 600 Index (Cap Wtd)	-0.58	9.49	8.70	1.91	8.36	7.68	8.96	16.05	-16.10	26.82	11.29	22.78	9.85	
Difference	0.06	0.08	-0.19	N/A	N/A	N/A	N/A	-0.20	N/A	N/A	N/A	N/A	-0.23	

Gross of fees performance is not available (N/A) for the following funds: iShares:Core S&P Tot USM (ITOT), iShares:Core S&P 500 (IVV), iShares:Core S&P Md-Cp (IJH), and iShares:Core S&P Sm-Cp (IJR).

The current annual expense ratios for the iShares:Core S&P Tot USM (ITOT), iShares:Core S&P 500 (IVV), iShares:Core S&P Md-Cp (IJH), and iShares:Core S&P Sm-Cp (IJR) are 0.03%, 0.03%, 0.05%, and 0.06%, respectively.

See the Addendum for custom index specification.

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
International Equity Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>International Developed Large Cap Equity</b>														
<b>Acadian Asset Non-US Equity (SA) - Net</b>	<b>-0.49</b>	<b>7.02</b>	<b>17.22</b>	<b>5.04</b>	<b>8.04</b>	<b>6.18</b>	<b>7.83</b>	<b>13.66</b>	<b>-13.02</b>	<b>16.67</b>	<b>8.89</b>	<b>19.38</b>	<b>4.75</b>	<b>11/01/2006</b>
MSCI ACW Ex US Val Index (USD) (Net)	-7.31	1.27	6.04	4.37	4.50	3.13	4.07	17.30	-8.59	10.46	-0.77	15.72	2.92	
Difference	6.82	5.75	11.18	0.66	3.54	3.05	3.76	-3.64	-4.43	6.22	9.66	3.66	1.84	
<b>Acadian Asset Non-US Equity (SA) - Gross</b>	<b>-0.37</b>	<b>7.27</b>	<b>17.74</b>	<b>5.52</b>	<b>8.55</b>	<b>6.69</b>	<b>8.37</b>	<b>14.18</b>	<b>-12.61</b>	<b>17.23</b>	<b>9.45</b>	<b>19.98</b>	<b>5.31</b>	<b>11/01/2006</b>
IM ACWI Ex US Value (SA+CF) Median	-7.66	0.84	7.28	3.92	5.66	4.99	6.25	19.95	-11.11	11.13	6.65	21.34	4.64	
Rank	4	5	4	25	10	20	11	89	61	9	44	57	36	
<b>Lazard Asset Management (SA) - Net</b>	<b>-9.09</b>	<b>0.80</b>	<b>3.70</b>	<b>1.58</b>	<b>3.64</b>	<b>3.20</b>	<b>N/A</b>	<b>16.54</b>	<b>-13.28</b>	<b>4.11</b>	<b>9.59</b>	<b>21.70</b>	<b>3.92</b>	<b>06/01/2015</b>
Lazard Custom Index	-7.60	-0.15	5.53	0.82	4.10	3.30	4.19	15.62	-16.00	7.82	10.65	21.51	3.77	
Difference	-1.49	0.95	-1.83	0.76	-0.46	-0.09	N/A	0.92	2.73	-3.72	-1.06	0.18	0.15	
<b>Lazard Asset Management (SA) - Gross</b>	<b>-8.98</b>	<b>1.02</b>	<b>4.16</b>	<b>2.05</b>	<b>4.13</b>	<b>3.70</b>	<b>N/A</b>	<b>17.06</b>	<b>-12.84</b>	<b>4.62</b>	<b>10.14</b>	<b>22.31</b>	<b>4.44</b>	<b>06/01/2015</b>
IM ACWI Ex US Value (SA+CF) Median	-7.66	0.84	7.28	3.92	5.66	4.99	6.25	19.95	-11.11	11.13	6.65	21.34	5.56	
Rank	93	48	72	70	81	72	N/A	65	62	94	40	40	79	
<b>BlackRock ACW Ex US SuperFund A (CF) - Net</b>	<b>-7.67</b>	<b>-0.34</b>	<b>5.49</b>	<b>0.94</b>	<b>4.24</b>	<b>3.69</b>	<b>4.99</b>	<b>15.74</b>	<b>-15.77</b>	<b>8.00</b>	<b>10.80</b>	<b>21.77</b>	<b>6.07</b>	<b>06/01/2009</b>
MSCI ACW Ex US Index (USD) (Net)	-7.60	-0.15	5.53	0.82	4.10	3.53	4.80	15.62	-16.00	7.82	10.65	21.51	5.89	
Difference	-0.08	-0.19	-0.05	0.11	0.13	0.16	0.18	0.12	0.23	0.17	0.15	0.25	0.19	
<b>BlackRock ACW Ex US SuperFund A (CF) - Gross</b>	<b>-7.66</b>	<b>-0.32</b>	<b>5.53</b>	<b>0.98</b>	<b>4.29</b>	<b>3.75</b>	<b>5.05</b>	<b>15.77</b>	<b>-15.72</b>	<b>8.07</b>	<b>10.88</b>	<b>21.85</b>	<b>6.15</b>	<b>06/01/2009</b>
IM All ACWI Ex US (SA+CF) Median	-7.18	0.32	6.02	1.28	5.05	4.82	6.15	17.13	-16.92	9.74	14.84	25.13	7.37	
Rank	69	60	55	52	74	81	85	67	43	64	60	68	90	
<b>iShares:Core MSCI EAFE (IEFA) - Net</b>	<b>-8.50</b>	<b>-1.68</b>	<b>3.30</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>18.26</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>15.20</b>	<b>11/01/2022</b>
MSCI EAFE IM Index (USD) (Net)	-8.15	-1.06	3.55	0.92	4.37	3.79	5.23	17.51	-15.53	11.08	8.47	22.44	15.03	
Difference	-0.35	-0.62	-0.25	N/A	N/A	N/A	N/A	0.76	N/A	N/A	N/A	N/A	0.17	
<b>Baillie Gifford (SA) - Net</b>	<b>-8.94</b>	<b>-0.29</b>	<b>2.39</b>	<b>-8.40</b>	<b>0.96</b>	<b>2.20</b>	<b>N/A</b>	<b>9.48</b>	<b>-31.43</b>	<b>1.69</b>	<b>34.22</b>	<b>34.34</b>	<b>3.86</b>	<b>06/01/2015</b>
MSCI ACW Ex US Grth Index (USD) (Net)	-7.88	-1.51	5.07	-2.67	3.44	3.71	5.35	14.03	-23.05	5.09	22.20	27.34	4.72	
Difference	-1.06	1.22	-2.68	-5.72	-2.47	-1.50	N/A	-4.55	-8.38	-3.40	12.02	7.00	-0.86	
<b>Baillie Gifford (SA) - Gross</b>	<b>-8.83</b>	<b>-0.05</b>	<b>2.88</b>	<b>-7.96</b>	<b>1.44</b>	<b>2.70</b>	<b>N/A</b>	<b>10.01</b>	<b>-31.11</b>	<b>2.16</b>	<b>34.86</b>	<b>34.99</b>	<b>4.38</b>	<b>06/01/2015</b>
IM ACWI Ex US Growth (SA+CF) Median	-7.04	-0.57	5.30	-1.47	5.02	4.96	6.61	16.72	-23.43	9.20	22.06	29.53	5.97	
Rank	94	46	72	100	99	99	N/A	97	92	91	13	9	98	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. See the Addendum for custom index specification.

Montana Board of Investments  
Comparative Performance  
International Equity Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Invesco (SA) - Net</b>	<b>-7.66</b>	<b>-2.50</b>	<b>-0.26</b>	<b>-1.44</b>	<b>3.03</b>	<b>3.51</b>	<b>N/A</b>	<b>16.78</b>	<b>-17.80</b>	<b>5.60</b>	<b>14.84</b>	<b>29.29</b>	<b>4.04</b>	<b>06/01/2015</b>
MSCI ACW Ex US Grth Index (USD) (Net)	-7.88	-1.51	5.07	-2.67	3.44	3.71	5.35	14.03	-23.05	5.09	22.20	27.34	4.72	
Difference	0.22	-1.00	-5.33	1.23	-0.40	-0.19	N/A	2.75	5.26	0.50	-7.36	1.95	-0.68	
<b>Invesco (SA) - Gross</b>	<b>-7.54</b>	<b>-2.25</b>	<b>0.26</b>	<b>-0.90</b>	<b>3.61</b>	<b>4.10</b>	<b>N/A</b>	<b>17.41</b>	<b>-17.32</b>	<b>6.20</b>	<b>15.51</b>	<b>30.05</b>	<b>4.66</b>	<b>06/01/2015</b>
IM ACWI Ex US Growth (SA+CF) Median	-7.04	-0.57	5.30	-1.47	5.02	4.96	6.61	16.72	-23.43	9.20	22.06	29.53	5.97	
Rank	69	82	96	47	90	85	N/A	40	22	78	83	44	94	
<b>International Developed Small Cap Equity</b>														
<b>BlackRock ACW Ex US Sm Cap Index (CF) - Net</b>	<b>-7.81</b>	<b>0.26</b>	<b>3.12</b>	<b>-1.53</b>	<b>4.28</b>	<b>3.16</b>	<b>5.81</b>	<b>15.26</b>	<b>-19.65</b>	<b>12.84</b>	<b>14.45</b>	<b>22.68</b>	<b>6.33</b>	<b>02/01/2012</b>
MSCI ACWI Ex US Sm Cap Index (USD) (Net)	-7.66	0.56	3.36	-1.47	4.30	3.07	5.66	15.66	-19.97	12.93	14.24	22.42	6.18	
Difference	-0.16	-0.30	-0.24	-0.06	-0.02	0.08	0.15	-0.40	0.32	-0.08	0.21	0.26	0.15	
<b>BlackRock ACW Ex US Sm Cap Index (CF) - Gross</b>	<b>-7.80</b>	<b>0.29</b>	<b>3.18</b>	<b>-1.45</b>	<b>4.36</b>	<b>3.26</b>	<b>5.93</b>	<b>15.32</b>	<b>-19.57</b>	<b>12.98</b>	<b>14.50</b>	<b>22.90</b>	<b>6.47</b>	<b>02/01/2012</b>
IM International Small Cap Equity (SA+CF) Median	-6.73	1.34	4.32	-2.48	4.62	3.78	7.07	15.09	-21.52	13.74	13.95	24.61	8.62	
Rank	65	66	59	47	55	59	73	48	40	57	49	62	91	
<b>Acadian Ex US Small Cap (SA) - Net</b>	<b>-3.69</b>	<b>3.66</b>	<b>11.99</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.23</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.62</b>	<b>03/01/2022</b>
MSCI ACW Ex US Sm Cap Index (USD) (Net)	-7.66	0.56	3.36	-1.47	4.30	3.07	5.66	15.66	-19.97	12.93	14.24	22.42	1.18	
Difference	3.96	3.10	8.64	N/A	N/A	N/A	N/A	-3.43	N/A	N/A	N/A	N/A	2.44	
<b>Acadian Ex US Small Cap (SA) - Gross</b>	<b>-3.54</b>	<b>3.98</b>	<b>12.69</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>4.28</b>	<b>03/01/2022</b>
IM International Small Cap Equity (SA+CF) Median	-6.73	1.34	4.32	-2.48	4.62	3.78	7.07	15.09	-21.52	13.74	13.95	24.61	1.55	
Rank	14	25	14	N/A	N/A	N/A	N/A	75	N/A	N/A	N/A	N/A	32	
<b>International Emerging Equity</b>														
<b>iShares:Core MSCI EmMkts (IEMG) - Net</b>	<b>-7.03</b>	<b>-0.29</b>	<b>6.52</b>	<b>-2.41</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.68</b>	<b>-21.88</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.41</b>	<b>01/01/2022</b>
MSCI Emg Mkts IM Index (USD) (Net)	-7.89	-0.30	7.09	-1.39	2.51	1.78	3.90	11.67	-19.83	-0.28	18.39	17.65	-1.39	
Difference	0.86	0.00	-0.57	-1.02	N/A	N/A	N/A	0.01	-2.04	N/A	N/A	N/A	-1.02	

Gross of fees performance is not available (N/A) for the following funds: iShares:Core MSCI EAFE (IEFA), International Equity Pool STIF, and iShares:Core MSCI EmMkts (IEMG). The current annual expense ratios for the iShares:Core MSCI EAFE (IEFA), and iShares:Core MSCI EmMkts (IEMG): are 0.07%, and 0.09%, respectively.

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. A peer group of similar managers may not exist for all funds. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. See the Addendum for custom index specification.

Montana Board of Investments  
 Comparative Performance  
 Core Fixed Income Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
US Fixed Income Aggregate - Net	-3.40	1.56	1.21	-2.04	-0.07	N/A	N/A	5.40	-11.87	-1.52	7.65	N/A	-0.08	12/01/2019
Bloomberg US Agg Bond Index	-3.06	1.98	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	7.51	8.72	-0.33	
Difference	-0.34	-0.42	-0.04	0.37	0.26	N/A	N/A	-0.13	1.14	0.02	0.15	N/A	0.25	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Non-Core Fixed Income Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Neuberger Berman High Yield (SA) - Net</b>	<b>0.06</b>	<b>4.82</b>	<b>8.11</b>	<b>2.36</b>	<b>3.62</b>	<b>4.18</b>	<b>4.48</b>	<b>11.90</b>	<b>-11.34</b>	<b>4.76</b>	<b>6.30</b>	<b>13.75</b>	<b>5.97</b>	<b>01/01/2010</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	6.42	
Difference	-0.11	-0.65	-0.09	-0.56	-0.58	-0.48	-0.69	-1.55	-0.16	-0.50	-0.74	-0.57	-0.45	
<b>Neuberger Berman High Yield (SA) - Gross</b>	<b>0.12</b>	<b>4.92</b>	<b>8.33</b>	<b>2.57</b>	<b>3.87</b>	<b>4.49</b>	<b>4.84</b>	<b>12.12</b>	<b>-11.16</b>	<b>4.96</b>	<b>6.75</b>	<b>14.26</b>	<b>6.38</b>	<b>01/01/2010</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.12	3.29	4.33	4.70	5.20	12.74	-9.21	5.32	6.58	14.21	6.59	
Rank	73	48	44	86	77	65	71	64	84	60	46	50	60	
<b>Oaktree US High Yield (SA) (CAPP) - Net</b>	<b>0.08</b>	<b>5.07</b>	<b>7.91</b>	<b>3.08</b>	<b>4.13</b>	<b>4.46</b>	<b>N/A</b>	<b>12.68</b>	<b>-9.92</b>	<b>4.91</b>	<b>6.56</b>	<b>15.44</b>	<b>4.46</b>	<b>01/01/2018</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	4.65	
Difference	-0.09	-0.40	-0.29	0.16	-0.07	-0.19	N/A	-0.76	1.26	-0.35	-0.49	1.12	-0.19	
<b>Oaktree US High Yield (SA) (CAPP) - Gross</b>	<b>0.18</b>	<b>5.27</b>	<b>8.31</b>	<b>3.46</b>	<b>4.55</b>	<b>4.91</b>	<b>N/A</b>	<b>13.10</b>	<b>-9.60</b>	<b>5.34</b>	<b>7.07</b>	<b>16.02</b>	<b>4.91</b>	<b>01/01/2018</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	4.71	
Rank	66	30	44	47	40	42	N/A	39	54	50	43	16	42	
<b>Shenkman High Yield Fixed Income (SA) (CAPP) - Net</b>	<b>0.44</b>	<b>4.53</b>	<b>7.26</b>	<b>3.08</b>	<b>3.95</b>	<b>4.41</b>	<b>N/A</b>	<b>12.06</b>	<b>-8.87</b>	<b>4.24</b>	<b>6.32</b>	<b>13.65</b>	<b>4.30</b>	<b>12/01/2017</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	4.64	
Difference	0.26	-0.94	-0.94	0.16	-0.25	-0.25	N/A	-1.38	2.31	-1.02	-0.73	-0.67	-0.34	
<b>Shenkman High Yield Fixed Income (SA) (CAPP) - Gross</b>	<b>0.54</b>	<b>4.73</b>	<b>7.67</b>	<b>3.48</b>	<b>4.38</b>	<b>4.86</b>	<b>N/A</b>	<b>12.50</b>	<b>-8.52</b>	<b>4.68</b>	<b>6.82</b>	<b>14.18</b>	<b>4.75</b>	<b>12/01/2017</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	4.70	
Rank	37	57	65	46	49	43	N/A	55	39	70	46	51	47	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. No peer group is shown for Cohen & Steers Preferred Securities (SA) due to the lack of suitable Preferred Securities peer groups.

Montana Board of Investments  
Comparative Performance  
Non-Core Fixed Income Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Cohen &amp; Steers Preferred Securities (SA) - Net</b>	<b>-0.75</b>	<b>4.72</b>	<b>10.35</b>	<b>1.56</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.28</b>	<b>-11.53</b>	<b>3.70</b>	<b>N/A</b>	<b>N/A</b>	<b>3.11</b>	<b>11/01/2020</b>
Cohen & Steers Preferred Securities Custom Benchmark	-1.25	4.16	8.99	1.35	N/A	N/A	N/A	8.57	-12.02	2.72	N/A	N/A	2.60	
Difference	0.50	0.57	1.36	0.20	N/A	N/A	N/A	-1.29	0.49	0.98	N/A	N/A	0.51	
<b>Cohen &amp; Steers Preferred Securities (SA) - Gross</b>	<b>-0.67</b>	<b>4.89</b>	<b>10.70</b>	<b>1.89</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.64</b>	<b>-11.23</b>	<b>4.06</b>	<b>N/A</b>	<b>N/A</b>	<b>3.46</b>	<b>11/01/2020</b>
<b>Payden &amp; Rygel EMD (SA) - Net</b>	<b>-3.25</b>	<b>3.62</b>	<b>3.49</b>	<b>-0.75</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.73</b>	<b>-15.45</b>	<b>-3.49</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.44</b>	<b>01/01/2021</b>
Payden & Rygel EMD Custom Benchmark	-3.47	3.29	3.81	-0.89	N/A	N/A	N/A	11.59	-15.97	-3.92	N/A	N/A	-1.66	
Difference	0.22	0.33	-0.32	0.14	N/A	N/A	N/A	0.13	0.52	0.43	N/A	N/A	0.22	
<b>Payden &amp; Rygel EMD (SA) - Gross</b>	<b>-3.15</b>	<b>3.80</b>	<b>3.85</b>	<b>-0.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.12</b>	<b>-15.15</b>	<b>-3.14</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.10</b>	<b>01/01/2021</b>
IM Emerging Markets Debt (SA+CF) Median	-1.80	3.96	6.84	0.95	1.29	2.26	3.59	12.62	-12.08	-2.45	6.69	14.33	-0.05	
Rank	64	55	65	80	N/A	N/A	N/A	58	69	58	N/A	N/A	72	
<b>Zazove Convertible Bonds (SA) - Net</b>	<b>0.32</b>	<b>5.32</b>	<b>5.82</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.30</b>	<b>04/01/2023</b>
Bloomberg US Convert's Liquid Bond Index	2.60	9.16	10.13	0.31	9.95	9.91	9.59	14.64	-20.06	3.07	54.45	22.79	11.34	
Difference	-2.28	-3.85	-4.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.05	
<b>Zazove Convertible Bonds (SA) - Gross</b>	<b>0.44</b>	<b>5.57</b>	<b>6.32</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.83</b>	<b>04/01/2023</b>
IM U.S. Convertible Bonds (SA+CF) Median	1.30	6.01	9.84	0.50	6.45	7.28	6.86	8.13	-11.70	6.22	18.71	18.70	9.93	
Rank	55	56	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	84	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. No peer group is shown for Cohen & Steers Preferred Securities (SA) due to the lack of suitable Preferred Securities peer groups.

Montana Board of Investments  
Comparative Performance  
TFIP Fixed Income Managers

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
<b>Trust Funds Investment Pool Fixed Income</b>	<b>-3.01</b>	<b>2.10</b>	<b>2.27</b>	<b>-0.96</b>	<b>1.03</b>	<b>2.03</b>	<b>2.25</b>	<b>7.03</b>	<b>-11.24</b>	<b>-0.47</b>	<b>8.84</b>	<b>9.12</b>	<b>5.11</b>	<b>10/01/1995</b>
Bloomberg US Agg Bond Index	-3.06	1.98	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	7.51	8.72	4.22	
Difference	0.05	0.12	1.02	1.45	1.35	1.06	0.90	1.50	1.77	1.08	1.33	0.40	0.89	
<b>Trust Funds Investment Pool Fixed Income</b>	<b>-3.01</b>	<b>2.10</b>	<b>2.27</b>	<b>-0.96</b>	<b>1.03</b>	<b>2.03</b>	<b>2.25</b>	<b>7.03</b>	<b>-11.24</b>	<b>-0.47</b>	<b>8.84</b>	<b>9.12</b>	<b>5.11</b>	<b>10/01/1995</b>
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-2.99	2.16	1.91	-2.01	0.24	1.47	1.85	5.98	-12.95	-1.24	8.34	9.17	4.72	
Rank	55	61	37	10	12	11	14	13	8	21	35	54	7	
<b>Shenkman High Yield Fixed Income (SA) (TFIP) - Net</b>	<b>0.45</b>	<b>4.50</b>	<b>7.18</b>	<b>2.98</b>	<b>3.85</b>	<b>N/A</b>	<b>N/A</b>	<b>12.02</b>	<b>-9.04</b>	<b>4.31</b>	<b>6.05</b>	<b>N/A</b>	<b>4.23</b>	<b>07/01/2019</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	4.55	
Difference	0.27	-0.97	-1.02	0.06	-0.35	N/A	N/A	-1.42	2.15	-0.95	-1.00	N/A	-0.32	
<b>Shenkman High Yield Fixed Income (SA) (TFIP) - Gross</b>	<b>0.55</b>	<b>4.70</b>	<b>7.59</b>	<b>3.38</b>	<b>4.28</b>	<b>N/A</b>	<b>N/A</b>	<b>12.46</b>	<b>-8.68</b>	<b>4.74</b>	<b>6.54</b>	<b>N/A</b>	<b>4.66</b>	<b>07/01/2019</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	4.69	
Rank	35	58	66	48	54	N/A	N/A	56	40	67	53	N/A	53	
<b>Oaktree US High Yield (SA) (TFIP) - Net</b>	<b>0.13</b>	<b>5.11</b>	<b>8.04</b>	<b>3.29</b>	<b>4.30</b>	<b>N/A</b>	<b>N/A</b>	<b>12.72</b>	<b>-9.51</b>	<b>4.93</b>	<b>6.72</b>	<b>N/A</b>	<b>4.75</b>	<b>08/01/2019</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	4.51	
Difference	-0.05	-0.36	-0.15	0.37	0.10	N/A	N/A	-0.72	1.67	-0.33	-0.32	N/A	0.23	
<b>Oaktree US High Yield (SA) (TFIP) - Gross</b>	<b>0.22</b>	<b>5.29</b>	<b>8.44</b>	<b>3.66</b>	<b>4.71</b>	<b>N/A</b>	<b>N/A</b>	<b>13.14</b>	<b>-9.20</b>	<b>5.36</b>	<b>7.25</b>	<b>N/A</b>	<b>5.17</b>	<b>08/01/2019</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	4.70	
Rank	60	30	39	38	32	N/A	N/A	39	50	50	38	N/A	23	
<b>Neuberger Berman High Yield (SA) (TFIP) - Net</b>	<b>0.07</b>	<b>4.82</b>	<b>8.24</b>	<b>2.35</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.83</b>	<b>-11.43</b>	<b>4.62</b>	<b>N/A</b>	<b>N/A</b>	<b>6.45</b>	<b>04/01/2020</b>
Bloomberg US HY 2% Issuer Cap Index	0.17	5.47	8.19	2.92	4.20	4.65	5.16	13.44	-11.18	5.26	7.05	14.32	7.45	
Difference	-0.11	-0.64	0.04	-0.57	N/A	N/A	N/A	-1.62	-0.25	-0.64	N/A	N/A	-1.00	
<b>Neuberger Berman High Yield (SA) (TFIP) - Gross</b>	<b>0.12</b>	<b>4.92</b>	<b>8.46</b>	<b>2.55</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>12.05</b>	<b>-11.25</b>	<b>4.81</b>	<b>N/A</b>	<b>N/A</b>	<b>6.69</b>	<b>04/01/2020</b>
IM U.S. High Yield Bonds (SA+CF) Median	0.33	4.89	8.11	3.29	4.36	4.71	5.21	12.74	-9.21	5.32	6.58	14.21	7.42	
Rank	73	48	38	86	N/A	N/A	N/A	68	84	64	N/A	N/A	77	

Net performance shown is net of all manager fees and expenses (Net-All). Gross returns are compared to median performance of similar managers. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences.

Montana Board of Investments  
Comparative Performance  
Trust Accounts

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
Abandoned Mine Trust	1.21	2.56	5.35	4.04	2.58	2.45	2.02	5.13	1.68	0.13	0.73	2.41	3.77	12/01/1993
Barker Hughesville St Response	-1.30	2.09	1.43	0.11	N/A	N/A	N/A	2.90	-3.87	1.36	N/A	N/A	0.88	05/01/2020
Belt Water Treatment Plant Fund	-1.40	1.99	1.40	0.18	1.70	N/A	N/A	2.96	-3.71	1.34	6.80	8.56	2.77	03/01/2018
Big Sky Economic Development Fund	-1.80	1.97	0.73	-0.38	1.45	2.31	2.59	2.53	-4.27	1.45	7.12	8.67	4.05	07/01/2005
Butte Area One Restoration	-1.29	2.08	1.39	0.37	1.66	2.32	2.29	3.08	-3.26	1.26	6.07	6.76	2.85	11/01/2008
Clark Fork River Restoration	-1.23	2.14	1.47	0.42	1.60	2.27	2.28	3.06	-3.17	1.19	5.65	7.04	3.07	11/01/2008
Coal Tax Cultural Trust Fund	-1.77	1.95	0.78	-0.27	1.48	2.33	2.60	2.73	-4.20	1.43	6.99	8.64	5.31	12/01/1993
Coal Tax Park Acquisition	-1.60	2.02	0.98	-0.15	1.52	2.36	2.61	2.72	-4.02	1.37	6.86	8.63	5.29	12/01/1993
Conservation District Fund	-1.37	2.44	-0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.37	12/01/2023
Debt and Liability Fee Account	1.20	2.58	5.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.42	11/01/2023
East Helena Compensation Fund	1.12	2.78	3.84	2.93	2.37	2.65	2.41	4.53	0.48	0.42	2.65	5.52	2.25	01/01/2013
East Helena Greenway Trail Maintenance	-1.00	2.14	2.08	0.83	N/A	N/A	N/A	3.32	-2.81	N/A	N/A	N/A	1.34	03/01/2021
Endowment for Children	-1.78	1.93	0.80	-0.24	1.50	2.33	2.55	2.80	-4.18	1.41	7.01	8.54	4.00	08/01/2007
Flying J CECRA Facilities Fund	-1.29	2.09	1.44	0.12	N/A	N/A	N/A	2.91	-3.85	1.36	N/A	N/A	0.90	05/01/2020
FWP License Account	0.25	2.39	3.75	2.10	1.72	1.91	1.59	4.04	-1.41	0.46	1.85	3.33	2.75	11/01/1997
FWP Mitigation Trust Fund	-0.84	2.20	2.32	0.95	1.53	2.02	1.68	3.41	-2.79	0.98	3.84	5.46	3.54	12/01/1993
FWP Real Property Trust	-1.71	1.94	0.84	-0.22	1.47	2.32	2.56	2.77	-4.13	1.38	6.83	8.62	4.77	12/01/1993
Group Benefits	0.58	2.44	4.35	2.71	2.16	2.31	1.96	4.16	-0.33	0.63	2.05	4.01	3.64	12/01/1993
Harold Hamm Endowment	-1.31	2.11	1.40	0.07	1.64	2.43	N/A	2.87	-3.94	1.43	6.71	8.45	2.17	07/01/2016
History and Civics Endowment	0.79	2.13	4.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.89	01/01/2024
Invasive Species Trust Fund	-1.08	2.54	1.71	0.12	N/A	N/A	N/A	2.65	-3.88	1.19	N/A	N/A	0.54	10/01/2020
Kyiyoo Pow Pow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.38	12/01/2024
Libby Asbestos Site State Cost	-1.43	1.84	1.30	0.19	N/A	N/A	N/A	2.98	-3.60	1.25	N/A	N/A	0.92	05/01/2020
Lubrecht Forest Carbon Offset Credits	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.38	12/01/2024
Luttrell Pit - Operational & Maintenance	-1.43	2.04	1.30	0.33	N/A	N/A	N/A	3.07	-3.27	1.36	N/A	N/A	1.01	05/01/2020
Montana Pole	-1.11	2.13	1.67	0.59	1.69	2.36	2.47	3.12	-2.92	1.14	5.61	7.48	4.53	09/01/1996
Montana State University	0.67	2.42	4.53	3.28	2.28	2.30	1.88	4.77	0.58	0.30	1.30	2.87	2.12	08/01/2004
Montana State Library Trust	-1.48	2.05	1.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.35	10/01/2023
Montana Tech-UM Agency Funds	1.03	2.52	5.08	3.80	2.51	2.43	1.92	4.99	1.36	0.20	1.01	2.56	2.00	03/01/2003
MT BOI - Clark Fork Site	-1.50	2.06	1.01	-0.09	1.53	2.31	2.50	2.81	-3.95	1.44	6.65	8.00	3.49	11/01/2008
MT BOI UOFM Other	0.37	2.50	4.38	2.70	2.45	2.60	2.38	3.94	-0.16	0.73	3.47	4.54	2.88	08/01/2002
MT Housing Infrastructure Trust	0.66	1.62	3.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.38	08/01/2023
MUS Group Insurance	0.82	2.50	4.74	3.33	2.39	2.47	2.09	4.74	0.57	0.26	1.70	3.39	1.82	10/01/2011
MUS Workers Compensation	0.33	2.39	3.97	2.82	2.29	2.50	N/A	4.44	0.10	0.46	2.55	4.43	2.23	04/01/2016

Performance shown is gross of fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. Kyiyoo Pow Pow and Lubrecht Forest Carbon Offset Credits were funded in 12/2024.

Montana Board of Investments  
Comparative Performance  
Trust Accounts

As of December 31, 2024

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019	Since Incep.	Inception Date
Older Montanans Trust	-1.74	2.00	0.92	-0.22	1.55	2.37	2.61	2.78	-4.23	1.41	7.19	8.62	3.88	08/01/2007
Permanent Coal Trust Excl Crp	-0.93	1.52	1.48	0.65	1.85	2.46	2.67	2.57	-2.02	1.82	5.57	6.81	5.11	12/01/1993
PERS Defined Cont Disability	-1.39	4.64	12.08	3.48	7.42	7.35	N/A	17.09	-15.55	13.16	14.06	20.77	7.41	09/01/2015
Potter Trust Fund	-1.34	2.09	1.37	0.05	1.63	2.42	N/A	2.86	-3.96	1.41	6.78	8.47	2.44	06/01/2016
Resource Indemnity Trust	-1.86	1.95	0.66	-0.44	1.44	2.32	2.61	2.60	-4.44	1.48	7.23	8.88	5.36	12/01/1993
School Facilities Fund	-1.79	1.98	0.73	-0.40	1.39	2.07	N/A	2.42	-4.24	1.39	6.97	7.88	2.07	01/01/2018
Smelter Hill Up Restorative	-1.36	2.07	1.36	0.24	1.50	2.09	1.92	3.00	-3.54	1.29	5.62	5.64	2.07	11/01/2008
State Fund Insurance	-2.28	2.40	3.72	0.65	2.49	3.18	3.30	6.49	-7.68	3.04	7.62	9.65	5.11	12/01/1993
Streamside Tailings Operable Unit	-1.47	2.05	1.25	0.11	1.58	2.32	2.52	2.90	-3.70	1.27	6.47	7.92	4.63	02/01/1999
Subsequent Injury Fund	1.19	2.51	5.22	4.07	2.60	2.46	1.91	5.37	1.66	0.13	0.73	2.28	3.00	12/01/1993
Tobacco Trust Fund	-1.78	1.97	0.68	-0.41	1.44	2.30	2.58	2.63	-4.40	1.51	7.10	8.67	4.76	01/01/2001
Treasurers	0.82	2.36	4.65	3.67	2.34	2.28	1.79	5.08	1.34	0.10	0.63	2.28	2.82	12/01/1993
Montana Coal Endowment Fund	-1.83	1.96	0.71	-0.39	1.45	2.33	2.61	2.63	-4.37	1.47	7.15	8.81	5.25	12/01/1993
MT Coal Endowment Regional Water	-1.82	1.96	0.71	-0.38	1.45	2.33	2.60	2.63	-4.37	1.47	7.15	8.80	4.91	06/01/2000
Trust and Legacy Account	-1.82	2.00	0.73	-0.38	1.46	2.33	2.62	2.62	-4.37	1.47	7.19	8.84	5.92	07/01/1991
UCFRB Assess/Litig Cost Rec	-1.80	1.98	0.74	-0.38	1.37	2.24	2.49	2.61	-4.37	1.53	6.68	8.50	4.86	07/01/1999
UCFRB Restoration Fund	-1.71	2.01	0.96	-0.23	1.48	2.34	2.53	2.71	-4.22	1.36	6.90	8.52	4.81	06/01/1999
Upper Blackfoot Response	0.93	2.50	4.97	3.69	2.58	2.66	2.31	4.94	1.22	0.32	1.55	4.24	2.00	09/01/2010
Weed Control Trust	-1.86	1.95	0.66	-0.44	1.44	2.32	2.61	2.60	-4.44	1.48	7.23	8.88	4.65	12/01/1993
Wildlife Habitat Trust	-1.58	2.03	1.01	-0.17	1.49	2.33	2.56	2.72	-4.10	1.38	6.75	8.54	4.78	12/01/1993
Work Force Housing	1.15	2.46	5.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.27	11/01/2023
Yellowstone Pipeline Cleanup Fund	-0.85	2.16	2.15	1.28	N/A	N/A	N/A	3.16	-1.42	N/A	N/A	N/A	1.43	04/01/2021
Zortman/Landusky LT H2O	1.20	2.55	5.33	4.03	2.57	2.45	2.03	5.13	1.68	0.13	0.73	2.28	5.77	09/01/1999
Z/L Long Term H2O Trust Fund	1.20	2.55	5.33	4.03	2.57	2.45	2.07	5.13	1.68	0.13	0.73	2.28	3.92	09/01/2005

Performance shown is gross of fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. Kyiyo Pow Pow and Lubrecht Forest Carbon Offset Credits were funded in 12/2024.

### Performance Notes

- All gross and net performance data is provided by State Street Analytics (SSA). Reported gross returns for the retirement plans prior to 07/01/2002 are net of all fees.
- Fiscal year ends on 06/30.
- Gross performance for the retirement plans is calculated with fee accruals provided by Montana's Accounting department.
- Gross of fees performance is not available (N/A) for the following funds: iShares:Core S&P Tot USM (ITOT), iShares:Core S&P 500 (IVV), iShares:Core S&P Md-Cp (IJH), iShares:Core S&P Sm-Cp (IJR), iShares:Core MSCI EAFE (IEFA), and iShares:Core MSCI EmMkts (IEMG).
- Non-Core Fixed Income currently consists of High Yield, Preferred Securities, EMD and Convertible Bonds.
- Private Investments currently consist of Private Equity, Private Credit, Venture Capital, and Passive ETFs.

### Index Notes

- Retirement plan custom benchmarks are provided by State Street Bank and are calculated daily using actual allocations.
- The CAPP Custom Benchmark consists of the portfolio weighted average of the primary benchmark for each CAPP asset class.
- The Short Term Custom Benchmark consists of 100% ICE 1 Mo LIBOR Index (USD) through 4/30/2018, and 100% Federal Reserve US Treasury 1 Mo Constant Maturity Index thereafter.
- The Domestic Equity Custom Index consists of 100% S&P 1500 Comp Index through 04/30/2017 and 100% MSCI USA IM Index (USD) (Gross) thereafter.
- The International Equity Custom Index consists of 100% MSCI EAFE Index (USD) (Net) through 10/31/2006, 100% MSCI ACW Ex US Index (USD) (Net) through 06/30/2007, 92.5% MSCI ACW Ex US Index (USD) (Net) and 7.5% MSCI ACW Ex US SC IM Index (USD) (Net) through 02/28/2014, and 100% MSCI ACW Ex-US IM Index thereafter.
- The Real Estate Custom Index consists of 100% NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) through 03/31/2017, 100% MSCI US REIT Index (USD) (Gross) through 06/30/2020, and 100% NCREIF ODCE (AWA) (1 Qtr Lag) Index thereafter.
- The Private Investments Custom Index consists of 100% S&P 1500 Comp Index+4% (1 Qtr Lag) through 03/31/2017, 100% MSCI US Small Cap Index (USD) (Gross) through 12/31/2020, and the portfolio weighted average of MSCI US SC / S&P LSTA US Leverage Loan 100 Index for PE / PC thereafter.
- The Lazard Custom Index consists of 100% MSCI ACW Ex US Value Index (USD) (Net) through 6/30/2018 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- The Templeton Custom Index consists of 100% MSCI ACW Ex US Small Cap Value Index (USD) (Net) through 5/31/2018, and 100% MSCI ACW Ex US Small Cap Index (USD) (Net) thereafter.
- The Reams Custom Index consists of 100% Bloomberg US Unv Bond Index through 03/31/2017, 100% Bloomberg US Agg Bond Index through 12/31/2019, and 100% Bloomberg US Unv Bond Index thereafter.
- The Cohen & Steers Custom Index consists of 60% ICE BofAML US IG Institutional Capital Securities Index, 20% ICE BofAML Core Fixed Rate Preferred Securities Index, and 20% Bloomberg Barclays Developed Market USD Contingent Capital Index.
- The Payden & Rygel Custom Index consists of 70% JP Morgan EMBI Global Diversified Index, 30% JP Morgan GBI-EM Global Diversified Index.
- The JPM US Equity Custom Benchmark consists of 100% S&P 500 Index (Cap Weighted) through 06/30/2019 and 100% MSCI US Index (USD) (Gross) thereafter.
- The Real Assets Custom Index consists of 100% MSCI All Country World Commodity Producers Index (USD) (Net) through 12/31/2020, 33.33% MSCI All Country World Commodity Producers Index (USD) (Net), 33.33% MSCI All Country World Infrastructure Index, 33.33% Bloomberg Barclays Global Inflation Linked US TIPS Index through 5/31/2024, and the portfolio weighted average of MSCI All Country World Commodity Producers Index (USD) (Net), MSCI All Country World Infrastructure Index, Bloomberg Barclays Global Inflation Linked US TIPS Index, and Short Term Custom Benchmark thereafter.
- The Core Fixed Income Custom Index consists of 100% Bloomberg US Agg Bond Index through 03/31/2017, the portfolio weighted average of Broad Fixed Income - PAC Custom Blend, Bloomberg US Corp Inv Grade Index, Bloomberg US MBS Index, Bloomberg US Int TIPS Index, Bloomberg US Trsy Int Trm Index through 11/30/2019, and 100% Bloomberg US Agg Bond Index thereafter.
- As of 07/01/2021, the Trust Fund Custom Index Benchmark is the portfolio weighted averaged of the primary benchmark, consisting of NCREIF ODCE Index (1Q lag), Bloomberg US High Yield - 2% Issuer Cap Index, and Bloomberg US Aggregate Bond Index.

### Trust Accounts Comments

- History and Civics Endowment and Conservation District Fund were added in 12/2023.
- Debt and Liability Fee Account and Work Force Housing were added in 10/2023.
- Kyiyo Pow Pow and Lubrecht Forest Carbon Offset Credits were added in 12/2024.
- Hail Insurance Investments began liquidation in 12/2024.

**Manager Transition Comments**

- BlackRock MSCI Emg Mkts Index NL (CF) was terminated in 04/2023.
- Zazove Convertible Bonds (SA) was funded in 03/2023.
- American Century Investment Mgmt (SA) was terminated in 03/2023.
- Templeton Investment Counsel (SA) was terminated in 03/2023.
- Reams Asset Core Plus (SA) was terminated in 03/2023.
- iShares:Russ 2000 ETF (IWM) and iShares:MSCI EAFE ETF (EFA) were liquidated in Q4 2022 to fund iShares:Core S&P Small Cap ETF (IJR) and iShares:Core MSCI EAFE ETF (IEFA), respectively.
- BlackRock MSCI USA Small Cap Index was transitioned from a commingled fund to a separate account structure during Q3 2022 to obtain a lower fee structure.
- Acadian Ex US Small Cap (SA) was funded in 02/2022.
- DFA Emg Mkts Sm Cap;I (DEMSX) was liquidated in 02/2022.
- DFA Intl Sm Co;I (DFISX) was liquidated in 02/2022.
- iShares:MSCI Em Mkts (EEM) was liquidated in 01/2022.
- iShares:Core MSCI EmMkts (IEMG) was funded in 12/2021.
- SPDR S&P 500 ETF (SPY) was liquidated in 12/2021.
- iShares:Core S&P 500 (IVV) was funded in 11/2021.
- Vaughan Nelson Management (SA), T. Rowe U.S. Structured Research (SA), J.P. Morgan 130/30 (SA), Jacobs Levy 130/30 Large Cap (SA), and DFA US Sm Cap TR (CF) were liquidated in 11/2021.
- iShares:Core S&P Tot USM (ITOT) was funded in 11/2021.
- The Natural Resources PAC was renamed to the Real Assets PAC during Q1 2021.
- Payden & Rygel EMD (SA) was funded in 12/2020.
- Cohen & Steers Preferred Securities (SA) was funded in 10/2020.
- Neuberger Berman High Yield (SA) and TFIP Private Real Estate were funded in the Trust Fund Investment Pool during Q1 2020.
- Diversifying Strategies investments were liquidated and Investment Grade Credit, US Treasury & Agency, and TIPS were consolidated into the Core Fixed Income composite during Q4 2019.
- Post High Yield Plus (SA), GMO:Bchmk-Fr All;III (GBMFX), and PIMCO:All Asset;Inst (PAAIX) were liquidated during Q3 2019.
- Oaktree US High Yield Fixed Income (SA) and Shenkman High Yield Fixed Income (SA) were funded in the Trust Fund Investment Pool during Q3 2019.
- Artisan Partners (SA), Iridian Asset Management (SA), Congress Mid Cap Growth (SA), TimeSquare Capital Management (SA), and Alliance Bernstein (SA) were liquidated in Q2 2019.
- BlackRock MSCI US Equity Index (CF) was transitioned into a separately managed account during Q1 2019.
- Northern Trust MSCI US Equity Index (SA), GMO:Bchmk-Fr All;III (GBMFX), and PIMCO:All Asset;Inst (PAAIX) were funded during Q4 2018.
- Voya Investment Management (SA) was liquidated in 07/2018.
- iShares:Russ 2000 ETF (IWM) was funded in 04/2018.
- Jacobs Levy 130/30 Large Cap (SA) was funded in 03/2018.
- Congress Mid Cap Growth (SA) was funded in 02/2018.
- Oaktree US High Yield (SA) and Shenkman High Yield Fixed Income (SA) were funded in 12/2017.
- Analytic Investors 130/30 (SA) was liquidated in 09/2017.
- Effective 07/2016, the Metropolitan West Capital Management legal entity merged into the Wells Capital Management Incorporated legal entity. The Metropolitan West Capital Mgmt (SA) has been updated to Wells Capital Management (SA) to reflect the change.
- Residual assets from the liquidation of AllianceBernstein Int'l Value (SA), Martin Currie (SA), Hansberger Global Investors (SA), and Aberdeen Total Return Bond Strategy (SA) were distributed in 06/2017.
- INTECH Enhanced Plus was liquidated in 06/2017.
- BlackRock MSCI US Equity Index (CF), BlackRock MSCI US Sm Cap Equity Index (CF), and iShares:Core S&P Md-Cp (IJH) were funded in 06/2017.
- SPDR S&P 500 ETF (SPY) and iShares:MSCI EAFE ETF (EFA) were re-funded in 06/2017.
- BlackRock Equity Index Fund A (CF) and BlackRock Mid Cap Equity Index A (CF) were liquidated in 05/2017.
- Nicholas Investment Partners was liquidated in 07/2016. Residual assets from liquidation were distributed in 03/2017.
- Wells Capital Management (SA), Domestic Equity Pool SPIF, and International Equity Pool SPIF were liquidated in 10/2016. Wells Capital Management (SA) residual assets from liquidation were distributed in 03/2017.
- DFA Emg Mkts Sm Cap;I (DEMSX) was funded in 02/2017.
- SPDR S&P 500 ETF (SPY) was liquidated in 01/2017.
- iShares:MSCI Em Mkts (EEM) was funded in 12/2016.
- SPDR S&P 500 ETF (SPY) was initially funded in 09/2015, was then liquidated in 12/2015, and was re-funded in 10/2016.
- iShares S&P SmallCap 600 Index ETF (IJR) was liquidated in 01/2016.
- Effective 05/2014, ING rebranded to Voya. The ING Investment Management (SA) has been updated to Voya Investment Management (SA) to reflect the change.

**Montana Board of Investments  
Fee Schedule**

**As of December 31, 2024**

	<b>Fee Schedule</b>	<b>Market Value As of 12/31/2024 (\$)</b>
iShares:Core S&P Tot USM (ITOT)	0.03 % of Assets	93,205,512
iShares:Core S&P 500 (IVV)	0.03 % of Assets	72,259,881
iShares:Core S&P Md-Cp (IJH)	0.05 % of Assets	37,776,995
iShares:Core S&P Sm-Cp (IJR)	0.06 % of Assets	88,592,658
iShares:Core MSCI EAFE (IEFA)	0.07 % of Assets	84,214,134
iShares:Core MSCI EmMkts (IEMG)	0.09 % of Assets	63,660,775

ETF fees are sourced from Morningstar and/or the investment manager.

# RVK

**Disclaimer of Warranties and Limitation of Liability** - This document was prepared by RVK, Inc. (RVK) and may include information and data from some or all of the following sources: client staff; custodian banks; investment managers; specialty investment consultants; actuaries; plan administrators/record-keepers; index providers; as well as other third-party sources as directed by the client or as we believe necessary or appropriate. RVK has taken reasonable care to ensure the accuracy of the information or data, but makes no warranties and disclaims responsibility for the accuracy or completeness of information or data provided or methodologies employed by any external source. This document is provided for the client's internal use only. It should not be construed as legal or tax advice. It does not constitute a recommendation by RVK or an offer of, or a solicitation for, any particular security and it is not intended to convey any guarantees as to the future performance of the investment products, asset classes, or capital markets. This document should not be construed as investment advice: it does not reflect all potential risks with regard to the client's investments and should not be used to make investment decisions without additional considerations or discussions about the risks and limitations involved. Any decision, investment or otherwise, made on the basis of this document is the sole responsibility of the client or intended recipient.



# Investment Update

Board Meeting: February 26, 2025

Information as of: December 31, 2024

Market values contained in this report are shown in USD. The information contained in this report is unaudited. The annual, audited Unified Investment Program Financial Statements are available on the Board's website at [www.investmentmt.com](http://www.investmentmt.com).

# Table of Contents

CIO Update	4
• Total AUM	8
• Pension	11
• STIP	16
• TFIP	18
• SFIP	20
Macro Attribution	23
Domestic Equity	26
International Equity	29
Non-Core Fixed Income	32
Real Estate	35
Real Assets	39
Private Investments	43
Core Fixed Income	47
Appendix	52

# CIO Update

## Economic Environment

- **GDP** – The Bloomberg Economics Survey in January forecast U.S. GDP to grow 2.2% in 2025 and 2.0% in 2026. The Atlanta Federal Reserve GDPNow forecast is 2.9% as of Feb 5<sup>th</sup>.
- **Job Growth** – Payroll numbers remain solid. The 6-month average addition to payrolls was 178K. The unemployment rate was 4.0% in January.
- **Retail Sales** – Retail sales remained strong in the 4<sup>th</sup> quarter as consumer spending was resilient. Average hourly earnings increased 4.1% y/y in Jan.
- **Inflation** – CPI has been sticky in recent months. In December, headline CPI was up 2.9% y/y and CPI ex. Food & Energy was up 3.2% y/y.
- **Housing** – Single family home inventory remains low. The seasonally adjusted annual rate of existing home sales remains near historic lows.
- **ISM Indices** – In January, the ISM Manufacturers Index rose to 50.9 which was above 50 for the 1<sup>st</sup> time since Oct 2022. The ISM Services Index remained strong at 52.8. Readings above 50 indicate growth.

# CIO Update

## Economic Environment

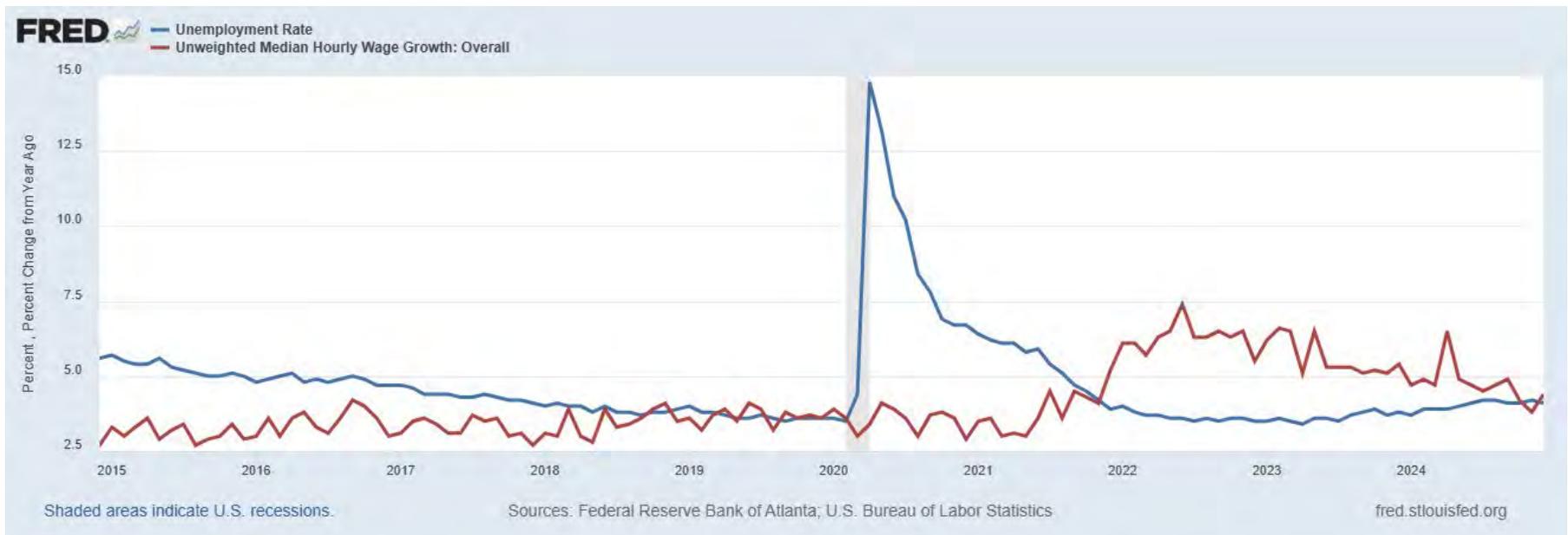
Corporate profits have continued to hold up well driven by robust consumption. Companies have generally reported strong earnings growth in the 4<sup>th</sup> quarter.



# CIO Update

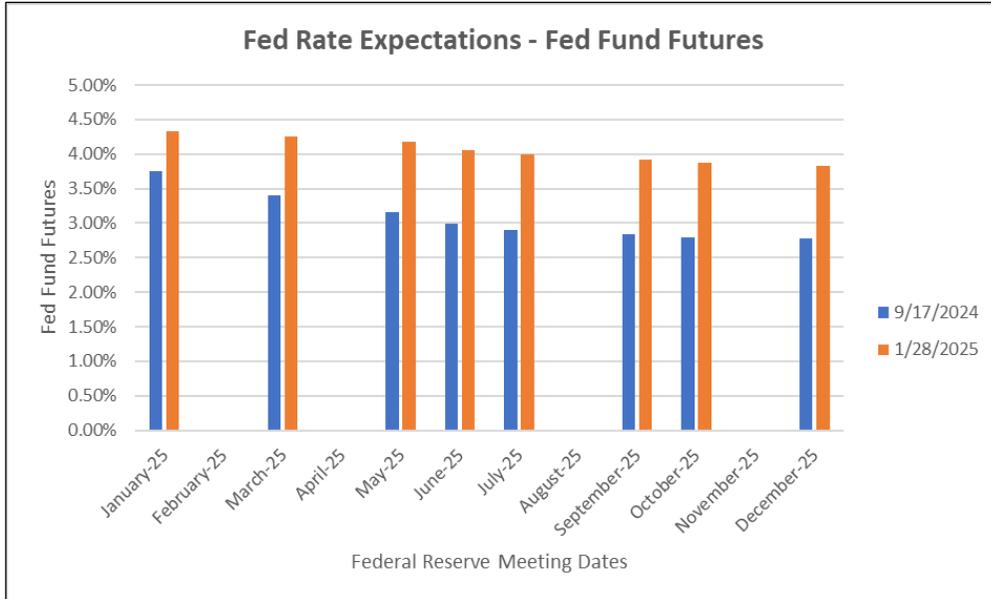
## Economic Environment

The unemployment rate remains low. Wage growth has been falling as inflation recedes. Tariffs are a risk to inflation expectations.

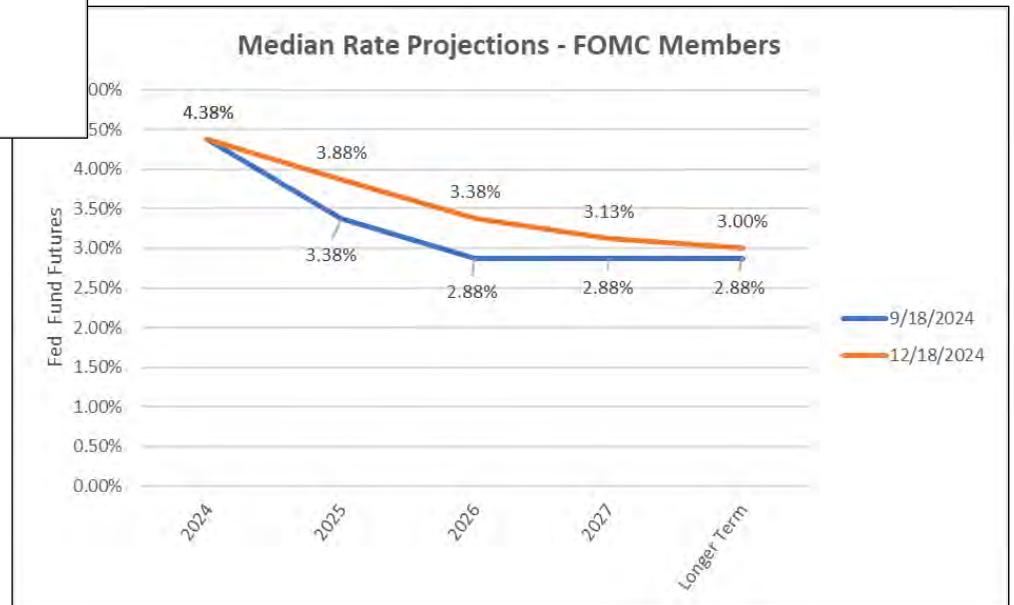


# CIO Update

## Economic Environment

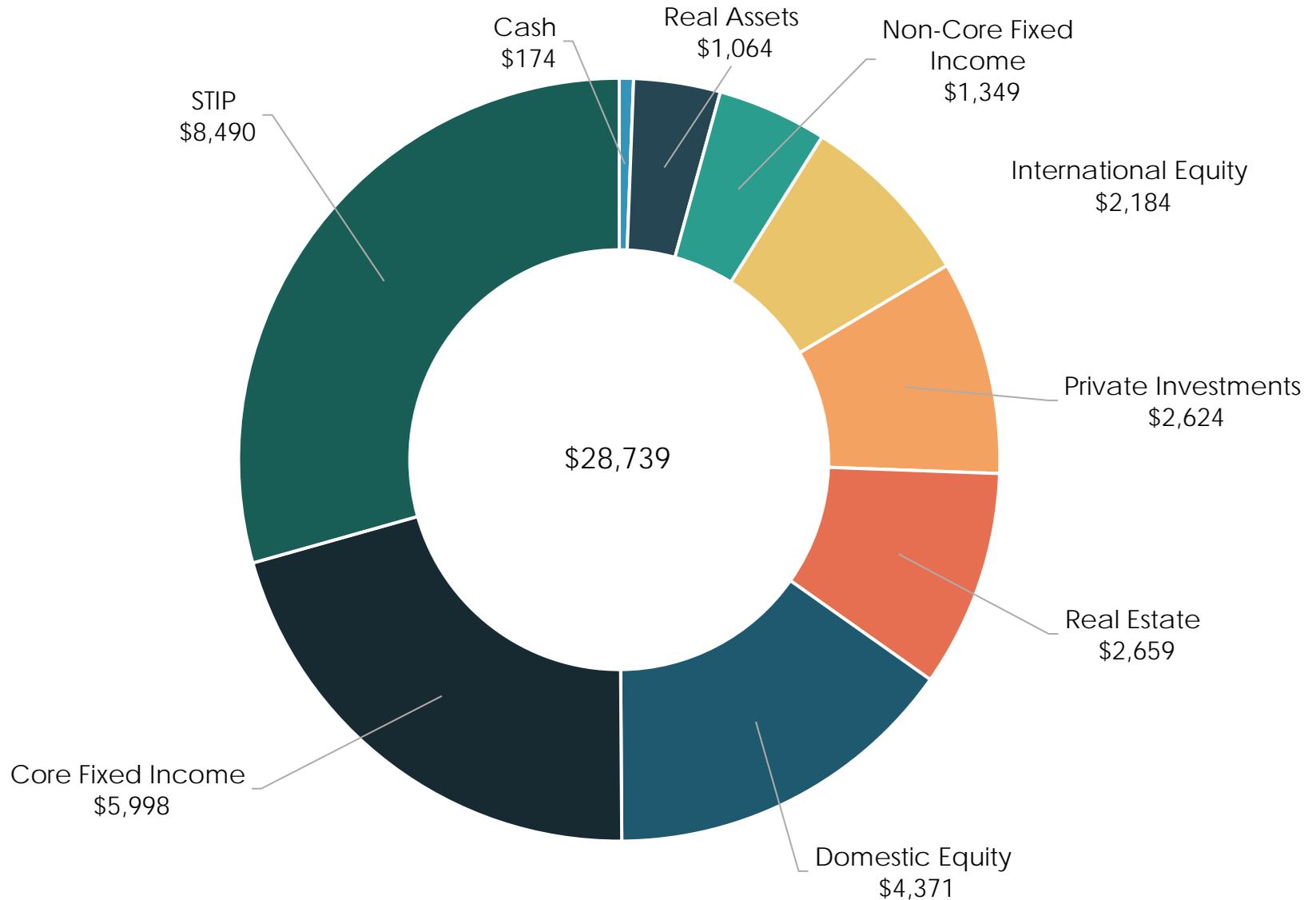


- Interest rate expectations have shifted meaningfully higher over the last 4-5 months.



# CIO Update

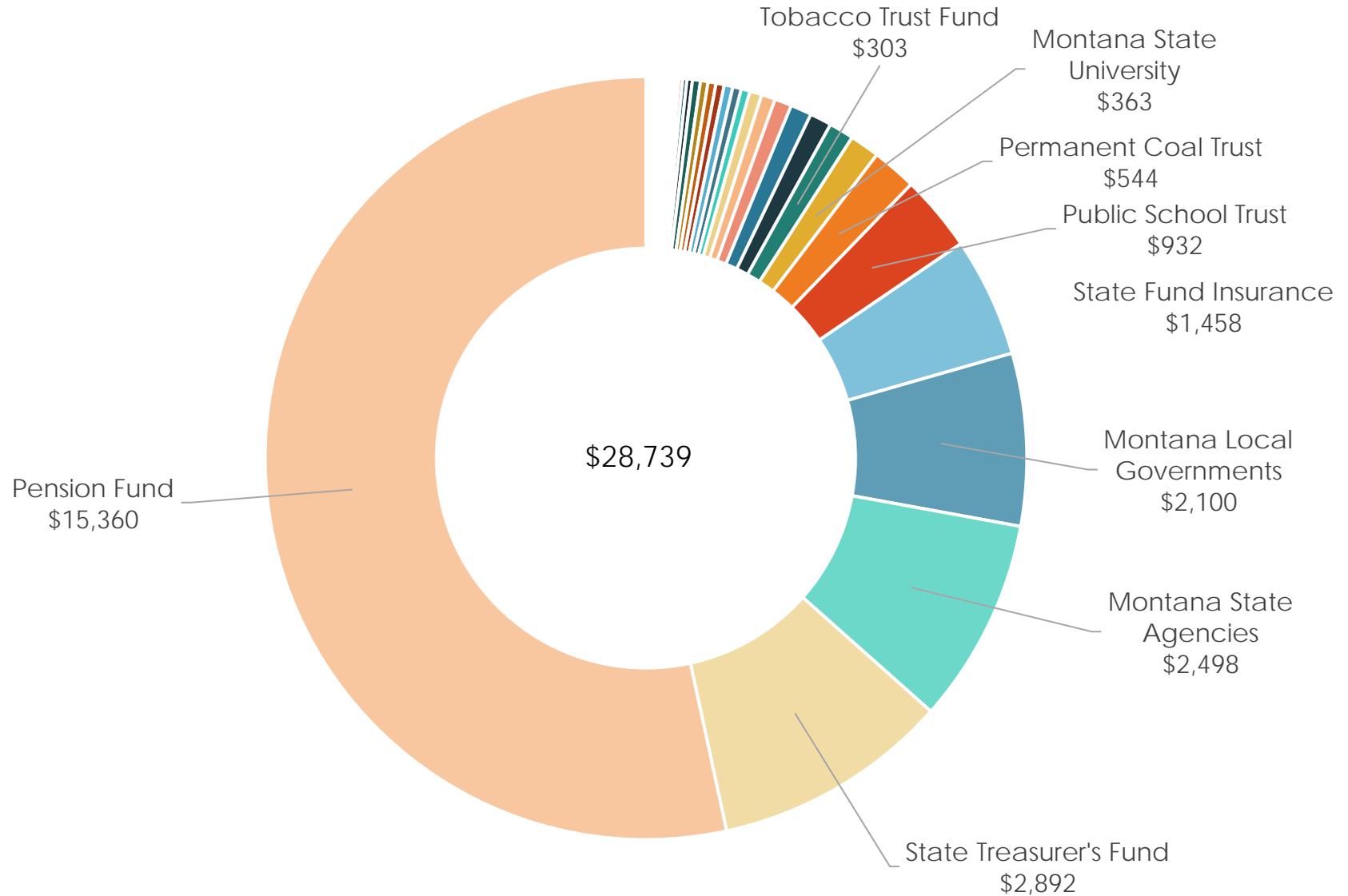
## AUM by Asset Class



\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

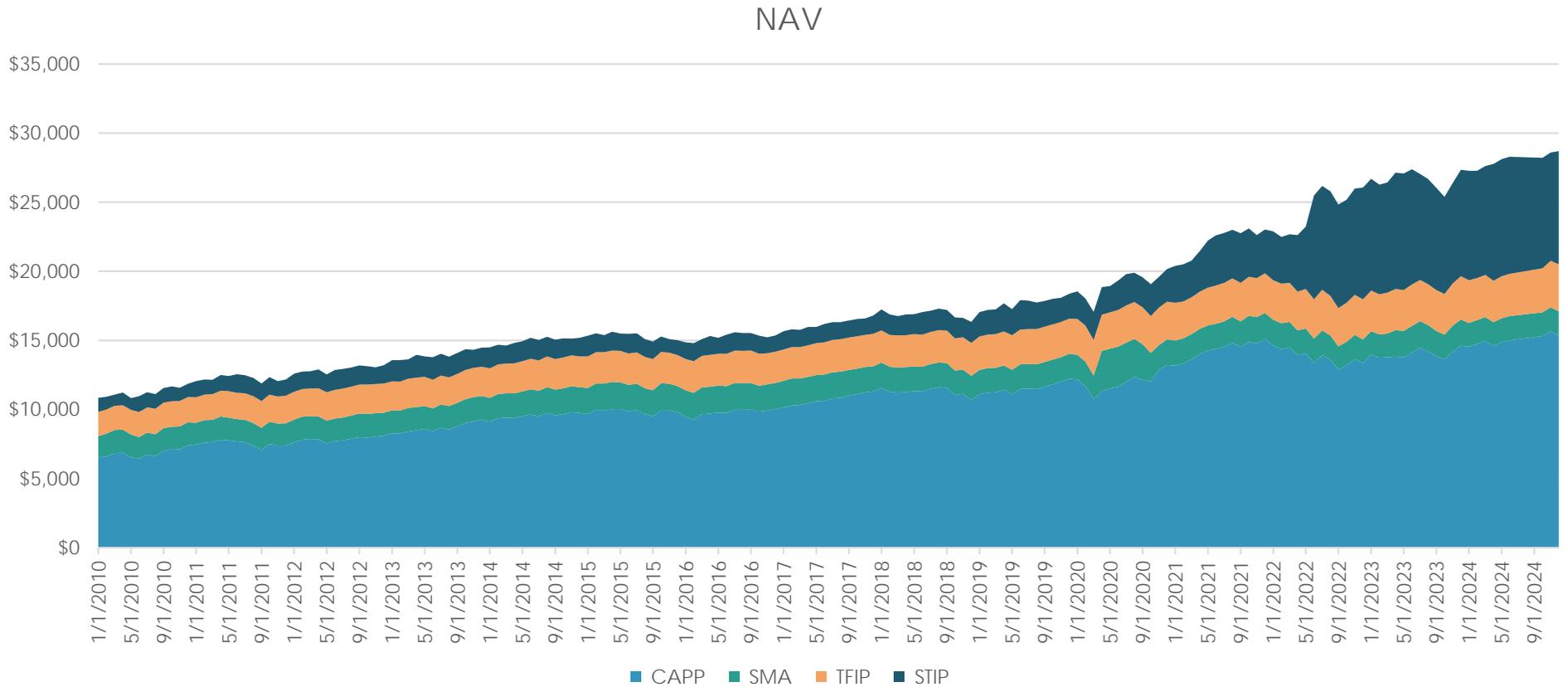
## AUM by Participant Type



\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

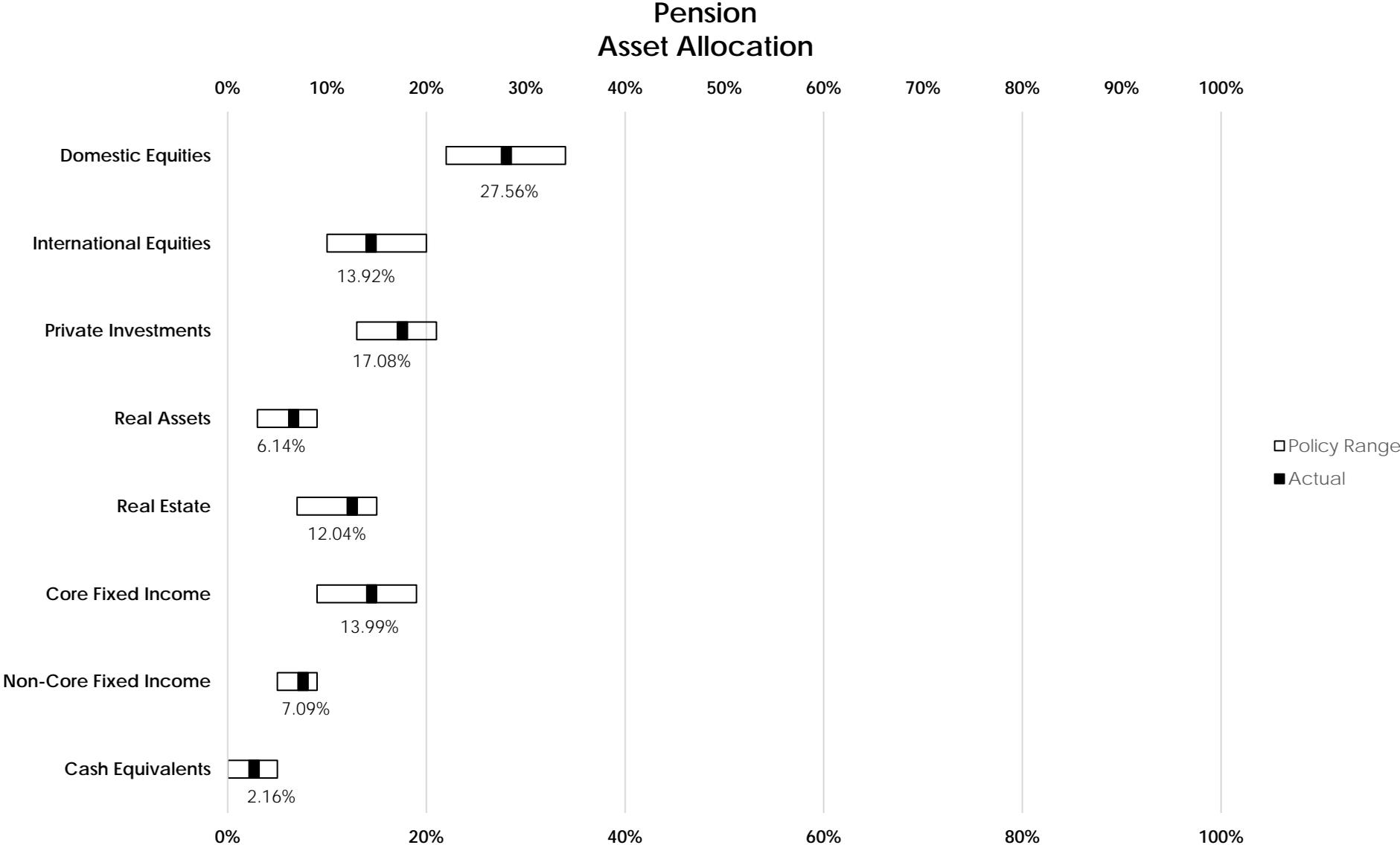
## AUM by Pool



\* Dollar values are in \$1,000,000  
December 31, 2024

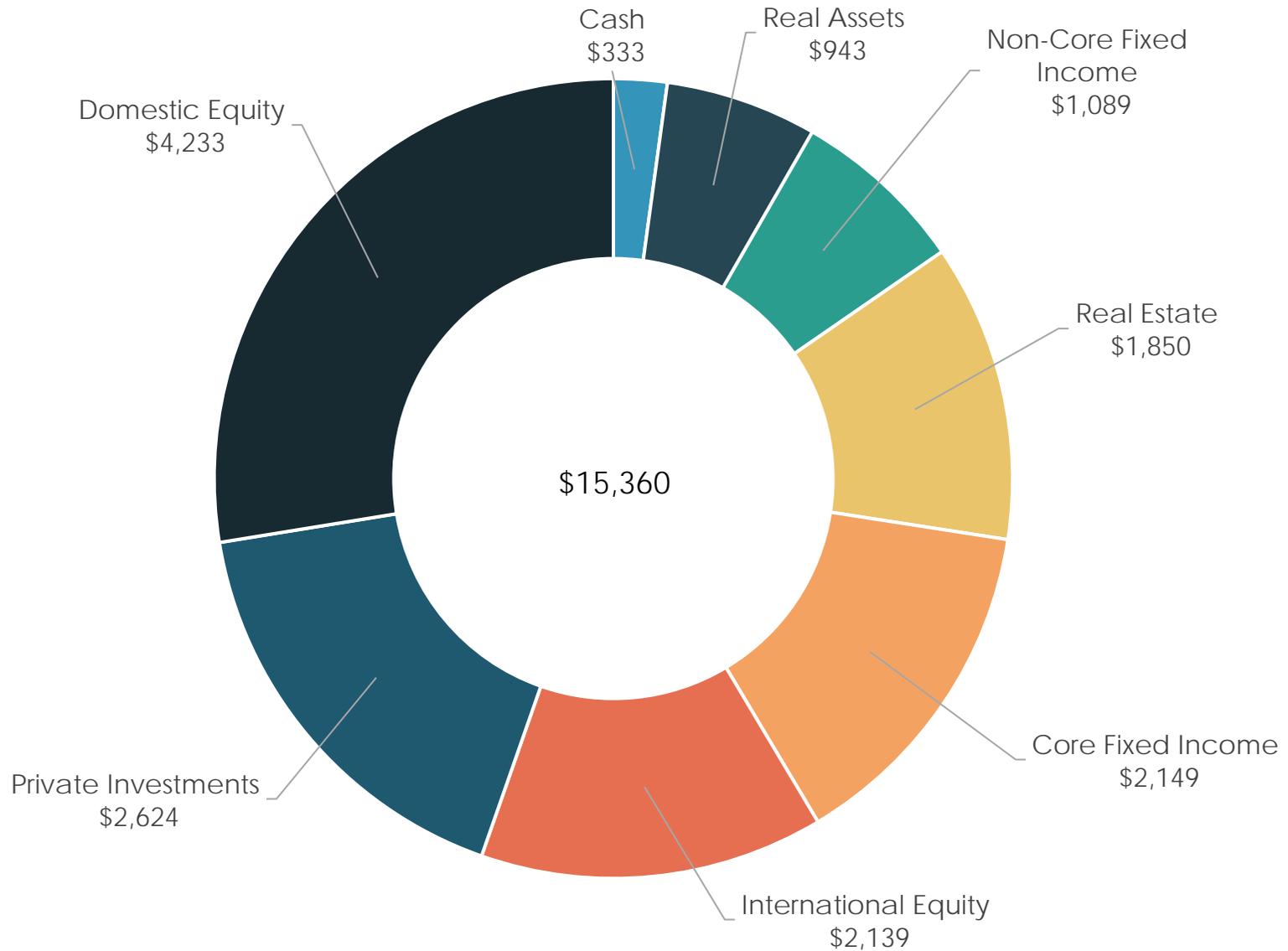
# CIO Update

## Pension Asset Allocation



# CIO Update

## Pension Asset Allocation

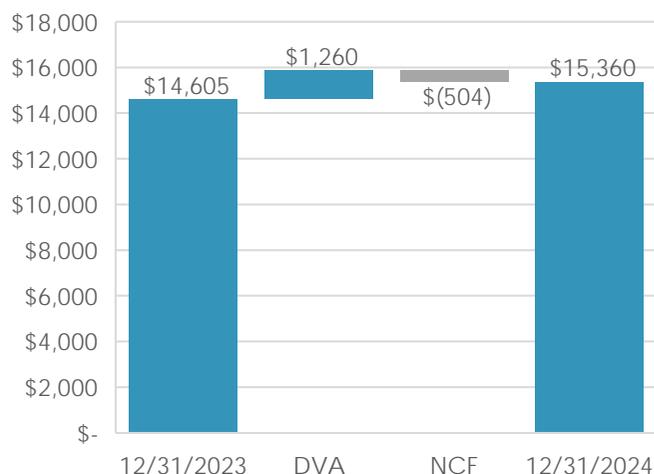


\* Dollar values are in \$1,000,000  
December 31, 2024

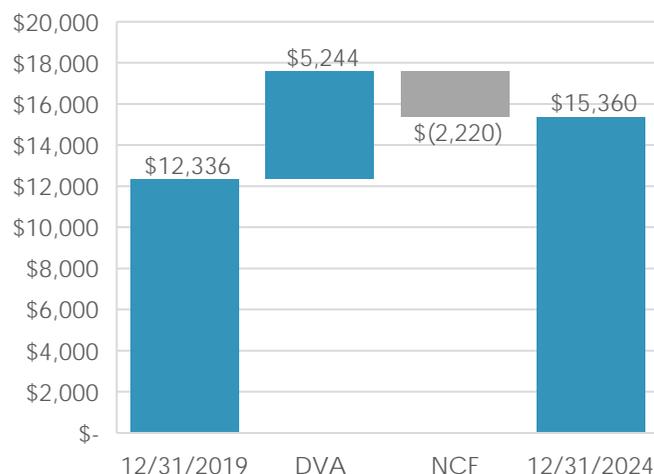
# CIO Update

## Pension Net Performance

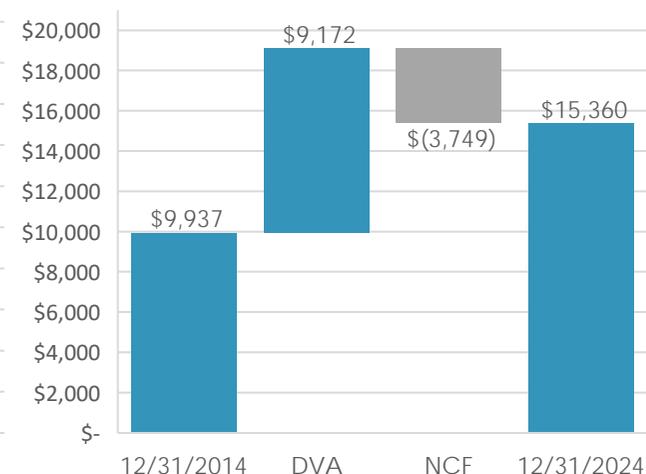
Asset Changes  
1 Year



Asset Changes  
5 Year



Asset Changes  
10 Year



- Dollar Value Added – The total dollar return of the portfolio including income and capital gains.
- Net Cash Flow - The total dollar amount distributed from portfolio assets to meet the deficit of contributions minus distributions.
  - A grey bar indicates an aggregate net outflow by all plans even though some plans may have experienced net inflows.
  - Though aggregates are shown, each plan is independent and not able to rely on other plans to meet their respective liabilities.

# CIO Update

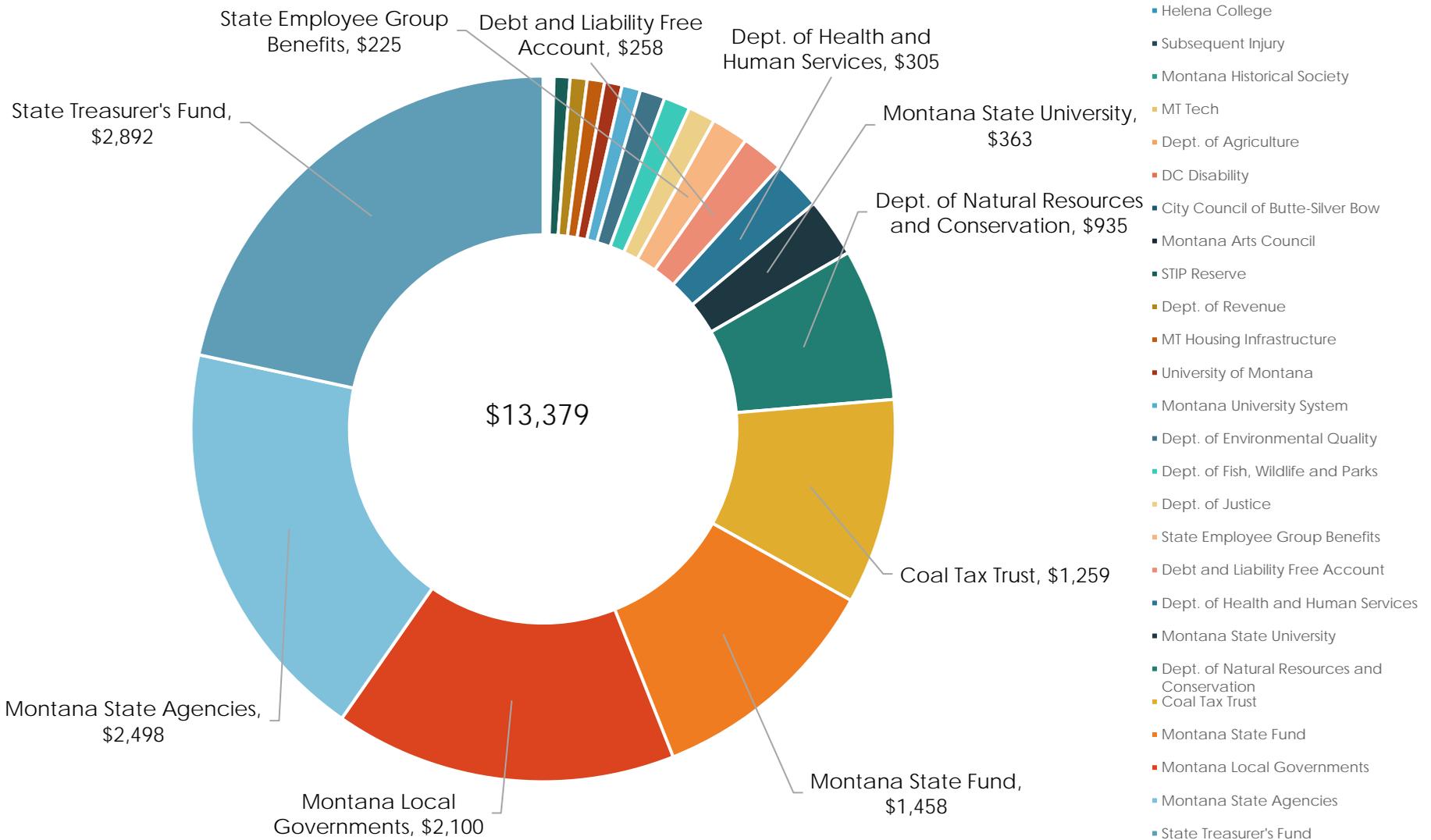
## Pension Net Performance

Performance	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	Since Inception
Public Employees' Retirement	3.97%	8.73%	3.51%	7.87%	7.62%	7.02%	7.76%
Police Officers' Retirement	3.98%	8.75%	3.53%	7.87%	7.62%	7.00%	7.65%
Game Wardens' Retirement	3.97%	8.73%	3.51%	7.86%	7.62%	6.99%	7.68%
Sheriffs' Retirement	3.96%	8.72%	3.51%	7.87%	7.62%	7.01%	7.67%
Judges' Retirement	3.97%	8.74%	3.51%	7.87%	7.62%	7.02%	7.68%
Highway Patrol Retirement	3.97%	8.73%	3.51%	7.87%	7.62%	7.02%	7.67%
Teachers' Retirement	3.97%	8.74%	3.50%	7.86%	7.61%	7.02%	7.77%
Vol Firefighters' Retirement	3.98%	8.74%	3.50%	7.86%	7.61%	7.00%	7.51%
Firefighters' Retirement	3.98%	8.74%	3.53%	7.87%	7.62%	7.01%	7.64%

Inception 7/1/1994

# CIO Update

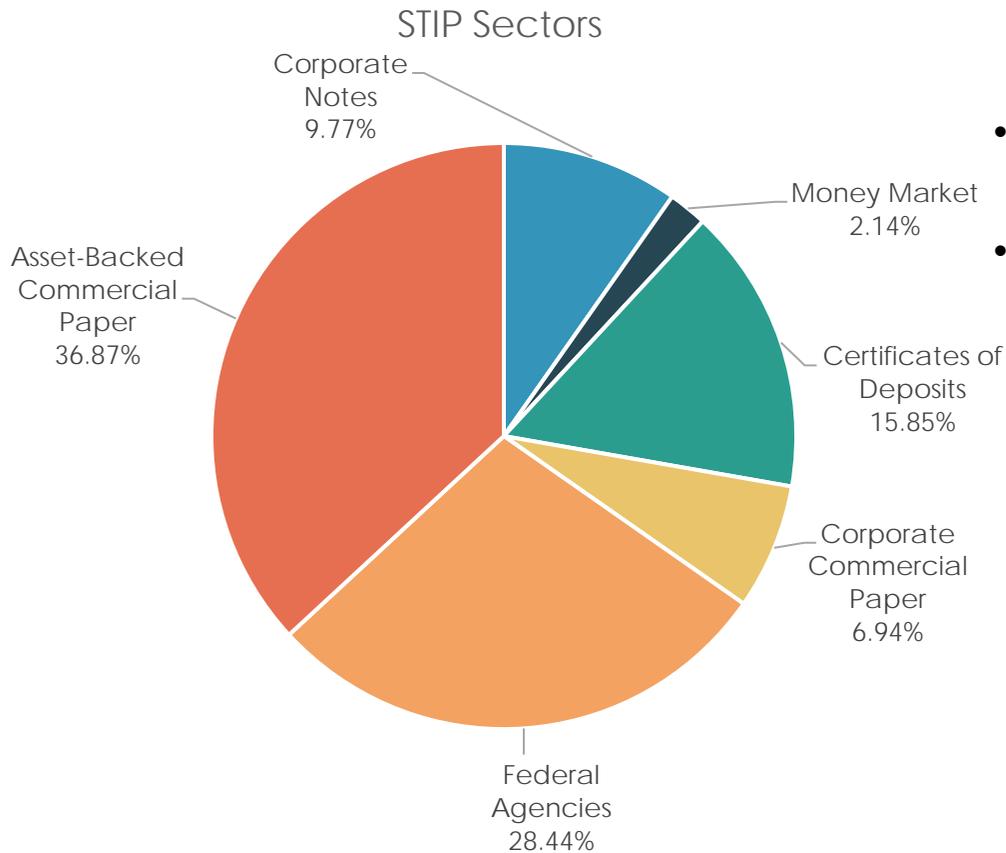
## AUM ex. CAPP



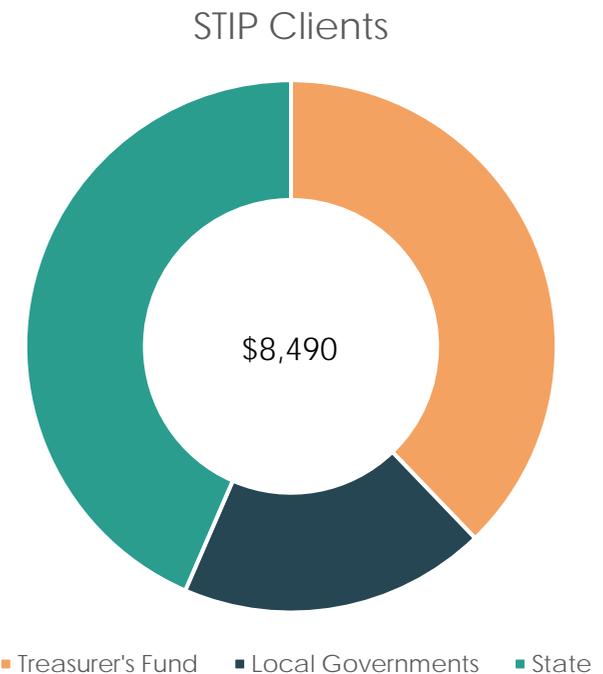
\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

## Short Term Investment Pool



- The weighted average maturity of the portfolio was 63 days at quarter end.
- The STIP Reserve was \$97M at quarter end.



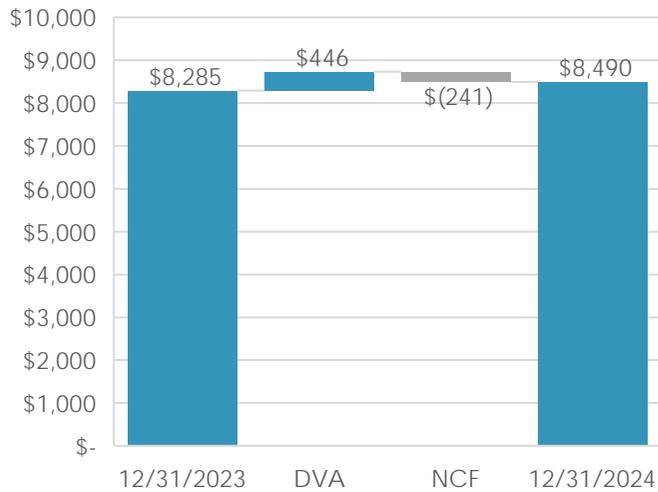
\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

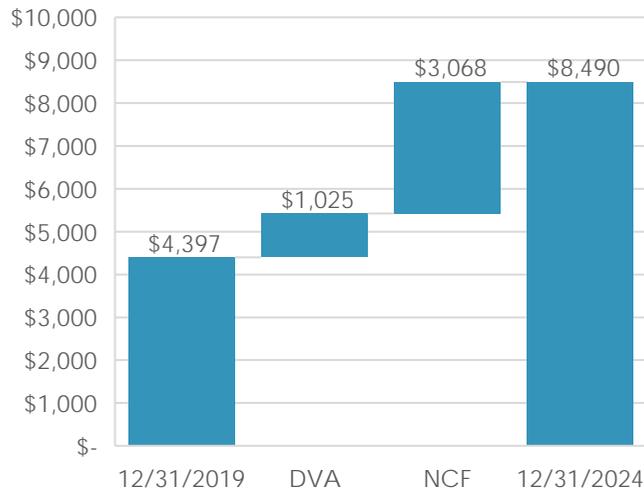
## Short Term Investment Pool

### STIP Net Performance

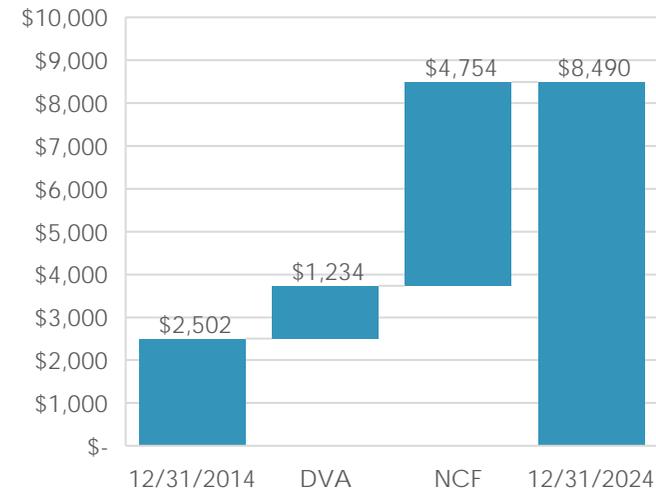
Asset Changes  
1 Year



Asset Changes  
5 Year



Asset Changes  
10 Year



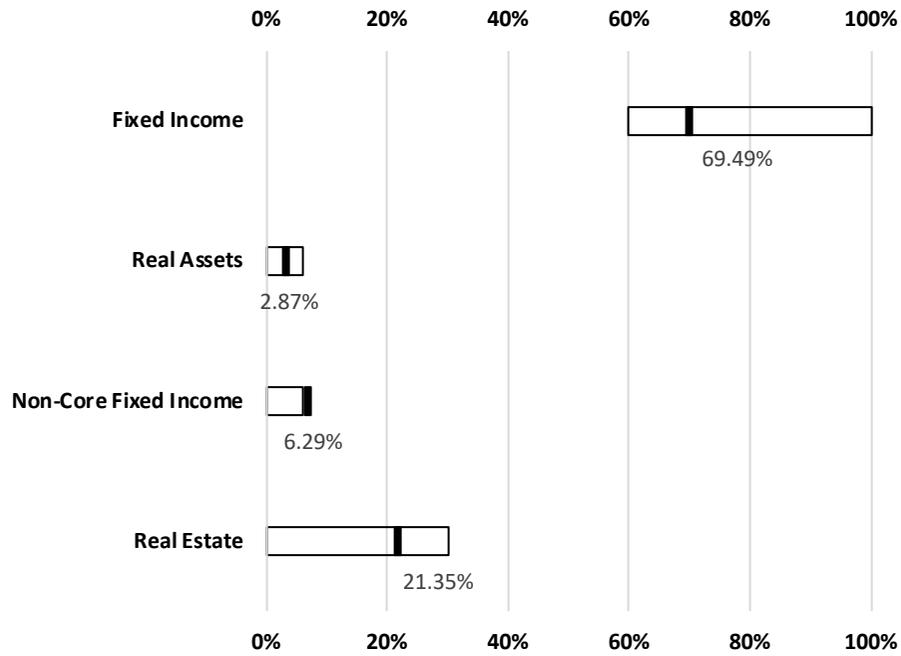
Performance	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Short Term Investment Pool (STIP)	2.55%	5.33%	4.03%	2.57%	1.90%	2.48%
Short Term Investment Pool Benchmark	2.57%	5.42%	4.12%	2.53%	1.86%	2.41%

\* Dollar values are in \$1,000,000  
December 31, 2024

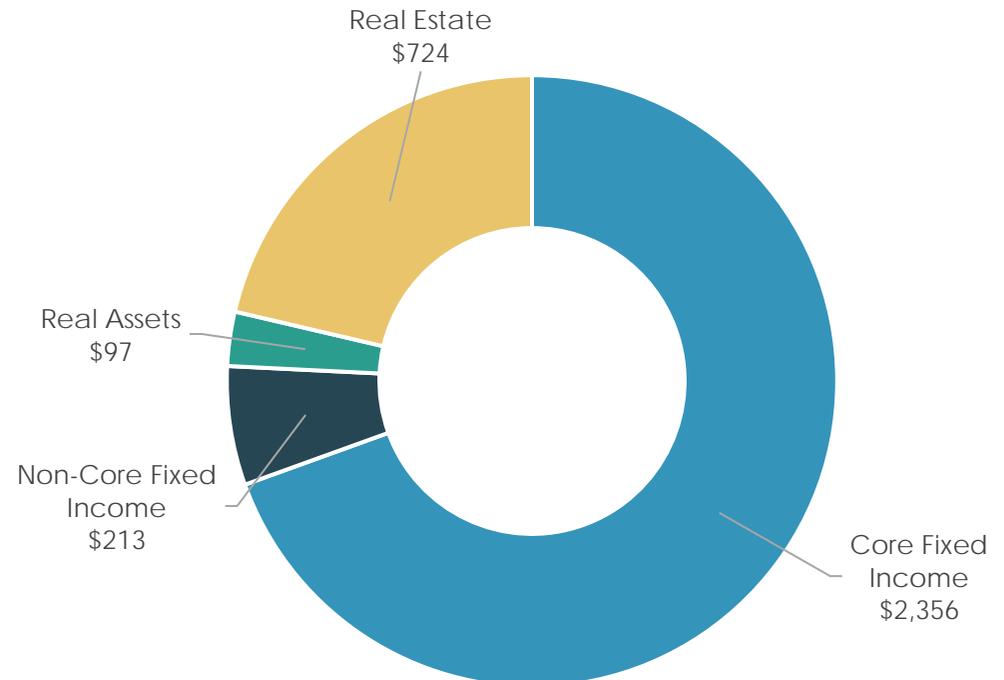
# CIO Update

## Trust Funds Investment Pool

**Trust Funds  
Asset Allocation**



□ Policy Range  
■ Actual



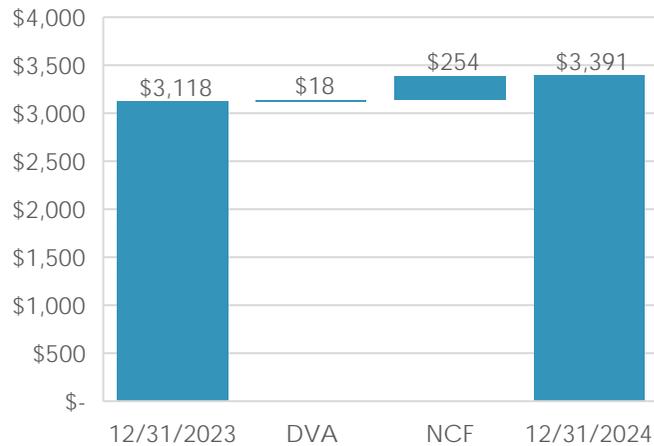
\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

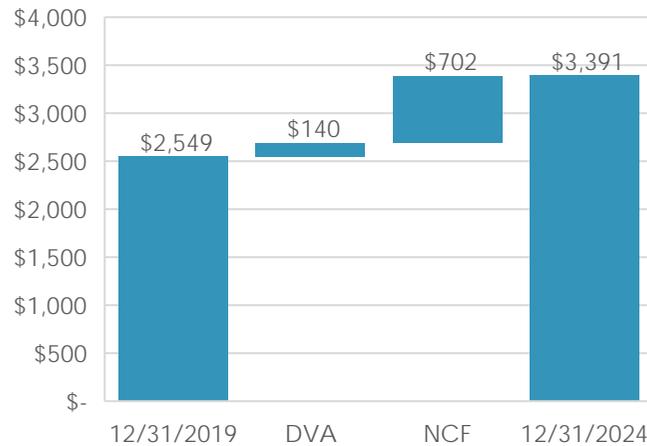
## Trust Funds Investment Pool

### TFIP Net Performance

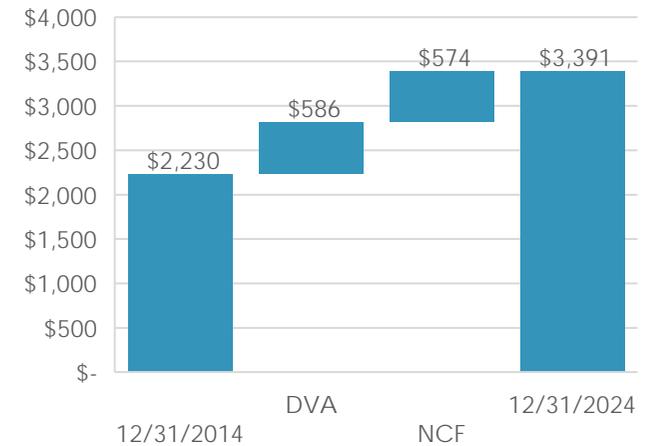
Asset Changes  
1 Year



Asset Changes  
5 Year



Asset Changes  
10 Year



Performance	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Trust Funds Investment Pool (TFIP)	1.99%	0.73%	-1.06%	1.06%	2.43%	5.22%
Trust Funds Investment Pool Benchmark	1.58%	-0.36%	-1.41%	0.74%	1.89%	4.41%

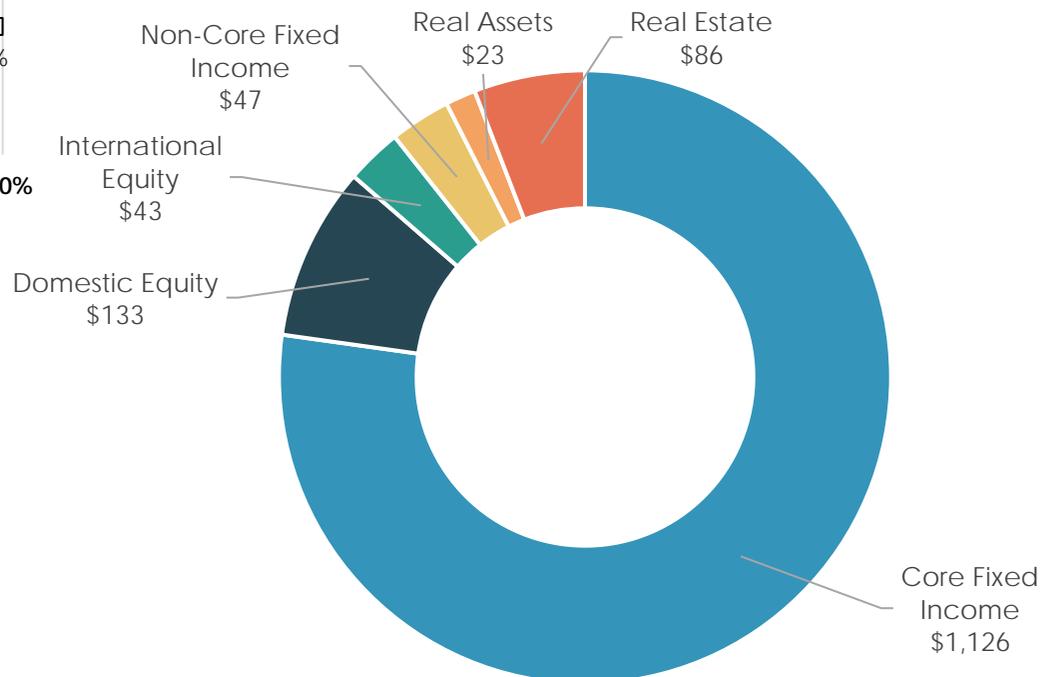
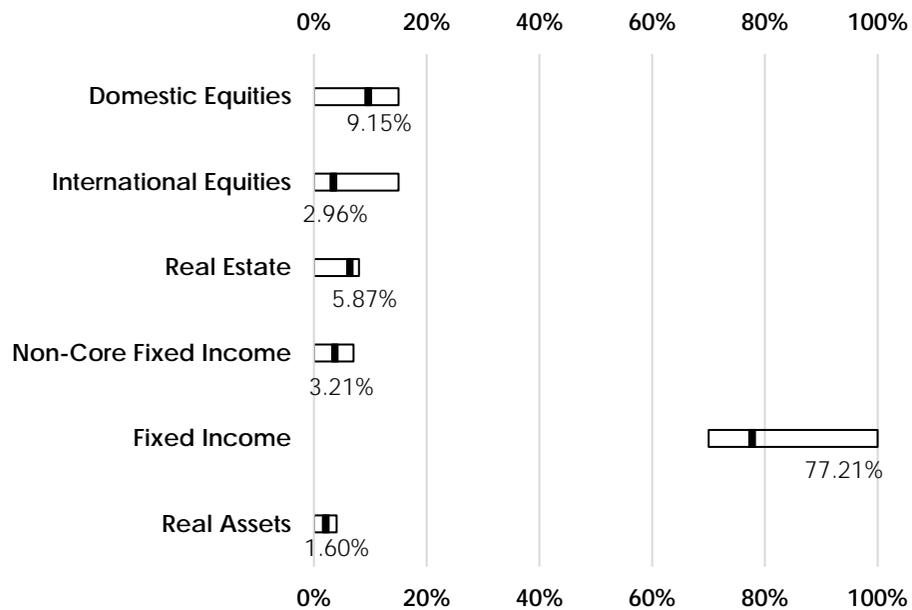
Yield	1 Year	3 Year	5 Year	10 Year
Trust Funds Investment Pool (TFIP)	4.09%	3.74%	3.43%	3.41%

\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

## State Fund Investment Pool

State Fund  
Asset Allocation



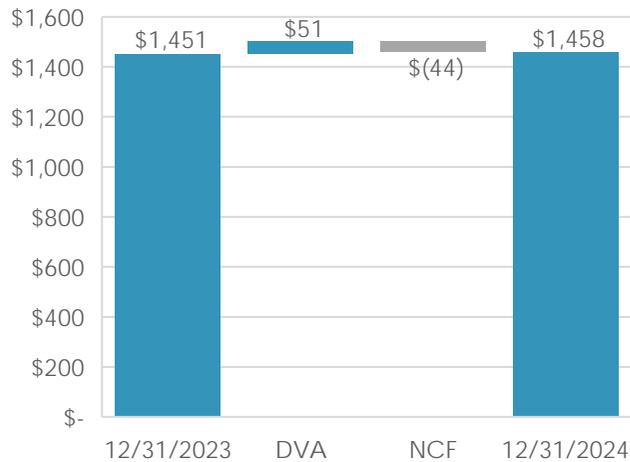
\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

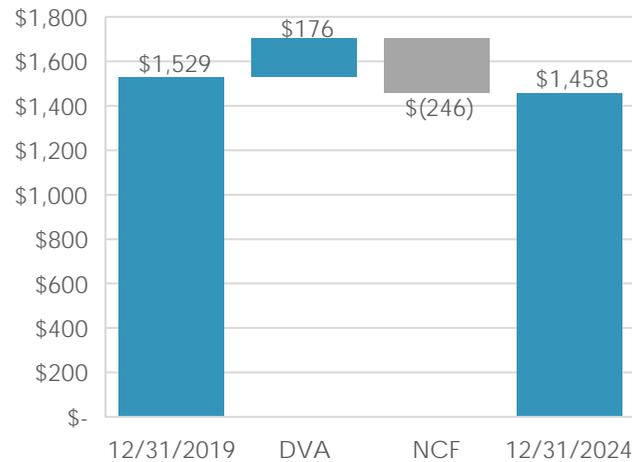
## State Fund Investment Pool

### SFIP Net Performance

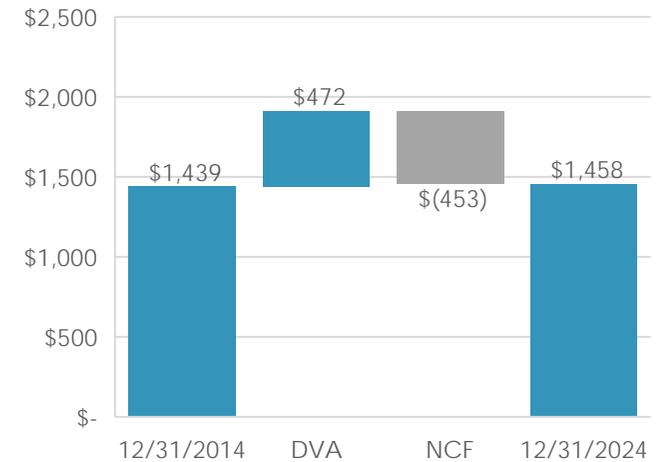
Asset Changes  
1 Year



Asset Changes  
5 Year



Asset Changes  
10 Year



Performance	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception
State Fund	2.36%	3.47%	0.49%	2.37%	3.22%	5.08%
State Fund Benchmark	2.47%	3.11%	-0.02%	1.96%	2.89%	4.56%

\* Dollar values are in \$1,000,000  
December 31, 2024

# CIO Update

- The Federal Reserve cut rates 100 bps since Sept and paused in January. Maintaining a diversified portfolio given rich valuations in most areas. Deal flow in private markets looks poised to accelerate.
- Assisting the Executive Director with analysis of a variety of proposed legislation.
- Enhancing the security of our information technology platform. The implementation of the secure data room continues in addition to expanding the number of users for our cloud-based CRM system.
- Improved documentation of investment policies and procedures.
- Working with analyst staff to assign select projects across asset classes as appropriate and where employees have interest.
- Hired Ethan Kittle, former intern, as a fixed income analyst. Interviewing investment and accounting interns for summer 2025.

# Macro Attribution

## Key Takeaways – 3 Year

### **Strategic Asset Allocation** - *What was the performance of our midpoint weighted benchmark portfolio?*

- All benchmarks except those of Real Estate and Core Fixed Income provided positive contributions to the pension, policy-neutral, 3.31% return.

### **Tactical Asset Allocation** - *Did the actual asset class weights add additional return over the midpoint weighted benchmark portfolio?*

- About \$528M of equity asset classes were sold and \$24M of fixed income/cash asset classes were bought during the last year. The pension net cash need was \$-504M for the year.
- In aggregate, the overweighting/underweighting of the asset classes relative to their benchmarks decreased the pension portfolio's return by 20 bps with the underweight to Domestic Equity providing most of underperformance.

### **Style Selection** - *Did the portfolio benchmarks add additional return over their asset class benchmarks?*

- The Domestic Equity manager benchmarks had higher exposure to small cap than the asset class benchmark leading to total style underperformance of 9 bps.
- The International Equity manager benchmarks had higher exposure to growth benchmarks than the asset class benchmark leading to total style underperformance of 8 bps.
- The strong outperformance of the Commodity Producers and Infrastructure indexes relative to TIPS resulted in style outperformance of about 18 bps.
- In Real Estate, exposure to a CMBS index and a REIT index were the primary contributor to style underperformance of 12 bps.
- Within Non-Core Fixed Income, exposure to preferred & EMD indexes led to style underperformance of 7 bps.

### **Manager Selection** - *Did the portfolio managers add additional return over their portfolio benchmarks?*

- In International Equity, there were negligible manager selection effects on a net basis.
- Our internal Core Fixed Income portfolio added 5 bps to manager selection outperformance.
- Private Investments manager selection underperformed by 11 bps.
- Real Assets added 22 bps to manager selection outperformance due to the well performing private infrastructure portfolio.
- The Private Real Estate Portfolio and CMBS Manager added positive effects totaling 38 bps.

*Note: The publicly traded benchmarks for private asset classes are an imperfect proxy for actual holdings due to the pricing of private assets lagging their publicly traded benchmarks.*

# Macro Attribution



Strategic Asset Allocation (SAA) - The return that would have been achieved if we had invested in our asset class benchmarks at the midpoint weights.

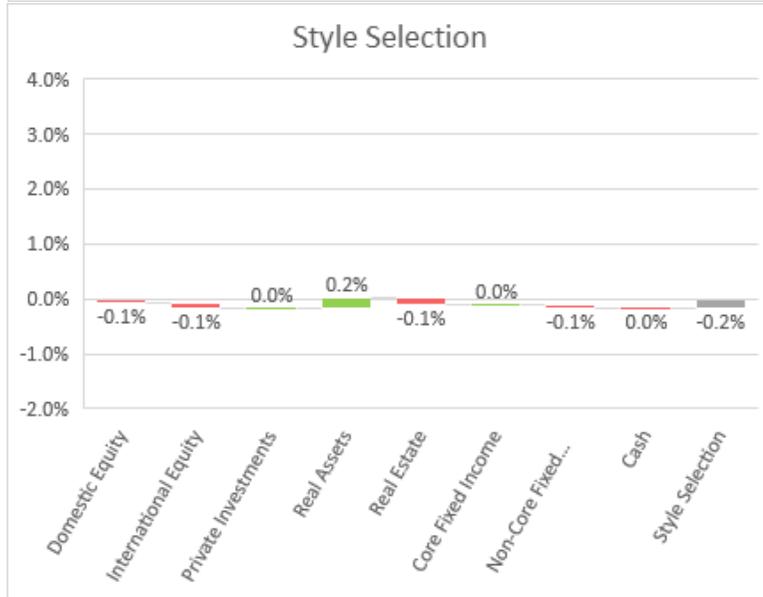
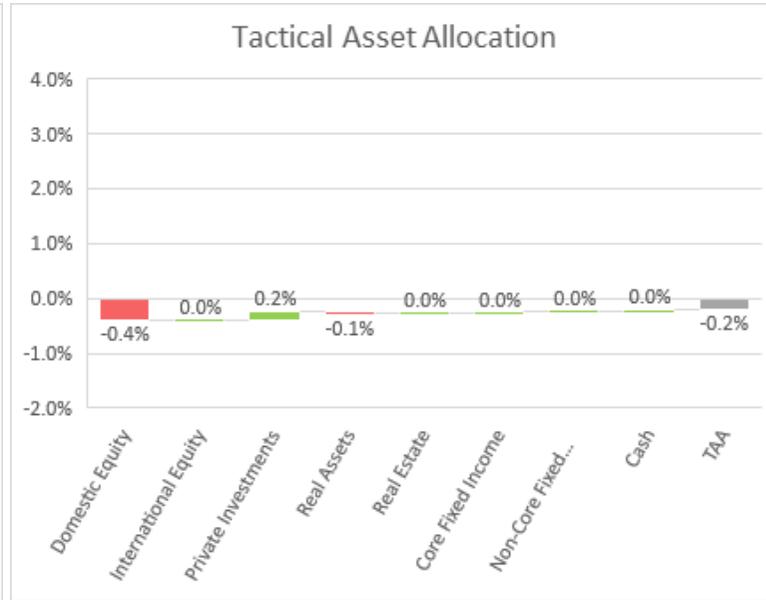
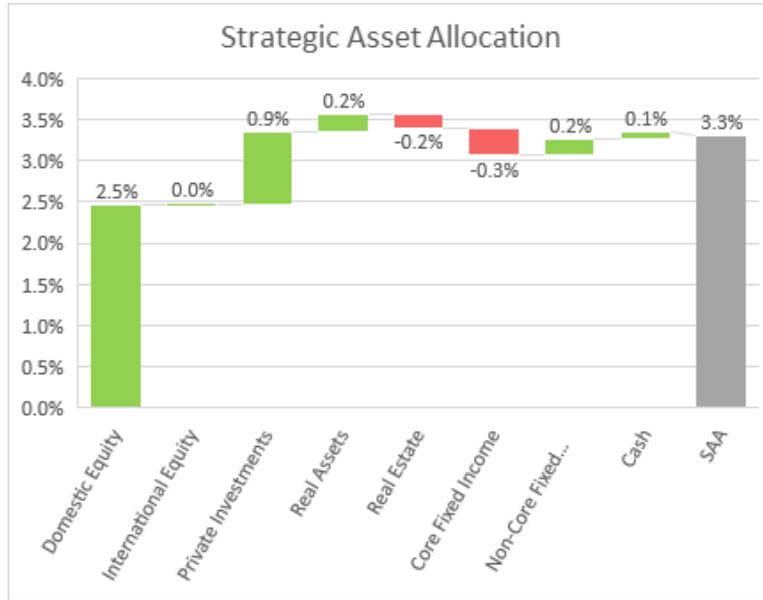
Tactical Asset Allocation (TAA) - The *additional* return earned by investing in the asset class benchmarks at our actual rather than midpoint weights.

Style Selection (SS) - The *additional* return earned by investing in the underlying manager benchmarks rather than the asset class benchmarks.

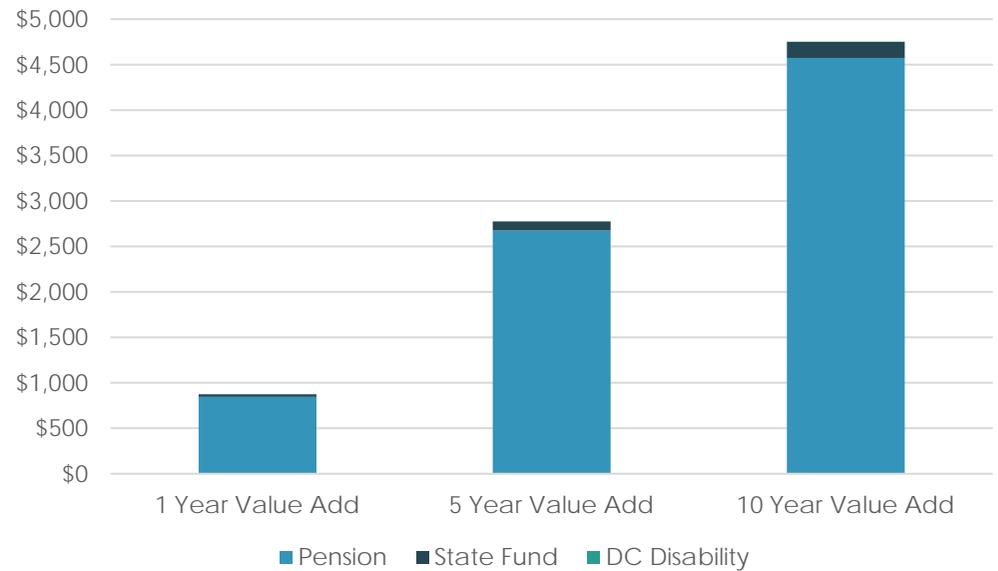
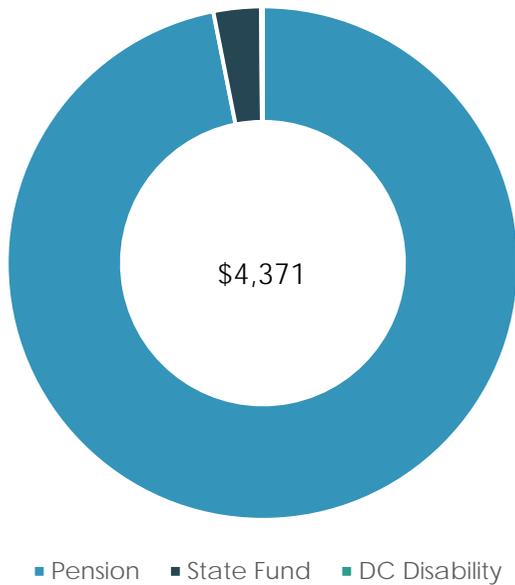
Manager Selection - The *additional* return earned by investing in the underlying managers rather than the underlying manager benchmarks.

\* The valuation lag observed in Private Equity, Real Estate, and Natural Resources are likely to lead to large differences in returns between these asset classes and their benchmarks in short-mid term time periods. The manager selection component is therefore likely to be large for these asset class in the short and medium term.

# Macro Attribution



# Domestic Equity Ownership Breakdown

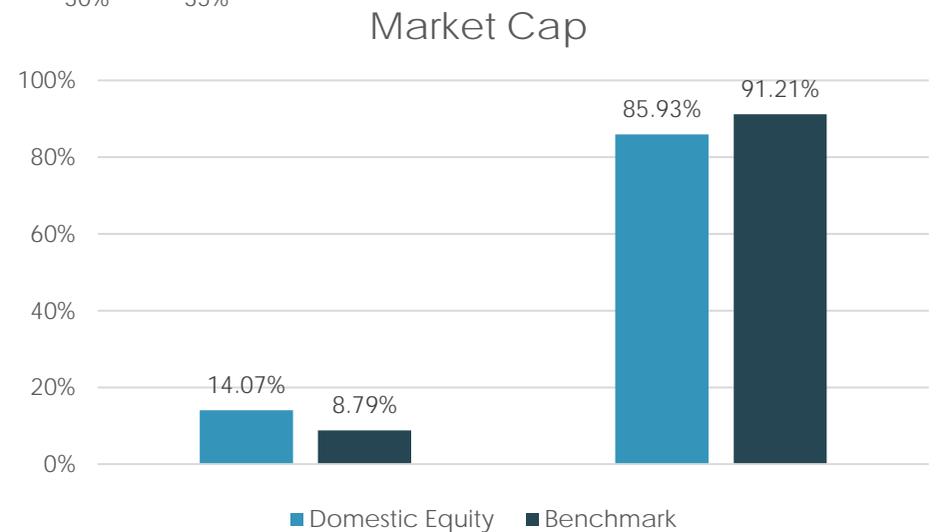
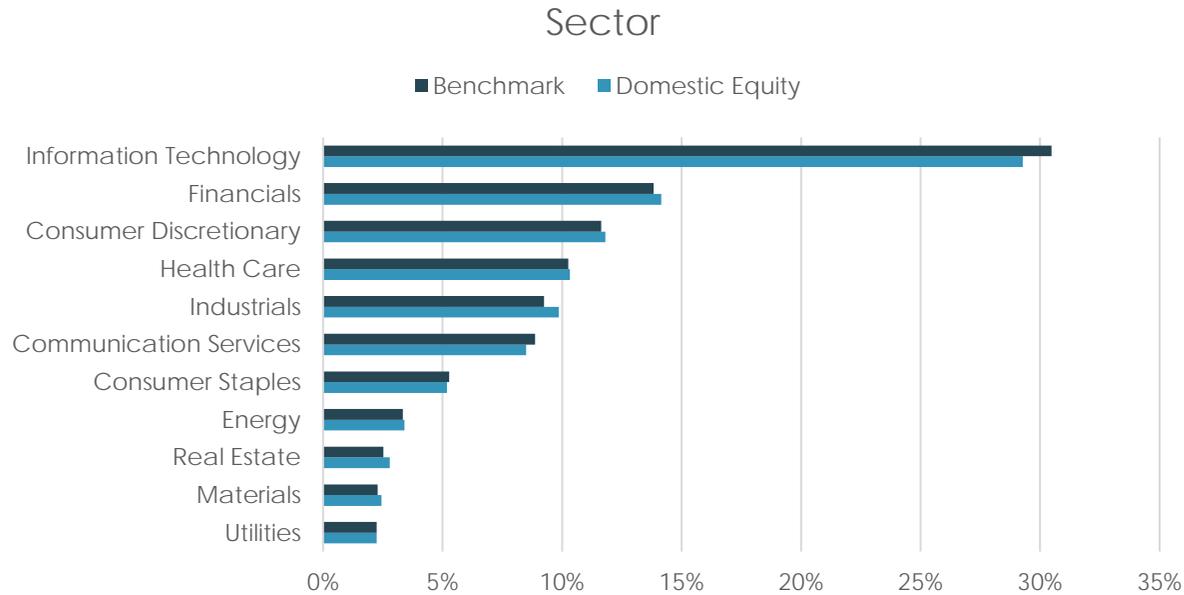


Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	22.86%	23.82%	13.82%	14.04%	12.16%	12.73%
State Fund	25.00%	25.02%	14.50%	14.53%	13.09%	13.10%
DC Disability	23.88%	23.88%	13.82%	13.78%	NA	NA

- US stocks posted impressive returns in 2024, with the S&P 500 gaining more than 25% for the second consecutive year.
- Large Cap Growth's dominance continued through 2024. Large Caps have outperformed Small Caps for 8 straight years and Growth has outperformed Value in 6 of the last 7 years.

\* Dollar values are in \$1,000,000  
December 31, 2024

# Domestic Equity Characteristics - Pension

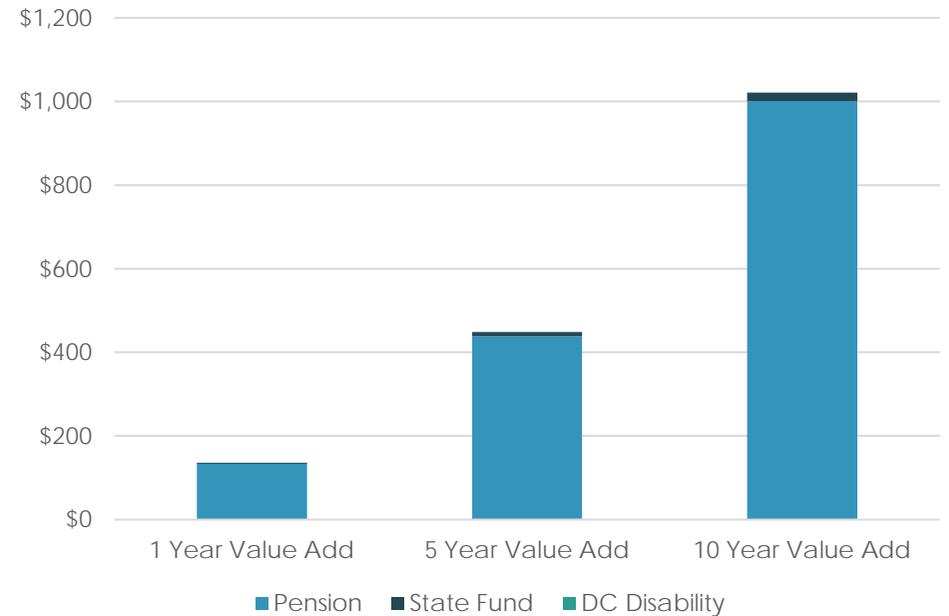
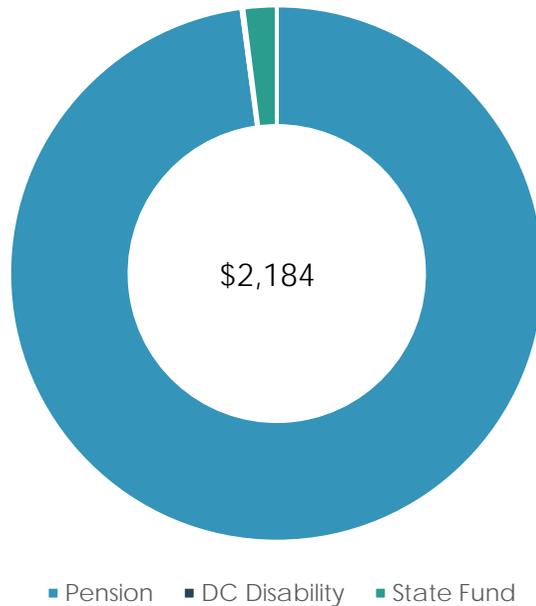


# Domestic Equity Valuation



- P/E multiples leveled off at the end of the year, with the S&P forward P/E ratio ending the quarter at 21.5x. The average forward P/E for the S&P 500 since 1996 is 16.6x.
- The Top 10 stocks in the S&P 500 trade at a forward P/E of 29.8x vs. 18.2x for the remaining stocks in the index. The concentration in the US stock market grew in 2024, with the top 10 stocks in the S&P 500 comprising 39% of the index at the end of the year, up from 32% at the end of 2023.

# International Equity Ownership Breakdown



Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	6.45%	5.23%	4.26%	4.12%	5.19%	4.91%
State Fund	5.36%	5.53%	4.08%	4.10%	4.81%	4.80%
DC Disability	5.53%	5.53%	4.30%	4.10%	NA	NA

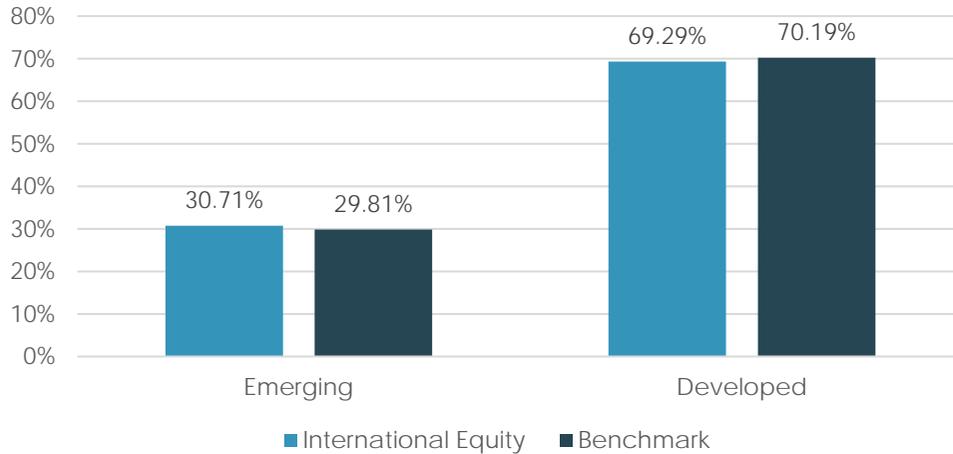
- International Equities finished the year on a down note and lagged US stocks by a wide margin in 2024.
- While Growth dominated in the US, Value stocks outperformed Growth in International Equities for the year. Large Caps did better than Small Caps, but by a much smaller margin than in the US. Emerging Markets gained some steam mid-year and outperformed Developed Markets in 2024.
- Currency was a significant drag on International Equities' returns over the last 12 months.

\* Dollar values are in \$1,000,000

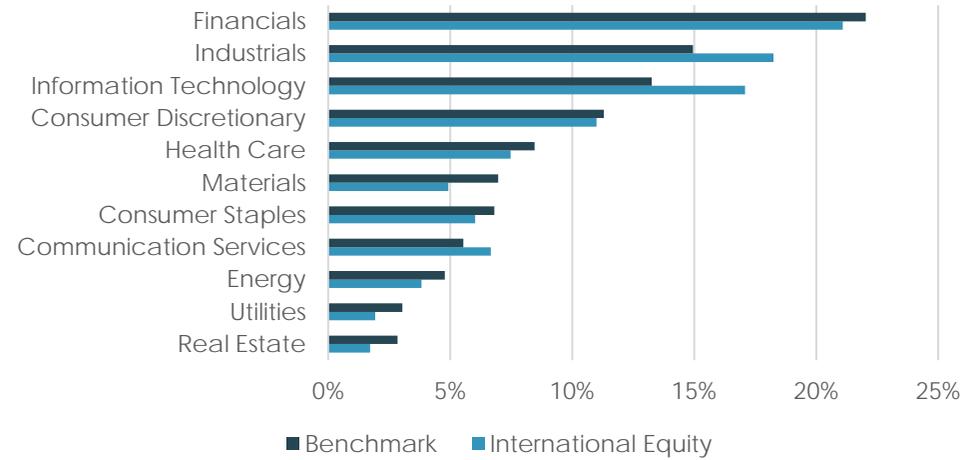
December 31, 2024

# International Equity Characteristics - Pension

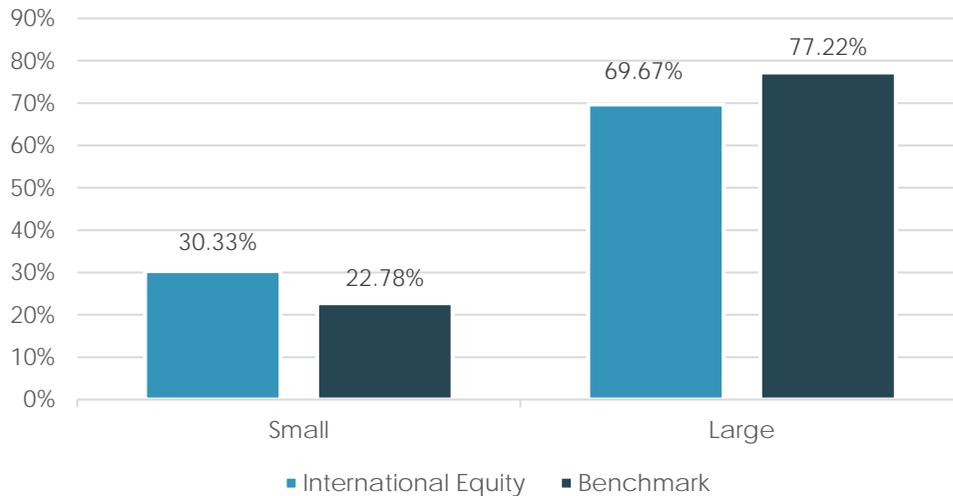
## Developed vs. Emerging Markets



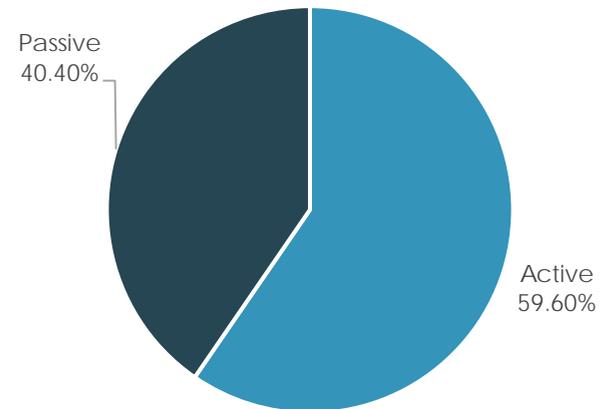
## Sector



## Market Cap



## Active vs. Passive

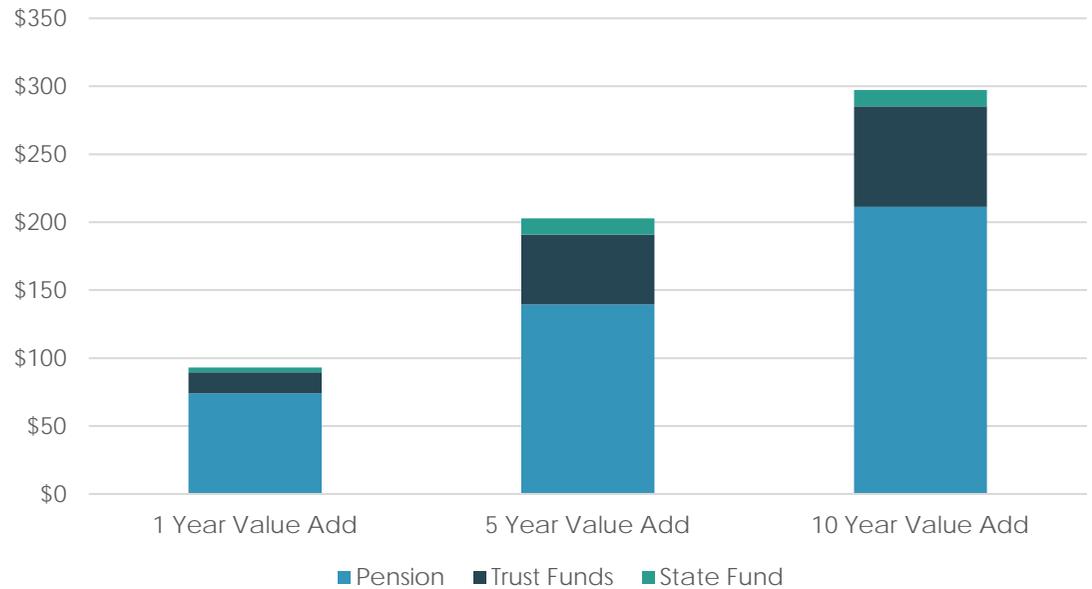
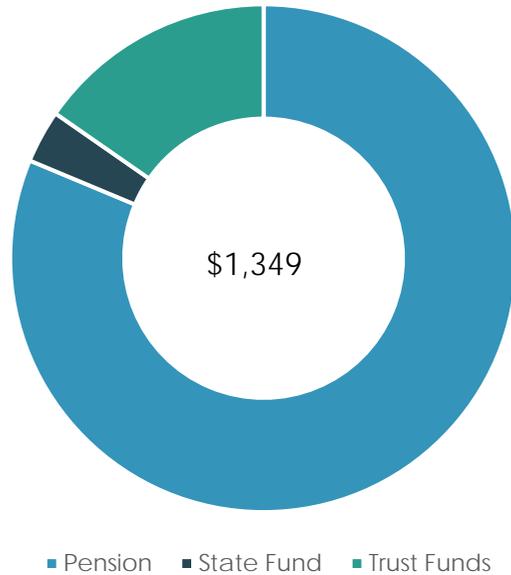


# International Equity Valuation



- The forward P/E for the MSCI ACWI ex-US Index was 13.3x at the end of 4Q24, down from 13.8x at the end of 3Q24. The 20-year average for the index is 13.1x.
- Valuations for International Equities remain at historically low levels vs. US stocks. The discount at the end of 4Q24 was -38%.

# Non-Core Fixed Income Ownership Breakdown

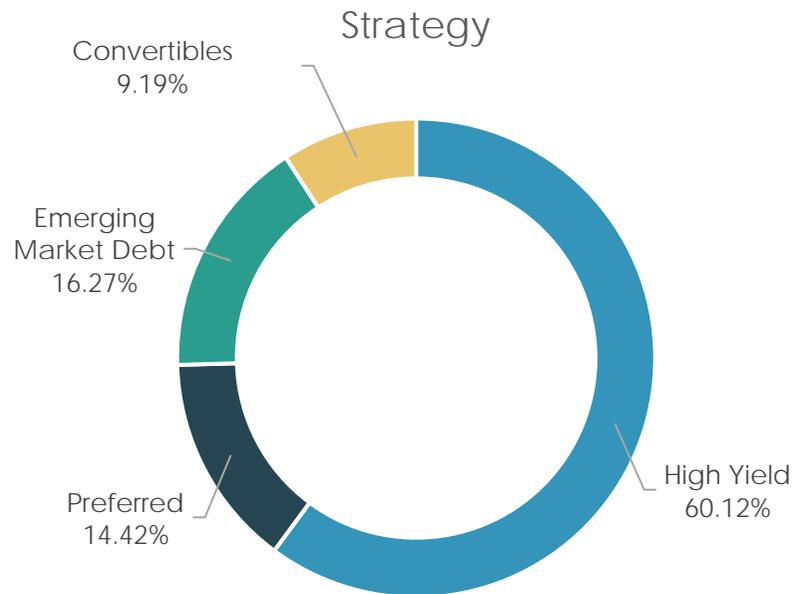
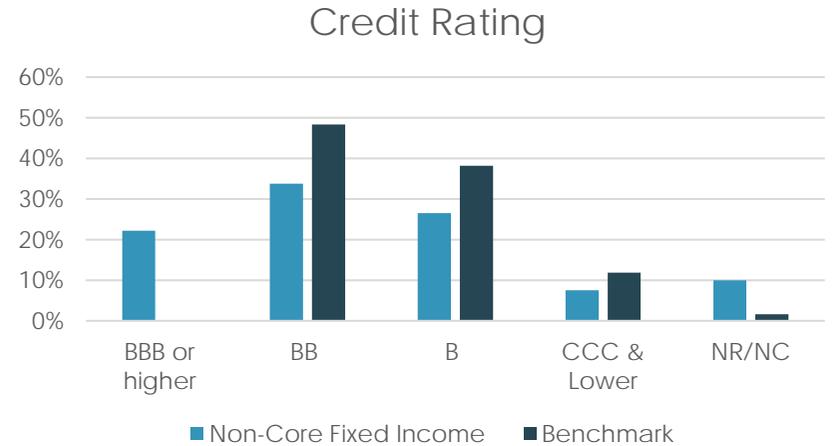
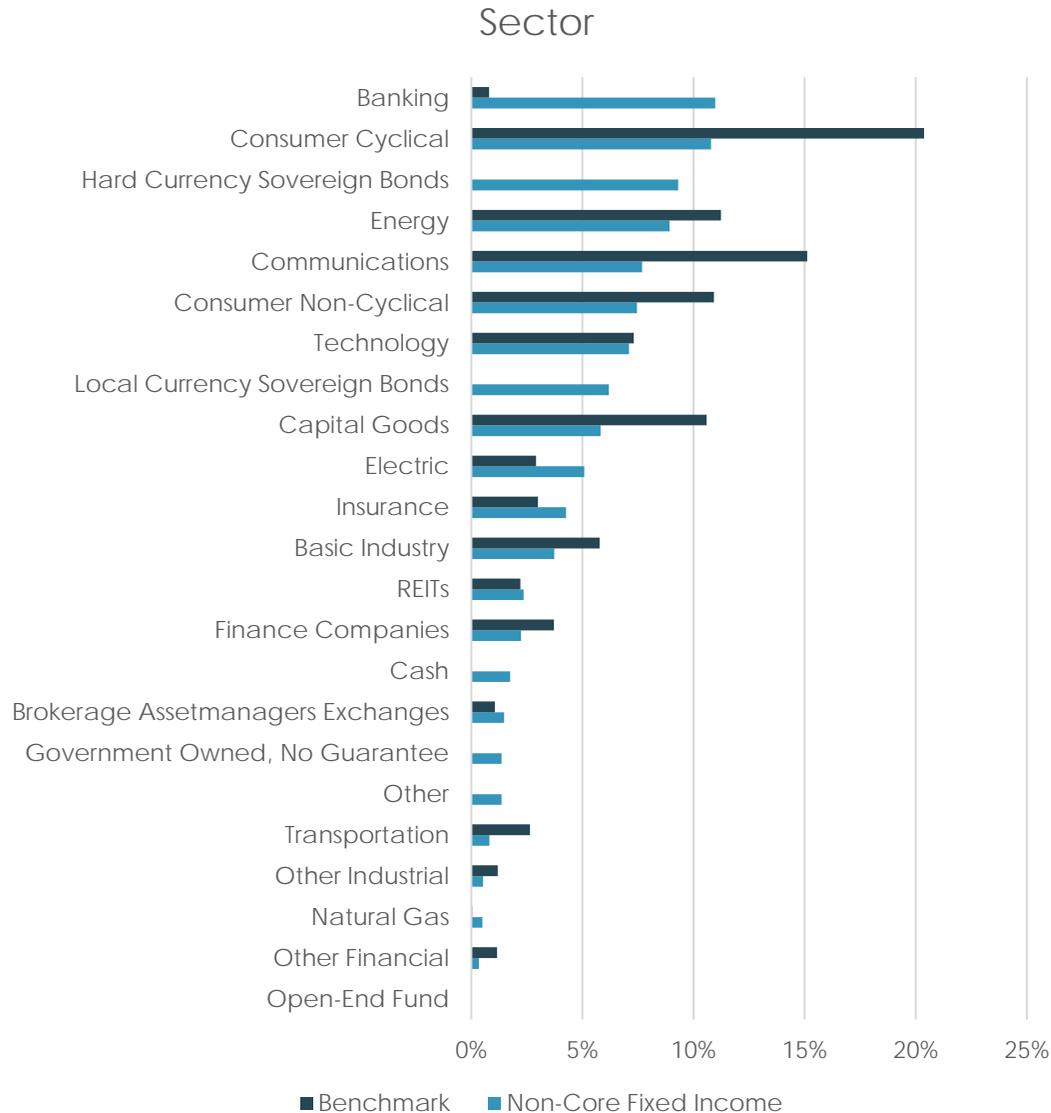


Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	7.12%	8.19%	2.94%	4.20%	4.11%	5.16%
State Fund	8.13%	8.19%	NA	NA	NA	NA
Trust Funds	7.84%	8.19%	4.24%	4.20%	4.36%	5.16%

- Returns were solid for the asset class in 2024, with Preferred Securities posting the highest return for the group. Emerging Markets Debt lagged.
- Lower-quality High Yield credits continued their extended period of outperformance.
- Default rates for 2024 came in well below historical averages.

\* Dollar values are in \$1,000,000  
December 31, 2024

# Non-Core Fixed Income Characteristics

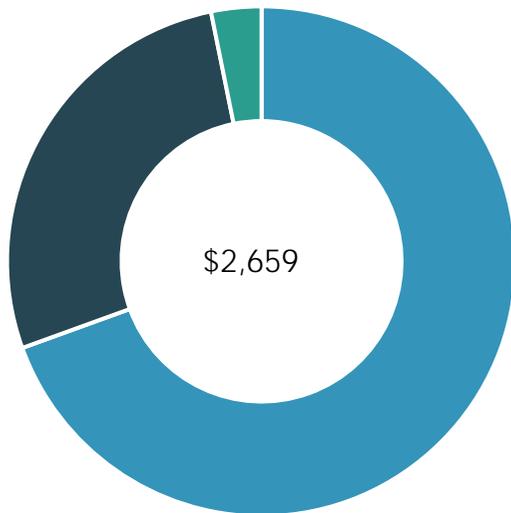


# Non-Core Fixed Income Valuation

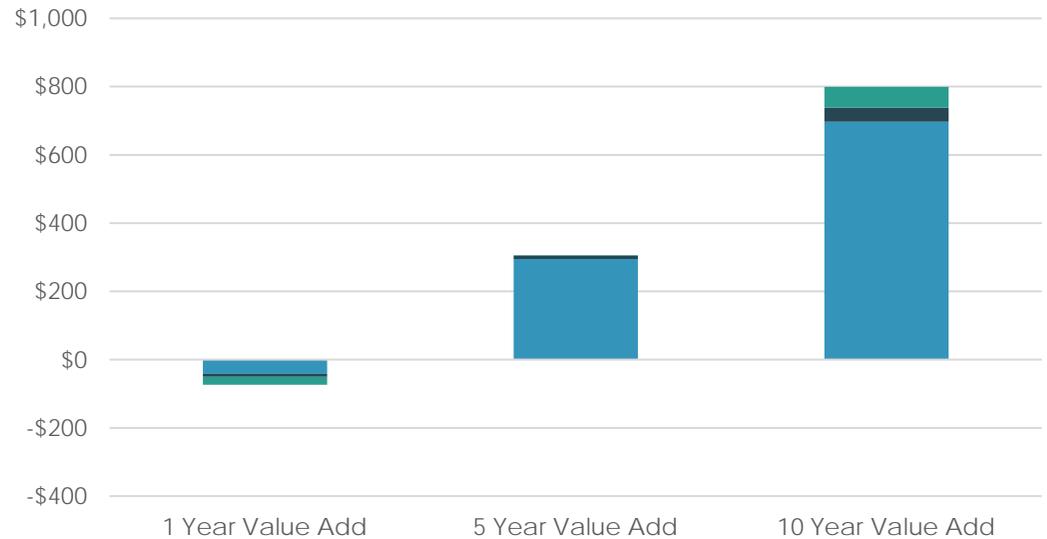


- High Yield spreads widened in December but finished the year tighter than levels at the end of 2023.
- Despite market volatility in August and December, High Yield spreads in 2024 traded in a relatively narrow range compared to recent history.
- With higher Treasury yields and slightly higher spreads, the High Yield index yield rose to 7.5% at the end of 4Q24, up from 7.0% in 3Q24. Yields dropped about 0.25% over the course of the year.

# Real Estate Ownership Breakdown



■ Pension ■ Trust Funds ■ State Fund



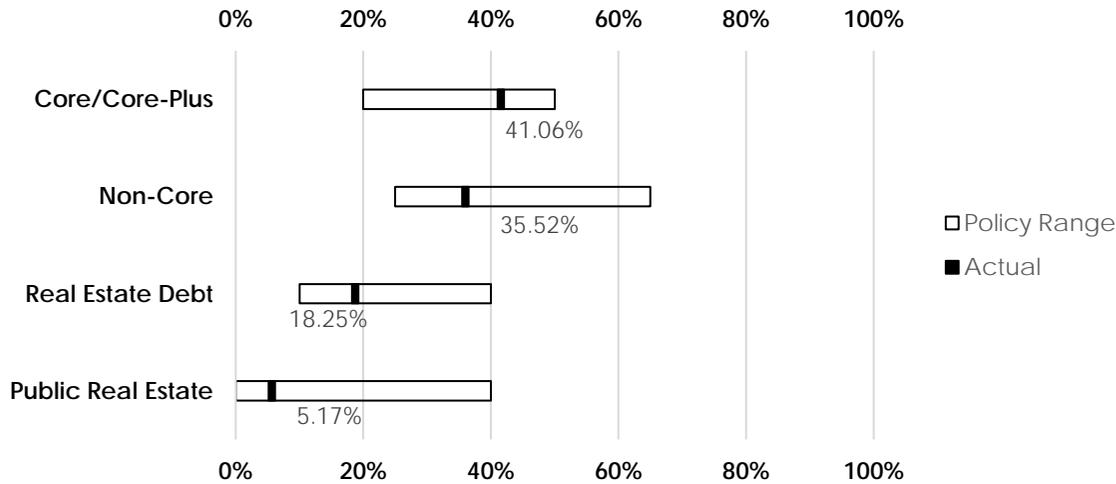
■ Pension ■ State Fund ■ Trust Funds

Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	-2.42%	-8.04%	4.26%	-2.42%	6.92%	3.41%
State Fund	-8.62%	-8.04%	1.64%	2.05%	4.40%	5.16%
Trust Funds	-3.89%	-8.04%	3.99%	2.05%	5.63%	5.16%

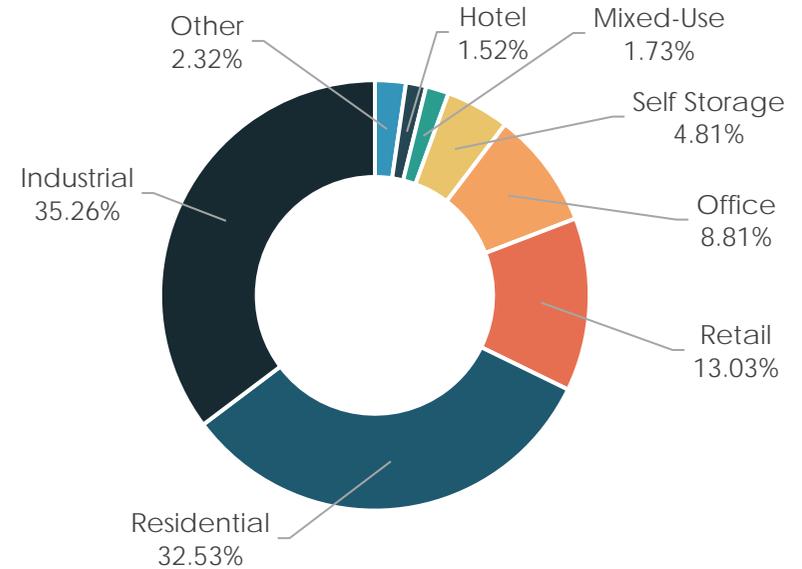
- Pricing dislocation narrowing, transaction volumes showing signs of recovery.
- Stable interest rates should bring more predictability to debt costs, continuing to stabilize pricing, increase loan originations, and catalyze liquidity.
- Development starts have plunged across sectors, expected to be a tailwind over the next few years.
- Fundamentals generally healthy but mixed depending on property type and market location.
- Refinancing needs addressed through loan modifications/extensions, delinquencies on the rise.

# Real Estate Characteristics - Pension

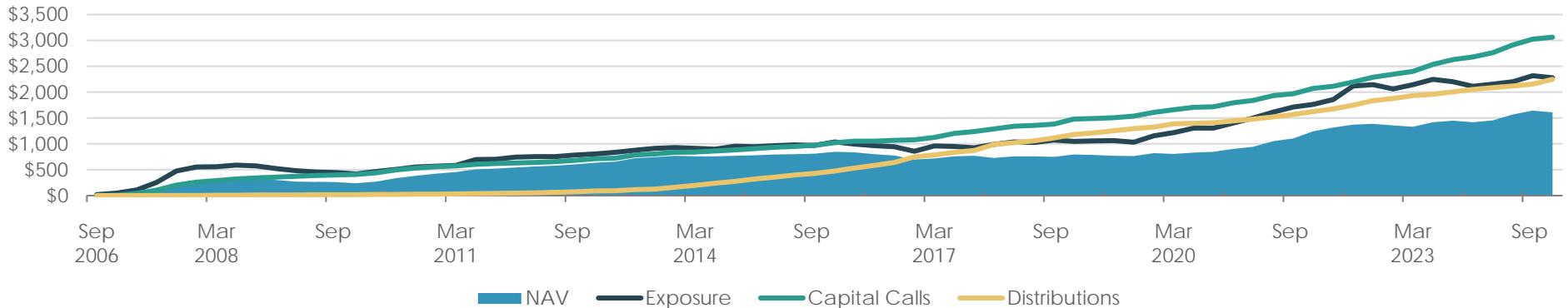
### Real Estate Asset Allocation



### Property Type



### Private Real Estate Over Time 2006-2024



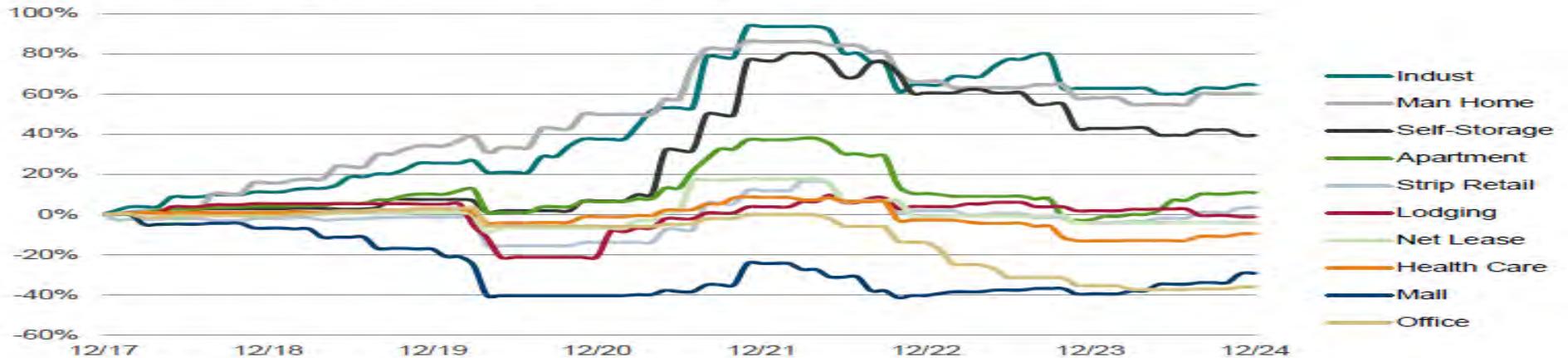
\* Dollar values are in \$1,000,000  
December 31, 2024

# Real Estate Valuation

	Index Value	Change in Commercial Property Values		
		Past Month	Past 12 Mos	Recent Peak
All Property	127.3	0.0%	5%	-18%
Core Sector	128.3	0.0%	6%	-20%
Apartment	153.4	0.0%	14%	-20%
Industrial	215.9	0.0%	1%	-15%
Mall	91.3	0.0%	17%	-6%
Office	72.6	0.0%	-1%	-36%
Strip Retail	117.0	0.0%	8%	-11%
Health Care	125.4	0.0%	4%	-17%
Lodging	102.3	0.0%	-3%	-10%
Manufactured Home Park	278.5	0.0%	1%	-14%
Net Lease	94.3	0.0%	0%	-19%
Self-Storage	242.1	0.0%	-2%	-23%

<sup>1</sup>Green Street Commercial Property Price Index® - January 7, 2025

**Cumulative Change in CPPI®: Past Seven Years**



- Price stabilization continues as reflected in Green Street's CPPI for the most recent period, continued uplift and improvement in the last 12 months, market sentiment indicates a bottoming in the cycle.

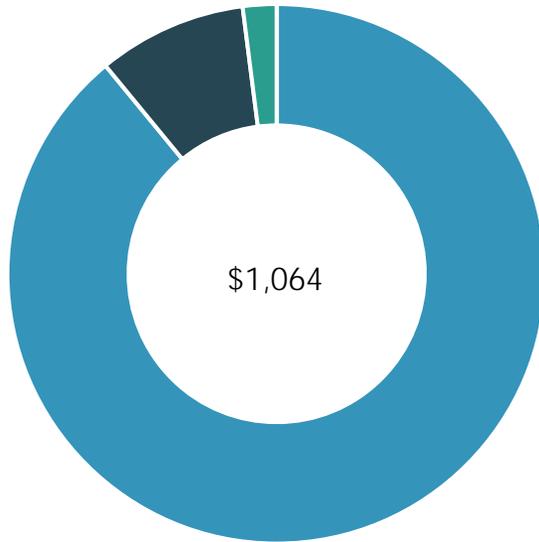
December 31, 2024

# Real Estate

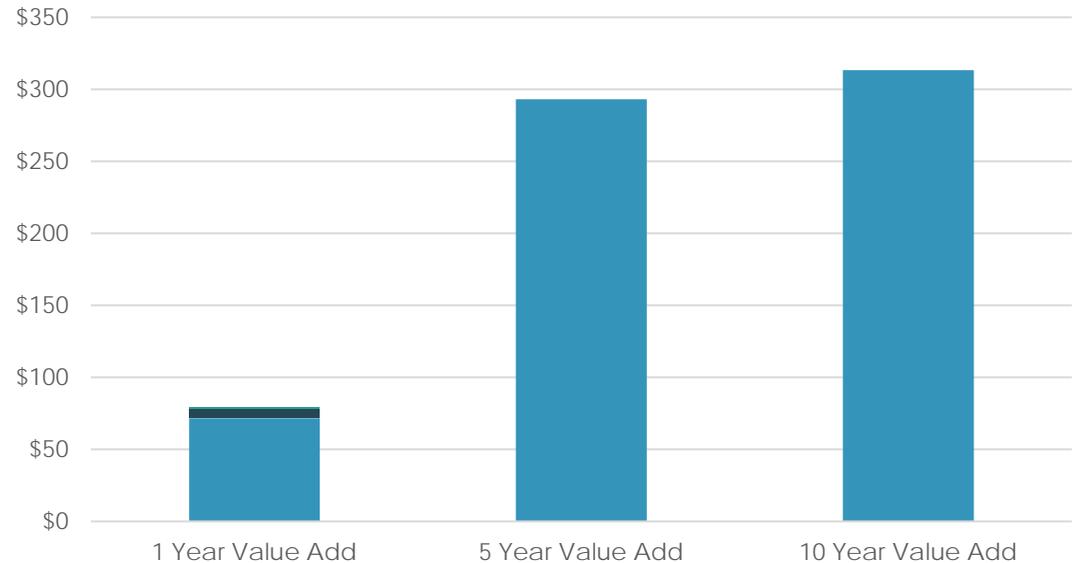
## New Commitments FYTD

- Walton Street Real Estate Debt Core Fund, LP – \$100M (CAPP), \$50M (TFIP)
- NewCold Fund III, LP - \$50M (CAPP)

# Real Assets Ownership Breakdown



■ Pension ■ Trust Funds ■ State Fund



■ Pension ■ Trust Funds ■ State Fund

Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	8.18%	2.59%	7.37%	1.54%	NA	NA
Trust Funds	17.81%	4.64%	NA	NA	NA	NA
State Fund	3.75%	4.64%	NA	NA	NA	NA

- US oil production remains near all-time highs, natural gas production down, rig counts continue to fall on increasing efficiency gains, OPEC+ maintains production cuts through April '25.
- Housing starts continue to decline YOY, overall construction spending was up 3% in November YOY.
- Demand for railcars remains strong, lease rates increased 6% in '24, utilization remains high at 96%.
- Aggregates pricing gains more than offset the continued slight decline in volumes seen in 3Q24.

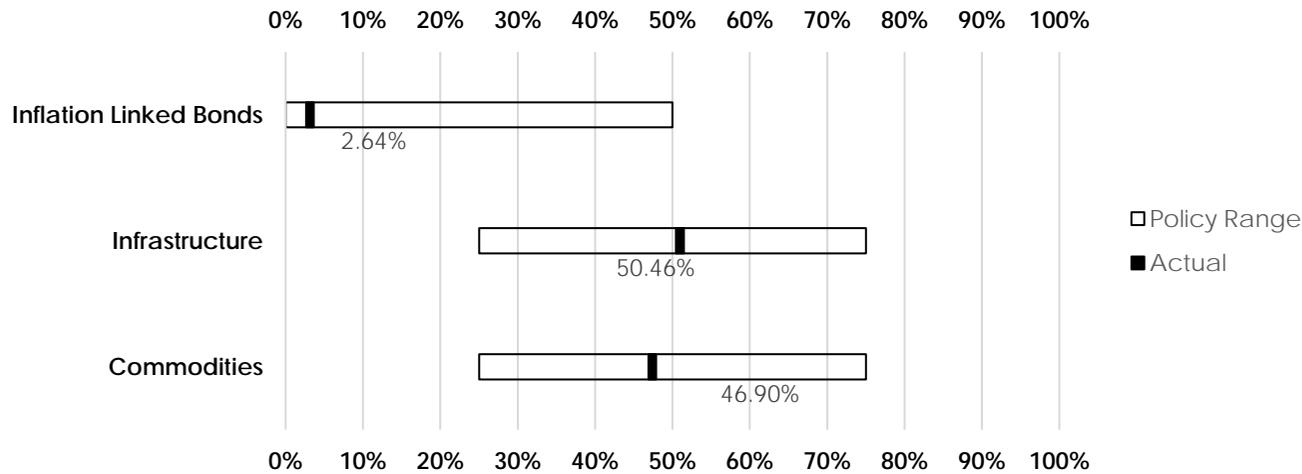
\* Dollar values are in \$1,000,000

December 31, 2024

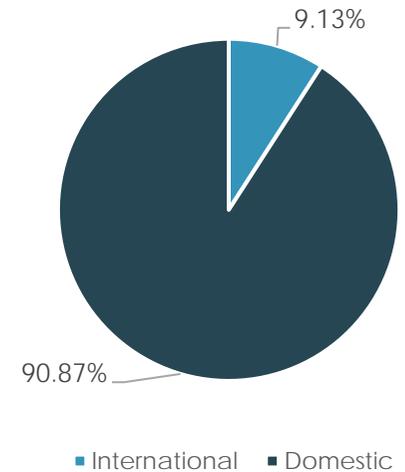
# Real Assets

## Characteristics - Pension

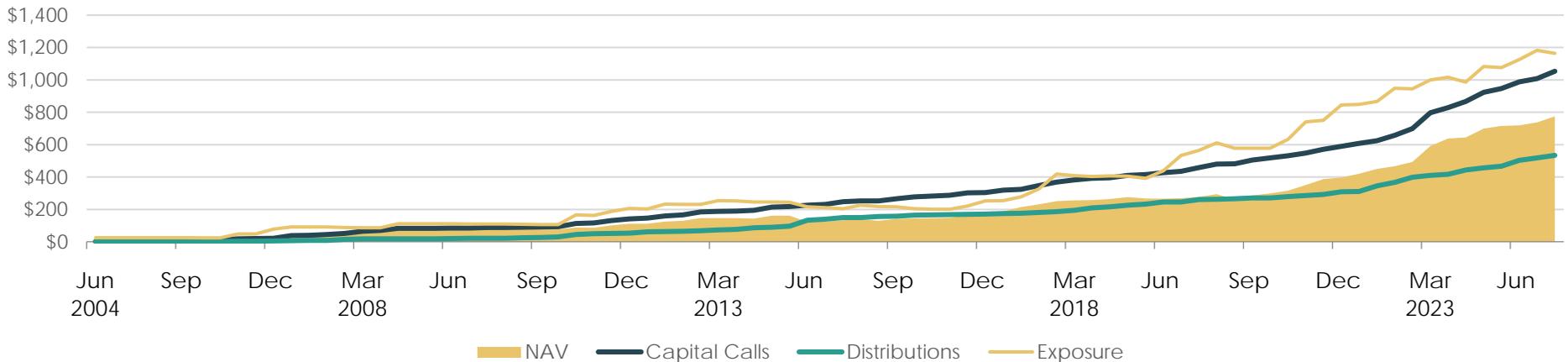
### Real Assets Asset Allocation



### Domestic vs. International

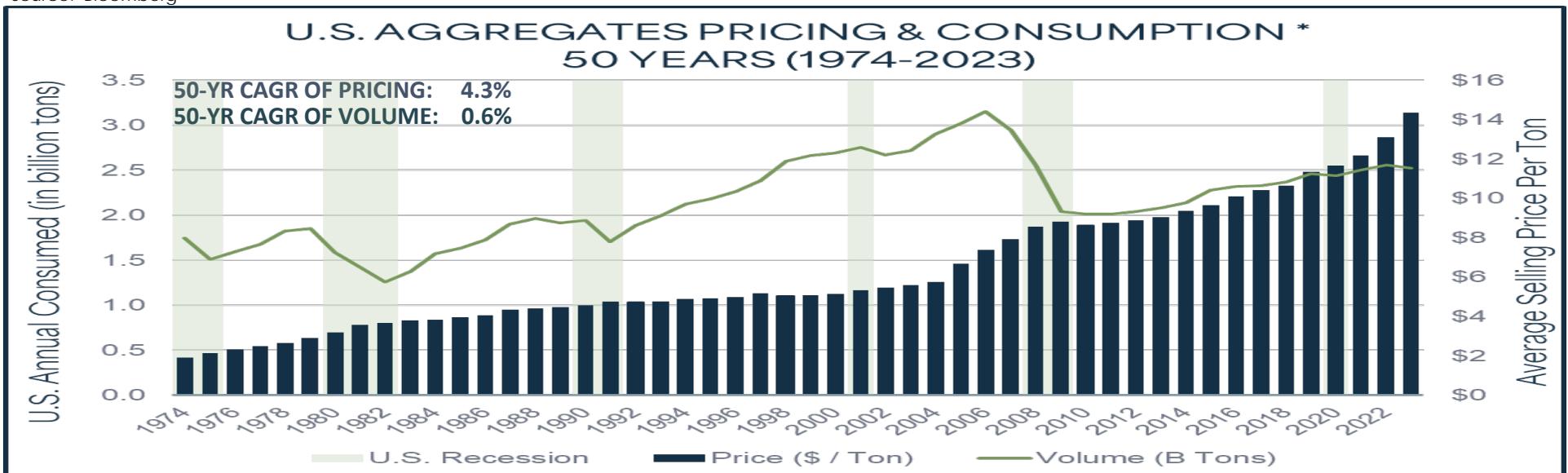
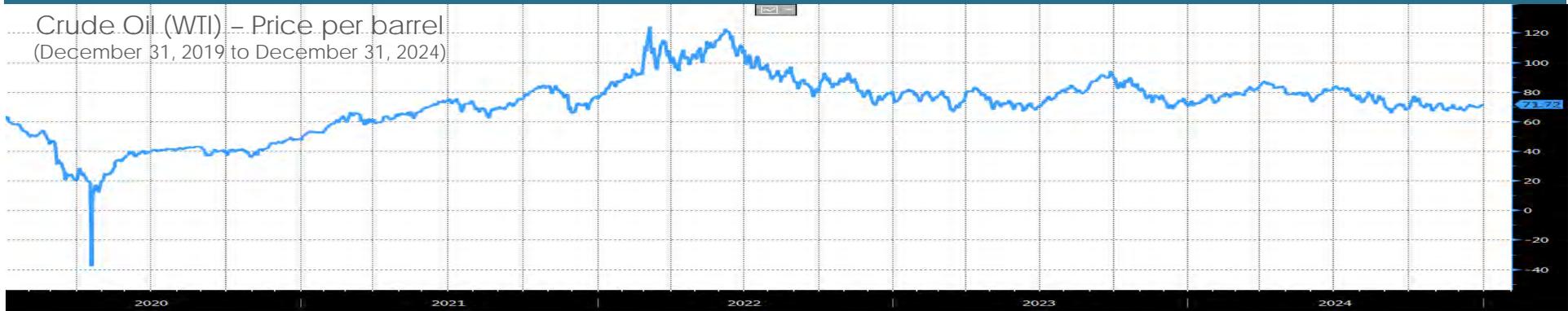


### Private Real Assets Over Time 2004-2024



\* Dollar values are in \$1,000,000  
December 31, 2024

# Real Assets Valuation



Source: USGS Survey historical volume and pricing data for crushed stone and sand and gravel

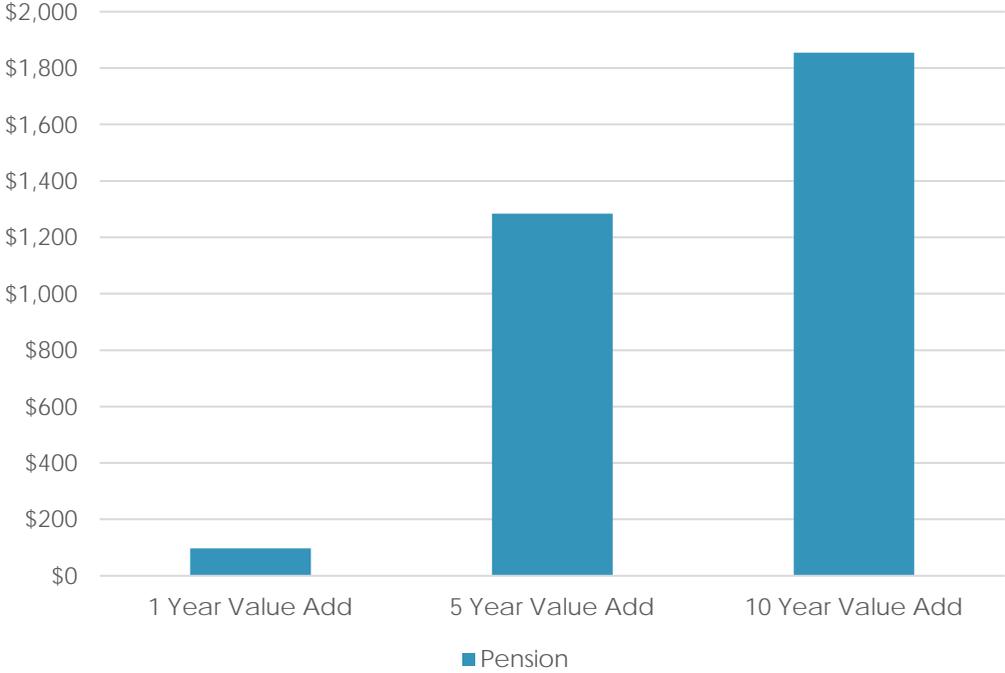
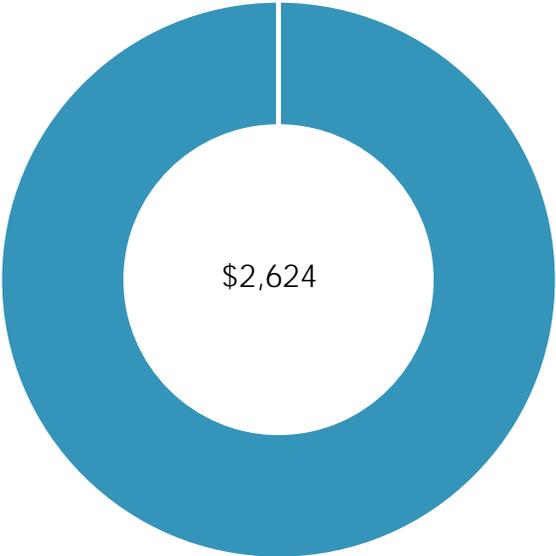
- Oil has been range bound, but volatility remains high with political rhetoric, continued uncertainty in the Middle East, Asia slowing, and stickiness of Russian and Iranian sanctions in question.
- US aggregates pricing and consumption trends continue their long-term upward trajectory.

# Real Assets

## New Commitments FYTD

- Ecosystem Investment Partners Fund V, LP - \$50M (CAPP)
- **Silver Creek Aggregate Reserves Fund, LP - \$50M (CAPP), \$30M (TFIP), \$15M (State Fund)**

# Private Investments Ownership Breakdown



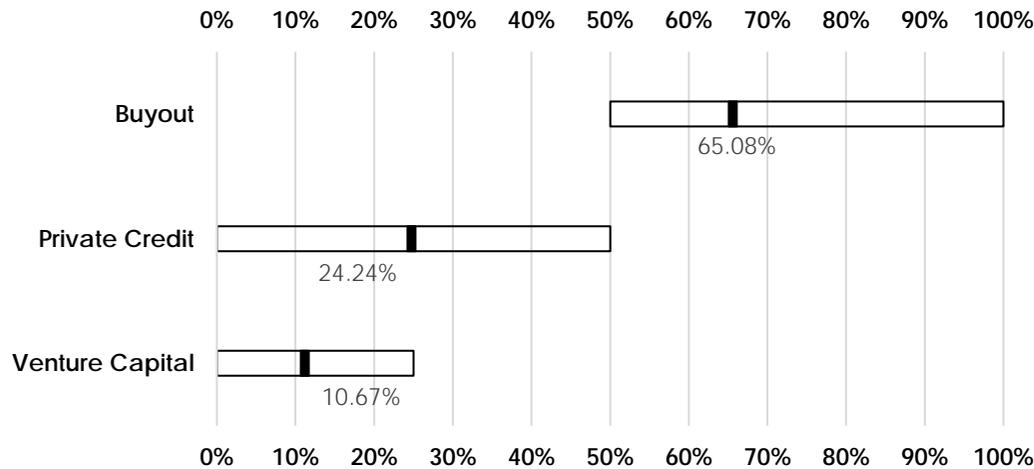
Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	5.14%	11.52%	12.87%	9.35%	11.84%	10.27%

- Relative performance over 1 year is within expectations, showing a slight improvement from last quarter.
- Long-term performance over 5 and 10 years is strong and continues to outperform on a relative basis.

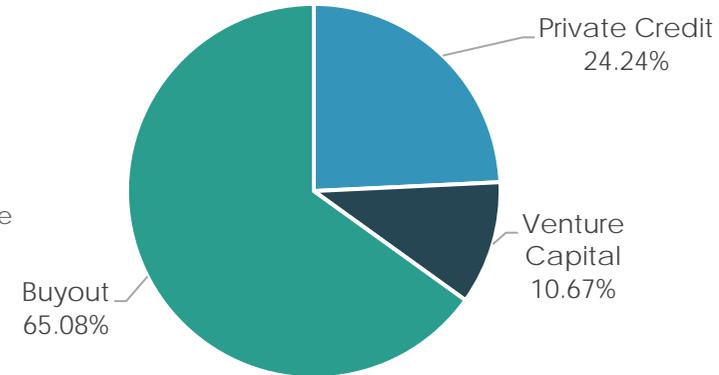
\* Dollar values are in \$1,000,000  
December 31, 2024

# Private Investments Characteristics

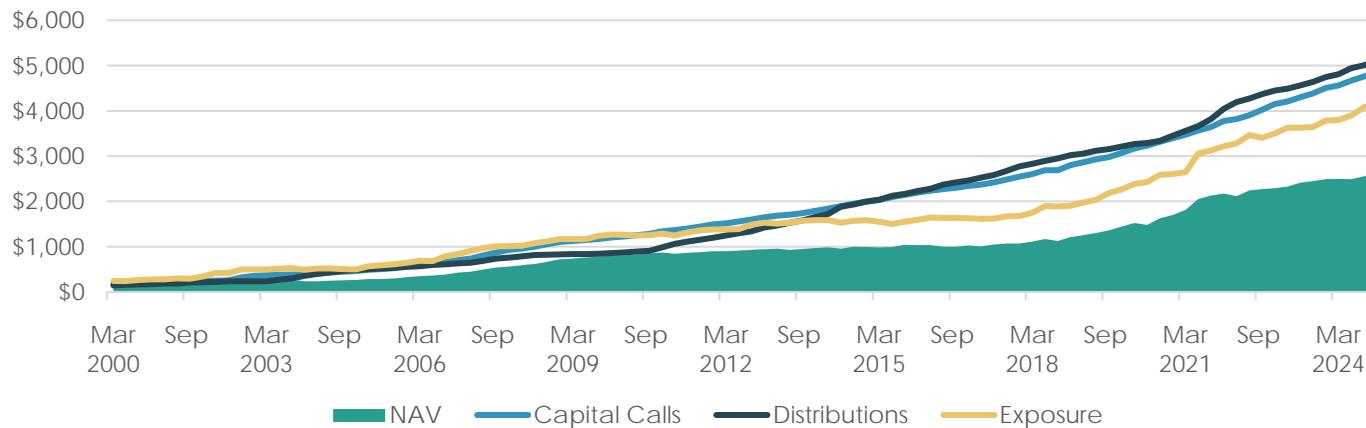
## Private Investments Asset Allocation



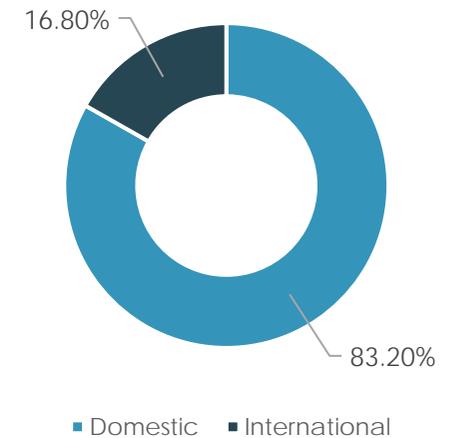
## Strategy



## Private Investments Over Time 2000 - 2024

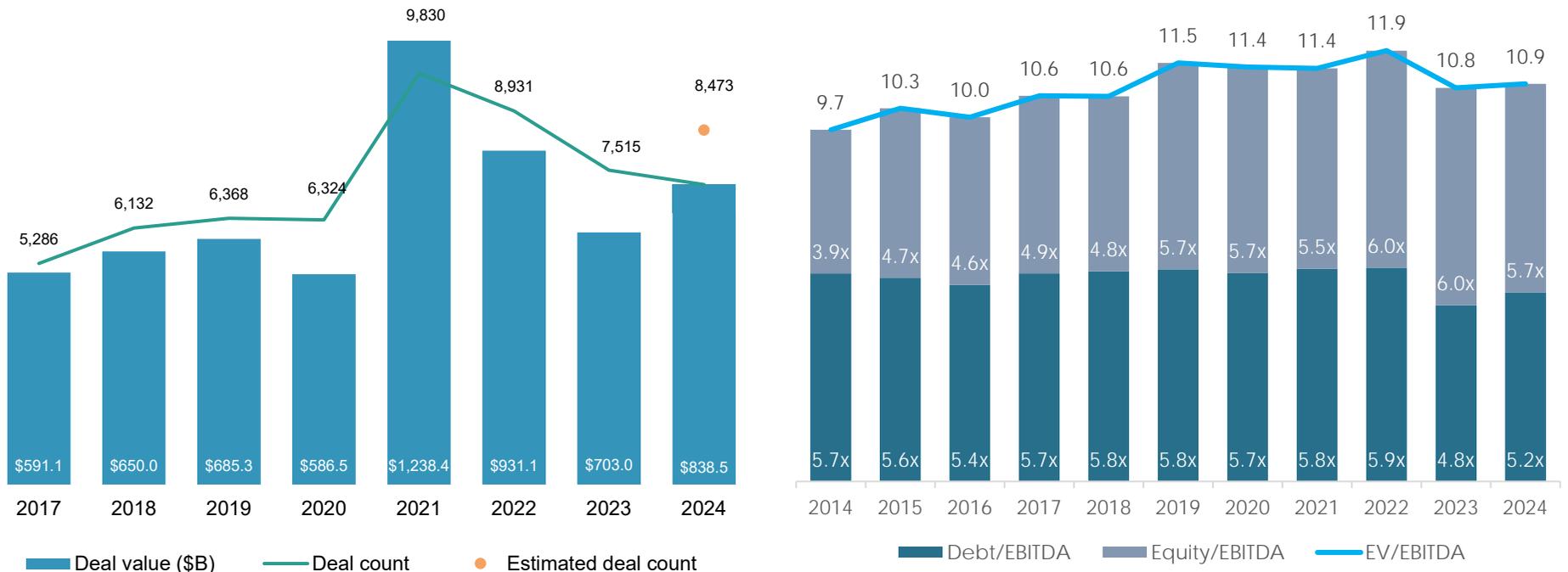


## Domestic vs. International



\* Dollar values are in \$1,000,000  
December 31, 2024

# Private Investments Valuation



- Dealmaking activity rebounded robustly in 2024 after a challenging stretch. Driven by declining inflation and a more optimistic macroeconomic outlook, both deal count, and total deal value increased by double digits YoY.
- Lower base interest rates and tighter credit spreads helped reduce financing costs and bring buyers' and sellers' valuation expectations closer in line.
- Debt ratios are picking back up as banks are slowly making their way back to lending to leveraged buyout deals and are competing head-to-head with private credit lenders.

Source: PitchBook. \*as of 12/31/2024

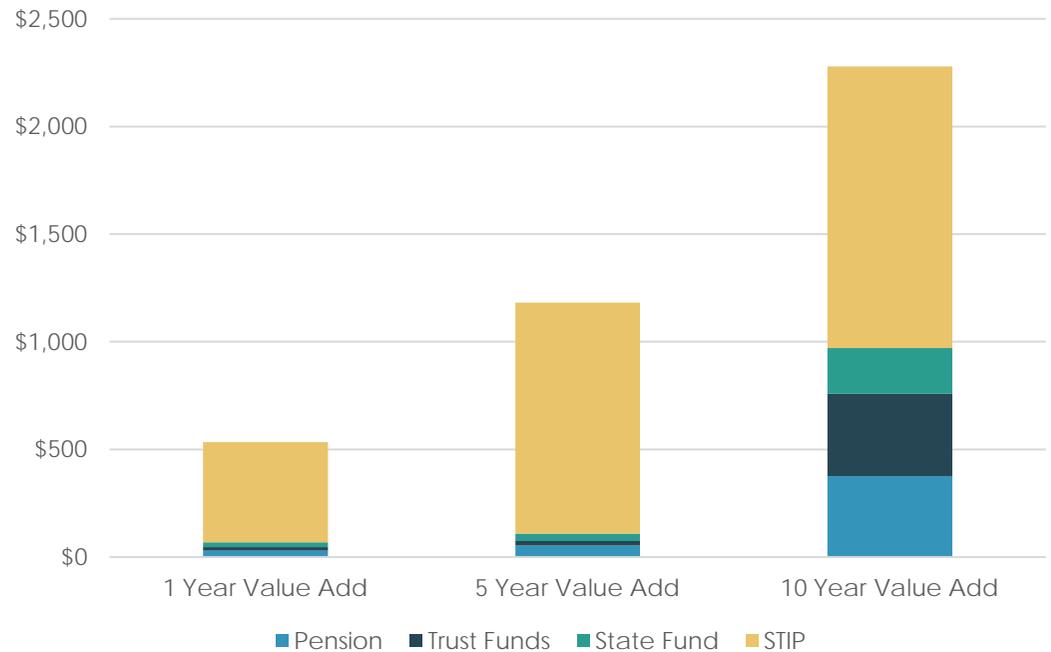
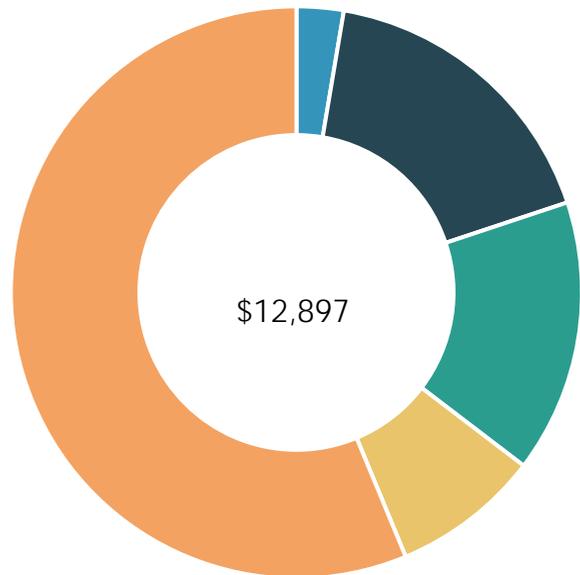
December 31, 2024

# Private Investments

## New Commitments FYTD

- Tenex Capital Partners Fund IV, LP - \$50M
- FLC Big Horn Investment Fund, LP - \$100M
- Rubicon Partners Fund IV, LP - **£40M (~\$50M)**
- Stellus Credit Fund IV, LP- \$50M
- Renovus Capital Partners Fund IV, LP - \$40M
- GoldenTree Tactical Opportunities Fund, LP - \$50M
- Deerpath Evergreen Advantage (US), LP – \$50M (CAPP), \$35M (TFIP), \$15M (State Fund)

# Core Fixed Income Ownership Breakdown



■ SMA ■ Pension ■ Trust Funds ■ State Fund ■ STIP

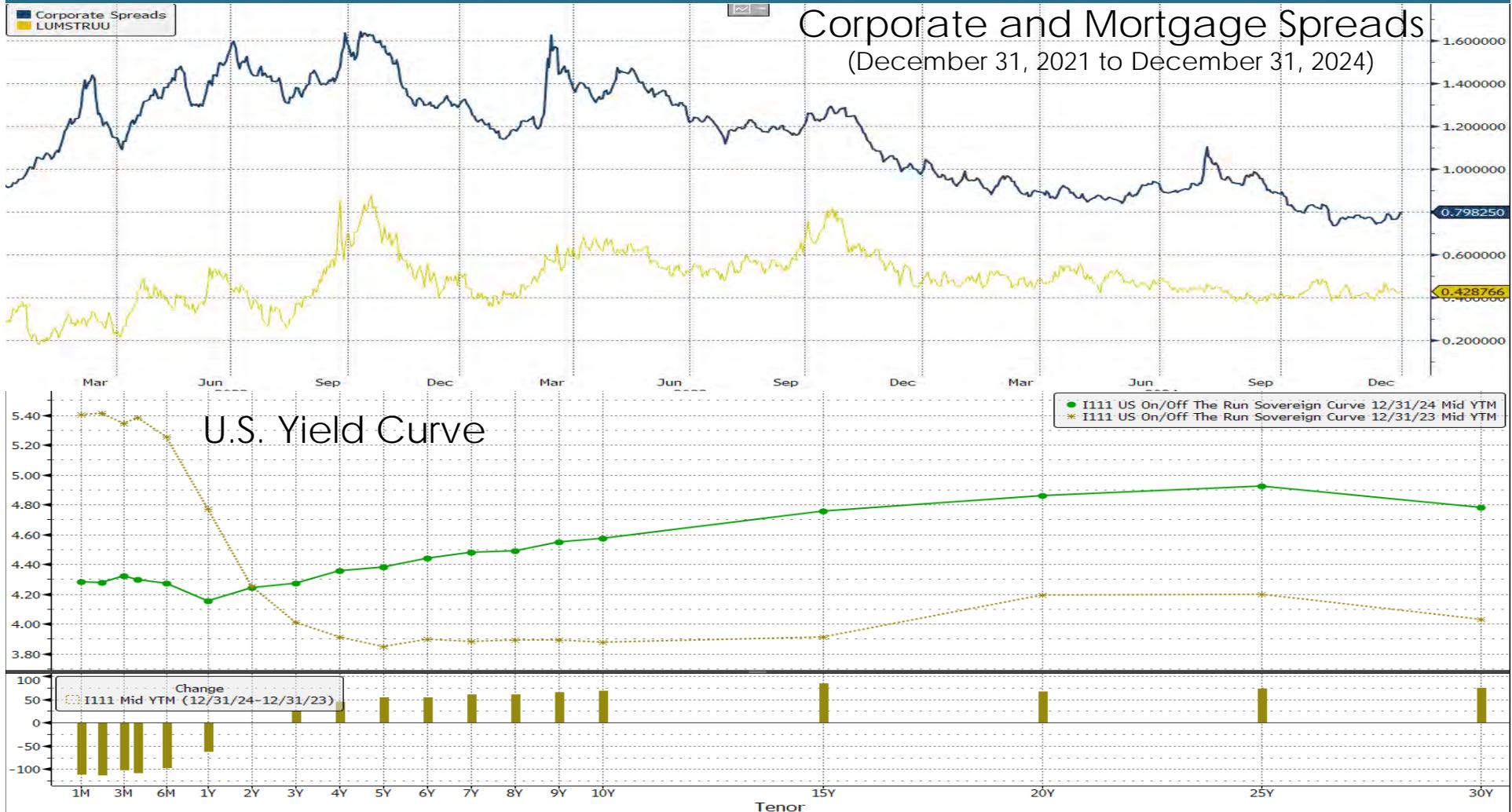
Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	1.27%	1.25%	0.07%	-0.71%	1.43%	0.89%
Trust Funds	1.09%	1.25%	0.01%	-0.33%	1.72%	1.35%
State Fund	1.88%	1.25%	0.62%	0.08%	1.78%	1.32%
STIP	5.33%	5.42%	2.57%	2.53%	1.90%	1.86%

- Interest rates declined for maturities shorter than 2 years and increased for those longer than 2 years.
- The market is not pricing in a significant change in rates over the next year.
- Significant uncertainty exists on future rates of inflation and Federal Reserve actions.

\* Dollar values are in \$1,000,000

December 31, 2024

# Core Fixed Income Valuation



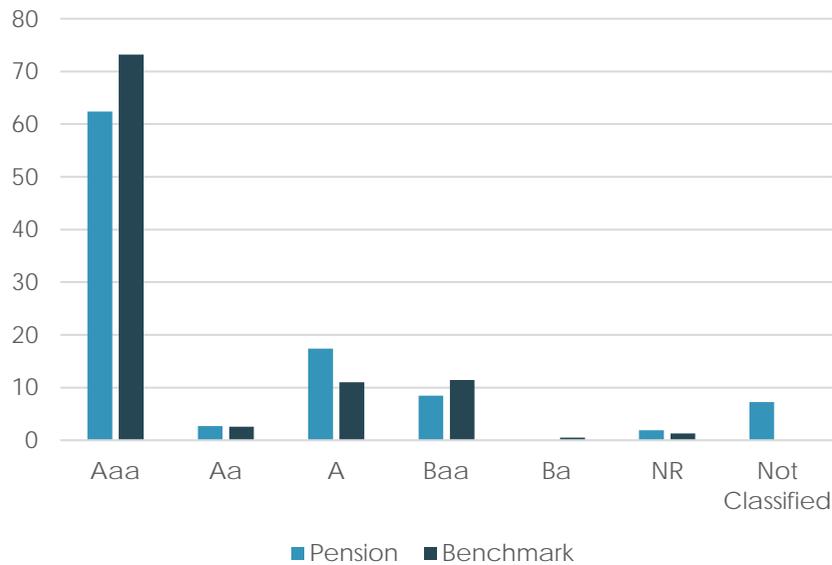
- Risk premiums have declined below historical averages.
- The front end of the yield curve flattened. However, the curve has steepened for maturities greater than 2 yrs.

# Core Fixed Income Characteristics - Pension

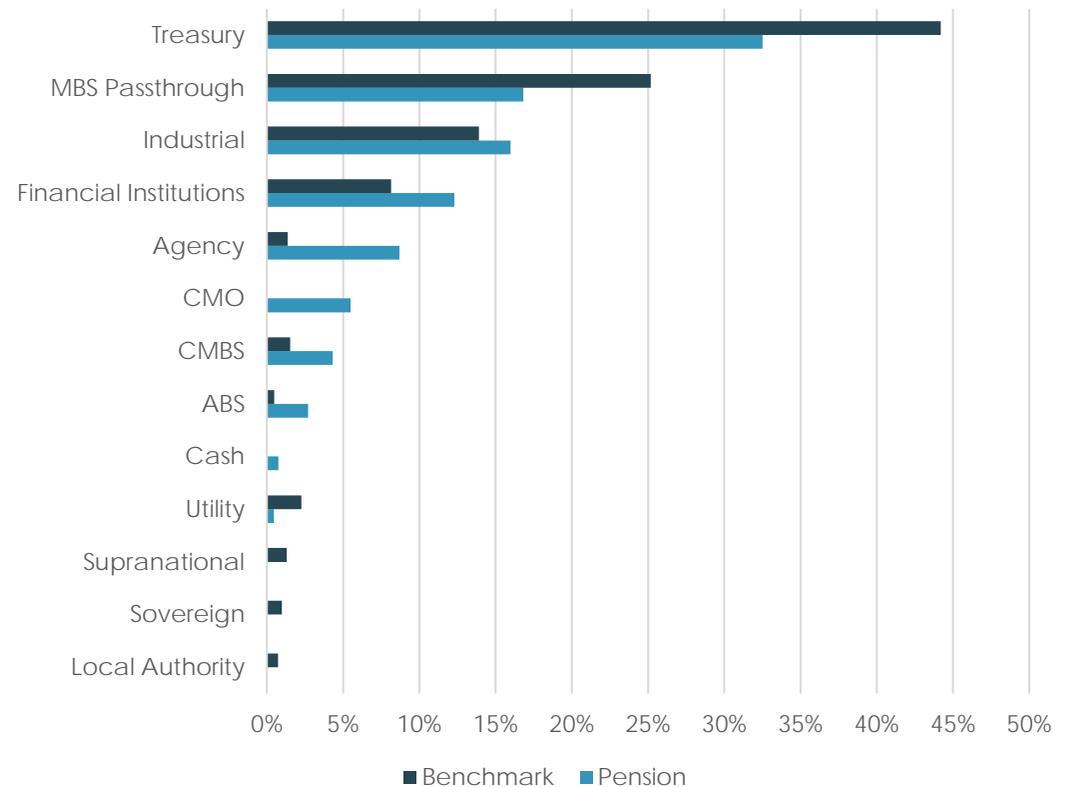
## Core Fixed Income

	Portfolio	Index	Difference	% of Index
Duration (Yrs)	6.77	6.02	0.75	112.46%
Yield to Worst	5.01%	4.90%	0.11%	102.24%
CTD from Corporate	1.32	1.65	-0.33	80.00%

### Credit Rating



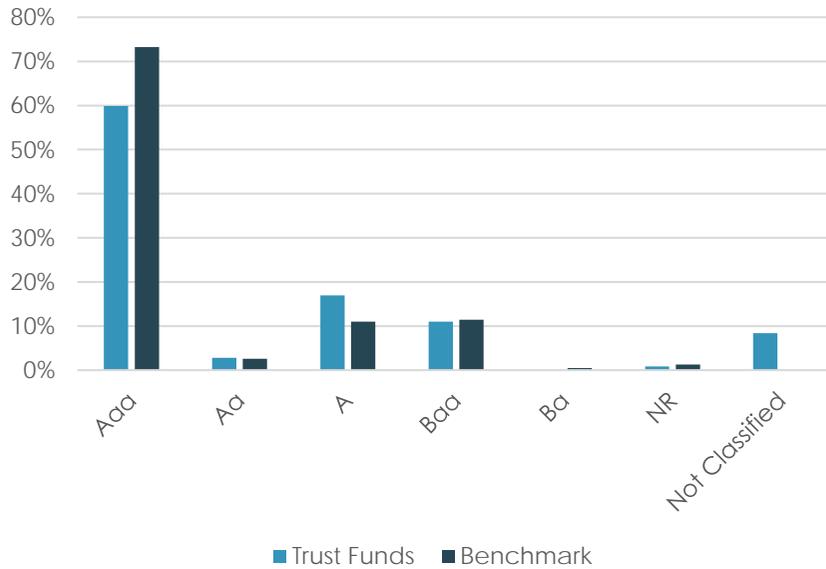
### Sector



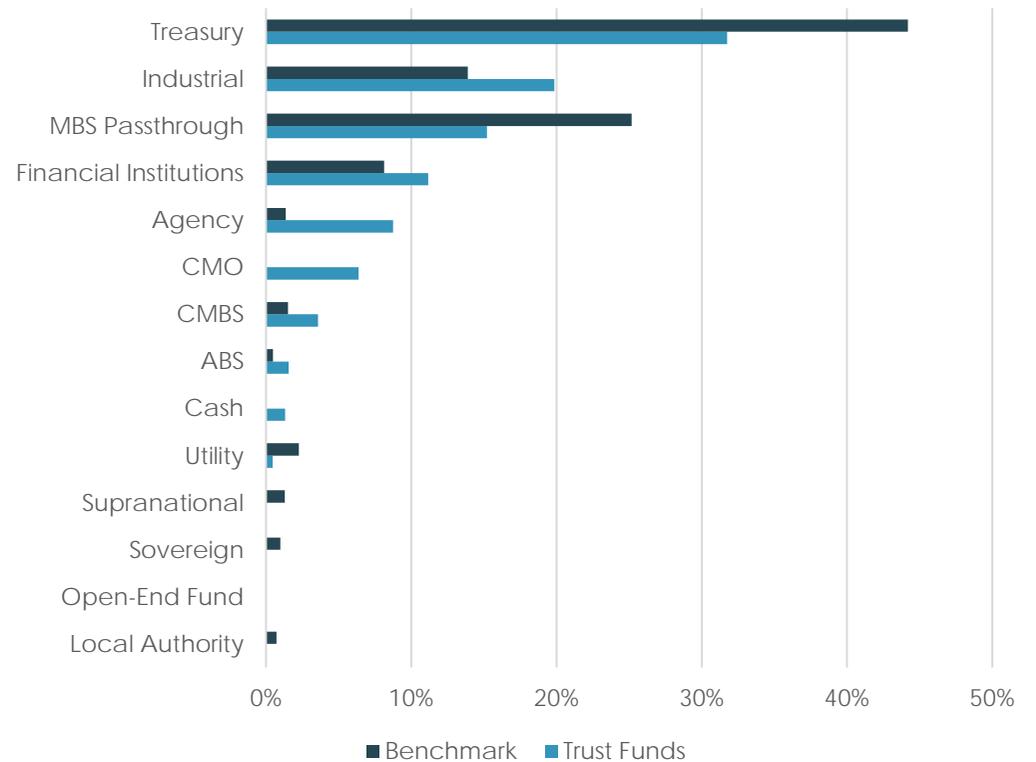
# Core Fixed Income Characteristics – Trust Funds

	Trust Funds Investment Pool			
	Portfolio	Index	Difference	% of Index
Duration	6.72	6.02	0.7	111.63%
Yield to Worst	5.04%	4.90%	0.14%	102.86%
CTD from Corporate	1.5	1.65	-0.15	90.91%

Credit Rating



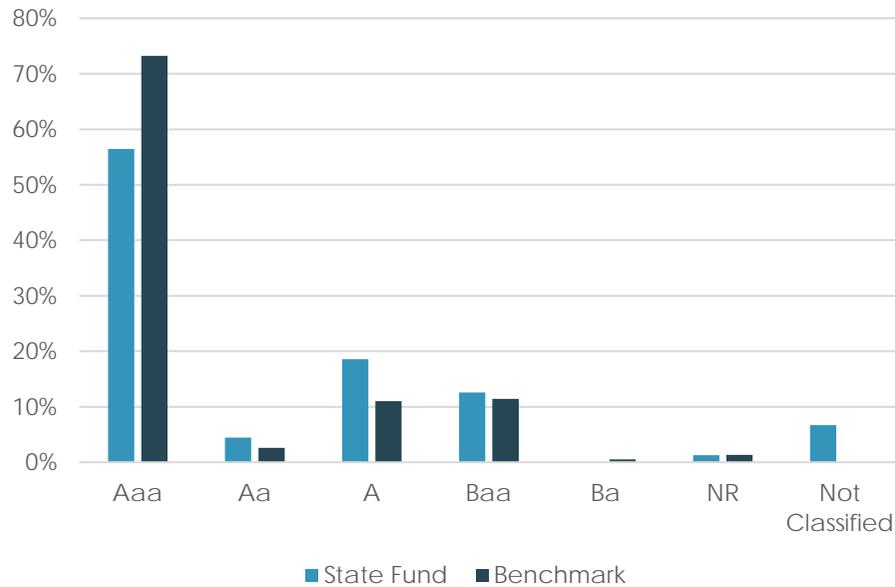
Sector



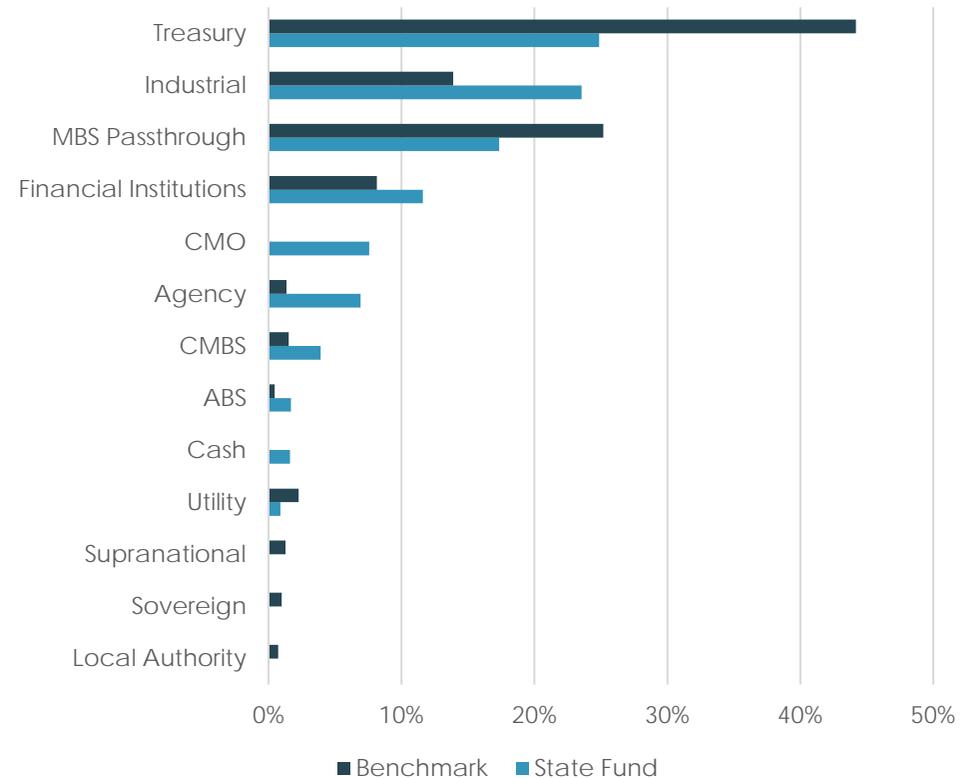
# Core Fixed Income Characteristics – State Fund

State Fund Investment Pool				
	Portfolio	Index	Difference	% of Index
Duration	6.17	6.02	0.15	102.49%
Yield to Worst	5.02%	4.90%	0.12%	102.45%
CTD from Corporate	1.49	1.65	-0.16	90.30%

Credit Rating



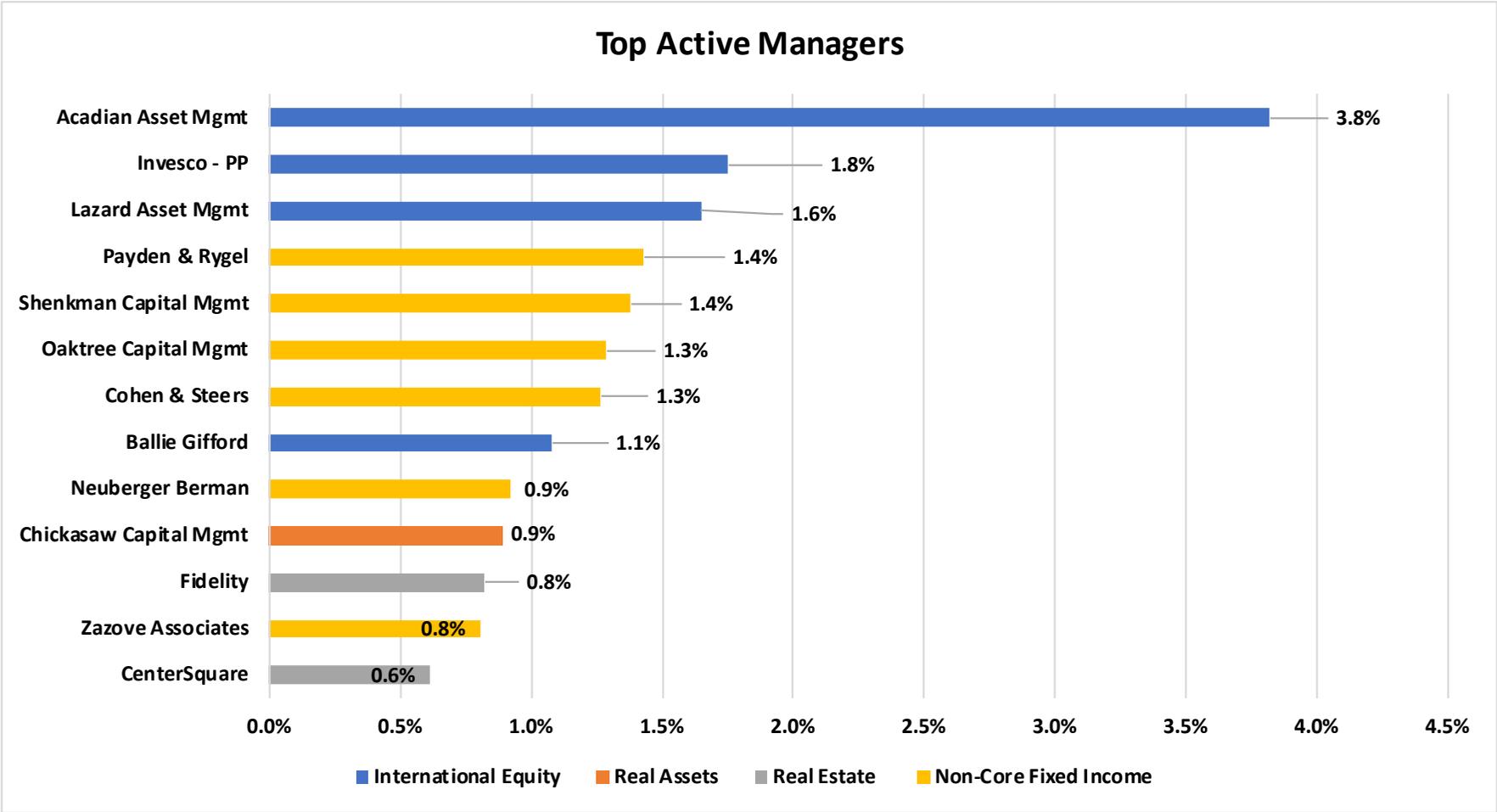
Sector



# APPENDIX

---

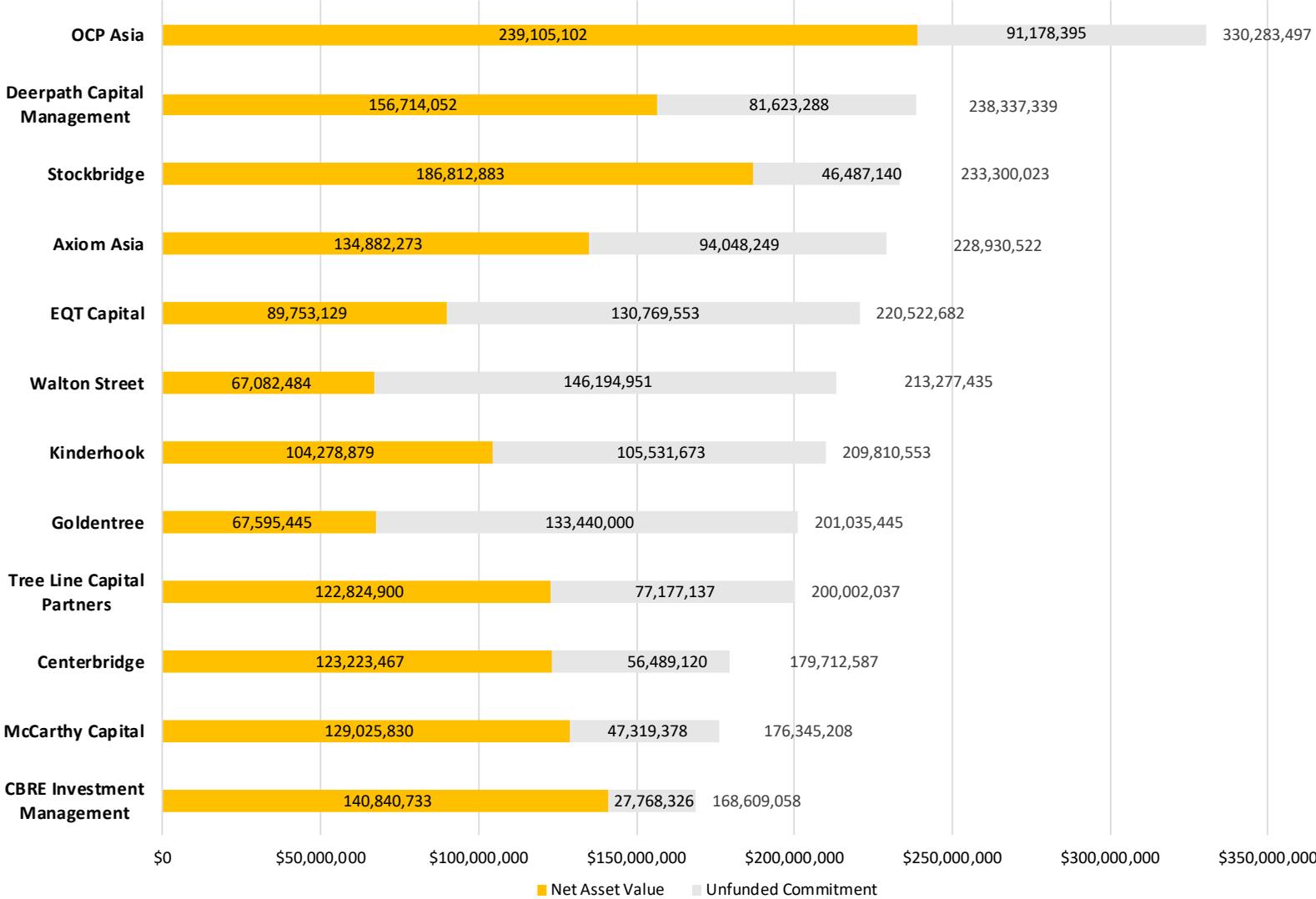
# Risk Management Pension Holdings



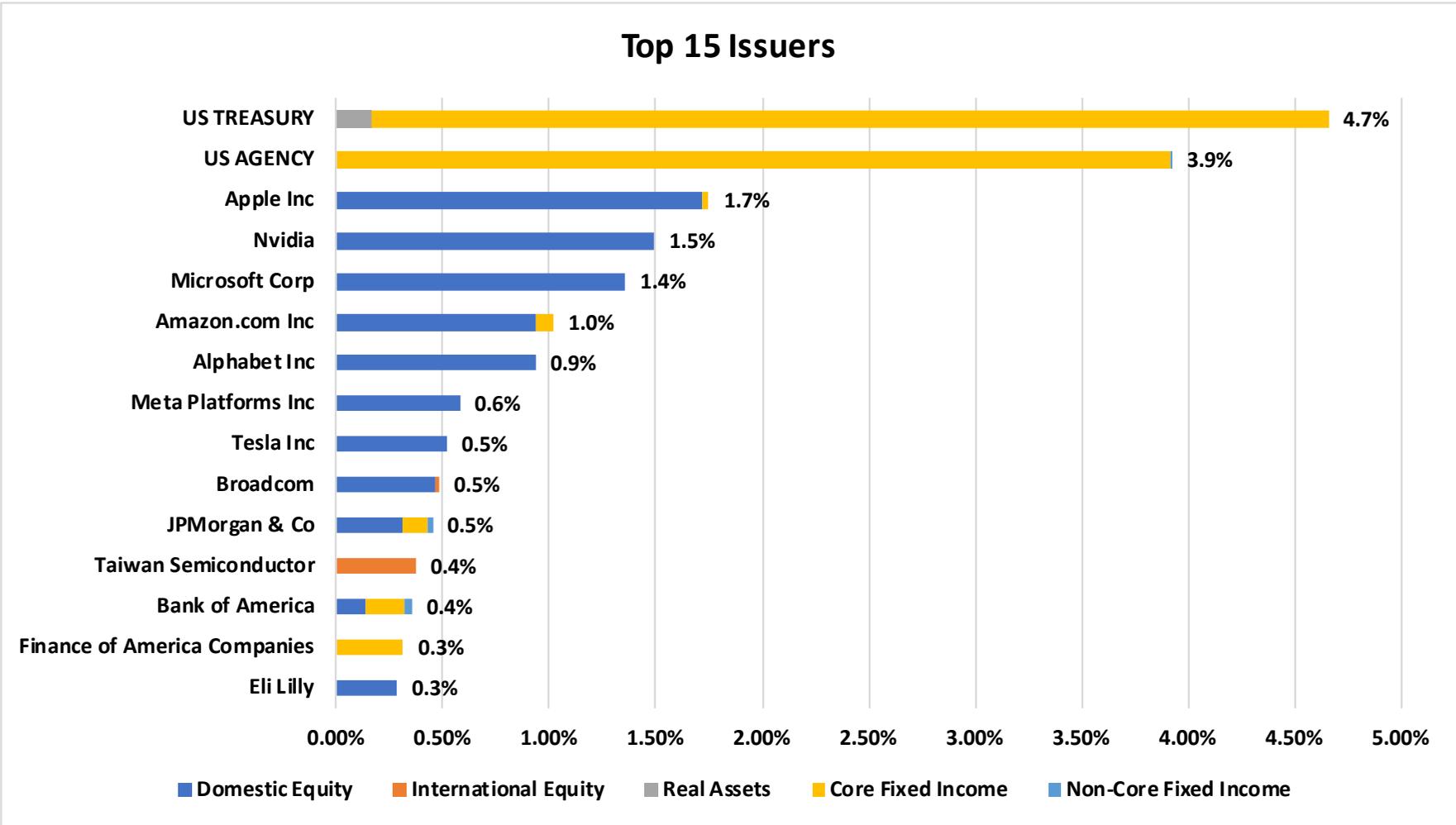
\*Montana Public Retirement Plans shall have no greater than 5% of its Net Asset Value managed by any one external manager using an active investment strategy

# Risk Management Pension Holdings

Top 12 Private Managers



# Risk Management Pension Holdings



# State Fund Performance

**1 Year**  
Contribution to Total Return



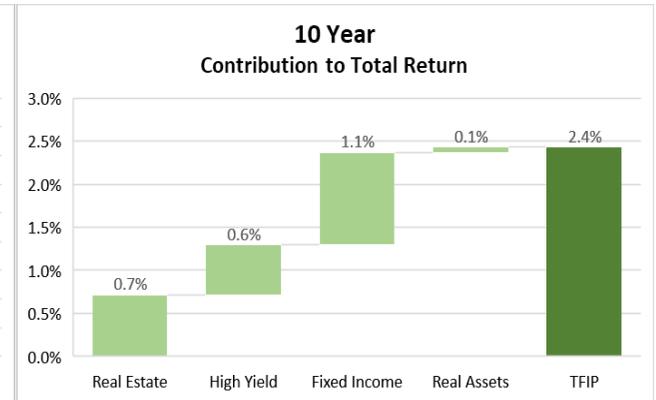
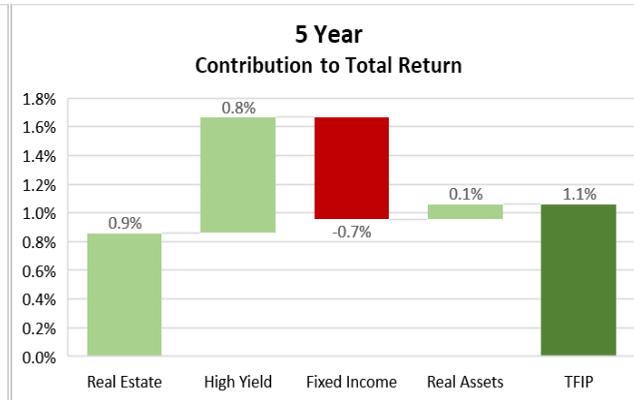
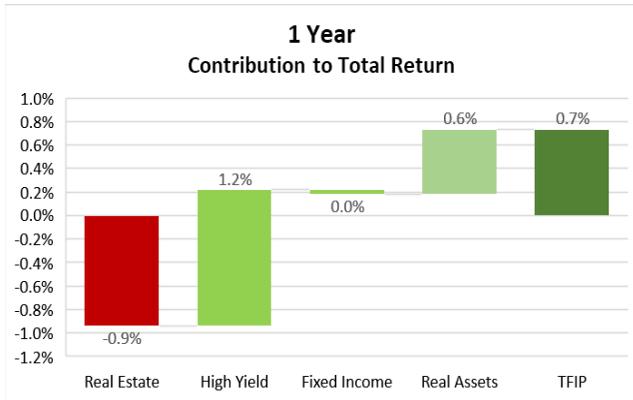
**5 Year**  
Contribution to Total Return



**10 Year**  
Contribution to Total Return



# Trust Funds Investment Pool Performance





# 2025 Board of Investments Calendar

## JANUARY

S	M	T	W	T	F	S
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

## MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Board Materials Due  
 Board Packet Mailing  
 Board Meeting Dates

## BOI WORK AND EDUCATION PLAN

2024

2025

February 28-29

**Education:**

Outreach Efforts for the Board - In-State Loan and INTERCAP Programs  
Short Term Investment Pool

**Reports:**

Ethics Policy  
Disaster Recovery and Emergency Preparedness  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

Audit: Financial Audit Report

April 10

**Education:**

Domestic Equity Asset Class Review  
RVK Annual Capital Market Assumptions

**Reports:**

Benchmarks Used by the Board

May 22-23

**Education:**

MT Buildings (Board as Landlord/Tenant Holdings)  
Investment Policy Statement Review  
Real Estate Asset Class Review

**Reports:**

Budget Status FYTD  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

HR: Staffing Level Review  
HR: Exempt Staff Compensation Review

August-24

**Education:**

Core Fixed Income Asset Class Review  
Budget Proposal for FY24-25  
INTERCAP Annual Detail Report

**Reports:**

Proxy Voting  
Budget Status Prior FY  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

October 9

**Education:**

Separate Accounts Investment Review  
First Reading - Asset Allocation Range Recommendation

**Reports:**

CEM, Inc Cost Reporting Analysis

**Committee Meetings:**

HR: Exempt Staff Performance Review  
Audit: SOC I, Type 2 Report

November 20-21

**Education:**

2025 Legislative Session  
Adoption - Asset Allocation Range Approval

**Reports:**

Securities Litigation  
Policy 217  
LPAC  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

Audit: Annual Report and Financial Statements

February 26-27

**Education:**

Cash Management of State Monies  
Custodial Banking Relationship and Continuity

**Reports:**

Ethics Policy  
Disaster Recovery and Emergency Preparedness  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

Audit: Financial Compliance Audit Report

April 23

**Education:**

International Equities Asset Class Review  
RVK Annual Capital Market Assumptions

**Reports:**

Benchmarks Used by the Board

May 28-29

**Education:**

State Government Customer Relationships  
Investment Policy Statement Review  
Real Assets Asset Class Review

**Reports:**

Budget Status FYTD  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

HR: Staffing Level Review  
HR: Exempt Staff Performance and Compensation Review

August 20-21

**Education:**

Trust Funds Investment Review  
Non-Core Fixed Income Asset Class Review  
INTERCAP Annual Detail Report

**Reports:**

Budget Status Prior FY  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

October 15

**Education:**

Private Investments Asset Class Review  
First Reading - Asset Allocation Range Recommendation

**Reports:**

Securities Lending

**Committee Meetings:**

HR: Exempt Staff Performance Review  
Audit: SOC I, Type 2 Report

December 10

**Education:**

MPERA and TRS Relationship  
Adoption - Asset Allocation Range Approval

**Reports:**

Securities Litigation  
Policy 217  
LPAC  
Quarterly Reports  
In-State Loan Reports  
INTERCAP Reports

**Committee Meetings:**

Audit: Annual Report and Financial Statements



# MONTANA LEGISLATIVE BRANCH

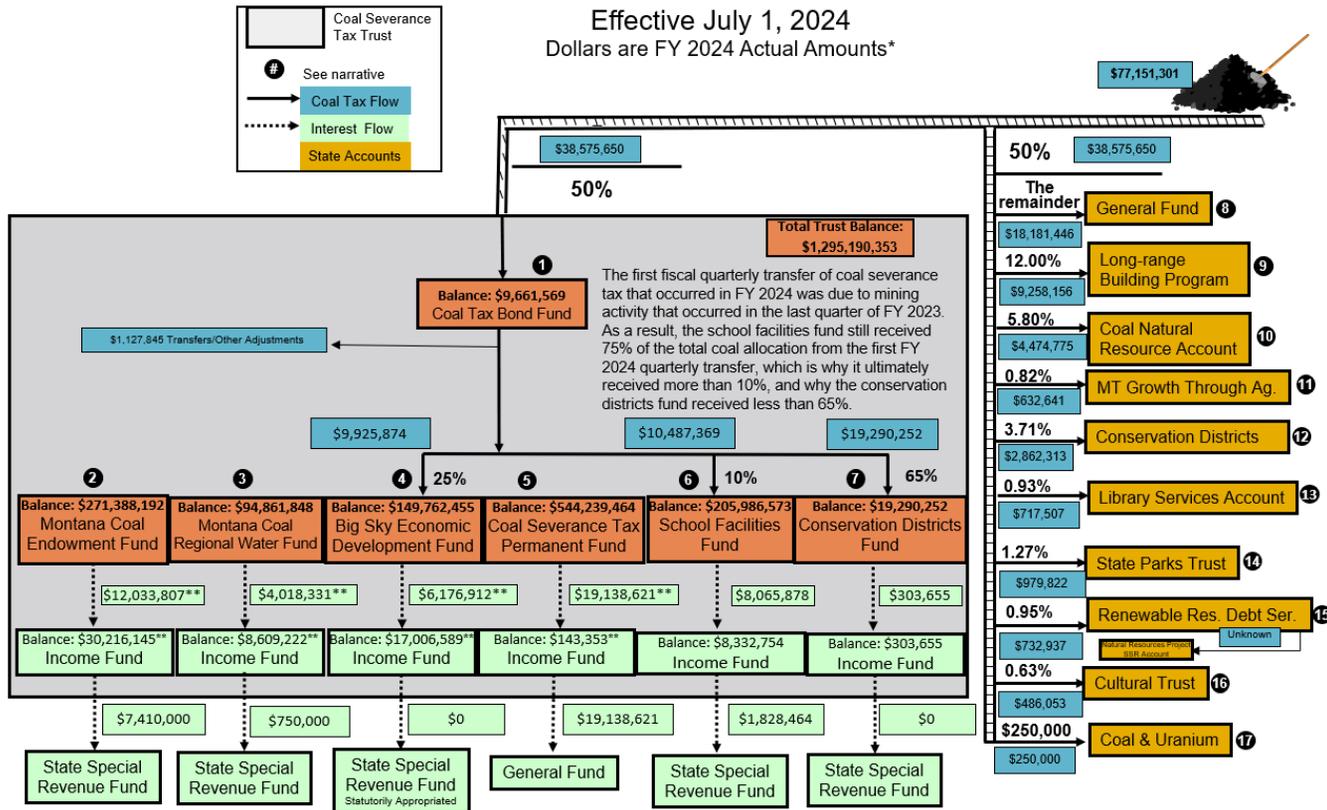
## Legislative Fiscal Division

Room 110 Capitol Building \* P.O. Box 201711 \* Helena, MT 59620-1711 \* (406) 444-2986 \* FAX (406) 444-3036

**Director**  
AMY CARLSON

### COAL SEVERANCE TAX TRUST FUND

Effective July 1, 2024  
Dollars are FY 2024 Actual Amounts\*



\* Current year  
\*\* Excludes unrealized investment gains and losses

# BOI TERMINOLOGY

## **ACTIVE MANAGEMENT** (typically with respect to stocks)

Investment method which involves hiring a manager to research securities and actively make investment decisions to buy and sell securities in an effort to outperform an assigned index, rather than purchasing a portfolio of securities that would simply replicate the index holdings (*'passive'* investing).

## **ACTUARIAL ASSUMED RATE** (pension concept)

The investment return rate used by actuaries that enables them to project the investment growth of retirement system assets into the future (typically perpetual).

## **ACTUARIAL FUNDING STATUS** (pension concept)

A measurement made by actuaries to measure a pension system's financial soundness (ratio of actuarial liabilities to the actuarial value of the assets available to pay the liabilities).

## **ALPHA** (investment term)

Return on an investment portfolio in excess of the market return or benchmark return; generally used in the context of *'active'* management (as passive management, by definition, does not seek excess returns, or *'alpha'*).

## **ALTERNATIVE INVESTMENTS**

A wide range of investments, other than traditional assets such as publicly traded stocks and bonds. The most common nontraditional or alternative investments are private equity, real estate, commodities, and hedge funds.

## **ARBITRAGE** (bond program)

A structural or systematic difference between investment types which may allow profiting from the *'difference,'* i.e., arbitrage. The most common context for the use of *'arbitrage'* at the BOI is the federal law that prevents *'arbitrage,'* i.e., the profiting of investing tax-exempt securities (e.g., INTERCAP) into taxable yields investments (such as U.S. Treasuries).

## **ASSET ALLOCATION AND ASSET ALLOCATION RANGE** (general investment principle)

The Board's invested assets are divided or allocated into various asset classes such as stocks and bonds, each with its own characteristics, with the objective of attaining an optimal mix of risk and return. The total expected return of a portfolio is primarily determined by the mix or allocation to its underlying assets classes. Given the importance of *'asset allocation,'* the BOI Board sets the asset allocation *'range'* for each broad investment type or asset class.

## **ASSET-BACKED SECURITY**

Bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other providers of credit. Not mortgages.

## **AVERAGE LIFE** (fixed income, particularly bonds)

The average time period the debt is expected to be outstanding. This is typically the maturity date for a traditional bond structure; however, it will be shorter for bonds having a sinking fund or amortizing payment structure.

## **BANKER'S ACCEPTANCE**

A short-term credit investment which is created by a non-financial firm and whose payment is guaranteed by a bank. Often used in importing and exporting, and as a discount money market fund investment.

## **BARCLAY'S AGGREGATE INDEX (fixed income)**

A composite of outstanding bond issues, including corporate, structured, and government bonds whose overall investment features such as return and investment type are tracked over many years. This is the most common benchmark used for comparing the performance of a portfolio that invests in U.S. investment grade fixed income securities. Formerly known as the Lehman Aggregate bond index.

## **BASIS POINTS (investment jargon)**

A basis point is 1/100<sup>th</sup> of a percentage. Ten basis points is one tenth of a percent, typically written as 10 bps.

## **BENCHMARK (standard investment concept)**

The concept of employing a particular independent or market investment return as a measurement to judge an investment portfolio's return; typically chosen investment benchmarks have the following attributes: they are investible, quantifiable, chosen in advance, easily understandable, and have a long history; common examples are the S & P 500 Index and the Barclay's Aggregate Index.

## **BETA (investment jargon)**

A measure of the risk (or volatility) of a security or a portfolio in comparison to the market as a whole. If the stock or portfolio moves identically to that market, its beta value is 1; if its price volatility (or movement) is greater than that market's price volatility, it is said to have beta greater than 1.

## **CAP, AS IN LARGE 'CAP' (generally for stocks, e.g., public equities)**

'Cap' is short for capitalization, as a reference to the market value of a publicly-traded company. The current stock price times the total shares outstanding of the company equals its market capitalization or market 'cap'; often used contextually such as 'large-cap,' 'mid-cap,' and 'small-cap' for different sized public companies.

## **CERTIFICATE OF DEPOSIT (CD):**

A short-or medium-term, interest-bearing deposit obligation offered by banks and savings and loans. These may include "Yankee CDs" which are CDs issued by foreign banks or their U.S. affiliates in the U.S. which are denominated in U.S. dollars

## **CLAWBACK (private equity)**

A clause in the agreement between the general partner and the limited partners of a private equity fund. The clawback gives limited partners the right to reclaim a portion of distributions to a general partner for profitable investments based on significant losses from later investments in a portfolio which ultimately resulted in the general partner receiving more distributions than it was legally entitled to.

## COMMERCIAL PAPER

An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory. Maturities typically range from two (2) to two hundred seventy (270) days. Commercial paper is available in a wide range of denominations, can be either discounted or interest-bearing, and usually a limited or nonexistent secondary market. Commercial paper is usually issued by companies with high credit ratings, meaning that the investment is almost always relatively low risk.

## CORE (context varies for equity, fixed income, real estate)

In equity and fixed income, 'core' refers to investments that are generally always found in the portfolio and normally expect to hold for a very long time e.g. 'core' holdings of the largest U.S. companies, or U.S. treasuries; in real estate, 'core' generally refers to the best quality of real estate holdings such as prime commercial property in major metropolitan cities that have low leverage and low levels of vacancy.

## CORPORATE NOTE

A type of unsecured debt issued by a corporation that may be longer-term than Commercial Paper, but shorter-term than a typical Corporate Bond.

## CORRELATION (common statistical concept)

A measure of how two or more investment values or two asset classes move relative to each other during the same time period. A central concept in portfolio construction is to seek investments whose values do not move *together* at the same time, i.e., are uncorrelated. A correlation of 1 means that two or more investments 'move' precisely together.

## CREDIT ENHANCEMENT (bond program)

At BOI, the term generally refers to credit support or a bond or loan guarantee. For example, the Board's INTERCAP bonds are 'enhanced' by the BOI's performance guarantee bringing down the yearly interest rate.

## CUSTOM BENCHMARK (or sometimes custom index)

A way to measure investment performance using a tailor-made measurement versus a generic industry-standard benchmark. At the BOI, total pension performance is measured against the Board's 'custom index' or 'custom benchmark' which is a weighted blend of all the underlying asset class benchmarks used to measure the asset class returns.

## DERIVATIVES (investment jargon)

Investment securities whose performance itself depends (or is 'derived') from another underlying investment return. Examples include stock options, puts/calls, and forward currency contracts whose returns are based on the underlying stock or currency.

## DEVELOPED MARKETS (equity)

Countries having a long period of stable industrialization; or are the most economically developed.

## DISCOUNT (fixed income, generally)

Used most often with respect to bonds, the price paid that is less than face (or 'par') value. A \$1 million face-value of a bond purchased for less than a million is bought at a 'discount.' Described as the difference between a bond's current market price and its face or redemption value.

### **DIVERSIFICATION** (standard investment concept)

The concept of spreading risk by putting assets in several investment categories, each having different attributes with respect to type, expected return, risk, and correlation, to best protect against the risk of loss.

### **DURATION** (bonds)

Almost exclusively used when discussing fixed income bonds, a measurement of how sensitive a bond's change in price is to a change in general market interest rates, expressed in years (specifically calculated as a weighted average term to maturity of the bond's cash flows). The greater the duration of a bond, the greater the volatility of price for changes in market interest rates.

### **EFFICIENCY** (usually when discussing various stock markets)

Used to describe markets where it is very difficult to achieve return in excess of that of the overall market from individual stock selection. When information is widely available on a company and its securities are traded regularly the market is considered 'efficient.'

### **EMERGING MARKETS** (most often for public equities)

Certain international securities markets that are typically small, new, have low turnover, and are located in countries where below-average income prevails and is developing in response to the spread of capitalism.

### **ENHANCED** (pertaining to stocks)

Generally linked with 'index' as in enhanced index, an indexed investment management style that has been modified to include the portfolio manager's idea of how to outperform the index by omitting some stocks in the index and overweighting others in a limited manner designed to enhance returns but at minimal risk.

### **EXCESS RETURNS** (standard investment concept)

Returns are 'excess' if they are more than the market or more than the benchmark they are measured against.

### **EXEMPT STAFF VS. CLASSIFIED STAFF** (specific to Montana state government)

"Exempt" refers to the Board's eleven employees who, under state law, do not fall under the state's standard employment rules (the 'classified' staff).

### **FIDUCIARY** (from the Latin verb, *fidere*, to trust)

The concept of trust and watchfulness; a fiduciary is charged with the responsibility of investing the money wisely for the beneficiary's benefit. Board members are the ultimate 'fiduciaries' for the Board's assets and are obligated to be a good agent.

### **FTE** (state government jargon)

An acronym in state government: "full time equivalent" as in full time employee. The concept is a slot or position, not the actual individuals. The BOI is currently authorized for 32 FTE's.

### **FUND OF FUNDS** (private equity)

A concept used in alternative investments referring to using an investment manager to invest in **other** managers or funds, as opposed to making direct investments in funds.

### **GAAP/GASB** (accounting terminology)

GAAP...Generally Accepted Accounting Principles; Montana state law uses GAAP accounting principles unless specifically allowed otherwise. GASB...Government Accounting Standards Board, the board that sets GAAP standards for U.S. governments (FASB...Financial Accounting Standards Board, the entity for commercial and business accounting standards).

### **GENERAL OBLIGATION** (municipal finance term)

Used to describe the promise that a government makes to bond holders, backed by taxing and further borrowing power, it is generally considered the highest level of commitment to bondholders. At the local government level, general obligation bonds typically require a vote of the residents.

### **GENERAL PARTNER VS. LIMITED PARTNER** (private equity)

In private equity, the general partner is responsible for the operations of the partnership and makes the actual underlying investment decisions; the limited partner is the investor, and therefore has limited liability for investment decisions; the BOI is the 'limited' partner in its private equity fund investments (and real estate funds as well).

### **GROWTH** (as to style public equities)

An investment style that more heavily invests in companies whose earnings are expected to grow at an above average rate to the market. A growth stock usually does not pay a dividend, as the company would prefer to reinvest retained earnings in capital projects to grow the company (vs. 'value,' which considers buying established companies they feel are trading at bargain prices to the fundamental analysis of the company's financial statements and internal competitive factors).

### **INDENTURE** (bond and loan programs)

The central document describing the contract between investors and the borrower or user of the proceeds. The Board's INTERCAP program is structured around a bond indenture.

### **HEDGE FUND** (as defined by Investopedia)

An aggressively managed portfolio of investments that uses advanced investment strategies such as *leverage*, long, short and *derivative* positions in both domestic and international markets with the goal of generating high returns (either in an absolute sense or over a specified market *benchmark*).

### **HURDLE RATE** (private equity)

a minimum return per annum that must be generated for limited partners of a private equity fund before the general partner can begin receiving a percentage of profits from investments.

### **INDEX** (investment concept)

Typically, a single measure of a broadly-based group of investments that can be used to judge or be compared to the return performance of an individual investment or manager.

### **INDEXING** (investment concept)

Typically refers to investing in a portfolio to match a broad range of investments that are set within a pre-determined grouping, such as the S&P 500, so as to match its performance; such investing is generally labeled 'passive' or indexed investing; or buying shares in an Index Fund.

### IN-STATE LOAN PROGRAM (Montana-specific)

Programs that are funded by the state's coal severance tax monies.

### INTERNAL SERVICE VS. ENTERPRISE FUND (state accounting concept)

Within Montana state government: a program whose funding is dependent on **mandatory participation** by another state government program is labeled an 'internal' service fund; a program whose funding is dependent on voluntary participation is labeled an enterprise fund. At BOI, the investment program is an internal service fund because participation is not voluntary; the Board's bond and loan programs, because their use is voluntary, are accounted for as an enterprise.

### INVESTMENT GRADE (bonds)

Bond ratings from Moody's, Standard and Poor's, and Fitch high enough to be considered secure enough for most investors (bonds rated AAA – BBB). Below investment-grade bonds (below BBB) are generally considered to have a more speculative outlook and carry more risk of default.

### IRR (private equity)

A measure of investment performance, short for 'internal rate of return,' expressed as a percentage (the 'internal rate of return' number, or discount rate) that mathematically will equalize the total future cash flows of an investment to the initial cash outflow of the investment, the concept accounts for the time value of money.

### LEVERAGE (investment concept)

As an investment concept, a way to increase a return on an investment through a combination of one's own money and by borrowing additional money to enhance such an investment; high 'leverage' is also associated with high risk.

### LINK DEPOSIT

The Link Deposit program can provide a financial institution a long-term fixed rate funding source "linked" to a specific loan. The State of Montana provides the financial institution funding in the form of a deposit through the Montana Board of Investments using coal tax funds.

### MASTER LIMITED PARTNERSHIP

An investment structure that combines the tax benefits of a limited partnership with the liquidity of a common stock. While an MLP has a partnership structure, it issues shares that trade on an exchange like common stock. MLPs are often broadly associated with energy companies operating in midstream services.

### MEAN VARIANCE OPTIMIZATION MODEL ('Modern Portfolio Theory')

A theory that it is possible to construct a portfolio to maximize the return for the least amount of risk or volatility. This theory is based on various asset types and their level of expected return, risk (volatility) and their correlation with each other or how the asset values move with each other. The central idea of the model is to blend investments so that in total, they provide both the best expected return and optimal amount of diversification to minimize deep performance swings (volatility); a central tenant is that long term historical returns are indicative of future returns.

### **MEZZANINE FINANCE** (private equity)

Subordinated debt with an equity 'kicker' or ability to share in the equity value of the company. It is typically lower quality because it is generally subordinated to debt provided by senior lenders such as banks, thus is considered higher risk.

### **MULTIPLE** (as in "multiple" of invested capital, private equity)

The ratio of total cash returned over the life of the investment plus the investment's residual value over the total cash expended in making the investment. A multiple of 2 means, regardless of the total investment time period, that total cash returned was twice the cash invested.

### **130/30 STRATEGY** (public equities)

Also called 'partial long short,' this strategy involves the establishment of a short position in select stocks while taking the proceeds of those shorts and buying additional long positions in stocks. The net effect is an overall market position that is 100% long, but the active decisions on individual stock selections are amplified by this ability to short. If the stock selections are successful, the strategy enables the portfolio to profit more than if a stock had simply not been owned, as with traditional long-only portfolios.

### **OPPORTUNISTIC** (real estate)

In real estate, a euphemism for the most risky real estate investments, typically distressed, raw land, newly developed buildings or other high risk investments in the real estate sector, (versus, 'core,' which are the best quality fully leased commercial properties).

### **OVERWEIGHT OR UNDERWEIGHT** (investment concept)

Generally, the level of holdings of a certain type of investment that is above or below either a benchmark's weight (portion of total investment), or the percentage held of a particular asset class compared to the Board's asset allocation policy weight. Also used to describe an external investment manager's decision to have more (or less) of a particular investment than the percentage or weighting found in the benchmark.

### **P/E RATIO** (equity)

The price of a publicly traded stock divided by its estimated or actual earnings is the price/earnings or P/E ratio. This can also be calculated for a stock index or portfolio of stocks. Over the last 100 years, the S&P 500 has had an overall P/E ratio of about 15, or a total index price of about 15 times the annual earnings of its underlying companies.

### **PACING STUDY** (private equity)

An analysis of the likely timing and amount of the drawdown of committed but yet uninvested monies and the estimated distributions or returns from the funds held in an alternative investment portfolio, generally used to judge the future size of the portfolio and its potential liquidity needs, i.e., cash funding demands.

### **PAR** (fixed income)

The initial principal amount designated by the issuer of the bond, or face value of a bond.

### **PASSIVE**

For investments, generally not materially participating in an investment decision, meaning an investment portfolio whose returns follows that of a broad market index, such as an investable stock index, i.e. the S & P 500.

**PASSIVE MANAGEMENT OR PASSIVE INVESTMENT** (most often in public equities, but not exclusively)

An investment style where a fund's portfolio mirrors a market index, such as the S&P 500, with limited selection decisions by the manager, resulting in market returns. Passive management is the opposite of active management in which a fund's manager attempts to beat the market with various investment strategies and buy/sell decisions of a portfolio of securities to enhance returns.

**PASSIVE WEIGHT** (generally equities)

The percentage of a stock held in a particular index portfolio, or percentage of an overall asset class that is held in passive portfolios.

**POLICY PORTFOLIO**

A fixed-target asset allocation, as opposed to asset allocation ranges, which theoretically allows gauging whether deviations from the target portfolio had a positive or negative impact on overall performance.

**PORTABLE ALPHA** (public equities)

An investment strategy which involves the active selection of securities while neutralizing overall beta or market risk. This often involves the use of derivative investments such as futures to replicate the market return, either taking a short or long position, while then selecting securities which are expected to add return in an absolute sense or in addition to the market return. As an example, this strategy can be found with certain hedge funds where a market exposure is shorted while individual securities such as specific stocks are purchased that are expected to outperform the general market. The concept of portable applies when the ability to generate positive alpha can be overlaid or ported onto a portfolio. This is not a strategy employed by any of MBOI's existing managers.

**PREMIUM** (fixed income)

Most often the amount paid over the stated face amount (often called 'par') of a bond, but also used in other contexts, typically paying more (the premium) than a market price (as in a take-over bid for a company).

**PRIVATE ANNUAL WAGE**

The private annual wage is determined annually by the Montana Department of Labor & Industry using the average annual employment divided by the total wages.

**PROXY** (publicly traded companies)

An agent legally authorized to act on behalf of another party. Shareholders not attending a company's annual meeting may choose to vote their shares by proxy by allowing someone else to cast votes on their behalf, but the word 'proxy' is used more frequently colloquially as a 'close approximation.'

### **PRUDENT EXPERT, PRUDENT PERSON** (a central fiduciary concept)

These legal terms have long histories of court-determined standards of care, deriving originally under English common law. The BOI is empowered to operate under the 'prudent expert rule,' which states that the Board shall manage a portfolio:

- a) *with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims;*
- b) *diversify the holdings of each fund within the unified investment program to minimize the risk of loss and to maximize the rate of return unless, under the circumstances, it is clearly prudent not to do so; and*
- c) *discharge the duties solely in the interest of and for the benefit of the funds forming the unified investment program.*

At an 'expert' level; there is more room for accepting risk under the prudent expert rule than the prudent person rule.

### **REBALANCING** (general investment term)

The process of realigning the weightings of the portfolio of assets. Rebalancing involves periodically buying or selling assets in the portfolio to maintain the original desired level of asset allocation and/or to stay within predetermined asset category range; it is part of a disciplined investment approach within modern portfolio theory.

### **REPURCHASE AGREEMENT**

A contract in which the seller of securities, such as Treasury Bills, agrees to buy them back at a specified time and price. May also be called "Repo" or "Buyback." Typically used as a short-term form of collateralized borrowing by a bank or securities dealer.

### **RESOLUTION** (government term)

Generally, a formal and written action by a governmental (or corporate) body that has long term significance and requiring a vote of the governing body. BOI uses 'resolutions' generally only for its most significant and long term actions and/or policies.

### **REVERSE REPURCHASE AGREEMENT**

A purchase of securities with an agreement to resell them at a higher price at a specific future date. The investor essentially borrows money and allows its securities to be held as collateral. Reverse Repurchase Agreements occur most often in government securities or other securities that are highly valued and thus considered a good form of collateral.

### **SECURITIES LENDING** (general investment)

Investments that are temporarily borrowed by other investors for a fee; the BOI allows most of its publicly traded investments to be loaned for additional marginal income.

### **STANDARD DEVIATION** (common statistical concept)

A specific statistic that measures the dispersion of returns from the mean over a specific time period to determine the "historical volatility" of returns for a stock, or portfolio, or asset class; more specifically a single unit (i.e., one standard deviation) of dispersion that accounts for approximately 66% of all data around a mean using a 'normal' (or 'uniform' or 'bell-shaped' curve; as opposed to a skewed or asymmetrical) distribution. The standard deviation is used as a gauge for the amount of expected future volatility.

### **SABHRS** (accounting jargon)

Montana state government's State Accounting, Budgeting and Human Resource System; the State's central information management system. BOI investment and other financial data must tie and be reported on this system, which is the official book of record and includes the state's financial statements.

### **STYLE DRIFT** (often in reference to public equity managers, but applicable to other managers, too)

As the name implies, a divergence from an investor's professed investment bias or style or objective.

### **TRANCHE**

A division or portion of a pool or whole; specifically: an issue of bonds derived from a pooling of like obligations (such as securitized mortgage debt) that is differentiated from other issues especially by maturity or rate of return.

### **TRACKING ERROR** (statistical concept in investments)

A measurement of the standard deviation of a portfolio's return versus the return of the benchmark it was attempting to outperform. The concept is often used when discussing investment managers. For example, some styles are expected to have high 'tracking errors,' (e.g., deep 'value' investors who buy companies that may be dogs for years), versus passive managers, whose stock volatility is expected to be very close to their benchmark. Tracking error can either be intentional or unintentional; it can also be regarded as an accepted deviation or contrary to the management agreement. High *unexpected* tracking error is generally a serious concern to be examined and understood.

### **UNDERWRITER** (bond program)

In investments, the agent who buys investments to be resold to the public; at BOI, the investment firms that buy the Board's bonds to be resold to the public.

### **UNIFIED INVESTMENT PROGRAM** (Montana Constitution)

The Program in the State's constitution requiring a central investment program which the legislature has assigned to the BOI.

### **VALUE** (as to style when discussing public equities)

An investment style that focuses on buying established companies that investors believe are undervalued and trading at bargain prices to the fundamental analysis of the company's financial statements and internal competitive factors.

### **VENTURE CAPITAL** (private equity)

A higher-risk/high-return type of investing in startup firms and small businesses with perceived long-term growth potential. Sometimes these are already existing business ventures with limited operating history that need additional management expertise and access to capital. (For start-ups, 'seed capital,' or 'angel investor' are terms differentiating this even higher risk type of investment.)

### **VOLATILITY** (investment jargon)

A statistical measure of the dispersion of returns for a given security or market index. Volatility is typically measured by using the standard deviation of returns from the security or market index. Commonly, the higher the volatility, the riskier the security.

### **YIELD** (general investment, but most often within fixed income)

The amount returned to the investor above the original investment generally expressed as a percentage. Yield can be thought of as the expected return from the combination of interest and price accrual or amortization to maturity (in the case of a bond trading at a discount or premium to par).

### **YIELD CURVE** (fixed income)

A line that plots the prevailing interest rates at a given time for bonds ranging in maturity from as short as three months out to 30 years. When plotted across these various maturities (typically 2, 5, 7, 10 and 30 years), the resultant line is shaped like a curve with generally low interest rates (the yield) for shorter maturities and gradually higher interest rates for longer maturities, because generally investors demand higher interest rates for longer term investments. The yield curve for U.S. Treasury debt is the most common when referring to the prevailing level of interest rates.

## MONTANA BOARD OF INVESTMENTS ACRONYM INDEX

ACH.....	Automated Clearing House
ADV.....	Uniform Application for Investment Adviser Registration and Report by Exempt Reporting Advisor
AUM.....	Assets Under Management
ADR.....	American Depository Receipts
AOF.....	All Other Funds
ARC.....	Actuarially Required Contribution
BOI.....	Board of Investments
CAPP.....	Consolidated Asset Pension Pool
CFA.....	Chartered Financial Analyst
EM.....	Emerging Market
FOIA.....	Freedom of Information Act
FWP.....	Fish Wildlife and Parks
FX.....	Foreign Exchange
IPS.....	Investment Policy Statement
IRP.....	Intermediary Relending Program
LDI.....	Liability-Driven Investing
MBOH.....	Montana Board of Housing
MBOI.....	Montana Board of Investments
MDEP.....	Montana Domestic Equity Pool
MLP.....	Master Limited Partnership
MFFA.....	Montana Facility Finance Authority
MPEP.....	Montana Private Equity Pool
MPT.....	Modern Portfolio Theory
MSTA.....	Montana Science and Technology Alliance
MTIP.....	Montana International Pool

MTRP ..... Montana Real Estate Pool

MTSBA ..... Montana School Boards Association

MVO ..... Mean-Variance Optimization

NAV ..... Net Asset Value

PERS ..... Public Employees' Retirement System

PFL ..... Partnership Focus List

QZAB ..... Qualified Zone Academy Bonds

QSCB ..... Qualified School Construction Bonds

RFBP ..... Retirement Funds Bond Pool

RFP ..... Request for Proposal

SABHRS ..... Statewide Accounting Budgeting and Human Resource System

SLQT ..... Securities Lending Quality Trust

SOC1 ..... Service Organization Controls 1 (Audit)

SSBCI ..... State Small Business Credit Initiative

STIP ..... Short Term Investment Pool

TFBP ..... Trust Funds Bond Pool

TFIP ..... Trust Funds Investment Pool

TIF ..... Tax Increment Financing

TIFD ..... Tax Increment Financing District

TRS ..... Teachers' Retirement System

TUCS ..... Trust Universe Comparison Service

UIP ..... Unified Investment Program

VIX ..... Volatility Index

## ASSET CLASS ACRONYMS

DEPAC .....	Domestic Equity Pension Asset Class
IEPAC .....	International Equity Pension Asset Class
PEPAC .....	Private Equity Pension Asset Class
NRPAC .....	National Resources Pension Asset Class
REPAC .....	Real Estate Pension Asset Class
TIPAC .....	TIPS Pension Asset Class
BFPAC.....	Broad Fixed Income Pension Asset Class
USPAC .....	UST/AGY Pension Asset Class
IGPAC .....	Investment Grade Corp Pension Asset Class
MBPAC.....	MBS Pension Asset Class
HYPAC .....	High Yield Pension Asset Class
DSPAC .....	Diversified Strategies Pension Asset Class
CPAC.....	Cash Pension Asset Class