

MONTANA

BOARD OF INVESTMENTS

REGULAR BOARD MEETING
February 28, 2024

COMMITTEE MEETINGS

A. Audit Committee – Mark Barry, Chair

Committee Members – Peterson, Bennett, Trost, Iverson

9:30 AM

1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
2. Approval of December 12, 2023, Committee Minutes
3. Executive Director Comments
4. Audit Checklist
5. Ethics Policy – Staff Compliance
6. Financial Audit Reports

B. Loan Committee – Jeff Meredith, Chair

Committee Members – Barry, Kober, Bennett, Younkin

10:00 AM

1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
2. Approval of December 12, 2023 and February 6, 2024, Committee Meeting Minutes
3. Executive Director Comments
4. INTERCAP Loan Requests - **Decisions**

BREAK

11:00 AM

Tab 1 CALL TO ORDER – Jack Prothero, Chairman

11:15 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 December 12, 2023, Meeting & December 21, 2023, Special Meeting Minutes
- E. Administrative Business
 1. Audit Committee Report
 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

11:30 AM

- A. Member Requests from Prior Meeting
- B. Monthly Snapshot
- C. Disaster Recovery and Emergency Preparedness
- D. Board Member Ethics Training
- E. Outreach Efforts – In-State and INTERCAP Programs

Tab 3 MONTANA LOAN PROGRAM – Doug Hill, Director of In-State Loans

11:45 PM

- A. Commercial and Residential Portfolios Report

Tab 4 BOND PROGRAM – Louise Welsh, Senior Bond Program Officer	12:00 PM
A. INTERCAP	
1. Activity Report	
2. Staff Approved Loans Report	
BREAK FOR LUNCH	12:15 PM
Tab 5 SHORT TERM INVESTMENT POOL – Kirsten Haswell, Investment Officer	1:00 PM
BREAK	2:30 PM
Tab 6 RVK	2:45 PM
Tab 7 INVESTMENT UPDATE	3:30 PM
RECAP OF STAFF TO DO LIST AND ADJOURNMENT – Jack Prothero, Chairman	

MONTANA

BOARD OF INVESTMENTS

REGULAR BOARD MEETING MINUTES

December 12, 2023

Meeting recordings are posted at <https://leg.mt.gov/lsd/>
(timestamps may differ)

Call to Order

The Board of Investment's meeting was called to order by Board Chairman Jack Prothero at 10:12 a.m. on Tuesday, December 12, 2023.

Attendance

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

Board Members Absent: Dan Trost

Legislative Liaisons Present: None

Legislative Liaisons Absent: Senator Jeremy Trebas

Board Staff Present: Brenda Thomas, Dan Villa, Dan Whyte, Dan Zarling, Doug Hill, Eron Krpan, Ethan Hurley, Jason Brent, John Carpenter, John Romasko, Jon Putnam, Julie Feldman, Ian Horwood, Kirsten Haswell, Louise Welsh, Matt Hoffman, Peggy MacEwen, Peggy Saarela, Polly Boutin, Roberta Diaz, Sam Holman, Savannah Morgan, Sheli Jacoby, Steve Strong, Tammy Lindgren, Thomas Winkler, Tim House, Willie Gross

Interested Parties Present: Jim Voytko – RVK, Paige Blaser – RVK, Kevin Balaod – With Intelligence, Dore Schwinden – MPERA, Bill Holohan – MPERA, Shawn Graham - TRS

Tab 1 CALL TO ORDER (00:07)

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

A. Notice of Video Recording (00:12)

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

B. Roll Call (00:36)

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

Tab 3 MONTANA LOAN PROGRAM (01:47)

A. Commercial and Residential Portfolios Report

Doug Hill briefed the Board and answered questions.

Tab 4 BOND PROGRAM (10:24)

A. INTERCAP

Louise Welsh briefed the Board and answered questions.

Tab 2 Executive Director Reports (17:06)

A. Member Requests from Prior Meeting

There were no Board member requests from the prior meeting.

B. Monthly Snapshot

Executive Director Villa briefed the Board.

C. LPAC Reporting

Executive Director Villa briefed the Board.

D. Securities Litigation

Executive Director Villa briefed the Board.

E. Resolution 217 – Reauthorization of Investment Vendors

Executive Director Villa briefed the Board.

F. Workforce Housing Update

Executive Director Villa briefed the Board.

Tab 1 (cont.) (56:58)

C. Public Comment (57:00)

Chairman Prothero asked for public comment. None was given.

D. Approval of Minutes (57:23)

October 11, 2023, Regular Board Meeting Minutes

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

E. Administrative Business

1. Audit Committee Report (58:07)

Committee Chair Barry briefed the Board.

Chairman Prothero asked for a motion to approve the Audit Committee Charter. Member Barry motioned for approval. Member Peterson seconded the motion, which passed unanimously.

Chairman Prothero asked for a motion to approve the Annual Statutory Compliance Checklist. Member Barry motioned for approval. Member Iverson seconded the motion, which passed unanimously.

Chairman Prothero requested a motion to approve the Unified Investment Program (UIP) and Enterprise Fund Financial Statements. Member Barry motioned for approval. Member Peterson seconded the motion, which passed unanimously.

Chairman Prothero asked for a motion to approve the FY23 Annual Report. Member Barry motioned for approval. Member Iverson seconded the motion, which passed unanimously.

2. Loan Committee Report (01:13:37)

Committee Chair Meredith briefed the Board.

Chairman Prothero requested a motion to approve the request to repeal and discontinue the Conservation Reserve Enhancement Program (CRP). Member Meredith motioned for approval. Member Younkin seconded the motion, which passed unanimously.

F. Comments from Pension Board Members

Member Peterson briefed the Board. (01:06:12)

G. Comments from Board Legislative Liaisons

Senator Jeremy Trebas was absent.

Tab 5 INVESTMENT POLICY STATEMENTS (01:09:06)

John Romasko briefed the Board and answered questions.

Chairman Prothero asked for a motion to approve the addition of the Montana History and Civics Endowment to Policy 40.926. Member Barry motioned for approval. Member Kober seconded the motion, which passed unanimously.

Chairman Prothero requested a motion to approve the small change to Policy 40.600, allowing securities lending for STIP assets. Member Iverson motioned for approval. Member Bennett seconded the motion, which passed unanimously.

Tab 6 ASSET ALLOCATION RANGE APPROVAL (01:18:56)

Jon Putnam briefed the Board and answered questions.

Chairman Prothero asked for a motion to reaffirm the Asset Allocation strategy. Member Peterson motioned to approve. Member Kober seconded the motion, which passed unanimously.

WORKING LUNCH MPERA and TRS Relationship (00:01)

Dore Schwinden, Executive Director for MPERA, Bill Holahan, Deputy Director for MPERA, and Shawn Graham, Executive Director for TRS briefed the Board and answered questions.

Tab 7 RVK (43:58)

Paige Blaser and Jim Voytko with RVK briefed the Board and answered questions.

Tab 8 INVESTMENT UPDATE

CIO Update (01:25:19)

Jon Putnam briefed the Board.

Macro Attribution (01:51:32)

Eron Krpan briefed the Board.

Non-Core Fixed Income, Domestic Equity, and International Equity (01:59:24)

Jason Brent briefed the Board.

Real Estate (02:08:27)

Ethan Hurley briefed the Board.

Real Assets (02:12:00)

Ethan Hurley briefed the Board.

Private Investments (02:17:43)

Thomas Winkler and Ian Horwood briefed the Board.

Core Fixed Income (02:26:03)

John Romasko briefed the Board.

RECAP OF STAFF TO DO LIST AND ADJOURNMENT (02:30:46)

Chairman Prothero adjourned the meeting at 2:47 p.m.

MONTANA BOARD OF INVESTMENTS

APPROVE: _____

Jack Prothero, Chair

ATTEST: _____

Dan Villa, Executive Director

DATE: _____

MONTANA

BOARD OF INVESTMENTS

SPECIAL BOARD MEETING MINUTES

December 21, 2023

Meeting recordings are posted at <https://leg.mt.gov/lspd/>
(timestamps may differ)

Call to Order

The Board of Investment's meeting was called to order by Chairman Jack Prothero at 1:30 p.m. on Thursday, December 21, 2023.

Attendance

Board Members Present: Chairman Jack Prothero, Cindy Younkin, Porter Bennett, Maggie Peterson, Mark Barry, Jeff Meredith, Dwaine Iverson

Board Members Absent: Tim Kober, Dan Trost

Legislative Liaisons Present: None

Board Staff Present: Dan Villa, Dan Whyte, Doug Hill, Ethan Hurley, Jessilynn Salois, John Romasko, Jon Putnam, Julie Feldman, Kirsten Haswell, Louise Welsh, Peggy Saarela, Robert Samson, Savannah Morgan, Sam Holman, Savannah Morgan, Steve Strong, Willie Gross

Interested Parties Present: None

1. Notice of Video/Audio Recording (00:10)

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

2. Roll Call (00:17)

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

3. Public Comment – Public Comment on issues with Board Jurisdiction (01:10)

Chairman Prothero asked for public comment. None was given.

4. House Bill 819 Workforce Housing Development Proposal – Decision (01:37)

Executive Director Villa briefed the Board and answered questions.

Member Peterson moved to approve the House Bill 819 Proposal as presented. Member Younkin seconded the motion, which passed unanimously.

5. Adjournment (18:30)

Chairman Prothero adjourned the meeting at 1:49 p.m.

MONTANA BOARD OF INVESTMENTS

APPROVE: _____
Jack Prothero, Chair

ATTEST: _____
Dan Villa, Executive Director

DATE: _____

MONTANA

BOARD OF INVESTMENTS

To: Members of the Board
From: Dan Villa, Executive Director
Date: February 28, 2024
Re: Executive Director Report

- A. Member Requests from Prior Meeting
- B. Monthly Snapshot – *attached*
- C. Disaster Recovery and Emergency Preparedness – *attached*
- D. Board Member Ethics Training – *attached*
- E. Outreach Efforts – In-State and INTERCAP Programs

Below are the meetings and conferences attended by Board staff to market the In-State Loan Program and INTERCAP Loan Programs since the last briefing.

IN-STATE LOAN PROGRAM 2023 OUTREACH

- January - Attended MBA/MIB legislative dinner in Helena.
- April – Met with the Helena office SBA staff to review BOI loan programs.
- April - Presentation to the University of Montana MBA-Business-Leveraging Public Funds for Business.
- May – Met with lenders from Valley Bank of Helena to review BOI loan programs.
- May – Met with lenders from Freedom Bank in Columbia Falls to review BOI loan programs.
- May – Met with lenders from First Interstate Bank in Kalispell to review BOI loan programs.
- June – Met with lenders from Valley Bank of Kalispell to review BOI loan programs.
- July – Met with lenders from First Federal Bank & Trust in Billings to review BOI loan programs.
- August – Met with staff from the University of Montana working on the Accelerate Montana Access to Finance Study.
- September – Zoom training with lenders covering the HOMES programs
- October – Met with the new Executive Director of the Montana Banker Association.

- December – Met with Missoula Economic Partners and business leaders to review BOI loan programs.
- Ongoing outreach with the Department of Commerce business recruiters and businesses interested in participating in the BOI Loan Program.
- Ongoing outreach with lenders and businesses interested in participating in the BOI Loan Programs.

INTERCAP LOAN PROGRAM 2023 OUTREACH

- March - MT Rural Water Conference – WASACT workshop (Great Falls)
- June - MT Association of School Business Officials conference (Billings) in June
- November – MT Association of School Business Officials workshop (Helena)
- September - MT Association of Counties-MACo conference (Butte)
- October - MT League of Cities and Towns conference in (Helena)



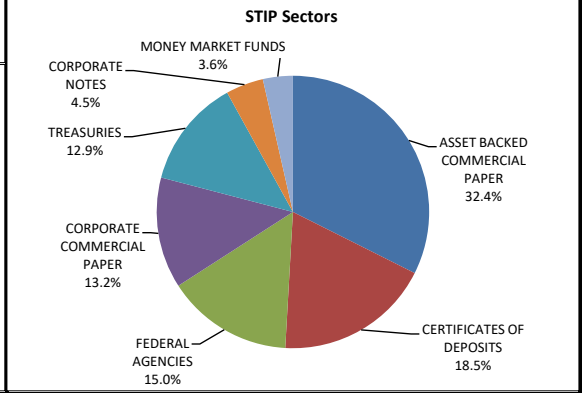
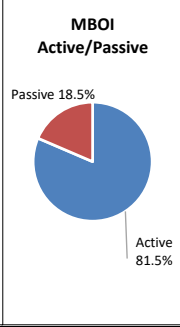
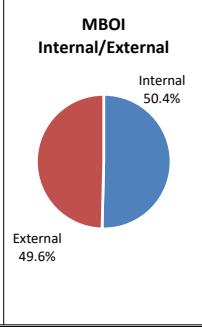
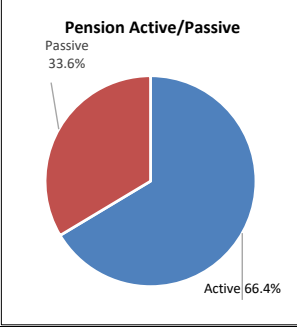
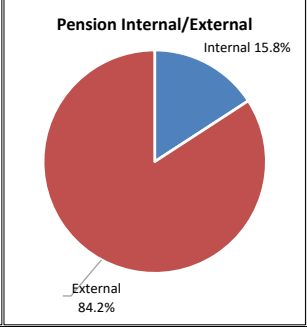
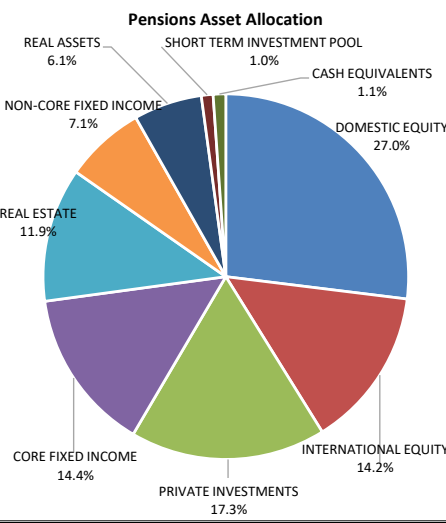
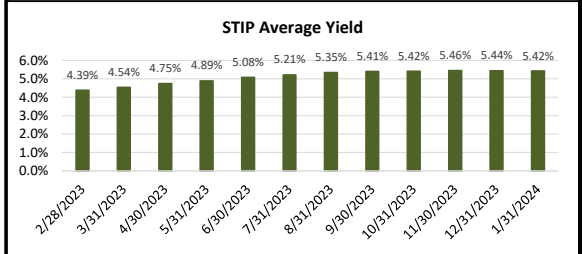
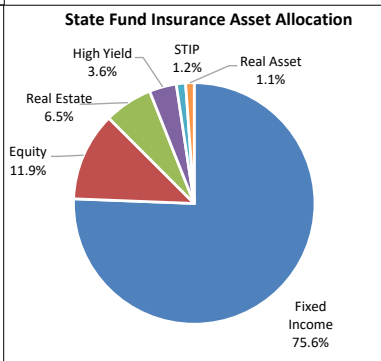
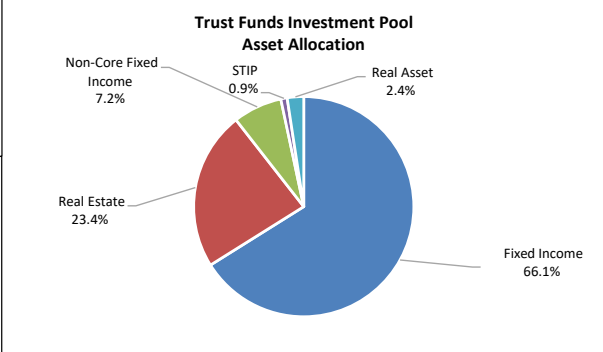
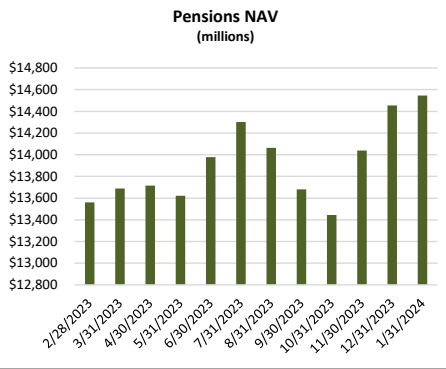
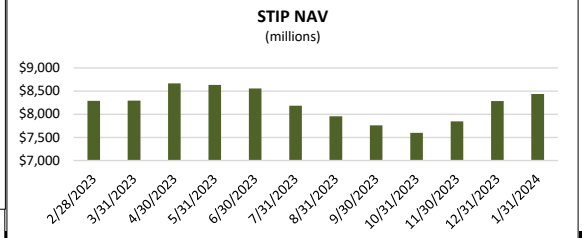
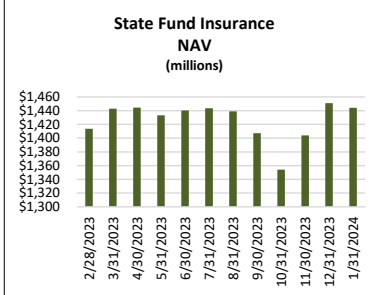
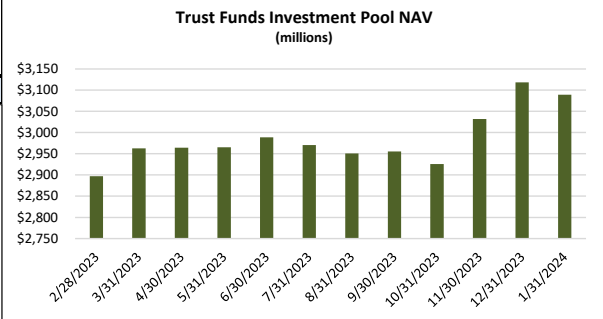
MBOI Snapshot
Asset Management View
1/31/2024 Unaudited
Assets Under Management \$27,522,993,101

Pensions	NAV	%
DOMESTIC EQUITY	\$3,920,551,662	26.95%
INTERNATIONAL EQUITY	\$2,064,909,117	14.20%
PRIVATE INVESTMENTS	\$2,517,879,463	17.31%
CORE FIXED INCOME	\$2,092,618,795	14.39%
REAL ESTATE	\$1,724,879,378	11.86%
NON-CORE FIXED INCOME	\$1,031,985,269	7.09%
REAL ASSETS	\$880,294,583	6.05%
SHORT TERM INVESTMENT POOL	\$150,773,624	1.04%
CASH EQUIVALENTS	\$161,497,578	1.11%
Pensions Total	\$14,545,389,470	100.00%

TFIP	NAV	%
Fixed Income	\$ 2,041,743,641	66.10%
Real Estate	\$ 721,355,418	23.35%
Non-Core Fixed Income	\$ 222,584,816	7.21%
Real Asset	\$ 74,639,081	2.42%
STIP	\$ 28,735,674	0.93%
Total	\$ 3,089,058,629	100.00%

State Fund	NAV	%
Fixed Income	\$ 1,104,750,450	75.61%
Equity	\$ 173,505,982	11.88%
Real Estate	\$ 94,851,069	6.49%
High Yield	\$ 53,170,849	3.64%
STIP	\$ 18,008,341	1.23%
Real Asset	\$ 16,758,191	1.15%
State Fund Total	\$ 1,461,044,882	100.00%

Other Fixed Income & Pending	\$	(31,858,774)
STIP*	NAV	%
ASSET BACKED COMMERCIAL PAPER	\$2,741,071,308	32.40%
CERTIFICATES OF DEPOSITS	\$1,564,571,251	18.50%
FEDERAL AGENCIES	\$1,268,912,367	15.00%
CORPORATE COMMERCIAL PAPER	\$1,114,527,500	13.18%
TREASURIES	\$1,092,131,103	12.91%
CORPORATE NOTES	\$377,624,464	4.46%
MONEY MARKET FUNDS	\$300,520,901	3.55%
STIP Total	\$8,459,358,894	100.00%



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 \$212,359,316 is attributable the portion of STIP held within CAPP (\$159,938,316) and TFIP (\$28,562,513) as a cash investment and distributions held over month end (\$23,858,195). Such value is represented in the NAV for the CAPP and STIP columns.

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

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

An EMPLOYEE'S GUIDE TO

Standards of Conduct

IN MONTANA STATE GOVERNMENT

March 2011



State Human Resources Division
Department of Administration

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Introduction

You are a state employee and your public duty is to work for the benefit of the people of the state. State statutes mandate your responsibility to the public. The Montana Code Annotated (MCA) 2-2-103 describes the holding of public employment as a “public trust” created by the confidence the public places in you.

Public trust and public duty are your guiding principles. If you or your private interests benefit by your work duties, you may have a conflict of interest. This guide should help you recognize when you may have a conflict of interest and identify your responsibilities.

If you have these guidelines in mind you should be able to avoid taking action against your public duty and violating the public’s trust in state government.

Why have standards of conduct?

The Montana Constitution, Article XIII, Section 4 prohibits conflict between employees’ private interest and their public duty. The Standards of Conduct are found in Title 2 – Chapter 2, MCA. The legislature may amend these rules. It is a good idea to review them from time to time. The statute’s purpose is to maintain the public trust in state government and to provide for penalties against those who violate that trust.’

What can guide my conduct?

You may begin with the State ethics policy. The State Human Resources Division, Department of Administration, developed the policy based on statutory standards of conduct. The policy can be found in the Montana Operations Manual. A link to the policy is included in the reference section of this guide.

Each agency must adopt the state policy and may add rules and procedures specific to the agency. Please consult with your agency for any agency-specific requirements.

Next, this guide will help you understand the policies and statutes and how they might apply to you. It is your responsibility to make sure you

understand the standards of conduct and ethical principles which apply to you as you perform your job.

Some provision of the Standards of Conduct affect elected officials and local government employees. We did not include these provisions in this guide. You should contact your supervisor or agency human resources office for additional information.

Another good source of information is the Commissioner of Political Practices. The Commissioner issues information and rules about enforcement of the standards of conduct. The Commissioner's staff will try to answer questions but cannot issue advisory opinions on ethics in writing.

Other state policies also provide guidance to state employees. For example, state policies on the use of state provided computers, internet, telephones, vehicles, and procurement cards contain specific guidance to the standards of conduct relating to use of state equipment. Your agency may also provide additional guidance through agency-specific policies.

Criminal laws provide guidance and may cover some of the same kinds of behavior as described in the standards of conduct, under Title 45, Chapter 7, Offenses Against Public Administration. For example, threats and improper influence, bribery, compensation for past official action, gifts to public servants, and official misconduct are all covered.

Some professions and occupations, such as lawyers and engineers, have ethical standards to which those practicing the profession must adhere.

Finally, federal and state law and state policy guide your conduct with regard to discrimination, harassment and other treatment of your co-workers.

This guide addresses ethical violations set out in the standards of conduct. You must make yourself aware of all rules and policies guiding your behavior.

Standards of Conduct

Standards of conduct for public employees can be grouped into four major categories: gifts, self-dealing, unwarranted privileges, and use of public property for private purposes. We summarized the law for each category

below. The definitions set out in 2-2-102, MCA, may help you understand the rules.

Gifts: As a state employee, you may not accept a substantial gift or economic benefit (2-2-104(1)(b) and (2), MCA). Substantial gifts are generally valued at more than \$50. The statute defines “economic benefit” to include a loan with interest below market rate or compensation for your private services substantially above the market rate.

You should closely scrutinize gifts or economic benefits to determine if they are intended to exert improper influence or reward you for action you took. Acceptance of a gift or economic benefit intended as a bribe, regardless of value, could result in criminal penalties.

The definition of gift in 2-2-102, MCA excludes the following:

- a gift that is not used and is either returned to the donor within 30 days or donated to a charitable organization;
- food and beverage consumed while participating in a charitable, civic or community event which is related to your employment or that you are attending in an official capacity;
- educational materials directly related to your duties;
- an award presented publicly in recognition of public service; or
- educational activity that does not place or appear to place you under any obligation and is not lavish or extravagant.

Your agency may provide additional guidance on acceptance of gifts or economic benefits. Violation of this standard is proof that an employee has breached his public duty. Disclosure is not a defense.

Self-Dealing: As a state employee, you may not:

- disclose or use confidential information acquired in the course of your job for your personal economic interests (2-2-104(1)(a), MCA);
- acquire an interest in any business or undertaking you have reason to believe may be directly and substantially affected to its economic benefit by actions taken by your employing agency (2-2-105(2), MCA);
- perform an official act which directly and substantially harms a business when you have a substantial personal interest in a competing business (2-2-105(5), MCA);

- engage in a substantial financial transaction for your private business purposes with a person whom you inspect or supervise in the course of your official duties (2-2-121(2)(b), MCA);



If you are a member of a governing body, you may act if necessary to have a quorum but you must disclose the conflict of interest before performing the act.

- assist a person for a fee or other compensation in obtaining a contract, claim, license, or other economic benefit from your agency (2-2-121(2)(c), MCA);
- assist a person for a contingent fee in obtaining a contract, claim, license, or other economic benefit from an agency (2-2-121(2)(d), MCA); or
- perform an official act which directly and substantially provides an economic benefit to a business in which you have a substantial financial interest or for which you are engaged as a counsel, consultant, representative or agent (2-2-121(8), MCA).



If you are a department head or a member of a rule-making board, you may act if (1) your participation is necessary to the administration of a statute; and (2) you disclose the conflict to the Commissioner of Political Practices and for the record in the proceeding.

Each of these acts is a breach of public duty. Disclosure is not a defense, except as noted.

Unwarranted Privileges: As a state employee, you may not:

- engage in any activity, including lobbying, on behalf of an organization of which you are a member while performing your job duties (2-2-121(6), MCA);



You may participate in charitable fundraising activities if you have your supervisor's permission.

- participate in a proceeding before your agency that is within the scope of your job duties, or attempt to influence a local, state, or federal proceeding in which you represent the state, when an organization of which you are an officer or director is involved;
- obtain employment within 12 months following voluntary termination, taking advantage unavailable to others of matters with which you were directly involved. Such matters include rules which you helped formulate and applications, claims or contested cases in which you were actively involved; or
- contract or be employed within six months of termination by someone who contracts with the state involving matters with which you were directly involved during your employment with the state.



This does not apply to contracts awarded to the low bidder based on a competitive process or to merchandise sold to the highest bidder at public auction. This does not apply to you if you lost employment because of a reduction in force.

- receive two salaries as a public employee for work during overlapping hours, unless:
 1. if the duplicate pay for one job consists totally of accrued leave and/or compensatory time during the overlapping period;
 2. you reimburse the agency from which you are absent for the salary paid for time you were absent;. or
 3. your salary is reduced by one agency so that you are not compensated twice for the overlapping time.



Montana's Administrative Rules (44.10.601, ARM) require you report any overlapping hours to the Commissioner of Political Practices.

Public Property for Private Business Purposes: As a state employee you may not:

- use public time, facilities, equipment, supplies, personnel, or funds for private business purposes. This includes soliciting support for or opposition to any political committee, the nomination or election of any person to public office, or the passage of a ballot issue unless authorized by law or properly incidental to another activity required or authorized by law. Additional guidance on what is allowable for state employees can be found in 2-2-121(3), MCA.

This rule is not intended to restrict your right to express your personal political views. However, you may not use public time or equipment to do so. (See, *Seher and Valazquez v. Galt* (7/26/04))



You may be listed in the electronic directory for Made In Montana products if the products are made outside of work and you do not make arrangement for the listing during work hours.

Disclosure Requirements of the Law

The law requires you to disclose certain information under specific circumstances. Your agency's policy may provide procedures for making required disclosures. Below are the disclosure requirements:

- You may not solicit or accept employment or engage in negotiations or meetings to consider employment with a person you regulate in your official duties, without first giving written notice to your supervisor or agency director.
- If you are a member of a quasi-judicial board or commission or a board, commission or committee with rulemaking authority and have a conflict created by a personal or private interest that gives rise to the appearance of impropriety, you must disclose the interest creating the conflict prior to participating in official actions.

- Prior to acting in a manner affecting your public duty, including the award of a permit, contract or license, you must disclose the nature of the private interest creating the conflict. This disclosure must be in writing to the Commissioner of Political Practices and must list the amount of private interest, the purpose and duration of your services, any compensation you have received and other relevant information. If you perform the act involved, you must state for the record the nature of the interest you disclosed.

Enforcement of the Standards of Conduct

Each agency is charged with enforcing the standards of conduct policy for employees and may take disciplinary action to enforce the policy. Each agency must also conduct employee ethics education at least every three years. Employees are also required to read this guide and the ethics policy every three years.

You must sign a statement acknowledging you read this guide and ethics policy and affirm your agreement to abide by the policy. You should understand what is required of you and ask your supervisor if you have a situation that concerns you.

The Commissioner of Political Practices is responsible for investigating and enforcing the Standards of Conduct when complaints are received by that office. The commissioner does not have jurisdiction over a complaint about a legislator or local government employees except the county attorney. However, the following actions and penalties are possible:

- Any person alleging a violation may file a complaint with the Commissioner of Political Practices. If the Commissioner accepts the complaint for investigation, the Commissioner will hold an informal contested case hearing and issue a decision.
- Proof of commission of unlawful acts outlined in the Standards of Conduct and Code of Ethics is proof the employee has breached his or her public duty.
- If the Commissioner determines a violation has occurred, an administrative penalty of not less than \$50 or more than \$1,000 may

be imposed along with the costs of the proceeding. If the violation is by a state employee, the Commissioner may also recommend disciplinary action by the employing agency.

- If the Commissioner determines a violation did not occur, costs for the proceedings may be assessed against the person bringing the complaint.
- Judicial review of commissioner decisions is through the state District Court.

Closing

Two main principles apply to your conduct in your job: public trust and public duty. Whenever you consider using state property or time or your position as a state employee to benefit yourself or your business, think twice. By keeping these rules in mind as you do your job, you will be able to carry out your duties for the benefit of the people of the state and avoid taking actions, which would cause you to depart from your public duty and violate the public's trust.

For additional information, contact your supervisor or your agency human resources office.

Resources

State Ethics Policy

<https://montana.policytech.com/docview/?docid=162&public=true>

Commissioner of Political Practices

<https://politicalpractices.mt.gov/>

Montana Codes Annotated, Title 2, Chapter 2, Standards of Conduct:

Code of Ethics

2-2-101	Statement of purpose
2-2-102	Definitions

Original Publication:	March	2011
Revised:	March	2011

- 2-2-103 Public trust -- public duty
- 2-2-104 Rules of conduct for public officers, legislators, and public employees
- 2-2-105 Ethical requirements for public officers and employees
- 2-2-106 Disclosure
- 2-2-111 Rules of conduct for legislators
- 2-2-112 Ethical requirements for legislators
- 2-2-121 Rules of conduct for public officers and public employees
- 2-2-131 Disclosure
- 2-2-135 Ethics committees
- 2-2-136 Enforcement for state officers, legislators and state employees –referral of complaint involving county attorney
- 2-2-144 Enforcement for local government

Proscribed Acts Related to Contracts and Claims


- 2-2-201 Public officers, employees, and former employees not to have interest in contract -- local government waiver
- 2-2-202 Public officers not to have interest in sales or purchases
- 2-2-203 Voidable contracts
- 2-2-204 Dealings in warrants and other claims prohibited
- 2-2-205 Affidavit to be required by auditing officers
- 2-2-206 Officers not to pay illegal warrant
- 2-2-207 Settlements to be withheld on affidavit

Nepotism

- 2-2-301 Nepotism defined

We designed this guide to assist executive branch human resource professionals, supervisors, and managers in understanding the standards of conduct requirements. It is a companion to information contained in statute and policy.

Alternative formats may be obtained through the State Human Resources Division, Department of Administration, 125 N. Roberts St., PO Box 200127, Helena, MT 59620-0127. Telephone 406-444-3871. Those using a TTY may call the Montana Relay Service at 711.

 Montana Operations Manual Policy	Category	Human Resources/ Employee Benefits
	Effective Date	01/31/2011
	Last Revised	11/25/2019
Issuing Authority	Department of Administration State Human Resources Division	
State Ethics Policy		

I. Purpose

State of Montana employees will conduct their duties for the benefit of the people of the state. Two main principles apply to conduct: public trust and public duty. Public employment is a public trust created when the public places its confidence in the integrity of public employees.

Each state agency must adopt this model policy. State agencies may expand upon this policy with additional provisions appropriate to the specific circumstances of the agency ([2-18-102](#)(4), MCA).

II. Scope

This policy covers all employees in Montana's executive branch except the Montana University System, the Montana State Fund, elected officials, personal staff of elected officials, and any other position specifically excluded under [2-18-103](#) and [-104](#), MCA.

Agencies must follow the provisions of this policy unless they conflict with collective bargaining agreements, which will take precedence to the extent applicable.

A person under contract with the state meets the definition of public a state employee for the purposes of the standards of conduct statutes ([2-2-102](#)(7), MCA). Agencies must include contractors in the application of these requirements.

III. Procedures

Employees shall abide by the code of ethics and standards of conduct found in [2-2-101](#) through [2-2-304](#), MCA, at all times. The statutes must be consulted whenever an issue arises. Employees shall avoid conflicts of interest between public duty and private interests, favoritism, bias, and the appearance of impropriety. Employees are encouraged to discuss or report any potential ethical violations with agency management before the action occurs.

A. Education Requirements

1. The department provides agencies with a pamphlet summarizing the State's standards of conduct. Agency management shall distribute the pamphlet and the agency's ethics policy to all new employees.
2. Agency management shall provide ethics refresher training to agency employees at least every three years. The training must require employees to read and review the standards of conduct pamphlet and the agency's ethics policy. Each employee shall provide a written statement to management acknowledging the employee has read the policy and agrees to abide by the policy and statutes.

B. Use of State Equipment and Resources

State employees may not use public time, facilities, equipment, supplies, personnel, or funds for the employee's private business purposes ([2-2-121\(2\)\(a\)](#), MCA). State employees may not use these state resources to solicit support for or opposition to a political committee, nomination or election of an individual to public office, or the passage of a ballot issue unless the use is authorized by law ([2-2-121\(3\)\(a\)](#), MCA).

C. Conflicts of Interest

1. State employees may not engage in substantial financial transactions for the employee's private business purposes with a person whom the state employee inspects or supervises in the course of the employee's official duties ([2-2-121\(2\)\(b\)](#), MCA).
2. State employees may not perform official acts directly and substantially having negative economic impacts on businesses or undertakings in competition with a business or undertaking in

which the employee has a significant interest ([2-2-105\(5\)](#), MCA).

3. State employees may not acquire an interest in any business or undertaking the employee has reason to believe may directly and substantially economically benefit from official action the employee's agency is planning ([2-2-105\(2\)](#), MCA).
4. State employees may not perform an official act that will directly and substantially affect the economic benefit of a business or other undertaking in which the employee has a substantial financial interest or is engaged as counsel, consultant, representative, or agent ([2-2-121\(2\)\(e\)](#), MCA).
5. State employees may not participate in a proceeding when an organization of which the employee is an officer or director is:
1) involved in a proceeding before the employing agency and within the scope of the employee's job duties, or 2) attempting to influence a local, state, or federal proceeding in which the employee represents the state ([2-2-121\(5\)](#), MCA).
6. State employees may not lobby on behalf of an organization of which the employee is a member while performing their public employee job duties. State employees may perform charitable fundraising activities as approved by their supervisor or authorized by law ([2-2-121\(6\)](#), MCA).
7. Former state employees may not, within 12 months following voluntary termination of employment, obtain employment in which the employee will take direct advantage of matters the employee was directly involved with while employed with the state. These matters are defined as rules, other than rules of general application, the employee actively helped to formulate and applications, claims, or contested cases where the employee actively participated in the decision process ([2-2-105\(3\)](#), MCA).
8. State employees may not have a majority interest in any contract made by them in their official capacity or by any agency of which they are employed if they are directly involved with the contract ([2-2-201\(1\)](#), MCA).
9. Former state employees may not, within six months of termination, contract or be employed by someone who contracts with the state involving matters with which the employee was directly involved during their employment with the state. This does not apply to contracts awarded to the low

bidder based on a competitive process or to merchandise sold to the highest bidder at public auction. This does not apply to employees if terminated because of a reduction in force ([2-2-201](#)(1) and (2), MCA).

D. Confidential Information

State employees may not disclose or use confidential information acquired in the course of official duties to further substantially their personal economic interests ([2-2-104](#)(1)(a), MCA).

E. Collecting Fees as Compensation for Official Duties

1. State employees may not collect a fee or other form of compensation for assisting any person in obtaining a contract, claim, license, or economic benefit from the employee's agency ([2-2-121](#)(2)(c), MCA).
2. State employees may not assist any person for a contingent fee in obtaining a contract, claim, license, or other economic benefit from any agency ([2-2-121](#)(2)(d), MCA).

F. Overlapping Employment and Other Employment

1. State employees may not receive pay for two separate public employment positions that overlap for the hours being compensated. The following exceptions apply:
 - a. the employee reimburses the public entity from which the employee is absent for the salary paid for performing the function from which the employee is absent, or
 - b. the employee's salary is reduced by the amount received from the other public employer to avoid duplicate compensation for the overlapping hours; or
 - c. the income received is from the use of accrued leave or compensatory time during the period of overlapping employment ([2-2-104](#)(3), MCA).
2. Employees may not solicit or accept employment, or engage in negotiations to consider employment, with a person the employee regulates unless the employee provides written notification to agency management. Employees must report in writing such employment activity to their supervisor and the department director prior to engaging in any official duties ([2-2-121](#)(2)(f), MCA).

G. Gifts and Offers Intended to Influence Employees' Actions

1. Employees may not accept a substantial gift or economic benefit, generally anything over \$50 in value, that would tend to influence employees in the performance of their duties or that employees know is a reward for official actions. Economic benefit includes loans with an interest rate substantially below market and compensation for private services at substantially higher than market.
2. Some items are excluded from the definition of gift. These items are listed below:
 - a. any gift that is not used and is either returned to the provider or donated to a charitable organization
 - b. food and beverages consumed when participating in a charitable, civic, or community event bearing a relationship to the employee's official capacity
 - c. educational materials directly related to official duties
 - d. an award presentation in recognition of public service
 - e. an educational activity that does not place the employee under obligation, serves the public good, and is not lavish or extravagant ([2-2-104\(1\)\(b\)](#) and (2), MCA; [2-2-102\(3\)](#), MCA).

H. Policy Violations

1. Employees must disclose potential conflicts of interest to agency management prior to taking any action potentially violating this policy or the law. Agency management may take steps to avoid the conflict of interest from occurring.
2. Any person who believes an employee violated this policy or agency-specific rules and standards of conduct may file a complaint with the commissioner of political practices. The complaint procedure with the commissioner of political practices is located in ARM [44.10.601 to .613](#).
3. An employee shall inform agency management of the alleged violation before filing a complaint with the commissioner.

I. Disclosure Requirements

1. **Nature of Private Interest:** Public employees must disclose the nature of any private interest creating a conflict prior to acting in a manner impinging on public duty. State employees must make the disclosure in writing to the commissioner of political practices. The disclosure must include:
 - a. information listing the amount of private interest, if any;
 - b. the purpose and duration of the services rendered, if any; and
 - c. the compensation received for those services or other information necessary to describe the interest.

If the state employee performs the official act involved, the employee must publicly declare the nature of the conflict for the record prior to performing the act. The declaration must contain the information contained in a, b, and c above.

2. **Overlapping Public Employment:** Employees must disclose overlapping employment in public positions to agency management prior to accepting employment. The Administrative Rules of Montana ([44.10.601](#)) require state public employees who receive multiple salaries from multiple public employers for overlapping work hours to report their employment and salaries to the commissioner of political practices.
3. **Requirements for Agency Directors:** Agency directors must file a business disclosure statement provided by the commissioner of political practices with the Commissioner prior to December 15 of each even-numbered year ([2-2-106](#), MCA).

J. Investigation and Enforcement

1. Agency management shall investigate reported or disclosed information to determine the appropriate administrative action. An appropriate administrative action may include a complaint to the Commissioner when the agency has no authority to prevent or remedy the violation.
2. Employees who violate this policy, the standards of conduct provided in [2-2-102](#), et seq., MCA, or agency-specific rules and standards of conduct may be subject to disciplinary action in accordance with the Discipline Policy (ARM [2.21.6501](#) et seq.).

IV. Resources

1. The State Human Resources Division publishes *Ethics: Standards of Conduct for State Employees*. The guide is available at <https://hr.mt.gov/Public/Policies>.
2. The division also publishes a *Manager Fact Sheet: Political Activity of Public Officers and Employees*. The fact sheet can be found at <https://hr.mt.gov/Public/Policies>.
3. The Professional Development Center provides a brief online training resource located at: <https://pdc.mt.gov/onlinetraining>.

V. Definitions

All definitions under [2-2-102](#), MCA, apply to this policy. The following definitions also apply.

Business: Includes a corporation, partnership, sole proprietorship, trust or foundation, or any other individual or organization carrying on a business, whether or not operated for profit.

Compensation: Any money or economic benefit conferred on or received by any person in return for services rendered or to be rendered by the person

MONTANA

BOARD OF INVESTMENTS

TO: Members of the Board
FROM: Doug Hill, Director of In-State Loan Programs
DATE: February 28, 2024
RE: Commercial and Residential Loan Portfolios

The Participation Loan Program reflected an outstanding balance, as of December 31, 2023, of \$107,164,470 and represents 46 loans with a yield of 2.69%. There are two loan reservations that total \$7,127,463 and four loans committed that total \$5,355,389. There are no past due loans.

The Infrastructure Loan Program reflected an outstanding balance, as of December 31, 2023, of \$8,480,250 and represents 7 loans with a yield of 4.05%. There is one loan reservation for \$2,733,224. There are no past due loans.

The Intermediary Relending Program reflected an outstanding balance, as of December 31, 2023, of \$5,540,833 and represents 39 loans with a yield of 2.00%. There is one loan committed that totals \$250,000. There are no past due loans.

The Science and Tech portfolio reflected an outstanding balance, as of December 31, 2023, of \$7,600,648 and represents 2 loans with a yield of 2.73%. There are no past due loans.

The Montana Facility Finance Authority portfolio reflected an outstanding balance, as of December 31, 2023, of \$9,600,647 and represents 15 loans with a yield of 2.69%. There are two loan reservations that total \$3,000,000. There are no past due loans.

The Veterans Home Loan Mortgage portfolio reflected an outstanding balance, as of January 24, 2024, of \$49,238,050 and represents 278 loans with a yield of 2.02%. There is one loan reservation for \$309,900. There are four loans over 90 days past due totaling \$750,435 or 1.52% of the portfolio.

The Multifamily Coal Trust Homes Program reflected an outstanding balance, as of January 24, 2024, of \$14,152,764. There are six funded pre-HB819 loans that total \$12,062,764 with a yield of 2.21%. There is one loan reservation for \$1,932,000 with an interest rate of 2.00%. There is one funded post-HB819 loan for \$2,090,000 with an interest rate of 3.5825%. There are ten loan reservations totaling \$36,643,688 with a yield of 3.64%. The January minimum rate is 3.39% and the average coal trust investment performance is 3.89%. There are no past due loans.

The Residential loan portfolio reflected an outstanding balance, as of January 24, 2024, of \$1,176,338 and represents 37 loans with a yield of 6.29%. There are no outstanding reservations. There are three loans over 90 days past due totaling \$112,916 or 10.42% of the portfolio. The past due loans have FHA guarantees.

The Montana Down Payment Assistance Program reflected an outstanding balance, as of December 31, 2023, of \$46,576,458 and represents 88 loans. There are four loans committed that total \$2,002,500.

The Impact Fee Loan Program, as of December 31, 2023, has one loan reservation for \$3,000,000.

MONTANA

BOARD OF INVESTMENTS

INTERCAP

Q₂

Activity Summary

\$120M Bond Series 2022:

Current Bond Rate	5.069%
Outstanding	70,706,869
Available for Drawdown	49,293,131

Total Committed	709,756,467
Total Funded	693,250,997

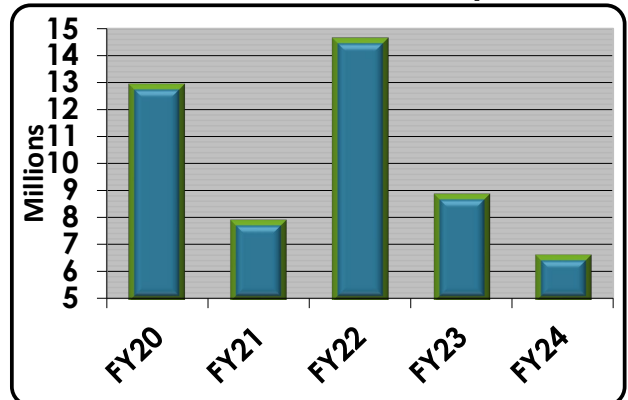
Loans:

Current Loan Rate	5.75% auto
Outstanding	74,948,430
Pending Commitments	16,505,470

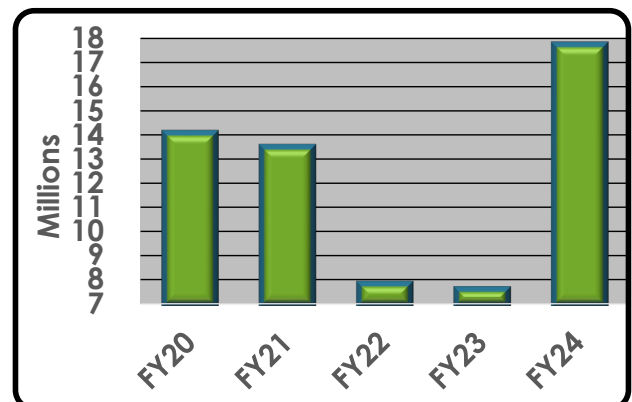
Borrowers	128
Debt Service Schedules	247
Autopay	79%

FY2024		
Month	Commitments	Fundings
July-23	916,059	1,489,398
August	325,000	2,580,543
September	1,079,530	1,400,673
October	2,330,000	2,764,475
November	-	6,184,054
December	1,875,807	3,304,654
January		
February		
March		
April		
May		
June-24		
To Date	6,526,396	17,723,797

Commitments FY Q2 Comparison



Fundings FY Q2 Comparison



Note: Commitments include withdrawn and expired loans.

Variable Loan Rate History February 16, 2015 - February 15, 2024

February 16, 2016 - February 15, 2017	1.55%
February 16, 2017 - February 15, 2018	2.50%
February 16, 2018 - February 15, 2019	3.15%
February 16, 2019 - February 15, 2020	3.37%

February 16, 2020 - February 15, 2021	2.50%*
February 16, 2021 - February 15, 2022	1.65%
February 16, 2022 - February 15, 2023	1.55%**
February 16, 2023 - February 15, 2024	6.00%***

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

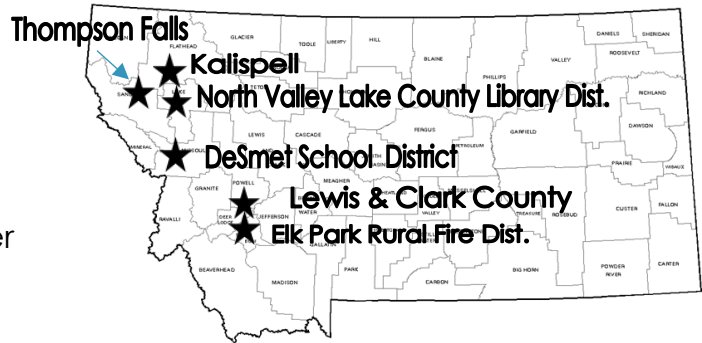
**1.50% for borrowers set up with Autopay.

***5.75% for borrowers set up with Autopay.

MONTANA

BOARD OF INVESTMENTS

INTERCAP



TO: Members of the Board

FROM: Louise Welsh,
Sr. Bond Program Officer

DATE: February 28, 2024

RE: INTERCAP Staff Approved Loans Committed – Staff approved the following loans from October 1, 2023, to December 31, 2023.

Borrower:	Elk Park Rural Fire District
Purpose:	Cistern tank
Staff Approval Date:	October 3, 2023
Board Loan Amount:	\$30,000
Other Funding Sources:	\$ 5,000
Total Project Cost:	\$35,000
Term:	15

Borrower:	North Lake County Library District
Purpose:	Library building improvements
Staff Approval Date:	October 6, 2023
Board Loan Amount:	\$ 700,000
Other Funding Sources:	\$1,960,000
Total Project Cost:	\$2,660,000
Term:	15

Borrower:	City of Thompson Falls
Purpose:	Skid steer with trailer
Staff Approval Date:	December 1, 2023
Board Loan Amount:	\$75,650
Other Funding Sources:	\$ 0
Total Project Cost:	\$75,650
Term:	7

Borrower:	DeSmet School District
Purpose:	Solar project
Staff Approval Date:	December 1, 2023
Board Loan Amount:	\$144,000
Other Funding Sources:	\$ 0
Total Project Cost:	\$144,000
Term:	15

Borrower:	City of Kalispell
Purpose:	Solid waste truck
Staff Approval Date:	December 26, 2023
Board Loan Amount:	\$457,178
Other Funding Sources:	\$ 0
Total Project Cost:	\$457,178
Term:	5

Borrower:	Lewis and Clark County
Purpose:	Juniper Stable RID
Staff Approval Date:	December 26, 2023
Board Loan Amount:	\$321,957
Other Funding Sources:	\$ 0
Total Project Cost:	\$321,957
Term:	15

Short Term Investment Pool Management Overview

Presented by: Kirsten Haswell, CTP, Sam Holman,
and Willie Gross

Date: February 28, 2024

Introduction

- Our focus 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.

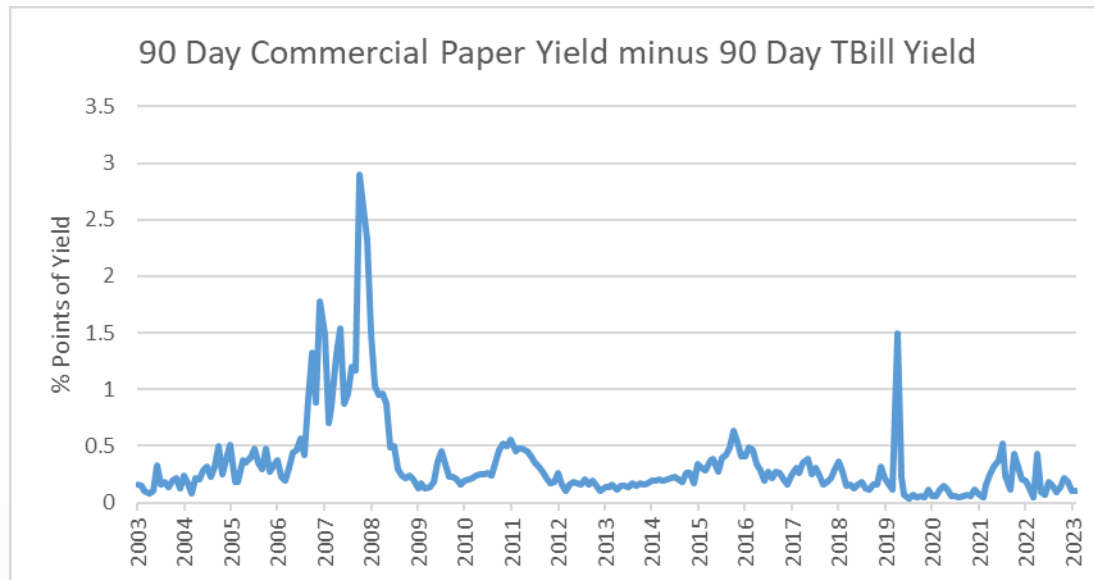
Risk

- The Short Term Investment Pool (STIP) had over 1,300 transactions totaling in excess of \$51 billion for calendar year 2023.
- The STIP reserve was 0.93% of the STIP balance on 12/31/23.
- The fundamental, qualitative risk for STIP is that a participant might not be able to redeem one share of STIP for one dollar.
- This risk is the sum of:
 - Credit Risk
 - Market Risk
 - Liquidity Risk
 - Interest Rate Risk

Risk

Credit Risk

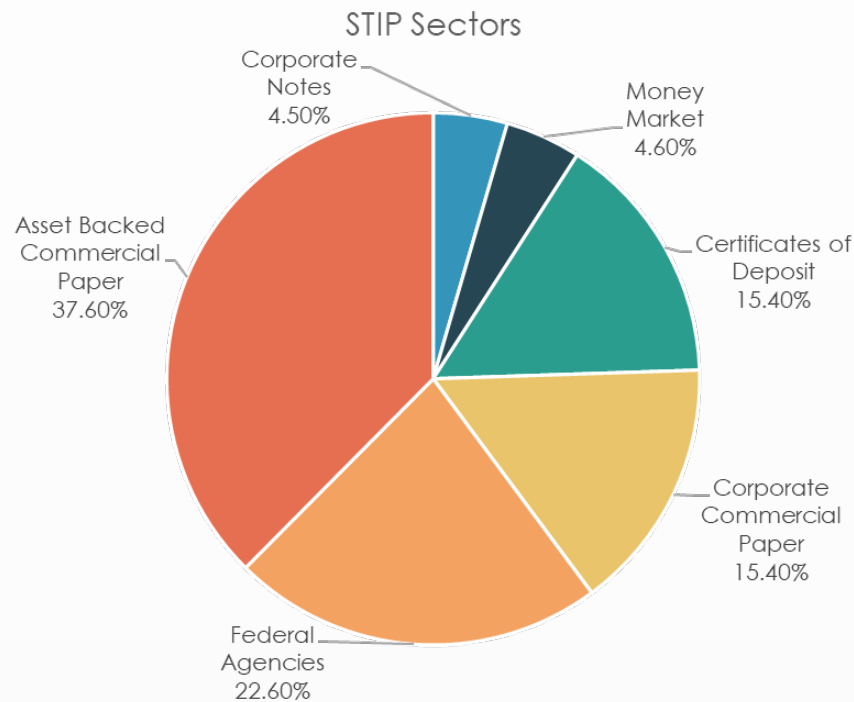
- Individual credit risk is the risk that a single security underperforms.
- Diversification and minimum credit quality are the fundamental strategies to reduce individual credit risk.
- The Fixed Income team has created a STIP approved list that incorporates Investment Policy Statement restrictions and is discussed with Risk Management at least twice per year.



Risk

Market Risk

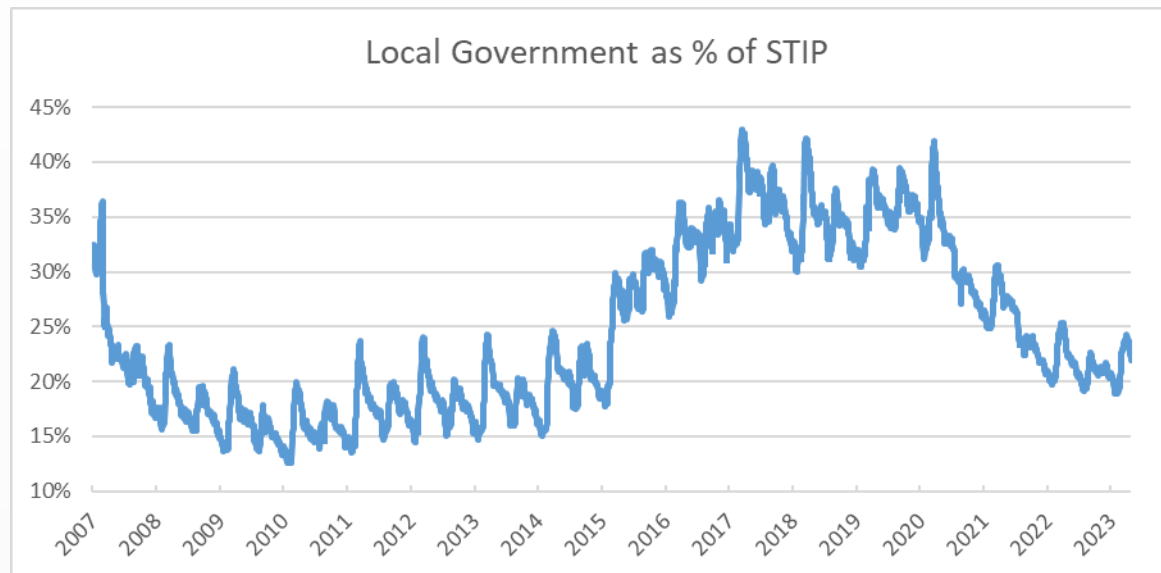
- Market risk is the possibility of losses due to factors that affect the overall performance of the financial markets.
- Maturity caps, minimum credit ratings, and limits on sector concentrations are crucial strategies to reduce market risk.



Risk

Liquidity Risk

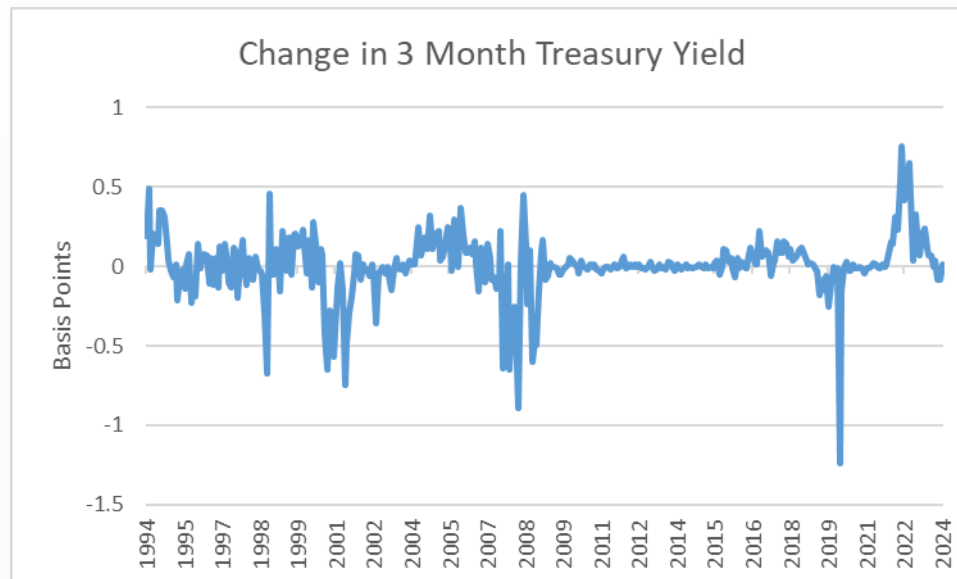
- Liquidity risk is the risk that maturities and money markets are insufficient to meet client redemptions, forcing sales at unfavorable prices.
- STIP redemptions are generally predictable and follow stable patterns.
- Increased local government participation may increase volatility.
- The fixed income team cooperates closely with accounting, DOA, and other investment teams to manage cash flows and limit liquidity risk.



Risk

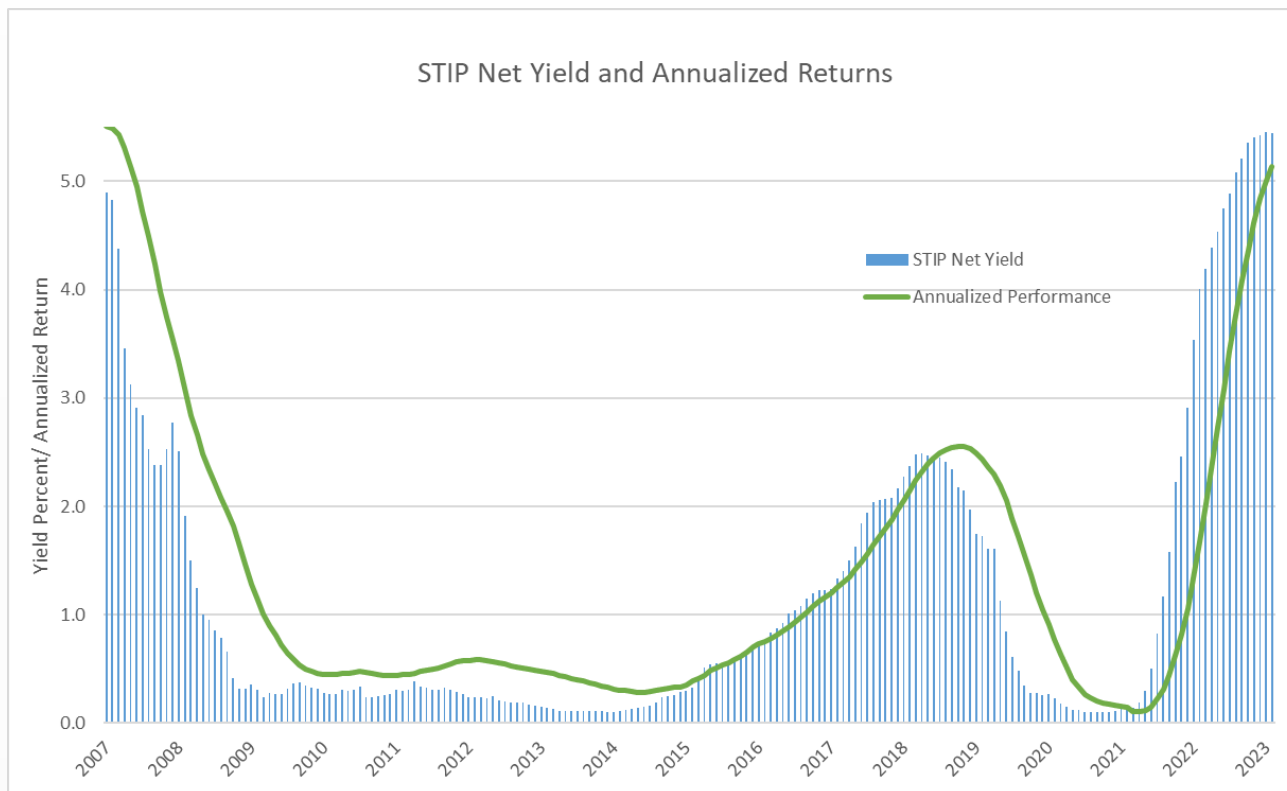
Interest Rate Risk

- Interest rate risk is the risk that the value of the portfolio will change due to movement in Treasury rates.
 - When interest rates are rising, the portfolio can miss out on additional yield.
 - When interest rates are decreasing, the portfolio will reinvest proceeds at a lower rate.
- Interest rate risk is usually less than credit risk in STIP because of the short duration of assets.



Performance

- STIP performance is compared to the Federal Reserve US Treasury Constant Maturity One Month Index and has closely tracked the benchmark.
- The yield from securities is the biggest factor in performance in STIP.



Conclusion

- Staff overseeing STIP are contemplating, measuring, and managing risk in STIP.
- After the appropriate amount of risk is determined, staff are maximizing income.
- Bloomberg Demonstration



Quarterly Investment Performance Analysis

Montana Board of Investments

Period Ended: December 31, 2023



Montana Board of Investments
Comparative Performance
Retirement Plans

As of December 31, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Public Employees' Retirement - Net	6.31	4.29	11.46	6.26	9.42	8.35	7.55	7.05	-8.48	17.61	11.94	16.77	-2.63	7.73	07/01/1994
Public Employees' Benchmark	8.14	5.27	12.75	4.59	9.08	7.73	7.35	N/A	-10.81	13.79	12.22	20.26	-5.47	N/A	
Difference	-1.83	-0.98	-1.29	1.67	0.34	0.62	0.20	N/A	2.33	3.82	-0.28	-3.49	2.84	N/A	
Public Employees' Retirement - Gross	6.46	4.62	12.21	6.94	10.08	8.99	8.14	7.56	-7.89	18.32	12.53	17.44	-2.03	8.09	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	26	35	33	41	42	46	43	
Teachers' Retirement - Net	6.30	4.28	11.44	6.24	9.40	8.33	7.54	7.05	-8.52	17.61	11.93	16.78	-2.64	7.74	07/01/1994
Teachers' Benchmark	8.13	5.25	12.71	4.56	9.06	7.71	7.34	N/A	-10.86	13.78	12.21	20.27	-5.47	N/A	
Difference	-1.83	-0.97	-1.27	1.68	0.34	0.62	0.20	N/A	2.34	3.83	-0.28	-3.49	2.83	N/A	
Teachers' Retirement - Gross	6.45	4.61	12.19	6.92	10.06	8.97	8.14	7.56	-7.93	18.32	12.52	17.45	-2.03	8.10	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	26	36	33	41	42	46	43	
Police Retirement - Net	6.33	4.32	11.49	6.26	9.42	8.35	7.55	7.02	-8.48	17.58	11.95	16.80	-2.63	7.61	07/01/1994
Police Benchmark	8.18	5.30	12.77	4.59	9.09	7.73	7.36	N/A	-10.80	13.73	12.23	20.30	-5.46	N/A	
Difference	-1.85	-0.98	-1.28	1.67	0.33	0.62	0.19	N/A	2.32	3.85	-0.28	-3.50	2.83	N/A	
Police Retirement - Gross	6.49	4.64	12.24	6.94	10.08	8.99	8.14	7.53	-7.89	18.28	12.54	17.47	-2.02	7.97	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	63	49	37	24	18	18	6	27	35	33	41	42	46	57	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Firefighters' Retirement - Net	6.33	4.31	11.49	6.26	9.42	8.35	7.55	7.03	-8.47	17.58	11.95	16.79	-2.62	7.61	07/01/1994
Firefighters' Benchmark	8.18	5.30	12.77	4.59	9.08	7.73	7.36	N/A	-10.80	13.73	12.23	20.29	-5.46	N/A	
Difference	-1.85	-0.99	-1.28	1.67	0.34	0.62	0.19	N/A	2.33	3.85	-0.28	-3.50	2.84	N/A	
Firefighters' Retirement - Gross	6.49	4.64	12.24	6.94	10.08	8.99	8.15	7.54	-7.88	18.28	12.53	17.46	-2.01	7.96	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	63	49	37	24	18	18	6	27	35	33	41	42	46	57	
Sheriffs' Retirement - Net	6.30	4.28	11.45	6.26	9.41	8.35	7.55	7.04	-8.47	17.61	11.94	16.75	-2.62	7.64	07/01/1994
Sheriffs' Benchmark	8.13	5.22	12.67	4.57	9.06	7.72	7.35	N/A	-10.81	13.79	12.22	20.23	-5.45	N/A	
Difference	-1.83	-0.94	-1.22	1.69	0.35	0.63	0.20	N/A	2.34	3.82	-0.28	-3.48	2.83	N/A	
Sheriffs' Retirement - Gross	6.46	4.61	12.20	6.94	10.08	8.99	8.14	7.55	-7.87	18.32	12.53	17.42	-2.02	7.99	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	26	35	32	41	42	46	56	
Highway Patrol Retirement - Net	6.30	4.26	11.42	6.26	9.42	8.35	7.55	7.05	-8.46	17.62	11.94	16.78	-2.62	7.63	07/01/1994
Highway Patrol Benchmark	8.13	5.14	12.59	4.55	9.06	7.71	7.35	N/A	-10.79	13.80	12.24	20.26	-5.45	N/A	
Difference	-1.83	-0.88	-1.17	1.71	0.36	0.64	0.20	N/A	2.33	3.82	-0.30	-3.48	2.83	N/A	
Highway Patrol Retirement - Gross	6.46	4.58	12.17	6.94	10.08	8.99	8.14	7.56	-7.87	18.33	12.53	17.45	-2.01	7.99	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	26	35	32	41	42	46	57	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Game Wardens' Retirement - Net	6.31	4.27	11.43	6.25	9.41	8.34	7.55	7.00	-8.48	17.62	11.91	16.77	-2.62	7.65	07/01/1994
Game Wardens' Benchmark	8.14	5.15	12.60	4.55	9.04	7.70	7.34	N/A	-10.82	13.79	12.18	20.25	-5.46	N/A	
Difference	-1.83	-0.88	-1.17	1.70	0.37	0.64	0.21	N/A	2.34	3.83	-0.27	-3.48	2.84	N/A	
Game Wardens' Retirement - Gross	6.46	4.59	12.18	6.93	10.07	8.98	8.14	7.51	-7.88	18.32	12.50	17.44	-2.01	8.00	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	28	35	32	42	42	46	54	
Judges' Retirement - Net	6.31	4.29	11.46	6.26	9.42	8.35	7.55	7.04	-8.50	17.63	11.94	16.78	-2.64	7.64	07/01/1994
Judges' Benchmark	8.15	5.27	12.73	4.58	9.07	7.72	7.35	N/A	-10.84	13.80	12.22	20.27	-5.48	N/A	
Difference	-1.84	-0.98	-1.27	1.68	0.35	0.63	0.20	N/A	2.34	3.83	-0.28	-3.49	2.84	N/A	
Judges' Retirement - Gross	6.46	4.62	12.21	6.94	10.08	8.99	8.14	7.56	-7.91	18.34	12.53	17.45	-2.03	8.00	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	6	26	36	32	41	42	46	55	
Volunteer Firefighters' Retirement - Net	6.31	4.27	11.44	6.24	9.41	8.34	7.54	7.02	-8.50	17.61	11.94	16.79	-2.64	7.47	07/01/1994
Volunteer Firefighters' Benchmark	8.14	5.20	12.66	4.57	9.06	7.72	7.35	N/A	-10.86	13.85	12.18	20.31	-5.50	N/A	
Difference	-1.83	-0.93	-1.22	1.67	0.35	0.62	0.19	N/A	2.36	3.76	-0.24	-3.52	2.86	N/A	
Volunteer Firefighters' Retirement - Gross	6.46	4.60	12.19	6.92	10.07	8.98	8.13	7.53	-7.91	18.31	12.53	17.46	-2.04	7.82	07/01/1994
All Public Plans (>\$5B) Total Fund Median	6.86	4.58	11.68	5.06	9.17	8.43	7.34	7.35	-10.15	17.10	12.12	17.23	-2.46	8.02	
Rank	64	50	38	24	18	18	7	27	36	33	41	42	47	67	

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.

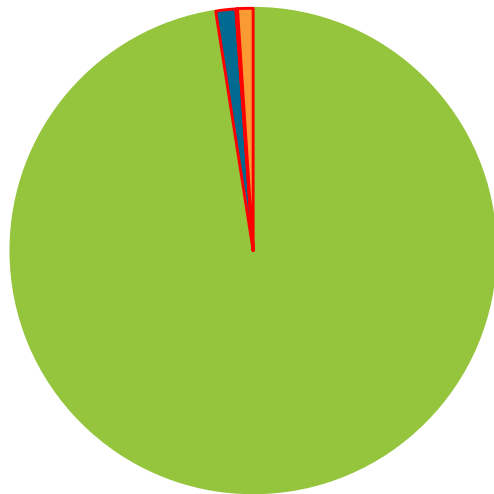


Montana Board of Investments
 Asset Allocation by Segment
 Retirement Plans

As of December 31, 2023

	Consolidated Asset Pension Pool (CAPP)		Short Term Investment Pool (STIP)		Total Fund	
	(\$)	%	(\$)	%	(\$)	%
Public Employees' Retirement	6,992,232,925	48.37	71,955,522	48.04	7,064,188,447	48.37
Teachers' Retirement	4,945,637,372	34.21	51,620,956	34.47	4,997,258,328	34.22
Firefighters' Retirement	656,267,764	4.54	6,838,731	4.57	663,106,495	4.54
Police Retirement	593,487,141	4.11	6,267,923	4.19	599,755,064	4.11
Sheriffs' Retirement	535,009,345	3.70	5,762,502	3.85	540,771,847	3.70
Game Wardens' Retirement	332,390,133	2.30	3,343,847	2.23	335,733,980	2.30
Highway Patrol Retirement	216,367,101	1.50	2,132,519	1.42	218,499,620	1.50
Judges' Retirement	132,954,379	0.92	1,339,470	0.89	134,293,850	0.92
Volunteer Firefighters' Retirement	50,473,850	0.35	508,500	0.34	50,982,350	0.35
Retirement Plans Total Fund Composite	14,454,820,011	98.97	149,769,970	1.03	14,604,589,981	100.00

December 31, 2023 : \$14,604,589,982

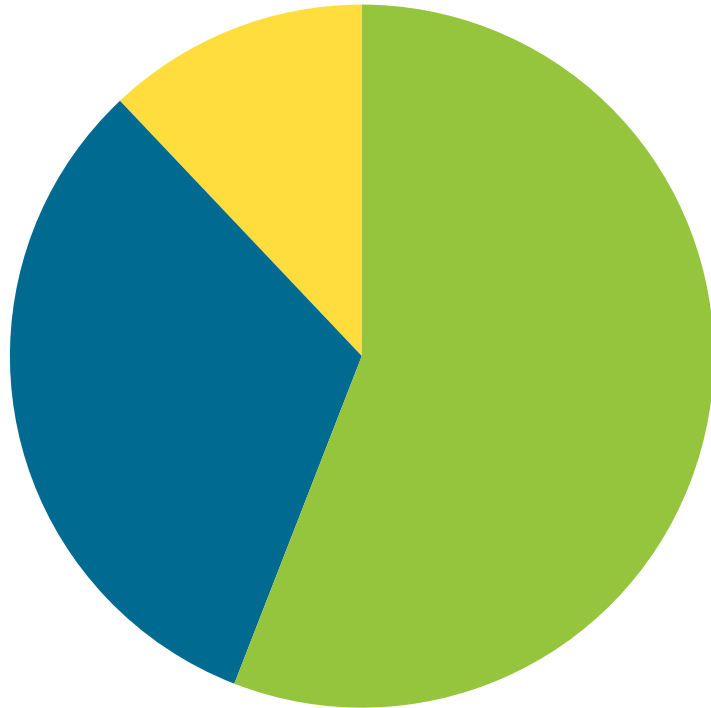


Segments	Market Value (\$)	Allocation (%)
CAPP Ex Cash	14,245,734,878	97.54
CAPP Cash Pension	193,864,871	1.33
CAPP Asset Class Cash	15,220,262	0.10
Short Term Investment Pool (STIP)	149,769,970	1.03
Total Cash	358,855,104	2.46

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, 2023 : \$25,858,539,447



	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	14,454,820,078	55.90
Short Term Investment Pool	8,285,400,570	32.04
Trust Funds Investment Pool	3,118,318,799	12.06

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, 2023

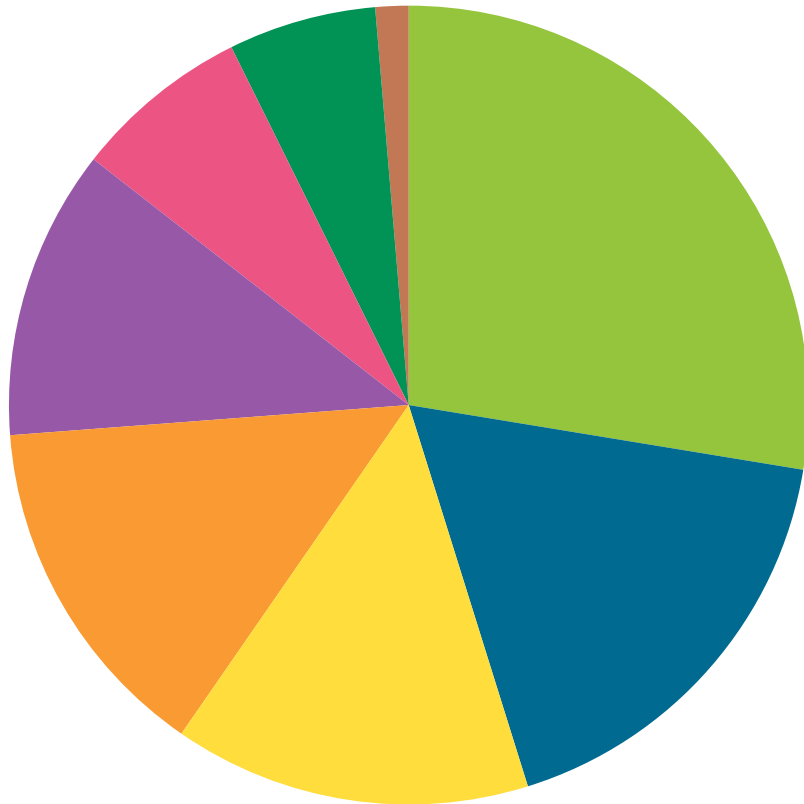
	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Consolidated Asset Pension Pool (CAPP)	6.36	4.31	11.53	6.30	9.54	N/A	N/A	-8.60	17.83	12.10	17.12	-2.74	8.13	04/01/2017
CAPP Custom Benchmark	8.22	5.29	12.80	4.59	9.19	N/A	N/A	-10.99	13.95	12.38	20.70	-5.64	7.43	
Difference	-1.86	-0.98	-1.27	1.71	0.35	N/A	N/A	2.39	3.88	-0.28	-3.58	2.90	0.70	
Trust Funds Investment Pool	4.82	1.99	2.59	-0.81	2.66	2.53	3.05	-6.26	1.49	7.23	8.98	0.45	5.38	10/01/1995
Trust Fund Custom Benchmark	4.68	1.69	1.24	-1.07	2.50	2.29	2.51	-5.04	0.71	7.51	8.72	0.01	4.58	
Difference	0.14	0.30	1.35	0.26	0.16	0.24	0.54	-1.22	0.78	-0.28	0.26	0.44	0.80	
Short Term Investment Pool	1.38	2.75	5.13	2.28	1.97	1.85	1.38	1.67	0.11	0.73	2.28	1.98	2.37	04/01/1997
Short Term Custom Index	1.41	2.82	5.28	2.32	1.89	1.79	1.34	1.69	0.04	0.36	2.14	1.95	2.30	
Difference	-0.03	-0.07	-0.15	-0.04	0.08	0.06	0.04	-0.02	0.07	0.37	0.14	0.03	0.07	
iMoney.net Money Fund (Gross) Median	1.44	2.85	5.38	2.43	2.09	1.97	1.48	1.83	0.15	0.73	2.45	2.15	2.38	
Difference	-0.06	-0.10	-0.25	-0.15	-0.12	-0.12	-0.10	-0.16	-0.04	0.00	-0.17	-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, 2023

December 31, 2023 : \$14,454,820,223



	Market Value (\$)	Allocation (%)
Domestic Equity	3,987,949,080	27.59
Private Investments	2,543,530,835	17.60
International Equity	2,087,653,145	14.44
Core Fixed Income	2,048,496,646	14.17
Real Estate	1,698,854,235	11.75
Non-Core Fixed Income	1,030,930,916	7.13
Real Assets	863,540,495	5.97
Cash Pension	193,864,871	1.34

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Domestic Equity	12.26	8.51	25.70	9.00	15.25	12.51	11.16	-18.98	27.17	20.09	30.75	-7.09	9.88	05/01/2003
Domestic Equity Custom Index	12.14	8.50	26.25	8.75	15.36	12.94	11.71	-19.22	26.12	21.10	31.14	-5.20	10.54	
Difference	0.12	0.01	-0.55	0.25	-0.11	-0.43	-0.55	0.24	1.05	-1.01	-0.39	-1.89	-0.66	
International Equity	9.72	5.08	14.91	0.69	7.29	6.51	4.10	-17.62	7.83	13.35	22.86	-14.99	4.74	04/01/1997
International Equity Custom Index	9.81	5.98	15.62	1.53	7.19	6.38	3.95	-16.58	8.53	11.12	21.63	-14.76	5.01	
Difference	-0.09	-0.90	-0.71	-0.84	0.10	0.13	0.15	-1.04	-0.70	2.23	1.23	-0.23	-0.27	
Core Fixed Income	7.06	3.18	5.43	-2.94	1.13	1.27	1.93	-11.91	-1.54	8.23	6.90	0.95	5.08	04/01/1995
Core Fixed Income Custom Index	6.82	3.37	5.53	-3.31	0.67	0.94	1.56	-13.01	-1.54	7.51	6.39	0.68	4.45	
Difference	0.24	-0.19	-0.10	0.37	0.46	0.33	0.37	1.10	0.00	0.72	0.51	0.27	0.63	
Non-Core Fixed Income	6.81	6.42	11.05	0.56	4.28	3.56	3.73	-11.27	3.21	6.37	13.98	-2.27	6.56	06/01/2009
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	7.66	
Difference	-0.34	-1.23	-2.39	-1.42	-1.07	-1.00	-0.86	-0.09	-2.05	-0.68	-0.34	-0.19	-1.10	
Real Assets	2.02	2.61	8.48	15.08	5.23	N/A	N/A	15.88	21.24	-13.43	-2.18	5.55	5.61	04/01/2017
Real Assets Custom Index	4.97	3.88	4.39	6.24	3.52	2.55	-0.01	1.36	13.32	-12.32	13.06	-11.75	2.88	
Difference	-2.95	-1.27	4.09	8.84	1.71	N/A	N/A	14.52	7.92	-1.11	-15.24	17.30	2.73	
Real Estate	-0.44	-1.58	-5.76	8.20	6.19	7.03	8.42	12.00	20.00	-0.35	6.97	9.19	4.56	06/01/2006
Real Estate Custom Index	-2.10	-4.93	-12.88	6.19	3.90	2.94	5.41	20.96	13.64	-19.66	25.84	-4.57	4.65	
Difference	1.66	3.35	7.12	2.01	2.29	4.09	3.01	-8.96	6.36	19.31	-18.87	13.76	-0.09	
Cash Pension	1.61	2.65	6.01	2.70	2.24	N/A	N/A	2.06	0.13	0.84	2.28	2.00	2.08	05/01/2017
Short Term Custom Index	1.41	2.82	5.28	2.32	1.89	1.79	1.34	1.69	0.04	0.36	2.14	1.95	1.84	
Difference	0.20	-0.17	0.73	0.38	0.35	N/A	N/A	0.37	0.09	0.48	0.14	0.05	0.24	
Private Investments*	1.05	2.18	6.08	16.26	14.50	14.18	12.89	5.94	39.81	10.91	12.95	11.55	12.75	05/01/2002
Private Investments Custom Index	11.39	7.98	17.46	5.65	12.30	9.92	11.53	-13.86	16.54	18.90	27.38	-9.99	10.85	
Difference	-10.34	-5.80	-11.38	10.61	2.20	4.26	1.36	19.80	23.27	-7.99	-14.43	21.54	1.90	

*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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Domestic Equity	12.27	8.53	25.77	9.12	15.45	12.75	11.42	-18.95	27.47	20.37	31.13	-6.78	10.15	05/01/2003
All Public Plans-US Equity Segment Median	11.69	7.79	23.18	7.81	14.09	11.93	10.40	-18.06	24.57	18.92	30.07	-5.83	10.01	
Rank	20	21	23	26	17	23	18	63	30	32	29	74	36	
Population	64	64	61	59	52	49	44	65	70	67	65	66	11	
International Equity	9.75	5.12	15.06	0.91	7.57	6.80	4.41	-17.46	8.18	13.71	23.28	-14.72	5.14	04/01/1997
All Public Plans-Intl. Equity Segment Median	10.20	5.42	17.04	2.17	8.68	7.84	5.11	-16.99	9.51	12.76	23.71	-13.63	N/A	
Rank	66	62	77	69	76	82	83	56	74	45	62	78	N/A	
Population	63	63	60	58	54	54	47	65	69	68	65	68	N/A	
Core Fixed Income	7.07	3.20	5.47	-2.89	1.18	1.32	1.98	-11.87	-1.48	8.31	6.94	1.00	5.20	04/01/1995
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	6.82	3.49	6.06	-3.01	1.64	1.76	2.25	-12.97	-1.24	8.43	9.18	0.06	5.00	
Rank	27	86	86	43	82	87	79	13	63	53	98	7	21	
Population	134	133	133	133	132	130	125	145	152	160	162	169	58	
Non-Core Fixed Income	6.93	6.64	11.61	0.95	4.76	4.06	4.24	-11.05	3.63	6.94	14.65	-1.71	7.10	06/01/2009
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	7.65	
Rank	34	74	71	93	77	81	75	83	91	43	42	52	76	
Population	134	134	134	132	128	124	109	163	165	179	191	201	87	
Trust Funds Investment Pool	4.86	2.08	2.84	-0.61	2.82	2.67	3.17	-6.02	1.59	7.30	9.06	0.53	5.46	10/01/1995
All Public Plans-US Fixed Income Segment Median	5.92	3.30	5.62	-2.15	2.11	2.14	2.48	-11.80	-0.11	8.62	9.25	-0.25	N/A	
Rank	88	85	87	16	17	15	16	14	12	78	53	22	N/A	
Population	67	66	63	61	55	53	49	70	73	74	68	72	N/A	
Real Estate	-0.25	-1.11	-4.54	9.41	7.54	8.52	9.89	13.02	21.37	1.11	8.65	11.12	5.97	06/01/2006
All Public Plans-Real Estate Segment Median	-1.46	-2.25	-5.79	9.54	7.47	8.28	9.66	13.88	20.84	1.66	7.65	9.04	N/A	
Rank	26	33	43	54	49	47	30	56	47	72	39	15	N/A	
Population	46	43	40	35	26	22	15	42	41	38	35	27	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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Domestic Large Cap Equity - Net	12.02	8.53	27.18	9.63	15.97	13.53	12.10	-19.30	28.39	21.44	31.06	-4.71	9.52	12/01/2006
S&P 500 Index (Cap Wtd)	11.69	8.04	26.29	10.00	15.69	13.42	12.03	-18.11	28.71	18.40	31.49	-4.38	9.60	
Difference	0.33	0.49	0.89	-0.37	0.28	0.11	0.07	-1.19	-0.32	3.04	-0.43	-0.33	-0.08	
Domestic Large Cap Equity - Gross	12.03	8.53	27.19	9.70	16.09	13.67	12.25	-19.29	28.61	21.66	31.29	-4.52	9.72	12/01/2006
IM U.S. Large Cap Equity (SA+CF) Median	11.72	8.51	25.14	9.48	15.28	13.19	11.74	-17.09	27.38	18.34	30.44	-4.86	9.65	
Rank	43	50	34	48	34	37	34	67	37	34	42	46	47	
Domestic Mid Cap Equity - Net	11.63	6.94	16.39	8.19	12.98	10.11	8.54	-13.07	25.15	13.53	28.03	-10.75	8.81	01/01/2005
Russell Mid Cap Index	12.82	7.54	17.23	5.92	12.68	10.07	9.42	-17.32	22.58	17.10	30.54	-9.06	9.30	
Difference	-1.19	-0.60	-0.84	2.27	0.30	0.04	-0.88	4.25	2.57	-3.57	-2.51	-1.69	-0.49	
Domestic Mid Cap Equity - Gross	11.63	6.94	16.39	8.19	12.99	10.30	8.86	-13.07	25.15	13.53	28.11	-10.28	9.21	01/01/2005
IM U.S. Mid Cap Equity (SA+CF) Median	11.95	7.40	18.76	8.03	13.58	10.85	9.75	-13.95	24.74	14.25	30.24	-9.69	10.07	
Rank	66	62	68	43	60	57	77	43	44	58	65	55	85	
Domestic Small Cap Equity - Net	14.11	8.52	18.15	7.83	12.26	9.15	8.61	-16.81	27.56	13.07	25.76	-10.51	11.23	03/01/2003
Russell 2000 Index	14.03	8.18	16.93	2.22	9.97	7.33	7.16	-20.44	14.82	19.96	25.53	-11.01	10.10	
Difference	0.08	0.34	1.22	5.61	2.29	1.82	1.45	3.63	12.74	-6.89	0.23	0.50	1.13	
Domestic Small Cap Equity - Gross	14.11	8.53	18.18	7.97	12.52	9.48	9.05	-16.79	28.00	13.50	26.25	-10.09	11.71	03/01/2003
IM U.S. Small Cap Equity (SA+CF) Median	12.73	8.00	17.43	6.69	12.40	9.45	8.86	-16.54	23.78	17.43	25.80	-10.30	11.96	
Rank	25	42	44	40	48	49	45	52	33	59	47	49	58	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
International Large Cap Passive - Net	9.71	5.33	15.96	1.62	7.17	6.49	4.10	-16.02	7.76	10.81	21.59	-14.04	6.10	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	9.75	5.61	15.62	1.55	7.08	6.33	3.83	-16.00	7.82	10.65	21.51	-14.20	5.91	
Difference	-0.04	-0.28	0.34	0.07	0.09	0.16	0.27	-0.02	-0.06	0.16	0.08	0.16	0.19	
International Large Cap Passive - Gross	9.72	5.34	15.99	1.66	7.23	6.55	4.17	-15.98	7.82	10.87	21.66	-13.98	6.17	06/01/2009
International Equity Active - Net	9.76	4.55	13.90	-0.30	7.65	6.80	4.56	-19.26	7.77	15.91	25.83	-16.18	3.80	04/01/1997
MSCI ACW Ex US Index (USD) (Net)	9.75	5.61	15.62	1.55	7.08	6.33	3.83	-16.00	7.82	10.65	21.51	-14.20	5.08	
Difference	0.01	-1.06	-1.72	-1.85	0.57	0.47	0.73	-3.26	-0.05	5.26	4.32	-1.98	-1.28	
International Equity Active - Gross	9.89	4.80	14.48	0.22	8.20	7.36	5.09	-18.82	8.30	16.50	26.48	-15.73	4.32	04/01/1997
IM International Large Cap Core Equity (SA+CF) Median	10.21	5.52	17.90	3.50	8.79	7.58	5.14	-15.99	11.88	11.69	23.61	-14.32	6.95	
Rank	61	61	88	88	64	57	51	74	79	28	31	69	100	
International Value - Net	8.75	5.67	14.97	2.96	7.58	7.14	4.72	-13.14	9.32	9.31	20.76	-13.97	3.02	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	8.43	8.35	17.30	5.80	6.34	5.30	2.92	-8.59	10.46	-0.77	15.72	-13.97	2.74	
Difference	0.32	-2.68	-2.33	-2.84	1.24	1.84	1.80	-4.55	-1.14	10.08	5.04	0.00	0.28	
International Value - Gross	8.87	5.89	15.49	3.45	8.10	7.67	5.25	-12.73	9.85	9.87	21.37	-13.52	3.58	11/01/2006
IM International Large Cap Value Equity (SA+CF) Median	8.85	6.32	18.97	5.97	8.50	7.38	5.06	-9.17	12.20	4.45	21.15	-14.75	4.64	
Rank	50	58	82	77	59	35	44	70	67	26	46	38	86	
International Growth - Net	11.51	2.21	13.80	-3.53	7.74	6.55	4.11	-23.99	3.79	23.08	31.39	-16.09	3.46	11/01/2006
MSCI ACW Ex US Grth Index (USD) (Net)	11.12	3.01	14.03	-2.67	7.49	7.14	4.55	-23.05	5.09	22.20	27.34	-14.43	4.14	
Difference	0.39	-0.80	-0.23	-0.86	0.25	-0.59	-0.44	-0.94	-1.30	0.88	4.05	-1.66	-0.68	
International Growth - Gross	11.65	2.46	14.39	-3.03	8.31	7.13	4.67	-23.58	4.33	23.74	32.10	-15.61	4.00	11/01/2006
IM International Large Cap Growth Equity (SA+CF) Median	12.18	3.73	17.01	0.20	9.93	9.03	6.00	-23.10	10.72	23.21	29.59	-13.50	5.57	
Rank	56	67	82	77	80	89	86	52	84	48	25	69	99	
International Small Cap - Net	9.19	7.48	13.54	-0.27	7.10	6.23	4.52	-21.69	11.57	14.63	23.91	-18.90	4.47	09/01/2006
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	10.12	8.25	15.66	1.49	7.89	6.70	4.88	-19.97	12.93	14.24	22.42	-18.20	5.17	
Difference	-0.93	-0.77	-2.12	-1.76	-0.79	-0.47	-0.36	-1.72	-1.36	0.39	1.49	-0.70	-0.70	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Domestic Large Cap Equity														
BlackRock MSCI US Equity Index (SA) - Net	11.97	8.54	27.11	9.13	N/A	N/A	N/A	-19.46	26.95	21.33	N/A	N/A	13.46	04/01/2019
MSCI US Index (USD) (Gross)	11.95	8.51	27.10	9.13	15.74	13.44	11.98	-19.46	26.97	21.37	31.64	-4.50	13.48	
Difference	0.02	0.03	0.01	0.00	N/A	N/A	N/A	0.00	-0.02	-0.04	N/A	N/A	-0.02	
BlackRock MSCI US Equity Index (SA) - Gross	11.98	8.54	27.12	9.14	N/A	N/A	N/A	-19.45	26.96	21.34	N/A	N/A	13.47	04/01/2019
IM U.S. Large Cap Core Equity (SA+CF) Median	11.60	8.28	24.68	9.81	15.28	13.23	11.82	-16.49	27.75	17.65	30.06	-5.05	13.03	
Rank	37	46	28	62	N/A	N/A	N/A	77	56	29	N/A	N/A	38	
Northern Trust MSCI US Index (SA) - Net	11.98	8.54	27.12	9.14	15.74	N/A	N/A	-19.46	26.97	21.34	31.70	N/A	13.53	11/01/2018
MSCI US Index (USD) (Gross)	11.95	8.51	27.10	9.13	15.74	13.44	11.98	-19.46	26.97	21.37	31.64	-4.50	13.53	
Difference	0.03	0.03	0.02	0.01	0.00	N/A	N/A	0.00	0.00	-0.03	0.06	N/A	0.00	
Northern Trust MSCI US Index (SA) - Gross	11.98	8.54	27.13	9.15	15.76	N/A	N/A	-19.45	26.98	21.36	31.71	N/A	13.55	11/01/2018
IM U.S. Large Cap Core Equity (SA+CF) Median	11.60	8.28	24.68	9.81	15.28	13.23	11.82	-16.49	27.75	17.65	30.06	-5.05	13.07	
Rank	37	46	28	62	37	N/A	N/A	77	56	28	31	N/A	38	
iShares:Core S&P Tot USM (ITOT) - Net	12.20	8.53	26.41	N/A	N/A	N/A	N/A	-19.46	N/A	N/A	N/A	N/A	2.68	12/01/2021
S&P Tot Mkt Index	12.13	8.44	26.06	8.43	15.05	12.72	11.40	-19.53	25.66	20.79	30.90	-5.30	2.51	
Difference	0.07	0.09	0.35	N/A	N/A	N/A	N/A	0.07	N/A	N/A	N/A	N/A	0.17	
iShares:Core S&P 500 (IVV) - Net	11.49	7.68	25.74	N/A	N/A	N/A	N/A	-17.03	N/A	N/A	N/A	N/A	4.27	12/01/2021
S&P 500 Index (Cap Wtd)	11.69	8.04	26.29	10.00	15.69	13.42	12.03	-18.11	28.71	18.40	31.49	-4.38	3.79	
Difference	-0.20	-0.36	-0.55	N/A	N/A	N/A	N/A	1.08	N/A	N/A	N/A	N/A	0.48	
Domestic Mid Cap Equity														
iShares:Core S&P Md-Cp (IJH) - Net	11.63	6.94	16.39	8.19	12.66	N/A	N/A	-13.07	25.15	13.53	26.24	-13.95	8.64	07/01/2017
S&P Mid Cap 400 Index (Cap Wtd)	11.67	6.98	16.44	8.09	12.62	9.37	9.27	-13.06	24.76	13.66	26.20	-11.08	9.15	
Difference	-0.04	-0.04	-0.05	0.10	0.04	N/A	N/A	-0.01	0.39	-0.13	0.04	-2.87	-0.51	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Domestic Small Cap Equity														
BlackRock MSCI USA Small Cap Index (SA) - Net	13.85	8.27	18.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.61	09/01/2022
MSCI US Sm Cap Index (USD) (Net)	13.72	8.04	17.86	4.99	11.66	8.89	8.31	-17.55	19.11	18.32	26.74	-10.40	11.09	
Difference	0.13	0.23	0.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.52	
BlackRock MSCI USA Small Cap Index (SA) - Gross	13.85	8.29	18.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.64	09/01/2022
IM U.S. Small Cap Core Equity (SA+CF) Median	12.78	7.82	17.19	7.10	12.88	9.46	9.06	-16.17	24.21	18.54	25.88	-10.11	11.35	
Rank	33	47	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	46	
iShares:Core S&P Sm-Cp (IJR) - Net	15.02	9.41	15.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.59	11/01/2022
S&P Sm Cap 600 Index (Cap Wtd)	15.12	9.45	16.05	7.28	11.03	8.31	8.66	-16.10	26.82	11.29	22.78	-8.48	10.85	
Difference	-0.10	-0.04	-0.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.26	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
International Developed Large Cap Equity														
Acadian Asset Non-US Equity (SA) - Net	8.50	8.29	13.66	4.87	8.44	8.31	6.13	-13.02	16.67	8.89	19.38	-13.44	4.07	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	8.43	8.35	17.30	5.80	6.34	5.30	2.92	-8.59	10.46	-0.77	15.72	-13.97	2.74	
Difference	0.07	-0.06	-3.64	-0.93	2.10	3.01	3.21	-4.43	6.21	9.66	3.66	0.53	1.33	
Acadian Asset Non-US Equity (SA) - Gross	8.63	8.53	14.18	5.36	8.96	8.85	6.67	-12.61	17.23	9.45	19.98	-12.99	4.63	11/01/2006
IM ACWI Ex US Value (SA+CF) Median	9.27	6.29	20.35	5.20	8.36	7.55	4.96	-11.10	11.05	6.52	21.34	-14.78	4.63	
Rank	69	16	91	48	44	20	14	64	7	43	57	26	47	
Lazard Asset Management (SA) - Net	9.06	2.62	16.54	1.71	7.01	6.23	N/A	-13.28	4.11	9.59	21.70	-14.32	3.94	06/01/2015
Lazard Custom Index	9.75	5.61	15.62	1.55	7.08	5.54	3.09	-16.00	7.82	10.65	21.51	-15.55	3.57	
Difference	-0.69	-2.99	0.92	0.16	-0.07	0.69	N/A	2.72	-3.71	-1.06	0.19	1.23	0.37	
Lazard Asset Management (SA) - Gross	9.17	2.83	17.06	2.20	7.54	6.76	N/A	-12.84	4.62	10.14	22.31	-13.88	4.47	06/01/2015
IM ACWI Ex US Value (SA+CF) Median	9.27	6.29	20.35	5.20	8.36	7.55	4.96	-11.10	11.05	6.52	21.34	-14.78	5.32	
Rank	51	100	66	76	72	65	N/A	65	94	39	42	35	73	
BlackRock ACW Ex US SuperFund A (CF) - Net	9.61	5.49	15.74	1.73	7.27	6.54	4.03	-15.77	8.00	10.80	21.77	-13.99	6.11	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	9.75	5.61	15.62	1.55	7.08	6.33	3.83	-16.00	7.82	10.65	21.51	-14.20	5.91	
Difference	-0.14	-0.12	0.12	0.18	0.19	0.21	0.20	0.23	0.18	0.15	0.26	0.21	0.20	
BlackRock ACW Ex US SuperFund A (CF) - Gross	9.62	5.51	15.77	1.78	7.34	6.60	4.10	-15.72	8.07	10.88	21.85	-13.93	6.19	06/01/2009
IM All ACWI Ex US (SA+CF) Median	10.21	4.71	16.98	1.73	8.82	7.77	5.25	-17.08	9.43	14.71	25.05	-14.65	7.62	
Rank	58	39	66	49	81	79	82	44	64	60	68	43	87	
iShares:Core MSCI EAFE (IEFA) - Net	10.81	5.64	18.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.49	11/01/2022
MSCI EAFE IM Index (USD) (Net)	10.52	6.07	17.51	3.31	7.92	6.76	4.33	-15.53	11.08	8.47	22.44	-14.40	25.88	
Difference	0.29	-0.43	0.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.61	
Baillie Gifford (SA) - Net	10.82	-0.58	9.48	-8.61	6.60	5.98	N/A	-31.43	1.69	34.22	34.34	-17.35	4.04	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	11.12	3.01	14.03	-2.67	7.49	7.14	4.55	-23.05	5.09	22.20	27.34	-14.43	4.68	
Difference	-0.30	-3.59	-4.55	-5.94	-0.89	-1.16	N/A	-8.38	-3.40	12.02	7.00	-2.92	-0.64	
Baillie Gifford (SA) - Gross	10.95	-0.35	10.01	-8.17	7.11	6.49	N/A	-31.11	2.16	34.86	34.99	-16.93	4.55	06/01/2015
IM ACWI Ex US Growth (SA+CF) Median	11.84	3.88	16.56	0.15	9.48	8.74	5.93	-23.43	9.20	22.06	29.53	-13.65	6.12	
Rank	64	95	97	96	99	99	N/A	92	91	13	9	85	92	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Invesco (SA) - Net	11.94	3.96	16.78	0.45	8.52	6.90	N/A	-17.80	5.60	14.84	29.29	-15.17	4.55	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	11.12	3.01	14.03	-2.67	7.49	7.14	4.55	-23.05	5.09	22.20	27.34	-14.43	4.68	
Difference	0.82	0.95	2.75	3.12	1.03	-0.24	N/A	5.25	0.51	-7.36	1.95	-0.74	-0.13	
Invesco (SA) - Gross	12.08	4.22	17.41	1.02	9.14	7.52	N/A	-17.32	6.20	15.51	30.05	-14.64	5.18	06/01/2015
IM ACWI Ex US Growth (SA+CF) Median	11.84	3.88	16.56	0.15	9.48	8.74	5.93	-23.43	9.20	22.06	29.53	-13.65	6.12	
Rank	42	35	39	37	65	87	N/A	22	78	83	44	56	83	
International Developed Small Cap Equity														
BlackRock ACW Ex US Sm Cap Index (CF) - Net	9.98	7.97	15.26	1.48	7.97	6.86	5.07	-19.65	12.84	14.45	22.68	-17.85	6.61	02/01/2012
MSCI ACWI Ex US Sm Cap Index (USD) (Net)	10.12	8.25	15.66	1.49	7.89	6.70	4.88	-19.97	12.93	14.24	22.42	-18.20	6.43	
Difference	-0.14	-0.28	-0.40	-0.01	0.08	0.16	0.19	0.32	-0.09	0.21	0.26	0.35	0.18	
BlackRock ACW Ex US Sm Cap Index (CF) - Gross	9.99	8.00	15.32	1.57	8.08	6.97	5.21	-19.57	12.98	14.50	22.90	-17.74	6.75	02/01/2012
IM International Small Cap Equity (SA+CF) Median	10.84	6.66	15.07	1.29	8.15	7.62	5.85	-21.52	13.74	13.95	24.61	-17.95	8.65	
Rank	67	35	48	48	52	61	68	40	57	49	61	48	94	
Acadian Ex US Small Cap (SA) - Net	8.73	7.19	12.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.68	03/01/2022
MSCI ACW Ex US Sm Cap Index (USD) (Net)	10.12	8.25	15.66	1.49	7.89	6.70	4.88	-19.97	12.93	14.24	22.42	-18.20	0.01	
Difference	-1.39	-1.06	-3.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.69	
Acadian Ex US Small Cap (SA) - Gross	8.90	7.52	12.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.03	03/01/2022
IM International Small Cap Equity (SA+CF) Median	10.84	6.66	15.07	1.29	8.15	7.62	5.85	-21.52	13.74	13.95	24.61	-17.95	0.08	
Rank	89	38	75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53	
International Emerging Equity														
iShares:Core MSCI EmMkts (IEMG) - Net	8.35	4.61	11.68	N/A	N/A	N/A	N/A	-21.88	N/A	N/A	N/A	N/A	-6.59	01/01/2022
MSCI Emg Mkts IM Index (USD) (Net)	8.02	5.72	11.67	-3.71	4.46	5.40	3.00	-19.83	-0.28	18.39	17.65	-15.05	-5.38	
Difference	0.33	-1.11	0.01	N/A	N/A	N/A	N/A	-2.05	N/A	N/A	N/A	N/A	-1.21	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
US Fixed Income Aggregate - Net	7.07	3.20	5.40	-2.93	N/A	N/A	N/A	-11.87	-1.52	7.65	N/A	N/A	-0.39	12/01/2019
Bloomberg US Agg Bond Index	6.82	3.37	5.53	-3.31	1.10	1.29	1.81	-13.01	-1.55	7.51	8.72	0.01	-0.72	
Difference	0.25	-0.17	-0.13	0.38	N/A	N/A	N/A	1.14	0.03	0.14	N/A	N/A	0.33	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Neuberger Berman High Yield (SA) - Net	6.62	7.00	11.90	1.29	4.68	3.85	3.87	-11.34	4.76	6.30	13.75	-1.99	5.82	01/01/2010
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	6.30	
Difference	-0.53	-0.65	-1.54	-0.69	-0.67	-0.71	-0.72	-0.16	-0.50	-0.75	-0.57	0.09	-0.48	
Neuberger Berman High Yield (SA) - Gross	6.68	7.11	12.12	1.49	4.98	4.20	4.25	-11.16	4.96	6.75	14.26	-1.56	6.24	01/01/2010
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.40	4.63	4.71	-9.43	5.31	6.56	14.26	-1.64	6.40	
Rank	42	53	61	85	67	70	75	84	60	45	51	49	62	
Oaktree US High Yield (SA) (CAPP) - Net	6.85	7.43	12.68	2.12	5.55	N/A	N/A	-9.92	4.91	6.56	15.44	-3.99	3.90	01/01/2018
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	4.08	
Difference	-0.30	-0.22	-0.76	0.14	0.20	N/A	N/A	1.26	-0.35	-0.49	1.12	-1.91	-0.18	
Oaktree US High Yield (SA) (CAPP) - Gross	6.95	7.63	13.10	2.50	5.99	N/A	N/A	-9.60	5.34	7.07	16.02	-3.47	4.35	01/01/2018
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	4.20	
Rank	30	28	38	50	25	N/A	N/A	53	50	42	17	92	39	
Shenkman High Yield Fixed Income (SA) (CAPP) - Net	6.09	6.43	12.06	2.11	5.16	N/A	N/A	-8.87	4.24	6.32	13.65	-1.96	3.82	12/01/2017
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	4.07	
Difference	-1.06	-1.22	-1.38	0.13	-0.19	N/A	N/A	2.31	-1.02	-0.73	-0.67	0.12	-0.25	
Shenkman High Yield Fixed Income (SA) (CAPP) - Gross	6.20	6.64	12.50	2.51	5.61	N/A	N/A	-8.52	4.68	6.82	14.18	-1.46	4.28	12/01/2017
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	4.18	
Rank	67	74	52	49	41	N/A	N/A	37	71	45	52	46	45	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Cohen & Steers Preferred Securities (SA) - Net	6.94	7.78	7.28	-0.53	N/A	N/A	N/A	-11.53	3.70	N/A	N/A	N/A	0.93	11/01/2020
Cohen & Steers Preferred Securities Custom Benchmark	6.72	6.74	8.57	-0.63	N/A	N/A	N/A	-12.02	2.72	N/A	N/A	N/A	0.66	
Difference	0.22	1.04	-1.29	0.10	N/A	N/A	N/A	0.49	0.98	N/A	N/A	N/A	0.27	
Cohen & Steers Preferred Securities (SA) - Gross	7.03	7.95	7.64	-0.19	N/A	N/A	N/A	-11.23	4.06	N/A	N/A	N/A	1.28	11/01/2020
Payden & Rygel EMD (SA) - Net	8.88	5.83	11.73	-3.03	N/A	N/A	N/A	-15.45	-3.49	N/A	N/A	N/A	-3.03	01/01/2021
Payden & Rygel EMD Custom Benchmark	8.84	6.08	11.59	-3.42	N/A	N/A	N/A	-15.97	-3.92	N/A	N/A	N/A	-3.42	
Difference	0.04	-0.25	0.14	0.39	N/A	N/A	N/A	0.52	0.43	N/A	N/A	N/A	0.39	
Payden & Rygel EMD (SA) - Gross	8.98	6.01	12.12	-2.69	N/A	N/A	N/A	-15.15	-3.14	N/A	N/A	N/A	-2.69	01/01/2021
IM Emerging Markets Debt (SA+CF) Median	9.25	6.12	12.62	-1.58	3.07	3.18	3.20	-12.22	-2.13	6.71	14.30	-5.27	-1.58	
Rank	59	52	58	75	N/A	N/A	N/A	69	58	N/A	N/A	N/A	75	
Zazove Convertible Bonds (SA) - Net	4.05	1.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.15	04/01/2023
Bloomberg US Convert's Liquid Bond Index	7.18	4.53	14.64	-1.88	12.37	10.91	9.40	-20.06	3.07	54.45	22.79	-1.79	9.59	
Difference	-3.13	-2.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.44	
Zazove Convertible Bonds (SA) - Gross	4.19	1.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.57	04/01/2023
IM U.S. Convertible Bonds (SA+CF) Median	6.03	3.39	8.22	-0.53	8.49	7.84	6.95	-11.70	6.22	18.71	18.70	-0.72	6.57	
Rank	93	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	71	

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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Trust Funds Investment Pool Fixed Income	7.27	3.98	7.03	-1.85	2.34	2.25	2.71	-11.24	-0.47	8.84	9.12	0.25	5.21	10/01/1995
Bloomberg US Agg Bond Index	6.82	3.37	5.53	-3.31	1.10	1.29	1.81	-13.01	-1.55	7.51	8.72	0.01	4.33	
Difference	0.45	0.61	1.50	1.46	1.24	0.96	0.90	1.77	1.08	1.33	0.40	0.24	0.88	
Trust Funds Investment Pool Fixed Income	7.27	3.98	7.03	-1.85	2.34	2.25	2.71	-11.24	-0.47	8.84	9.12	0.25	5.21	10/01/1995
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	6.82	3.49	6.06	-3.01	1.64	1.76	2.25	-12.97	-1.24	8.43	9.18	0.06	4.82	
Rank	14	16	14	9	10	11	12	8	21	36	54	28	6	
Shenkman High Yield Fixed Income (SA) (TFIP) - Net	6.06	6.35	12.02	2.05	N/A	N/A	N/A	-9.04	4.31	6.05	N/A	N/A	3.59	07/01/2019
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	3.76	
Difference	-1.09	-1.30	-1.42	0.07	N/A	N/A	N/A	2.14	-0.95	-1.00	N/A	N/A	-0.17	
Shenkman High Yield Fixed Income (SA) (TFIP) - Gross	6.17	6.56	12.46	2.46	N/A	N/A	N/A	-8.68	4.74	6.54	N/A	N/A	4.03	07/01/2019
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	3.94	
Rank	68	74	53	54	N/A	N/A	N/A	38	68	52	N/A	N/A	45	
Oaktree US High Yield (SA) (TFIP) - Net	6.89	7.44	12.72	2.29	N/A	N/A	N/A	-9.51	4.93	6.72	N/A	N/A	4.01	08/01/2019
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	3.70	
Difference	-0.26	-0.21	-0.72	0.31	N/A	N/A	N/A	1.67	-0.33	-0.33	N/A	N/A	0.31	
Oaktree US High Yield (SA) (TFIP) - Gross	6.99	7.64	13.14	2.67	N/A	N/A	N/A	-9.20	5.36	7.25	N/A	N/A	4.44	08/01/2019
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	3.91	
Rank	25	27	37	44	N/A	N/A	N/A	48	49	37	N/A	N/A	23	
Neuberger Berman High Yield (SA) (TFIP) - Net	6.64	7.01	11.83	1.19	N/A	N/A	N/A	-11.43	4.62	N/A	N/A	N/A	5.98	04/01/2020
Bloomberg US HY 2% Issuer Cap Index	7.15	7.65	13.44	1.98	5.35	4.56	4.59	-11.18	5.26	7.05	14.32	-2.08	7.25	
Difference	-0.51	-0.64	-1.61	-0.79	N/A	N/A	N/A	-0.25	-0.64	N/A	N/A	N/A	-1.27	
Neuberger Berman High Yield (SA) (TFIP) - Gross	6.70	7.11	12.05	1.39	N/A	N/A	N/A	-11.25	4.81	N/A	N/A	N/A	6.23	04/01/2020
IM U.S. High Yield Bonds (SA+CF) Median	6.53	7.14	12.58	2.50	5.42	4.63	4.71	-9.43	5.31	6.57	14.26	-1.64	7.13	
Rank	42	53	65	87	N/A	N/A	N/A	84	65	N/A	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, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Abandoned Mine Trust	1.38	2.74	5.13	2.29	2.00	1.84	1.64	1.68	0.13	0.73	2.41	1.85	3.71	12/01/1993
Barker Hughesville St Response	4.28	2.07	2.90	0.09	N/A	N/A	N/A	-3.87	1.36	N/A	N/A	N/A	0.73	05/01/2020
Belt Water Treatment Plant Fund	4.19	2.08	2.96	0.15	3.10	N/A	N/A	-3.71	1.34	6.80	8.56	N/A	3.01	03/01/2018
Big Sky Economic Development Fund	4.72	1.94	2.53	-0.14	3.00	2.77	3.19	-4.27	1.45	7.12	8.67	0.48	4.23	07/01/2005
Butte Area One Restoration	4.19	2.10	3.08	0.32	2.72	2.53	2.51	-3.26	1.26	6.07	6.76	1.24	2.95	11/01/2008
Clark Fork River Restoration	4.28	2.07	3.06	0.33	2.69	2.46	2.56	-3.17	1.19	5.65	7.04	0.96	3.17	11/01/2008
Coal Tax Cultural Trust Fund	4.70	2.06	2.73	-0.06	3.02	2.78	3.19	-4.20	1.43	6.99	8.64	0.47	5.46	12/01/1993
Coal Tax Park Acquisition	4.61	2.01	2.72	-0.02	3.01	2.78	3.17	-4.02	1.37	6.86	8.63	0.48	5.44	12/01/1993
Conservation District Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.46	12/01/2023
Debt and Liability Fee Account	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.90	11/01/2023
East Helena Compensation Fund	2.66	2.53	4.53	1.79	2.70	2.47	2.33	0.48	0.42	2.65	5.52	1.20	2.10	01/01/2013
East Helena Greenway Trail Maintenance	3.79	2.18	3.32	N/A	N/A	N/A	N/A	-2.81	N/A	N/A	N/A	N/A	1.08	03/01/2021
Endowment for Children	4.66	2.09	2.80	-0.04	3.02	2.77	3.13	-4.18	1.41	7.01	8.54	0.46	4.19	08/01/2007
Flying J CECRA Facilities Fund	4.26	2.07	2.91	0.10	N/A	N/A	N/A	-3.85	1.36	N/A	N/A	N/A	0.75	05/01/2020
FWP License Account	2.56	2.35	4.04	1.01	1.63	1.54	1.28	-1.41	0.46	1.85	3.33	1.50	2.71	11/01/1997
FWP Mitigation Trust Fund	3.62	2.27	3.41	0.50	2.14	1.85	1.59	-2.79	0.98	3.84	5.46	1.14	3.58	12/01/1993
FWP Real Property Trust	4.66	2.06	2.77	-0.04	2.99	2.75	3.12	-4.13	1.38	6.83	8.62	0.51	4.90	12/01/1993
Group Benefits	2.08	2.32	4.16	1.47	2.09	1.87	1.65	-0.33	0.63	2.05	4.01	1.37	3.61	12/01/1993
Hail Insurance Investments	3.03	2.32	4.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.41	11/01/2022
Harold Hamm Endowment	4.32	2.06	2.87	0.07	3.01	2.39	N/A	-3.94	1.43	6.71	8.45	0.57	2.27	07/01/2016
History and Civics Endowment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2024
Invasive Species Trust Fund	4.56	1.81	2.65	-0.06	N/A	N/A	N/A	-3.88	1.19	N/A	N/A	N/A	0.18	10/01/2020
Libby Asbestos Site State Cost	4.17	2.09	2.98	0.17	N/A	N/A	N/A	-3.60	1.25	N/A	N/A	N/A	0.81	05/01/2020
Luttrell Pit - Operational & Maintenance	4.34	2.22	3.07	0.35	N/A	N/A	N/A	-3.27	1.36	N/A	N/A	N/A	0.93	05/01/2020
Montana Pole	4.09	2.17	3.12	0.42	2.82	2.60	2.84	-2.92	1.14	5.61	7.48	0.74	4.64	09/01/1996
Montana State University	2.06	2.36	4.77	1.86	1.95	1.86	1.52	0.58	0.30	1.30	2.87	1.87	1.99	08/01/2004
Montana State Library Trust	5.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.52	10/01/2023
Montana Tech-UM Agency Funds	1.55	2.70	4.99	2.16	2.01	1.88	1.45	1.36	0.20	1.01	2.56	1.91	1.85	03/01/2003
MT BOI - Clark Fork Site	4.61	2.11	2.81	0.05	2.90	2.68	2.93	-3.95	1.44	6.65	8.00	0.67	3.65	11/01/2008
MT BOI UOFM Other	2.28	2.30	3.94	1.49	2.49	2.29	2.20	-0.16	0.73	3.47	4.54	1.42	2.81	08/01/2002
MT Housing Infrastructure Trust	1.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.25	08/01/2023
MUS Group Insurance	1.81	2.68	4.74	1.84	2.12	1.95	1.75	0.57	0.26	1.70	3.39	1.96	1.58	10/01/2011
MUS Workers Compensation	2.35	2.54	4.44	1.65	2.38	2.19	N/A	0.10	0.46	2.55	4.43	1.62	2.01	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.



Montana Board of Investments
Comparative Performance
Trust Accounts

As of December 31, 2023

	QTD	FYTD	CYTD/ 1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018	Since Incep.	Inception Date
Older Montanans Trust	4.73	2.11	2.78	-0.06	3.05	2.80	3.17	-4.23	1.41	7.19	8.62	0.49	4.06	08/01/2007
Permanent Coal Trust Excl Crp	3.22	1.59	2.57	0.77	2.90	2.75	3.14	-2.02	1.82	5.57	6.81	1.28	5.24	12/01/1993
PERS Defined Cont Disability	9.39	6.20	17.09	3.82	9.04	7.69	N/A	-15.55	13.16	14.06	20.77	-4.88	6.86	09/01/2015
Potter Trust Fund	4.32	2.06	2.86	0.06	3.02	2.78	N/A	-3.96	1.41	6.78	8.47	0.51	2.58	06/01/2016
Resource Indemnity Trust	4.81	2.00	2.60	-0.17	3.04	2.80	3.23	-4.44	1.48	7.23	8.88	0.44	5.52	12/01/1993
School Facilities Fund	4.71	1.88	2.42	-0.19	2.79	N/A	N/A	-4.24	1.39	6.97	7.88	-0.13	2.30	01/01/2018
Smelter Hill Up Restorative	4.26	2.09	3.00	0.21	2.35	2.16	2.03	-3.54	1.29	5.62	5.64	1.57	2.11	11/01/2008
State Fund Insurance	6.09	3.53	6.49	0.43	3.64	3.36	3.42	-7.68	3.04	7.62	9.65	0.38	5.15	12/01/1993
Streamside Tailings Operable Unit	4.38	2.10	2.90	0.12	2.89	2.67	3.01	-3.70	1.27	6.47	7.92	0.57	4.76	02/01/1999
Subsequent Injury Fund	1.31	2.63	5.37	2.36	2.02	1.88	1.41	1.66	0.13	0.73	2.28	1.98	2.93	12/01/1993
Tobacco Trust Fund	4.78	2.00	2.63	-0.13	3.00	2.77	3.20	-4.40	1.51	7.10	8.67	0.46	4.94	01/01/2001
Treasurers	1.69	2.84	5.08	2.15	1.87	1.77	1.35	1.34	0.10	0.63	2.28	1.97	2.76	12/01/1993
Montana Coal Endowment Fund	4.77	2.01	2.63	-0.14	3.03	2.80	3.21	-4.37	1.47	7.15	8.81	0.46	5.41	12/01/1993
MT Coal Endowment Regional Water	4.77	2.01	2.63	-0.14	3.03	2.80	3.21	-4.37	1.47	7.15	8.80	0.45	5.09	06/01/2000
Trust and Legacy Account	4.80	2.01	2.62	-0.14	3.04	2.80	3.23	-4.37	1.47	7.19	8.84	0.43	6.08	07/01/1991
UCFRB Assess/Litig Cost Rec	4.77	1.98	2.61	-0.13	2.89	2.67	3.05	-4.37	1.53	6.68	8.50	0.49	5.03	07/01/1999
UCFRB Restoration Fund	4.66	2.00	2.71	-0.09	2.96	2.74	3.06	-4.22	1.36	6.90	8.52	0.67	4.97	06/01/1999
Upper Blackfoot Response	1.64	2.68	4.94	2.14	2.44	2.23	1.97	1.22	0.32	1.55	4.24	1.49	1.78	09/01/2010
Weed Control Trust	4.81	2.00	2.60	-0.17	3.04	2.80	3.23	-4.44	1.48	7.23	8.88	0.44	4.78	12/01/1993
Wildlife Habitat Trust	4.59	2.01	2.72	-0.04	2.96	2.73	3.10	-4.10	1.38	6.75	8.54	0.51	4.90	12/01/1993
Work Force Housing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.91	11/01/2023
Yellowstone Pipeline Cleanup Fund	3.71	2.21	3.16	N/A	N/A	N/A	N/A	-1.42	N/A	N/A	N/A	N/A	1.16	04/01/2021
Zortman/Landusky LT H2O	1.38	2.74	5.13	2.29	1.97	1.84	1.68	1.68	0.13	0.73	2.28	1.98	5.78	09/01/1999
Z/L Long Term H2O Trust Fund	1.38	2.74	5.13	2.29	1.97	1.85	1.72	1.68	0.13	0.73	2.28	1.98	3.85	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.

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 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 and 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 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.

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;l (DEMSX) was liquidated in 02/2022.
- DFA Intl Sm Co;l (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;l (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, 2023

	Fee Schedule	Market Value As of 12/31/2023 (\$)
iShares:Core S&P Tot USM (ITOT)	0.03 % of Assets	124,345,871
iShares:Core S&P 500 (IVV)	0.03 % of Assets	19,343,537
iShares:Core S&P Md-Cp (IJH)	0.05 % of Assets	20,136,333
iShares:Core S&P Sm-Cp (IJR)	0.06 % of Assets	53,464,675
iShares:Core MSCI EAFE (IEFA)	0.07 % of Assets	101,976,968
iShares:Core MSCI EmMkts (IEMG)	0.09 % of Assets	69,309,167

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

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Investment Update

Board Meeting: February 28, 2024
Information as of: December 31, 2023

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CIO Update

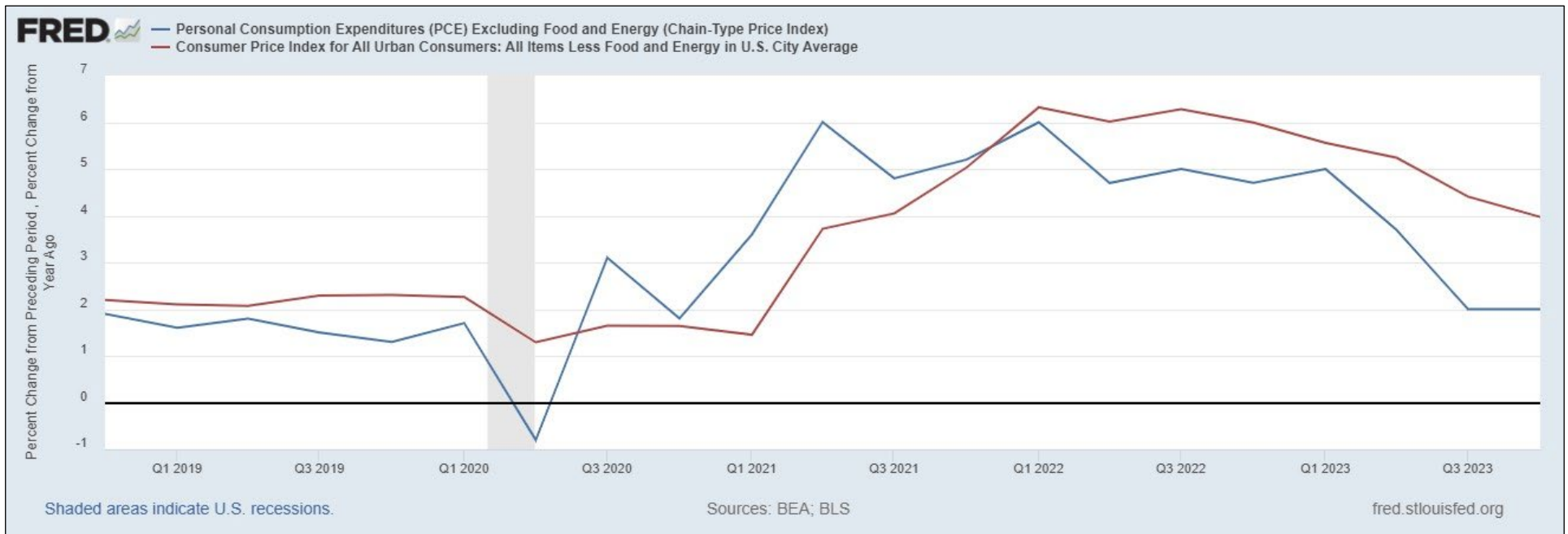
Economic Environment

- **Leading Economic Index** – The LEI has been declining for 2 years. However, the Atlanta Fed's GDP Now Forecast is projecting strong 1st quarter growth.
- **Job Growth** – Employment gains in January were particularly strong. However, seasonal adjustments may have distorted the picture.
- **Retail Sales** – Retail sales dipped in October but rebounded strongly in December. The consumer has been holding up better than expectations.
- **Inflation** – CPI increased from 3.1% to 3.4% year over year. However, inflation expectations over the next year fell to 2.9%.
- **Housing** – New home sales were up 8% in December. Existing home sales rebounded as mortgage rates fell in the 4th quarter.
- **ISM Indices** – In January, the ISM Manufacturers Index increased to 49.1 while the ISM Services Index was 52.5. Readings below 50 indicate contraction while readings above 50 indicate expansion.

CIO Update

Economic Environment

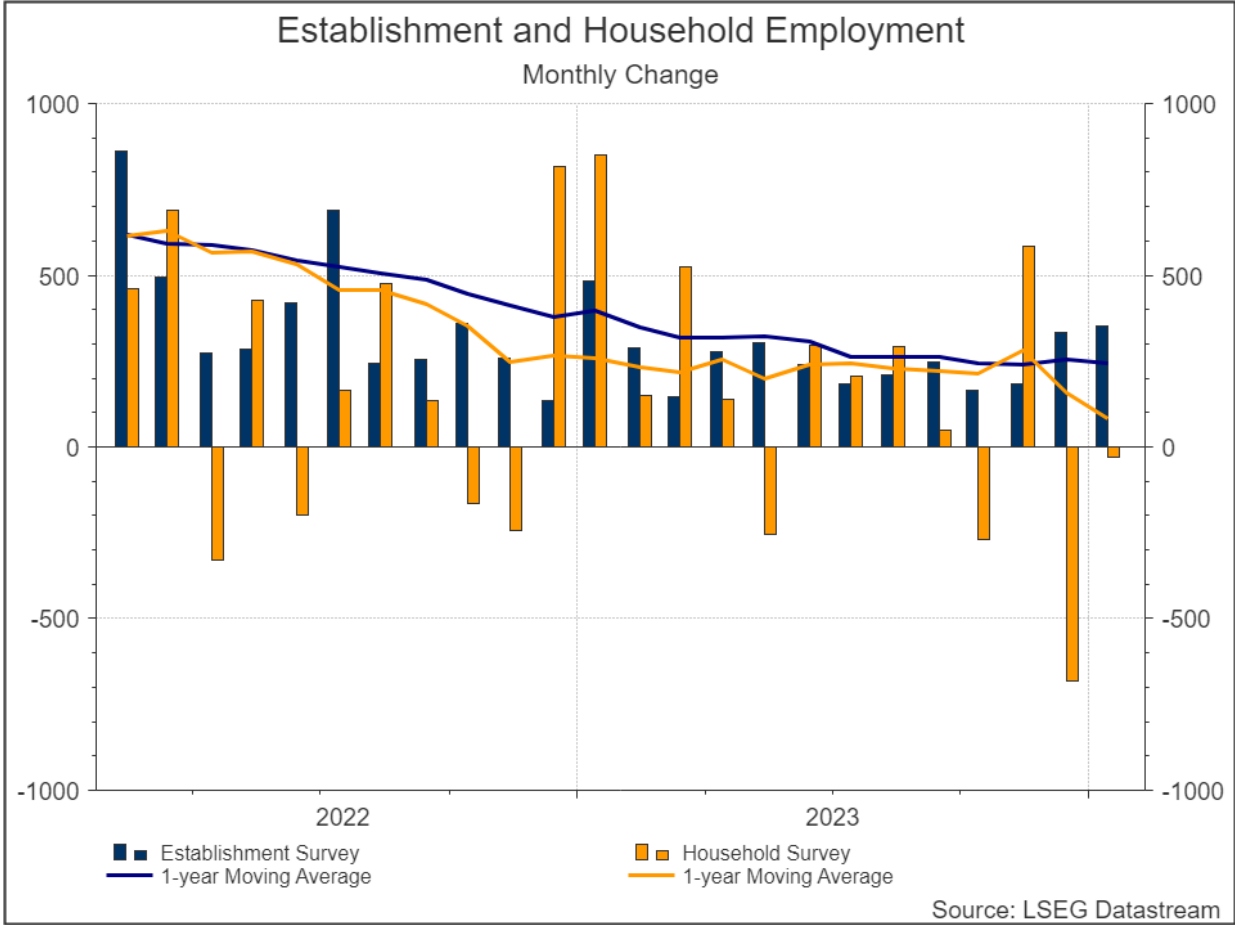
Based on Core PCE, inflation is at the Federal Reserve's 2% goal.



CIO Update

Economic Environment

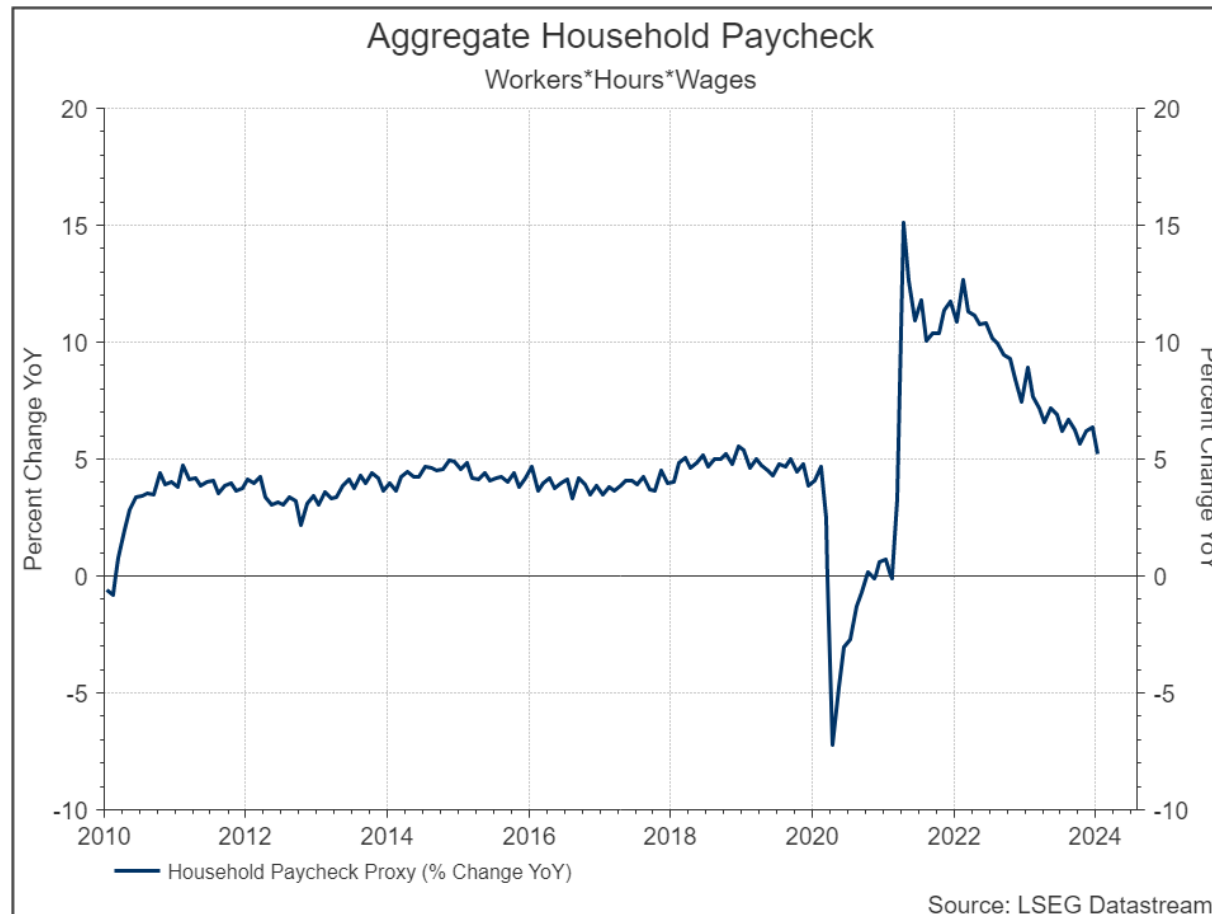
Employment remains strong but has been trending weaker over the last 2 years.



CIO Update

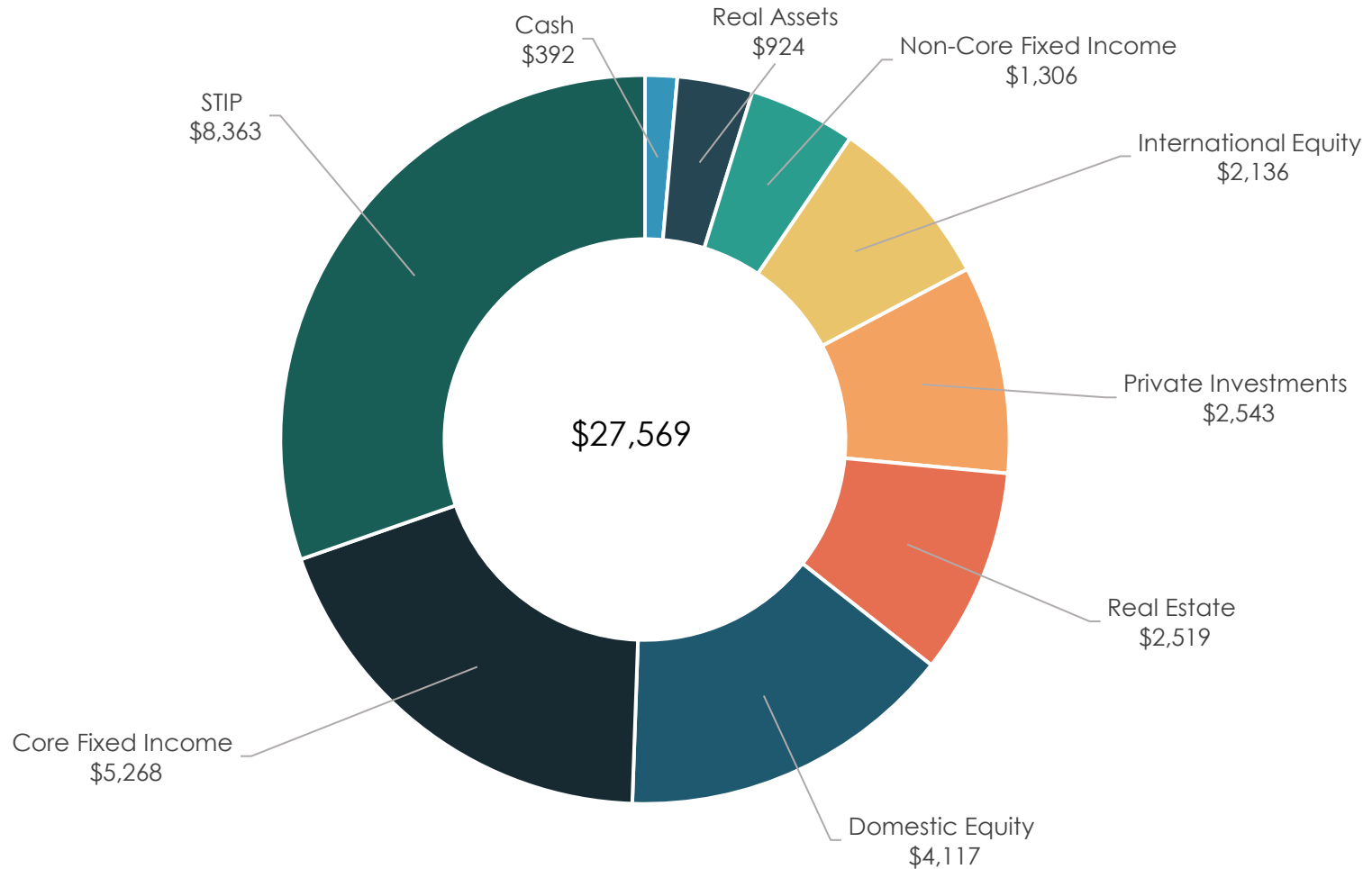
Economic Environment

Household paychecks have continued to grow but growth is returning to pre-pandemic levels.



CIO Update

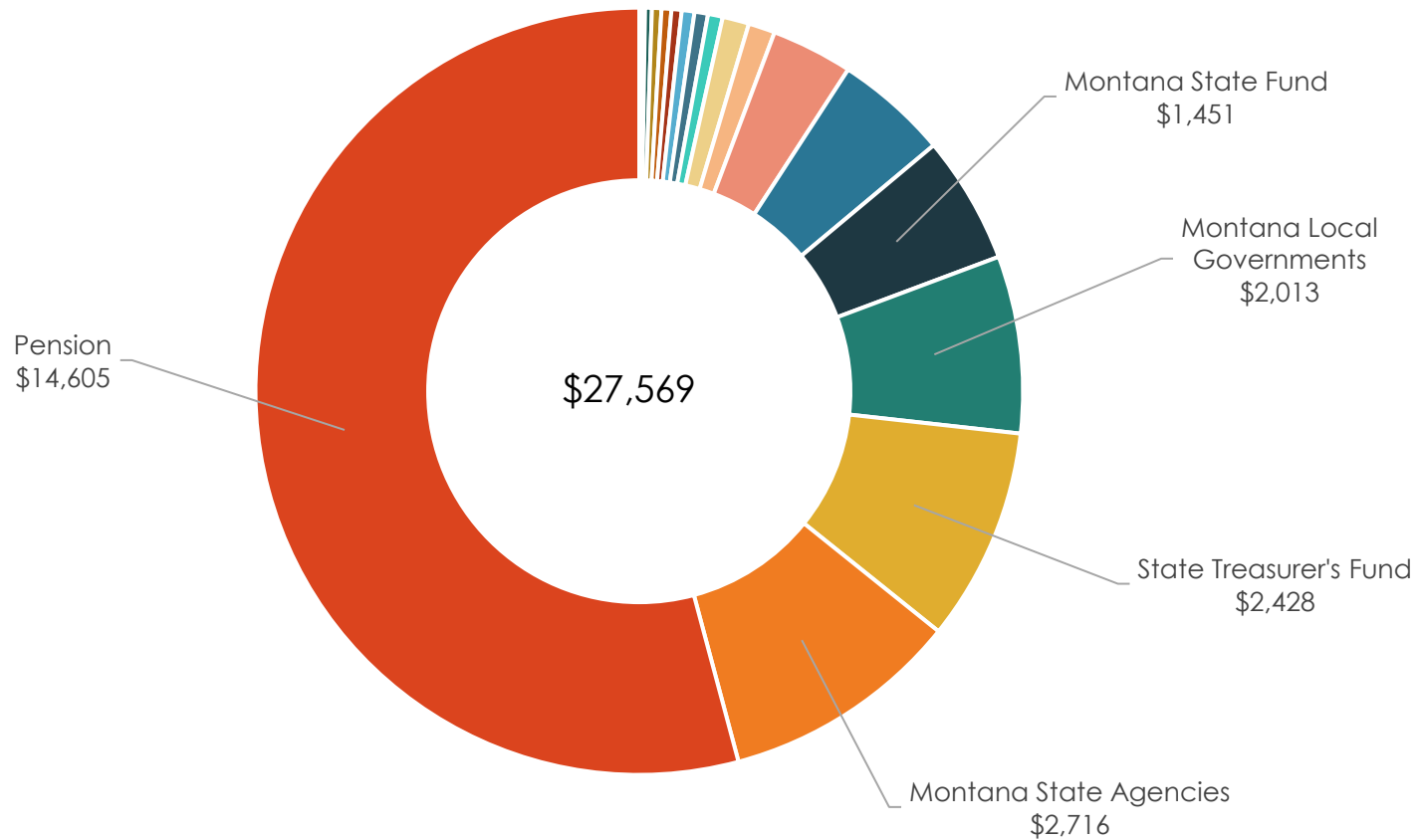
AUM by Asset Class



* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

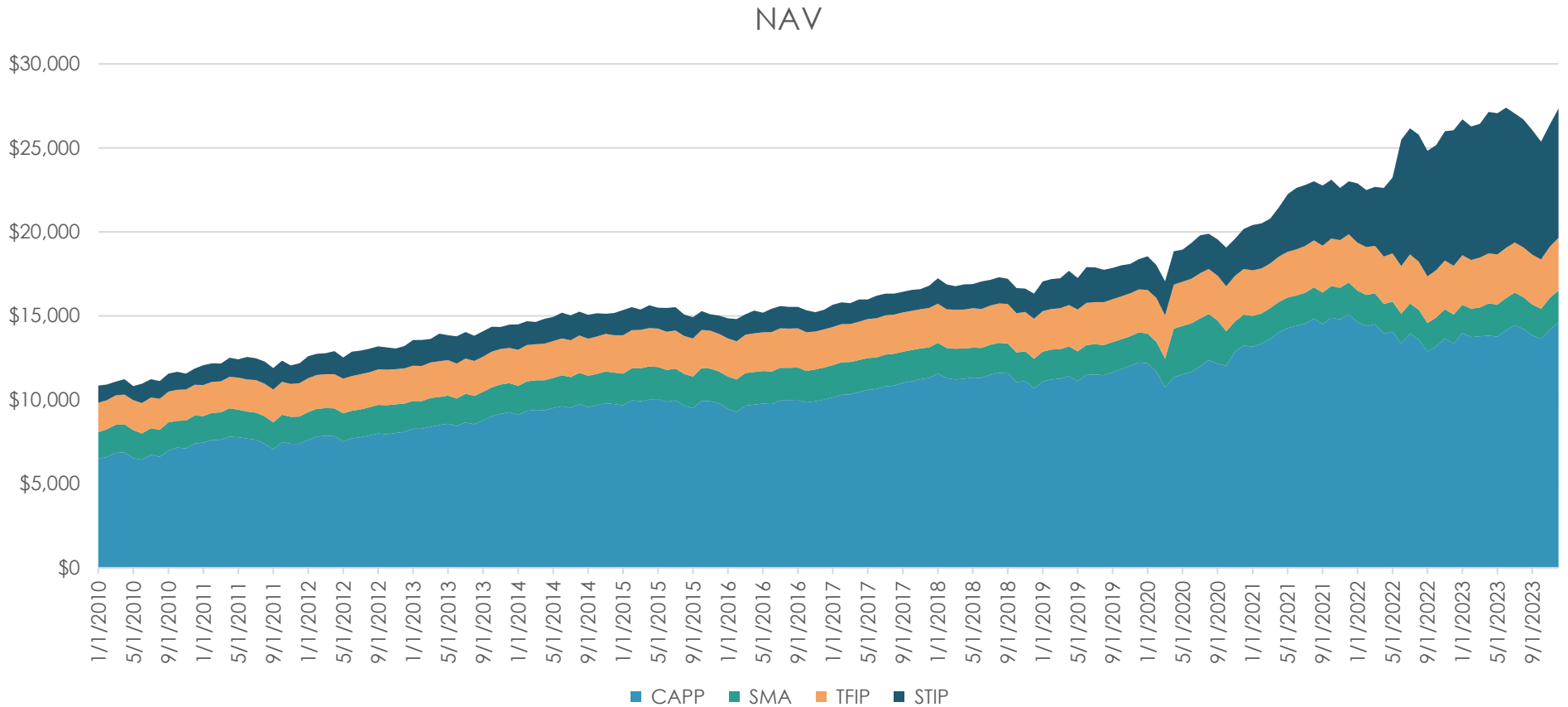
AUM by Participant Type



* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

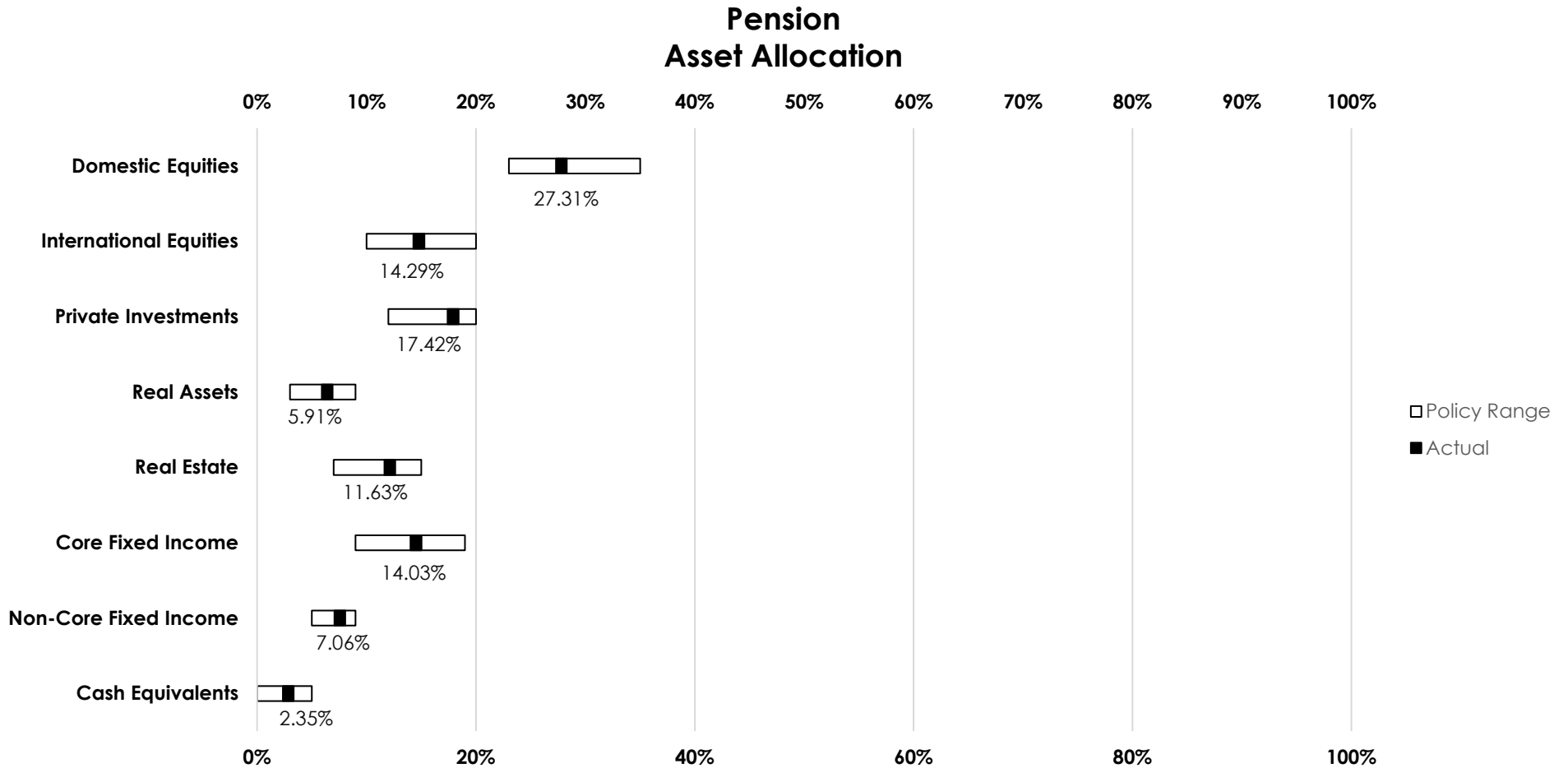
AUM by Pool



* Dollar values are in \$1,000,000
December 31, 2023

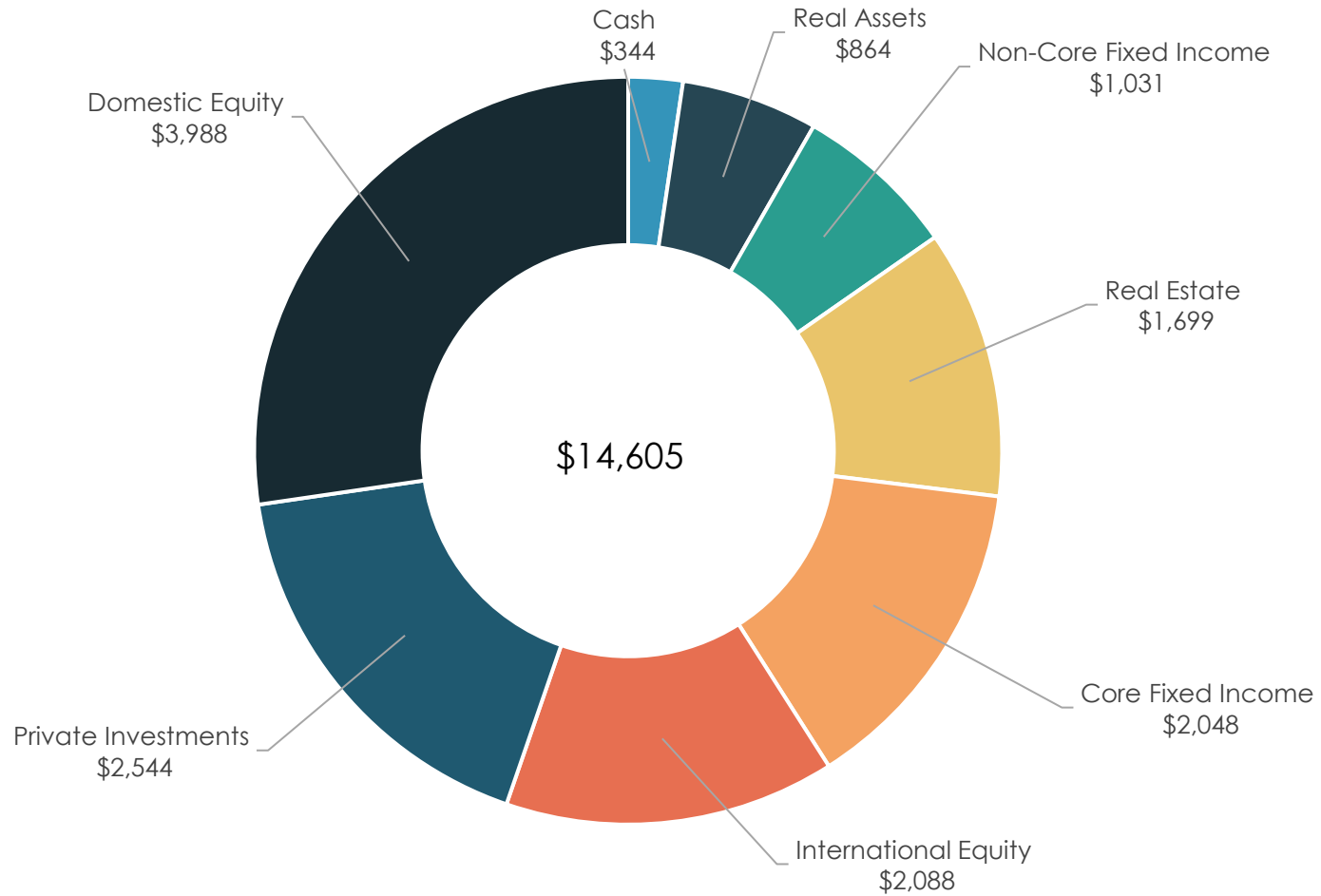
CIO Update

Pension Asset Allocation



CIO Update

Pension Asset Allocation

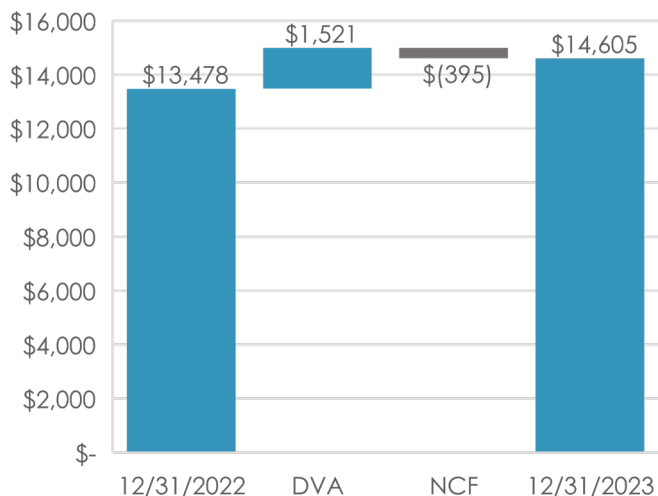


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December 31, 2023

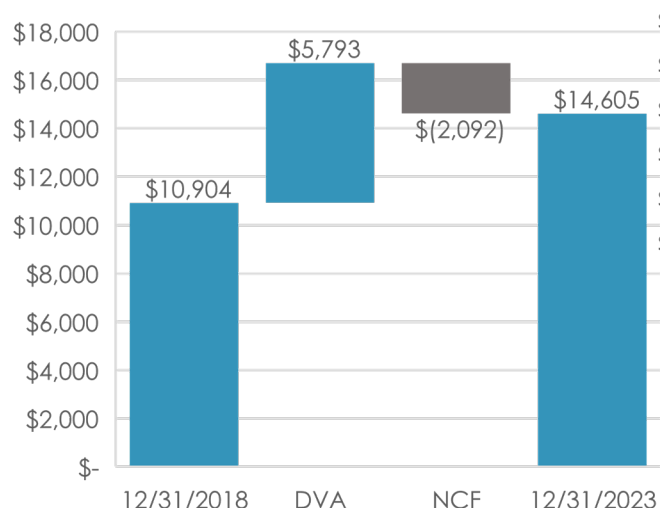
CIO Update

Pension Net Performance

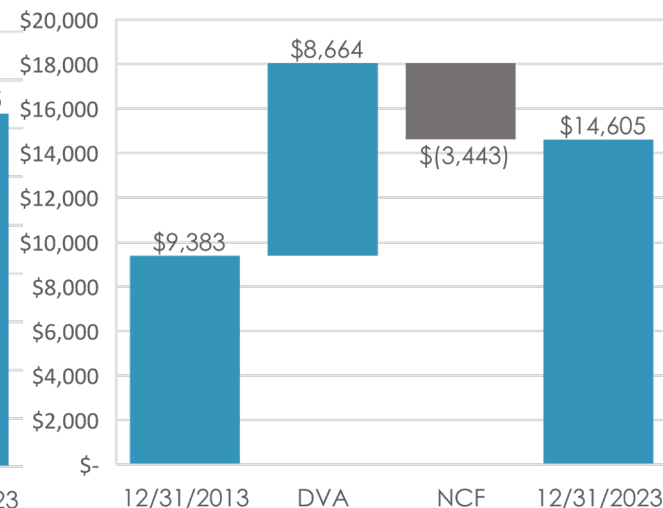
Asset Changes
1 Year



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

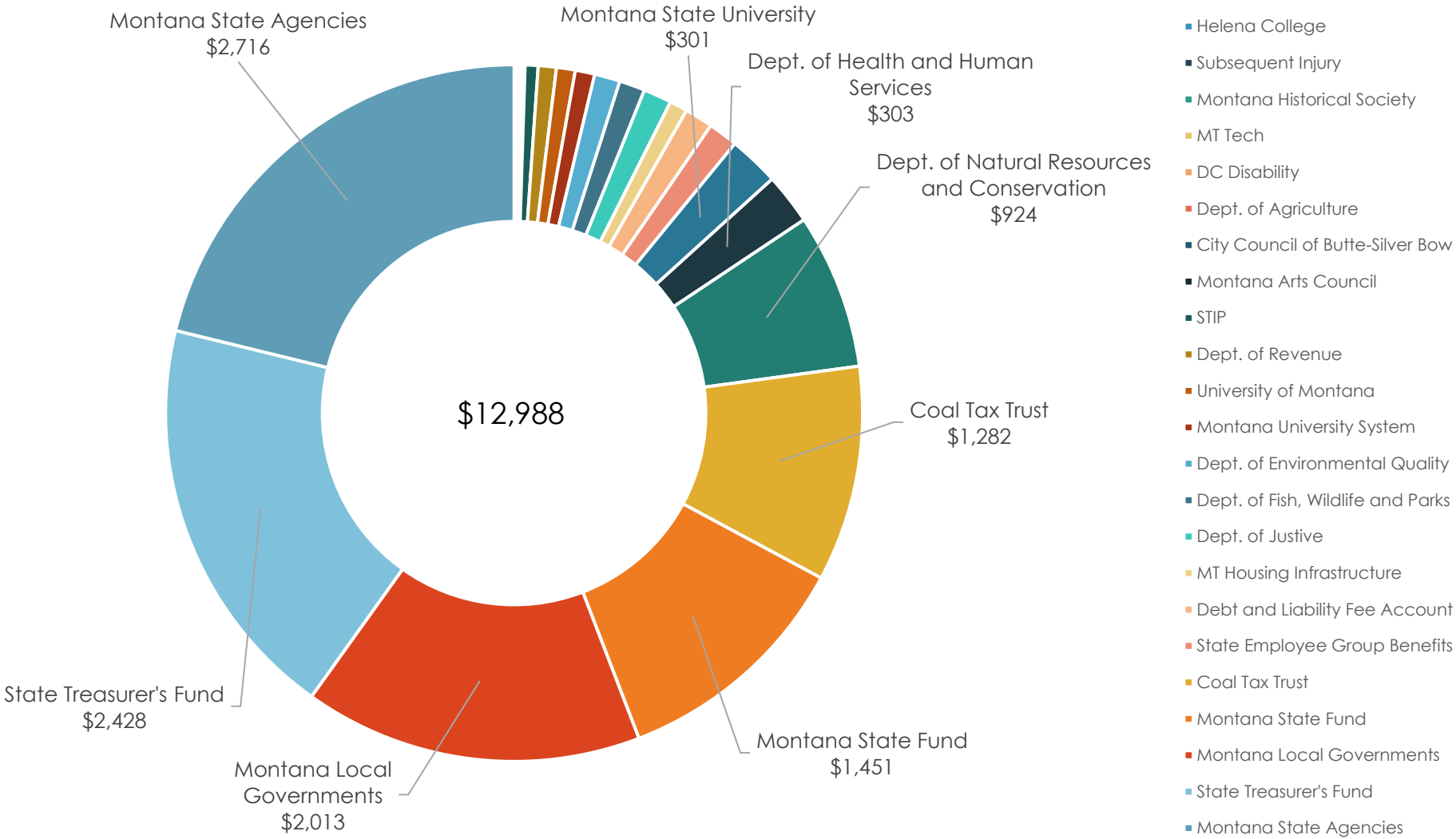
Pension Net Performance

Performance	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	Since Inception
Public Employees' Retirement	4.29%	11.46%	6.26%	9.42%	7.55%	7.05%	7.73%
Police Officers' Retirement	4.32%	11.49%	6.26%	9.42%	7.55%	7.02%	7.61%
Game Wardens' Retirement	4.26%	11.43%	6.25%	9.41%	7.55%	7.00%	7.65%
Sheriffs' Retirement	4.28%	11.45%	6.26%	9.41%	7.55%	7.04%	7.64%
Judges' Retirement	4.29%	11.46%	6.26%	9.42%	7.55%	7.05%	7.64%
Highway Patrol Retirement	4.26%	11.42%	6.26%	9.42%	7.55%	7.05%	7.63%
Teachers' Retirement	4.28%	11.44%	6.24%	9.41%	7.55%	7.05%	7.74%
Vol Firefighters' Retirement	4.27%	11.44%	6.25%	9.41%	7.54%	7.02%	7.47%
Firefighters' Retirement	4.31%	11.49%	6.26%	9.42%	7.56%	7.03%	7.61%

Inception 7/1/1994

CIO Update

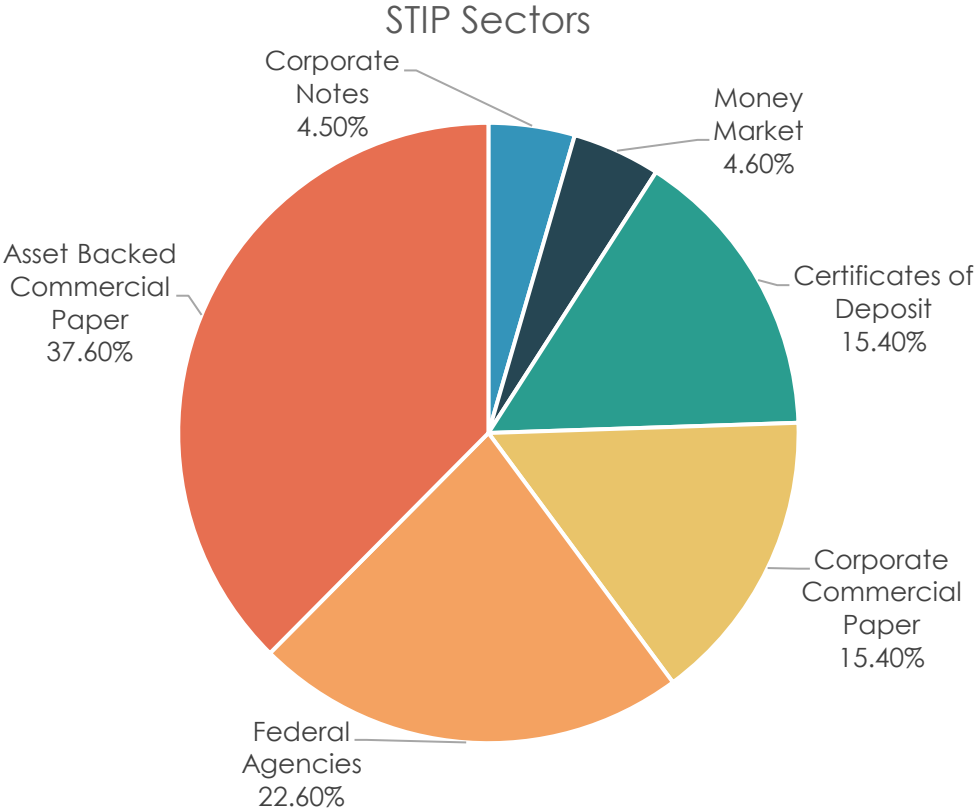
AUM ex. CAPP



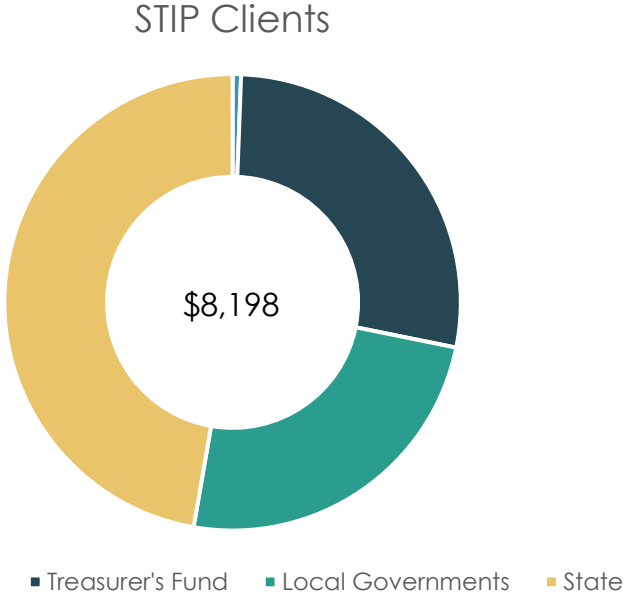
* Dollar values are in \$1,000,000
 December 31, 2023

CIO Update

Short Term Investment Pool



- The weighted average maturity of the portfolio was 53 days at quarter end.
- The STIP Reserve was \$77.2M at quarter end.



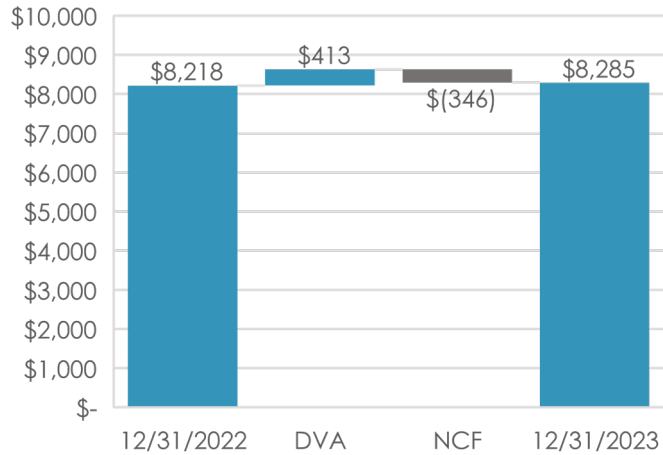
* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

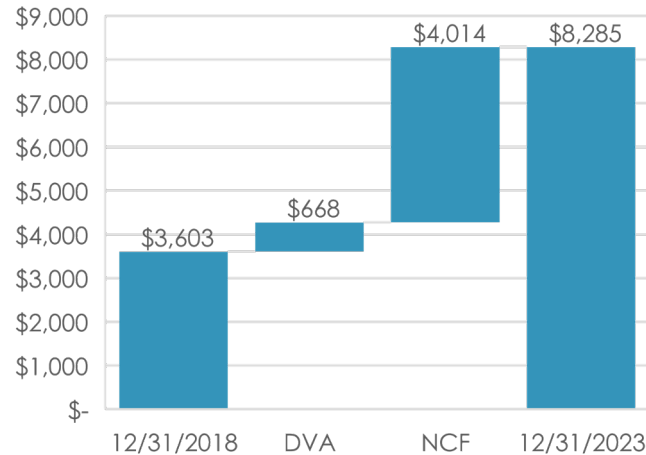
Short Term Investment Pool

STIP Net Performance

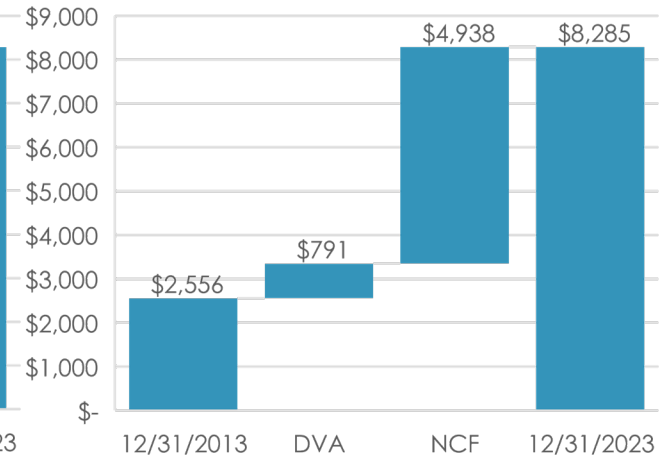
Asset Changes
1 Year



Asset Changes
5 Year



Asset Changes
10 Year



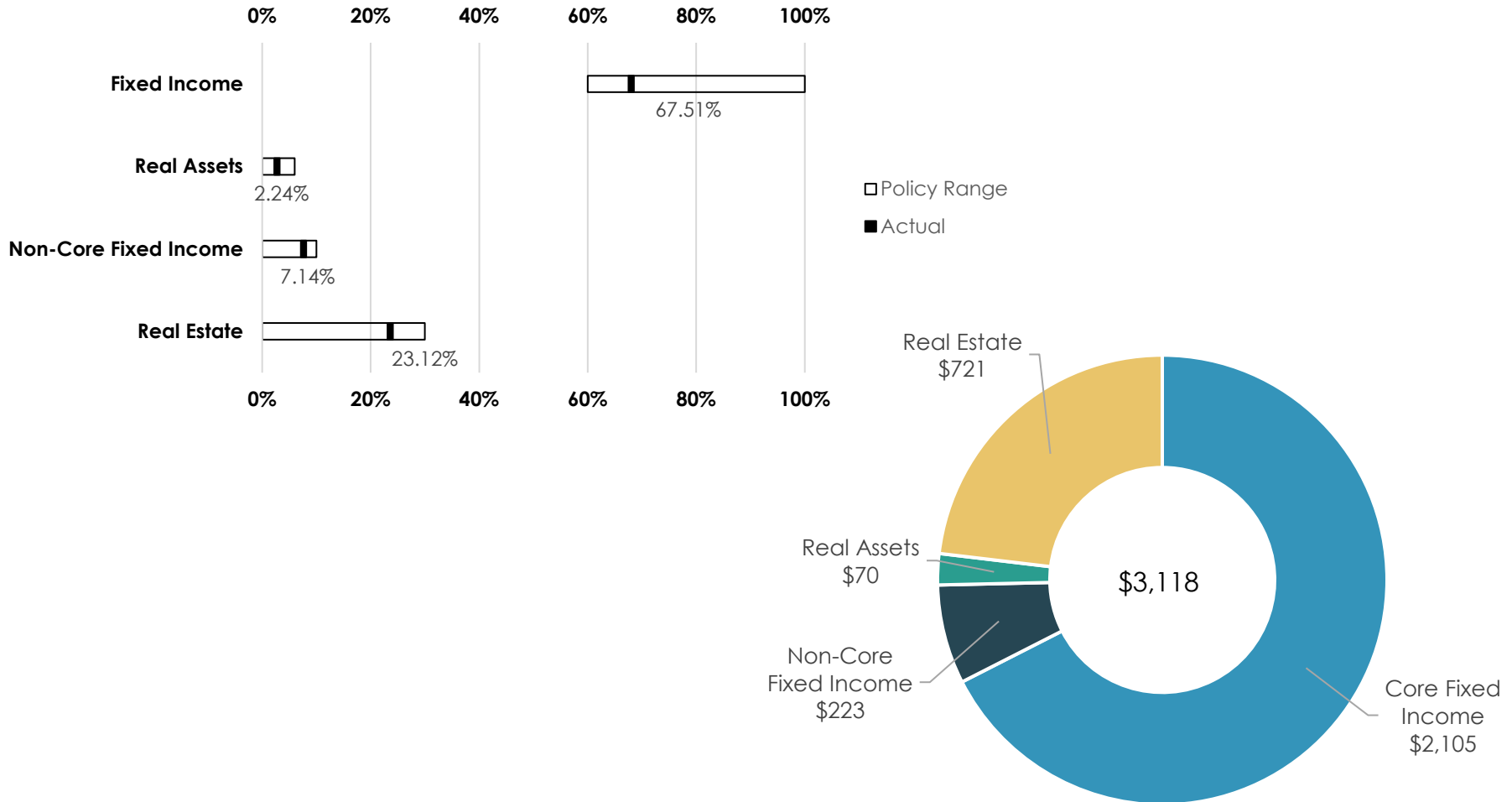
Performance	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Short Term Investment Pool (STIP)	2.75%	5.13%	2.28%	1.97%	1.38%	2.37%
Short Term Investment Pool Benchmark	2.82%	5.28%	2.31%	1.89%	1.34%	2.30%

* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

Trust Funds Investment Pool

**Trust Funds
Asset Allocation**



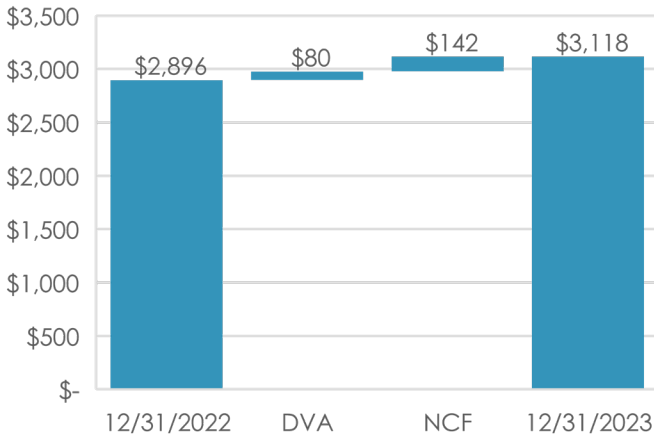
* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

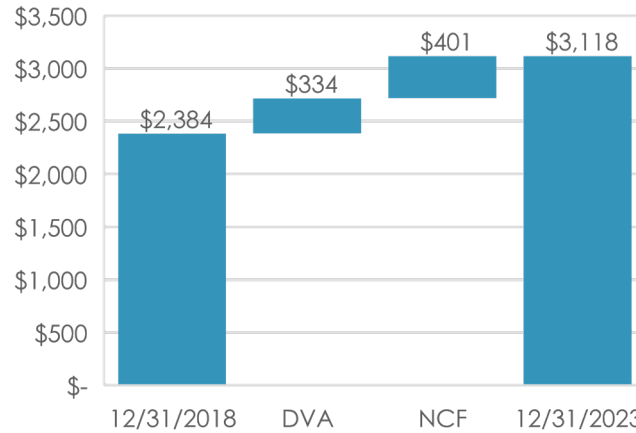
Trust Funds Investment Pool

TFIP Net Performance

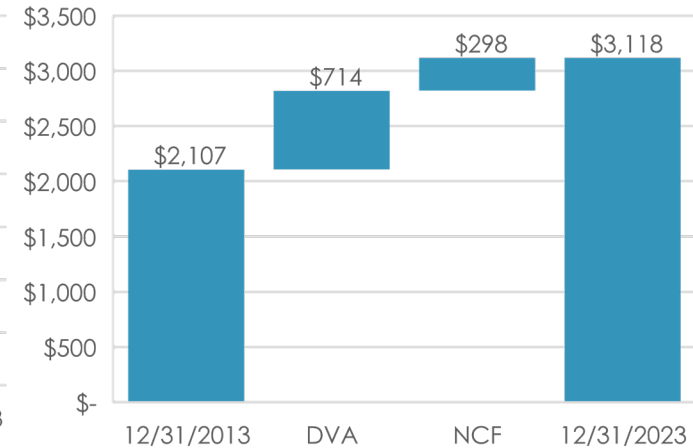
Asset Changes
1 Year



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)	1.67%	2.59%	-0.81%	2.66%	3.05%	5.38%
Trust Funds Investment Pool Benchmark	1.70%	1.28%	-1.04%	2.52%	2.52%	4.59%

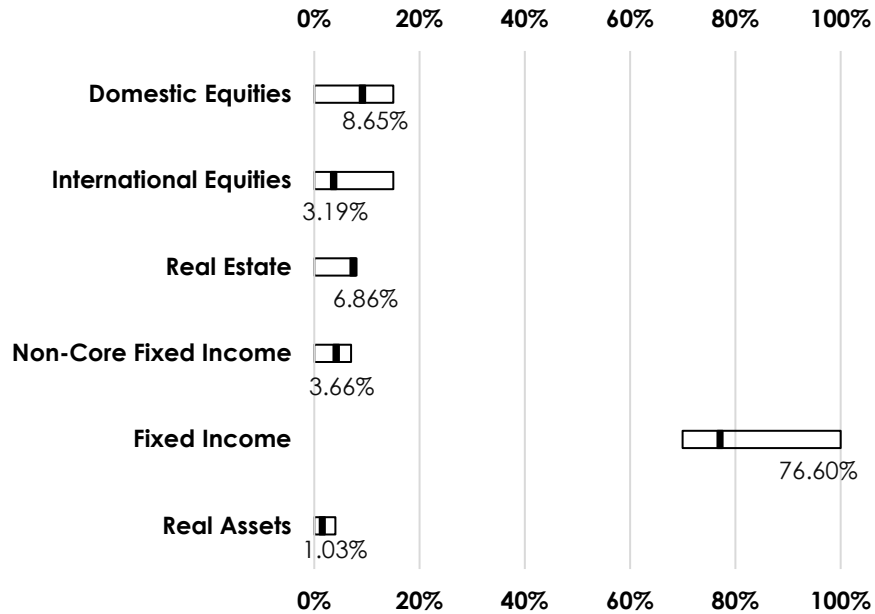
Yield	1 Year	3 Year	5 Year	10 Year
Trust Funds Investment Pool (TFIP)	3.67%	3.33%	3.26%	3.36%

* Dollar values are in \$1,000,000
December 31, 2023

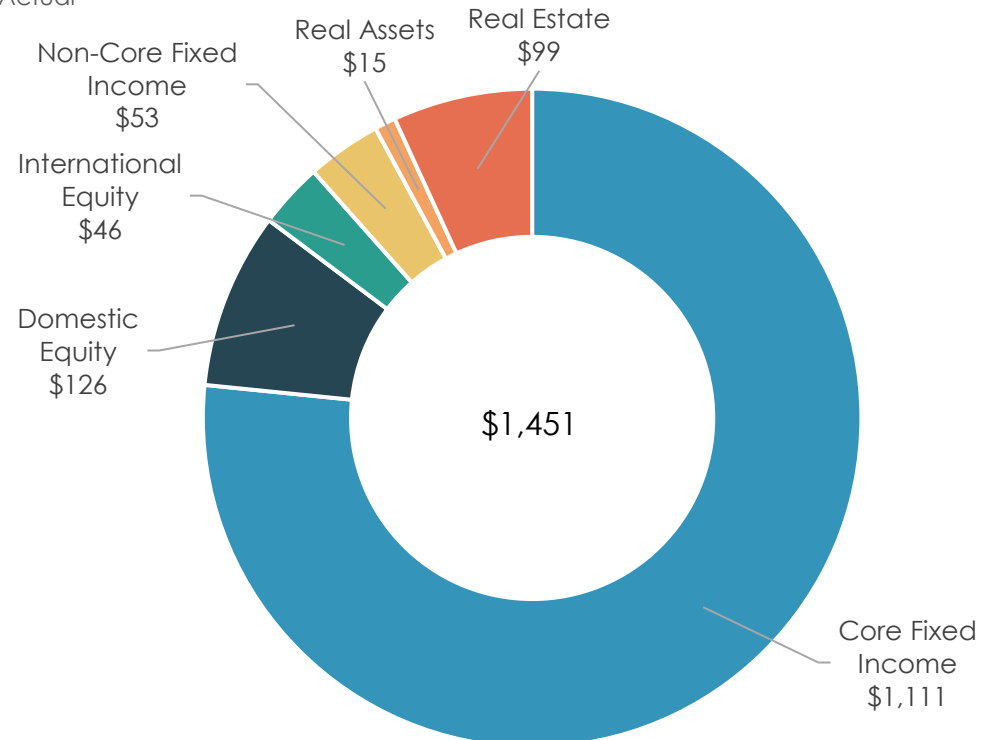
CIO Update

State Fund Investment Pool

State Fund
Asset Allocation



□ Policy Range
■ Actual



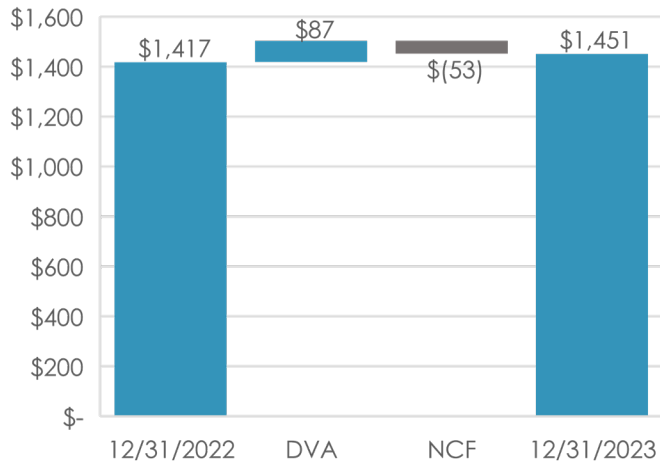
* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

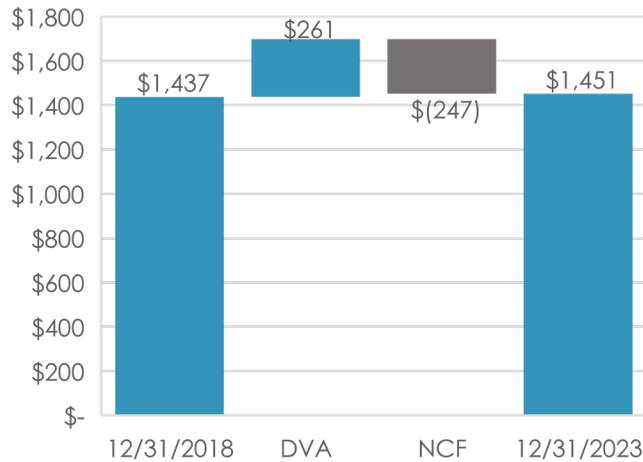
State Fund Investment Pool

SFIP Net Performance

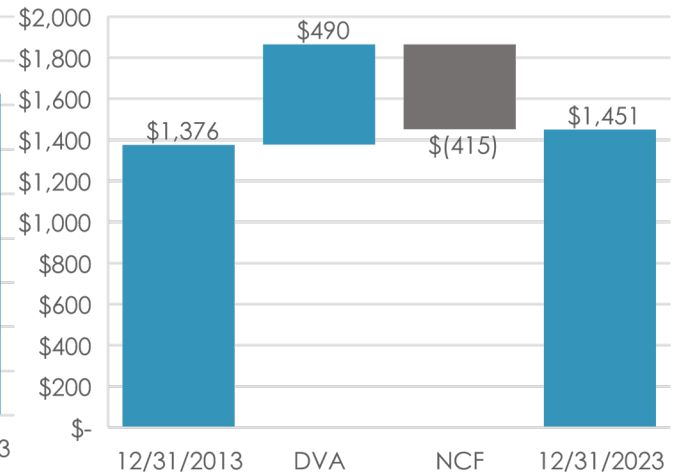
Asset Changes
1 Year



Asset Changes
5 Year



Asset Changes
10 Year



Performance	FYTD	1 Year	3 Year	5 Year	10 Year	Since Inception
State Fund	3.28%	6.35%	0.33%	3.55%	3.37%	5.13%
State Fund Benchmark	3.42%	5.98%	-0.15%	3.10%	3.03%	4.61%

* Dollar values are in \$1,000,000
December 31, 2023

CIO Update

- The Federal Reserve appears to be done hiking interest rates. Belief in a soft landing is the market “base case”. Market focus has shifted to guessing when the Fed cuts rates.
- Maintaining a cautious outlook. More favorable toward fixed income than equities at current levels.
- Received the final report from Colmore. Did not find any significant reporting discrepancies for our private asset managers.
- Attended the State Street tri-annual meeting in Sacramento with the Executive Director and the Director of Operations.
- Interviewing for investment and accounting interns for summer 2024.
- Staff completed the Desk Manual although this is a living document.

Macro Attribution

Key Takeaways – 3 Year

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

- All benchmarks except for Core Fixed Income made positive contributions to the pension, policy-neutral, 4.6% return.

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

- About \$773M of equity asset classes were sold and \$378M of fixed income/cash asset classes were bought during the last year. The pension net cash need was \$-395M for the year.
- In aggregate, the overweighting/underweighting of the asset classes relative to their benchmarks increased the pension portfolio's return by 4 bps.

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

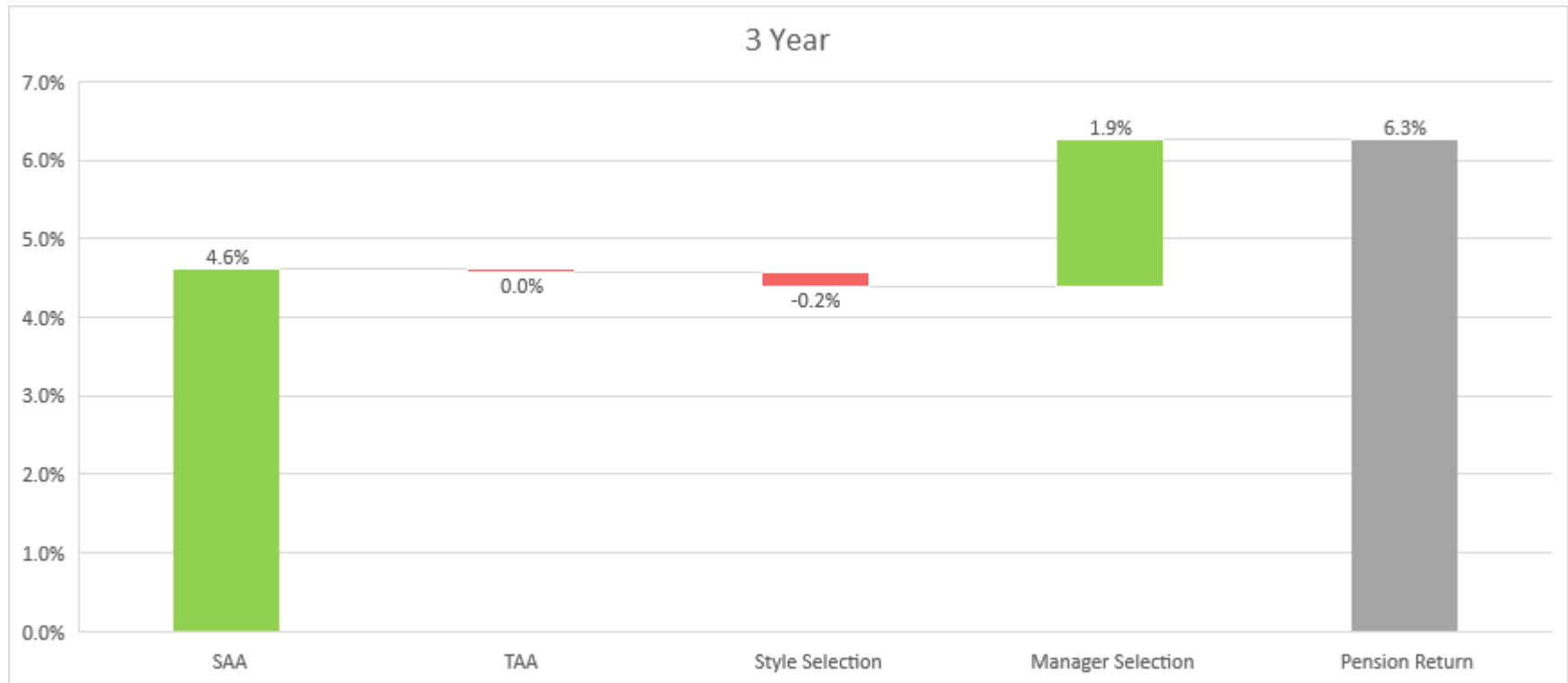
- The International Equity manager benchmarks had higher exposure to growth benchmarks than the asset class benchmark leading to total style underperformance of 8 bps.
- The Real Assets portfolio has about 51% exposure to commodities versus 33% in the custom benchmark. The strong outperformance of the Commodity Producers Index relative to Infrastructure and TIPS resulted in style outperformance of about 20 bps.
- In Real Estate, exposure to a CMBS index was the primary contributor to style underperformance of 16 bps though exposure to REITS detracted as well.
- Within Non-Core Fixed Income, exposure to preferred & EMD indexes led to style underperformance of 9 bps.

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

- In International Equity, there was mixed manager performance for a total underperformance of 8 bps.
- Private Investments was the main contributor to manager selection outperformance with Private Equity rather than Private Credit being the main contributor. Much of this can be attributed to the lag in pricing of private investments.
- Real Assets had manager selection effects of 10 bps, with Infrastructure providing most of the positive contribution.
- The Private Real Estate Portfolio, CMBS Manager, and REIT Manager all added positive Manager Selection effects totaling 33 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.

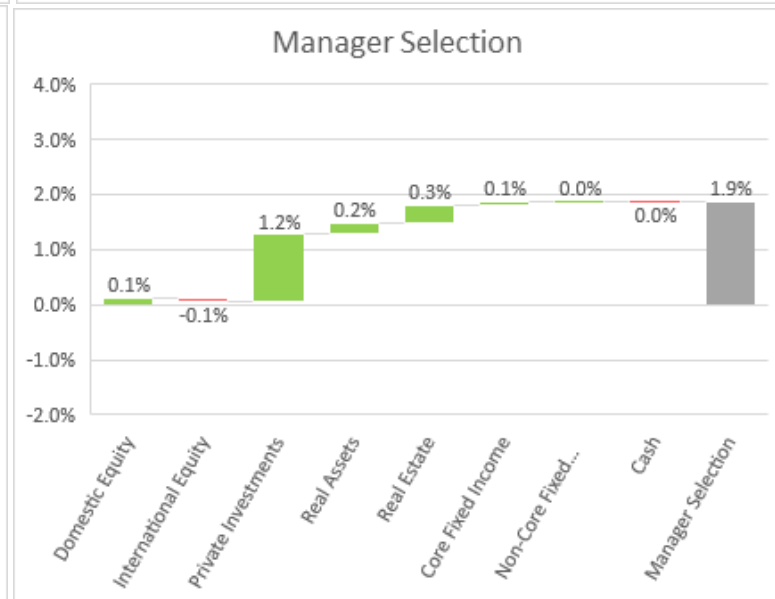
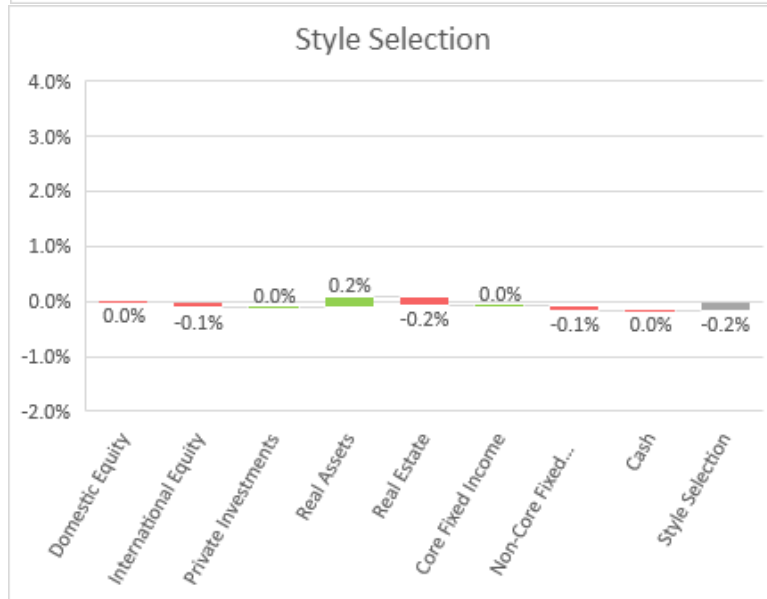
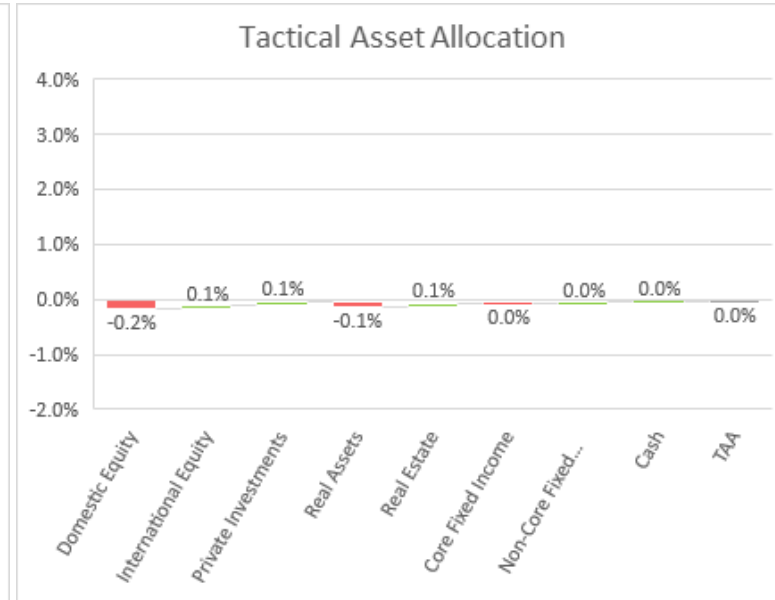
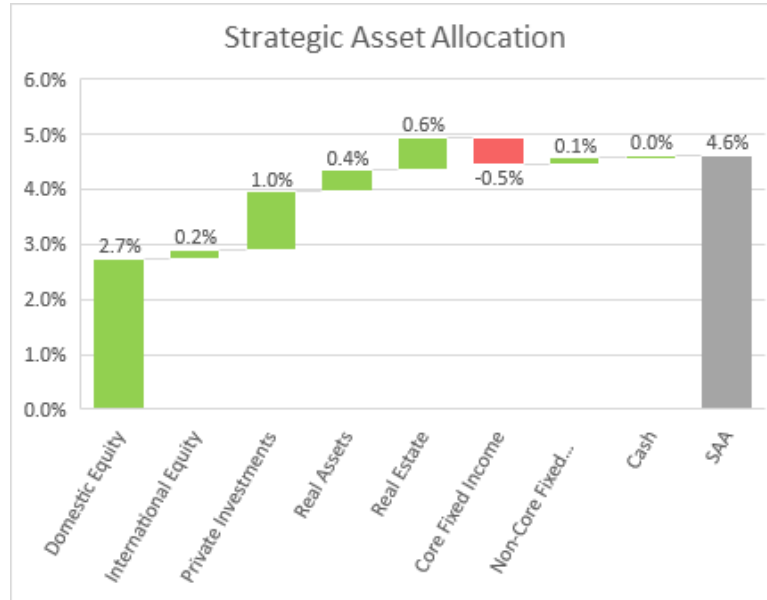
Tactical Asset Allocation (TAA) - The *additional* return earned by investing in the asset class benchmarks at our actual rather than midpoint weights.

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

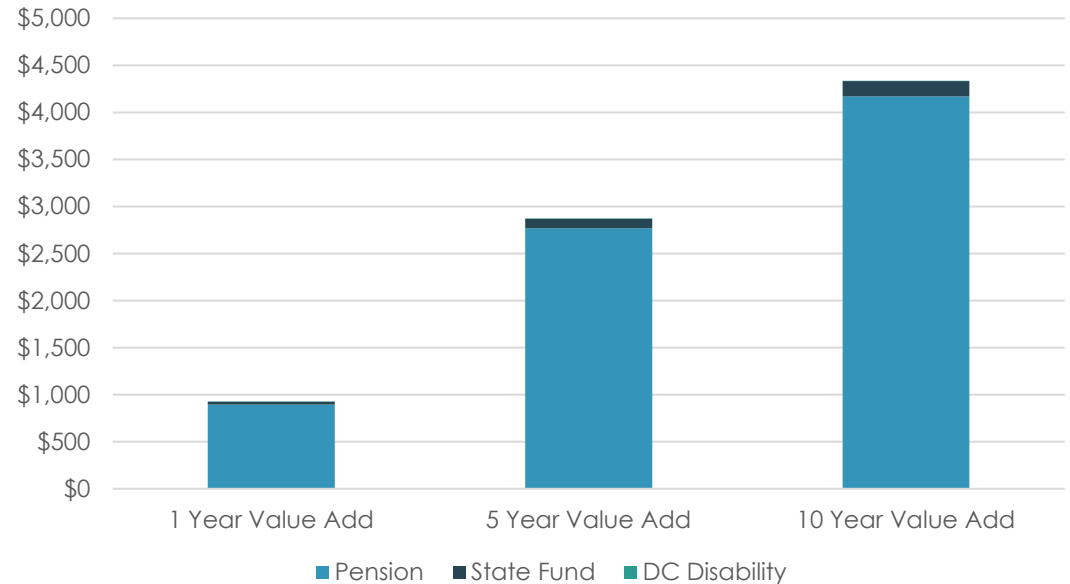
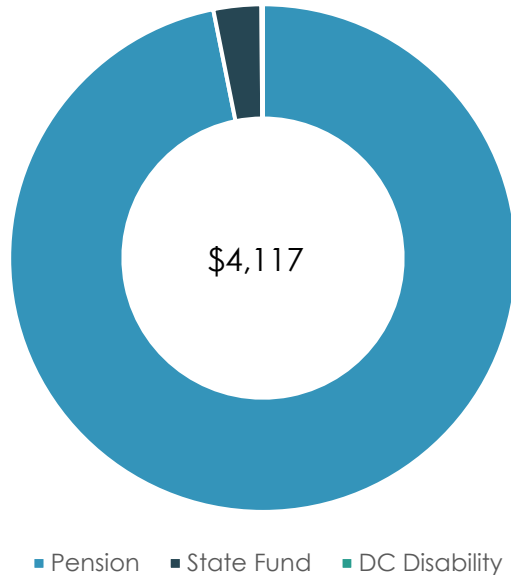
Manager Selection - The *additional* return earned by investing in the underlying managers rather than the underlying manager benchmarks.

* 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



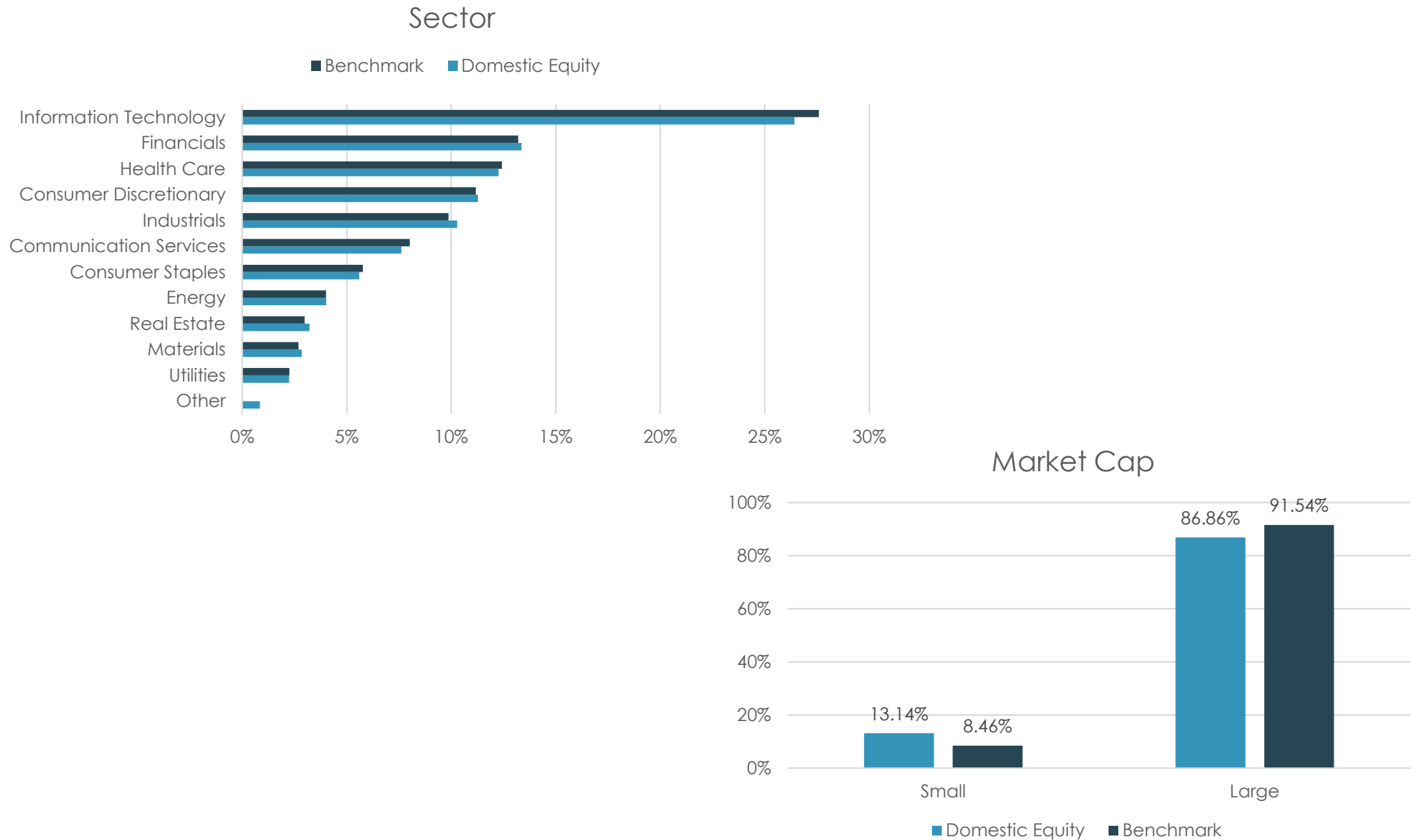
Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	25.70%	26.25%	15.25%	15.36%	11.16%	11.71%
State Fund	26.28%	26.29%	15.66%	15.69%	12.03%	12.03%
DC Disability	26.16%	26.06%	15.10%	15.05%	NA	NA

- A fourth quarter rally capped off a strong year for US stocks as investors reacted to positive inflation trends, a resilient job market, and expectations that the Fed's interest rate hiking cycle is complete.
- Mega Cap Growth stocks were the standouts in 2023, with the Russell 1000 Growth index returning 42.7% vs. 11.4% for the Russell 1000 Value.
- Small Cap stocks outperformed Large Caps in 4Q23 but lagged for the full year.

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

December 31, 2023

Domestic Equity Characteristics - Pension



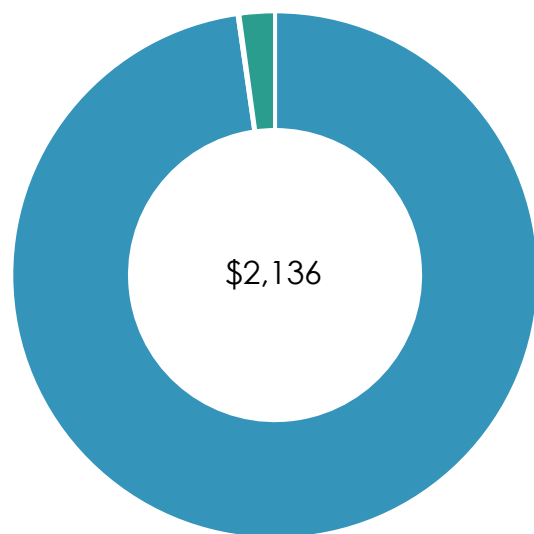
Domestic Equity Valuation

S&P 500 Index - Price/Earnings Ratio
(January 23, 2014 to January 23, 2024)

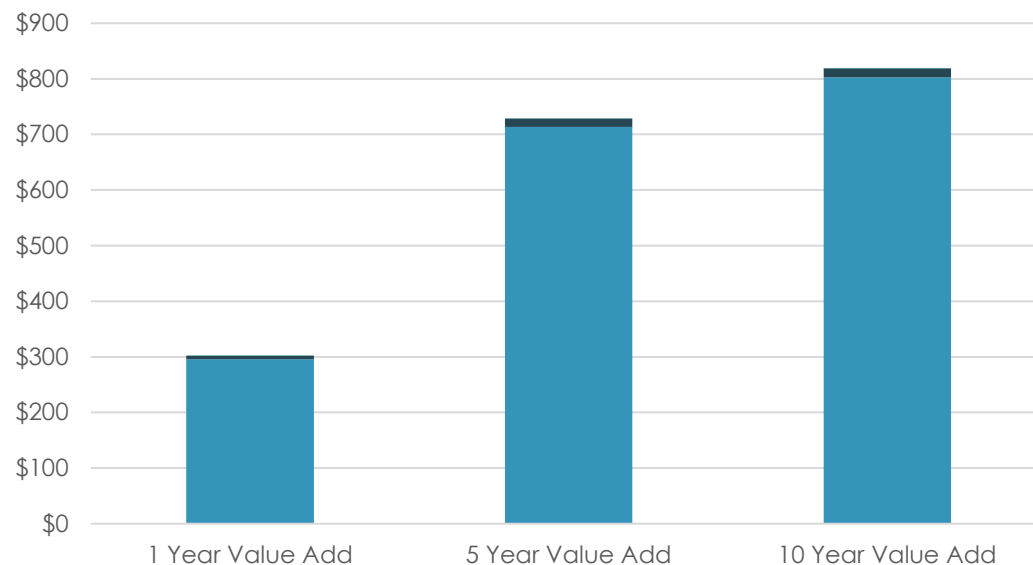


- P/E multiples rose in 2023, with the S&P 500 forward P/E ratio ending the year at 19.5x, up from 16.7x at the end of 2022 and above its 30-year average of 16.6x.
- The Top 10 stocks in the S&P 500 trade at 26.9x vs. 17.1x for the remaining stocks in the index. The weight of the Top 10 S&P stocks continues to be close to all-time highs.

International Equity Ownership Breakdown



■ Pension ■ DC Disability ■ State Fund



■ Pension ■ State Fund ■ DC Disability

Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	14.91%	15.62%	7.29%	7.18%	4.10%	3.95%
State Fund	15.53%	15.62%	7.10%	7.08%	3.86%	3.83%
DC Disability	15.79%	15.62%	7.34%	7.08%	NA	NA

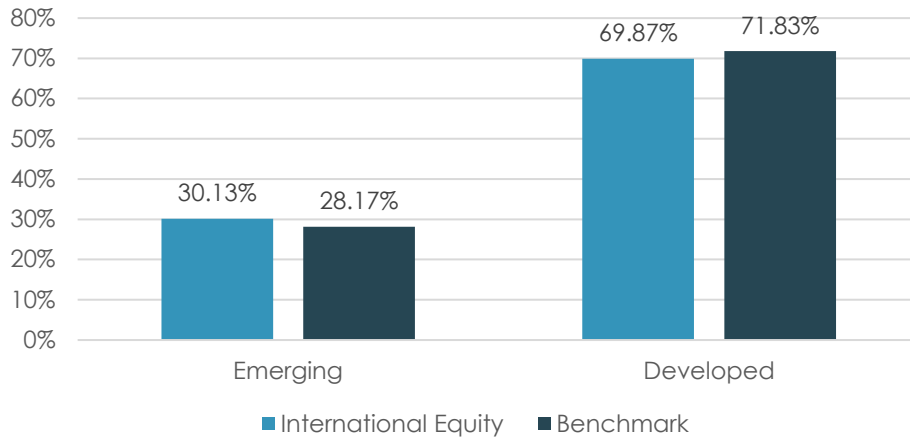
- As with US stocks, a strong 4Q23 rally led to a positive year for International Equities, although returns for International stocks lagged those in the US. A slightly weaker US Dollar provided a boost to foreign stock returns when measured in Dollars. Developed Markets continued to outperform Emerging Markets.
- While Growth stocks dominated in the US, Value stocks outperformed Growth in international markets. International Large Caps and Small Caps had nearly identical returns for the year.

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

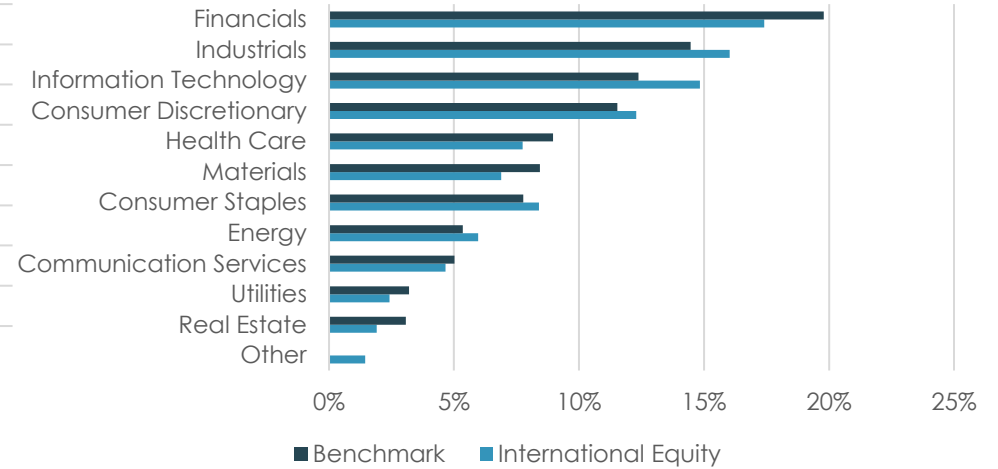
December 31, 2023

International Equity Characteristics - Pension

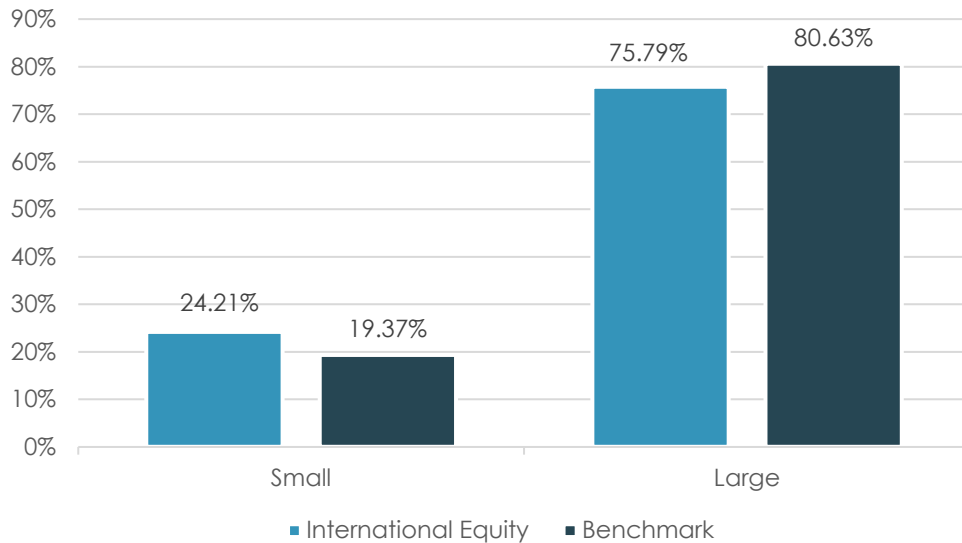
Developed vs. Emerging Markets



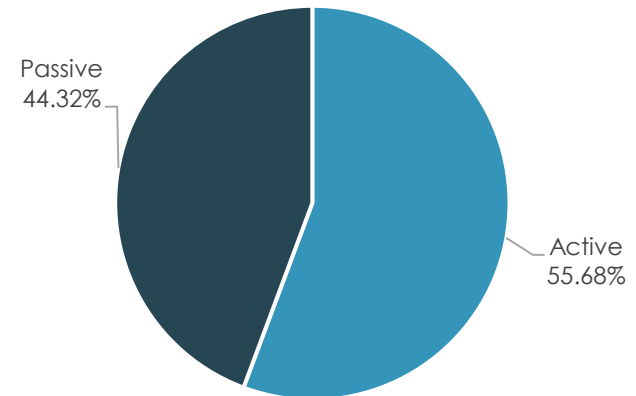
Sector



Market Cap



Active vs. Passive



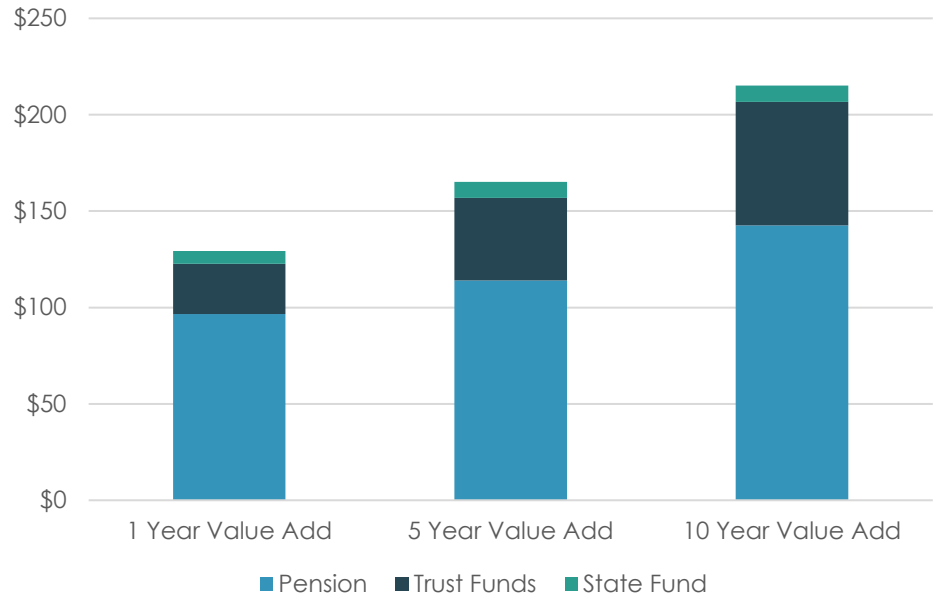
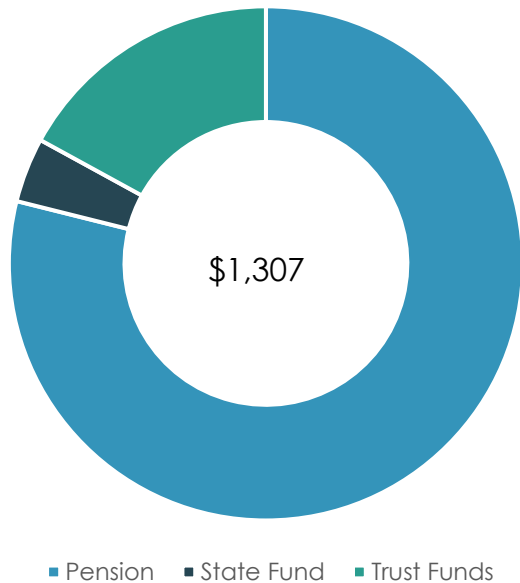
International Equity Valuation

ACWI ex. U.S. Index - Price/Earnings Ratio
(January 23, 2014 to January 23, 2024)



- The forward P/E for the MSCI ACWI ex-US Index was 12.9x at the end of 4Q23, up from 12.4x at the end of 3Q23 and 12.0x at the end of 2022. The index trades slightly lower than its 20-year average of 13.1x, but at a record -34% discount to the S&P 500.

Non-Core Fixed Income Ownership Breakdown

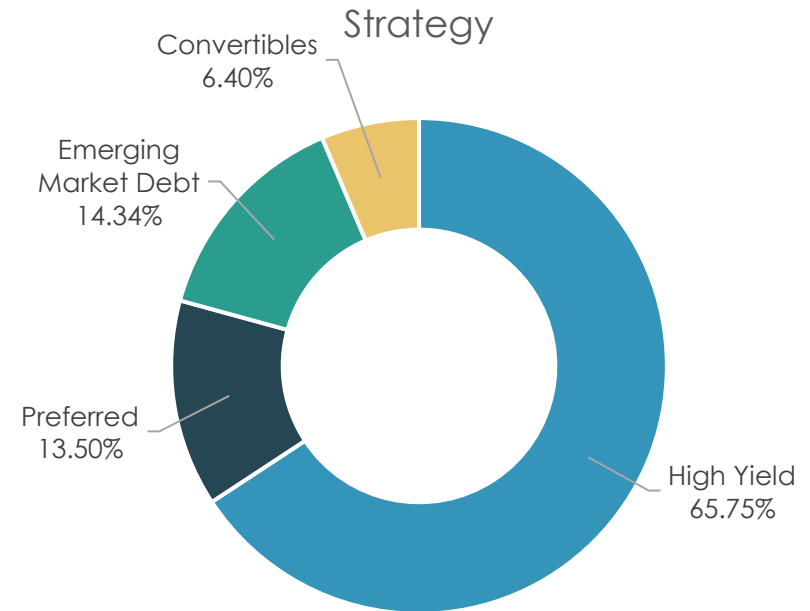
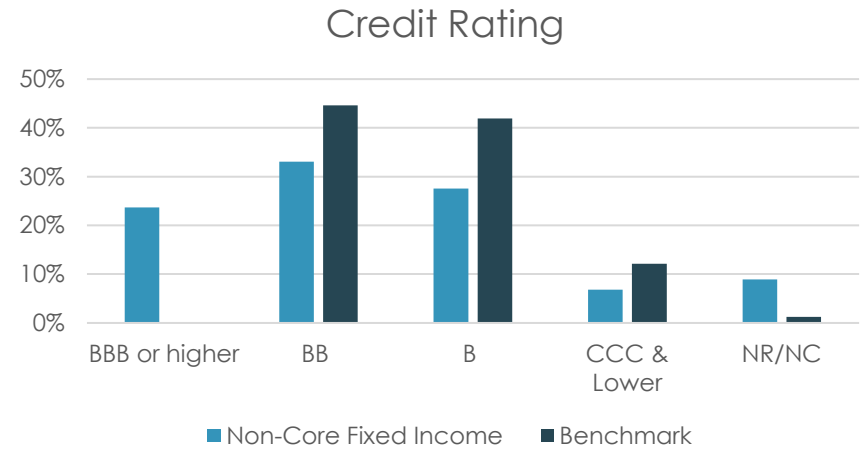
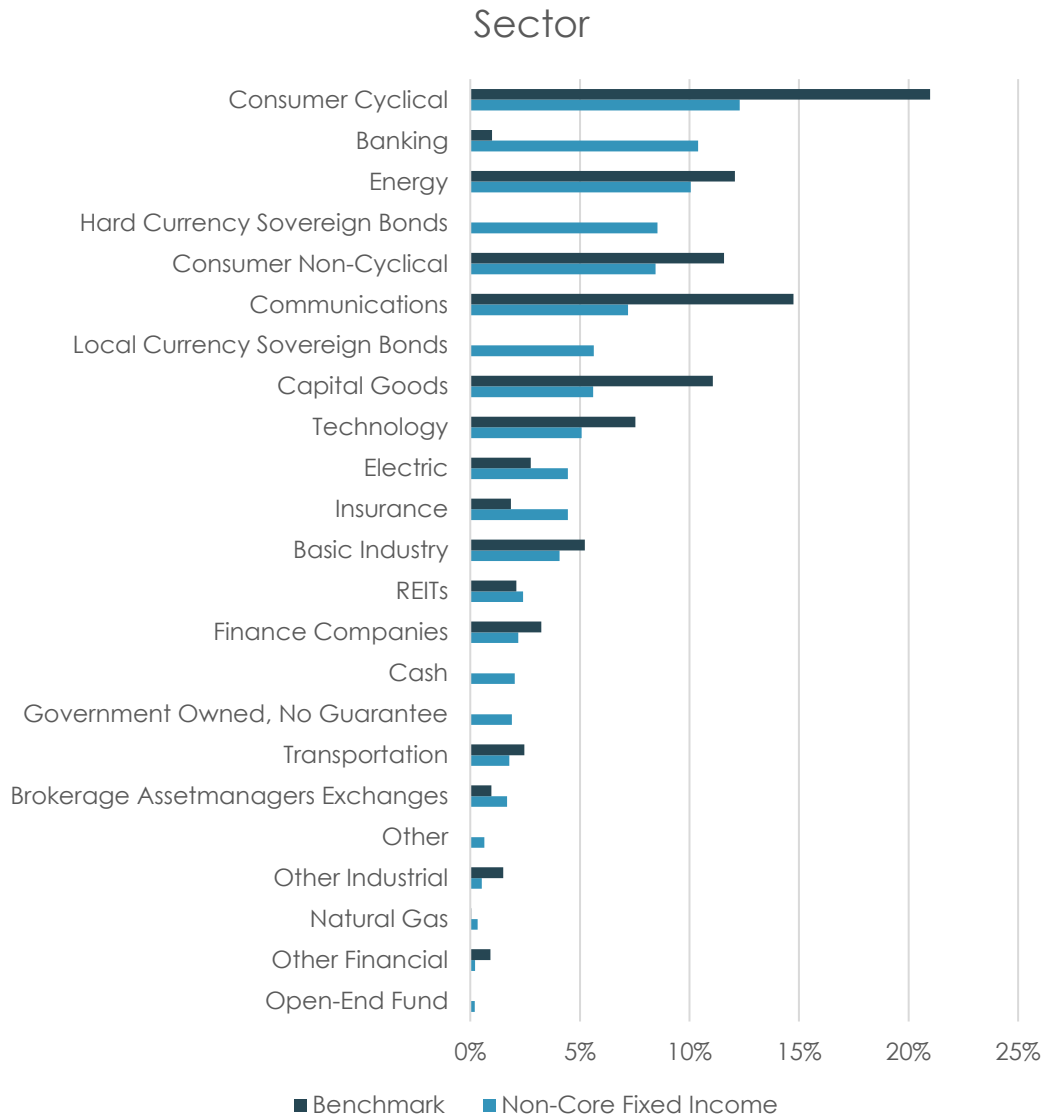


Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	11.10%	13.44%	4.29%	5.35%	3.59%	4.24%
State Fund	11.91%	13.44%	NA	NA	NA	NA
Trust Funds	12.23%	13.44%	4.15%	5.35%	4.12%	4.59%

- Non-Core Fixed Income provided strong absolute returns in 2023, with US High Yield bonds and Emerging Markets Debt the top performers in the asset class. Preferreds rebounded in the second half of 2023, but still lagged for the year due to the sell-off in the Banking sector early in the year.
- Lower-quality credits outperformed in 2023, which was a headwind for BOI's US High Yield managers. Exposure to strategies outside of US High Yield were also a drag on returns vs. the benchmark.

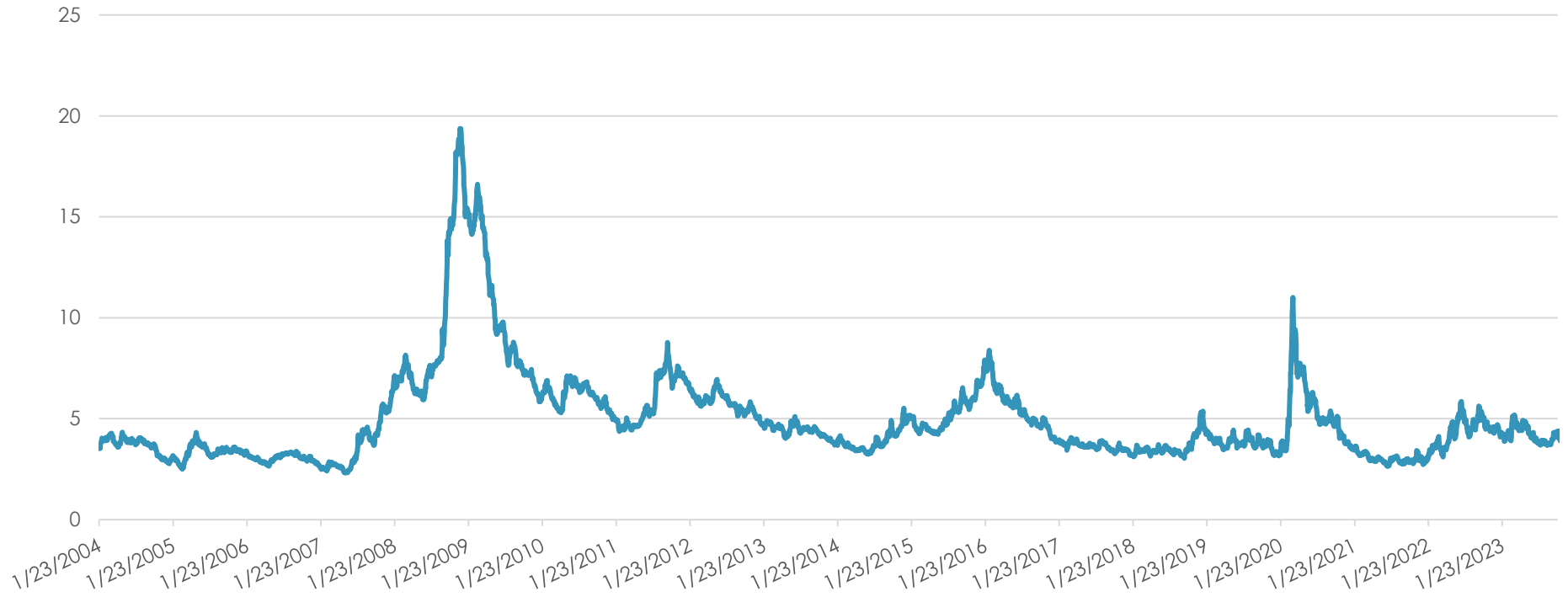
* Dollar values are in \$1,000,000
December 31, 2023

Non-Core Fixed Income Characteristics - Pension



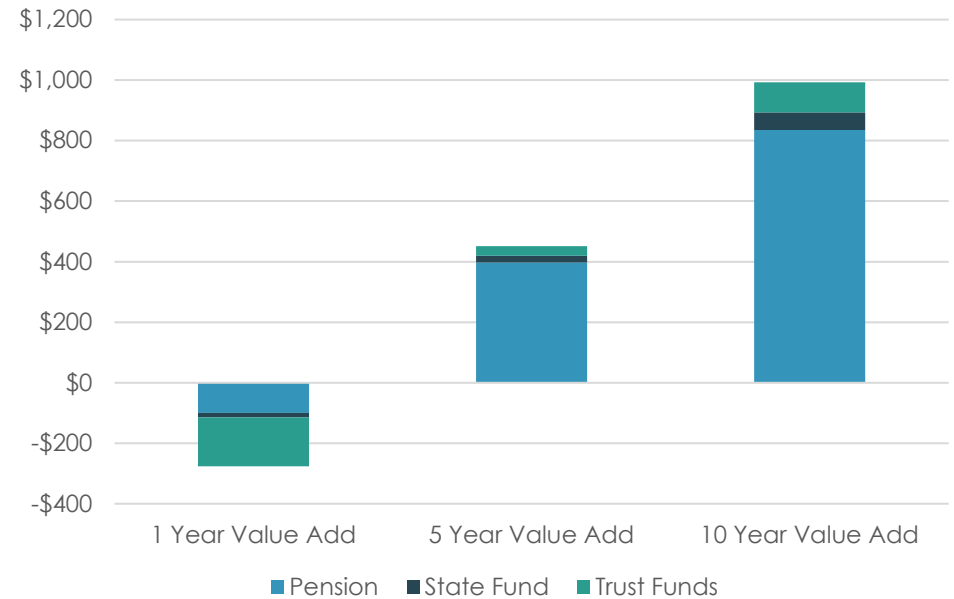
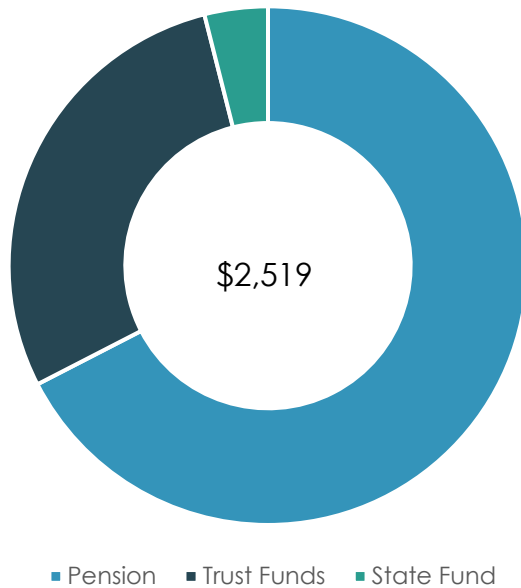
Non-Core Fixed Income Valuation

Bloomberg High Yield Index – Option Adjusted Spread
(January 23, 2004 to January 23, 2024)



- With the strong performance of US High Yield for the year, spreads continued to compress, ending the year about 200 bps tighter than their 2023 peak. High Yield spreads are now notably tighter than their long-term averages, although yields have rebounded to more normal levels after an extended period of low interest rates.

Real Estate Ownership Breakdown



Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	-5.76%	-12.88%	6.19%	3.90%	8.42%	5.41%
State Fund	-13.13%	-12.88%	4.26%	4.72%	6.42%	7.19%
Trust Funds	-7.44%	-12.88%	5.65%	4.72%	7.11%	7.19%

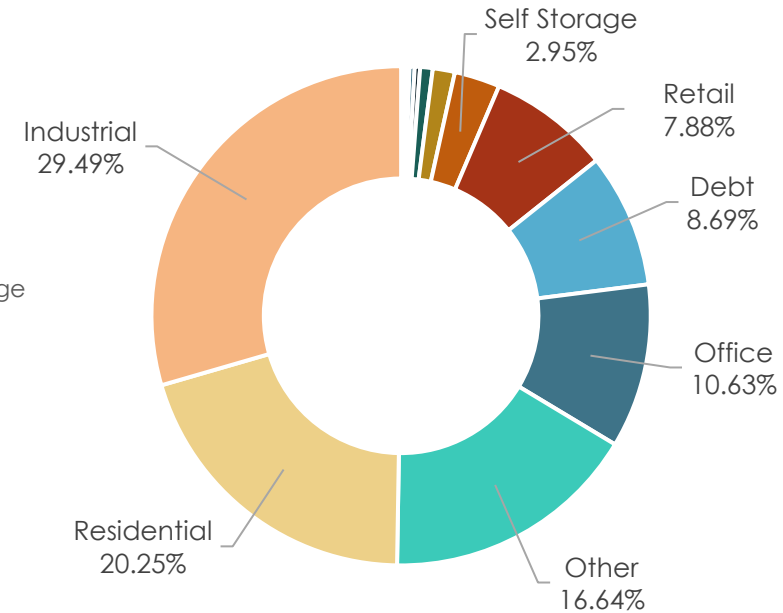
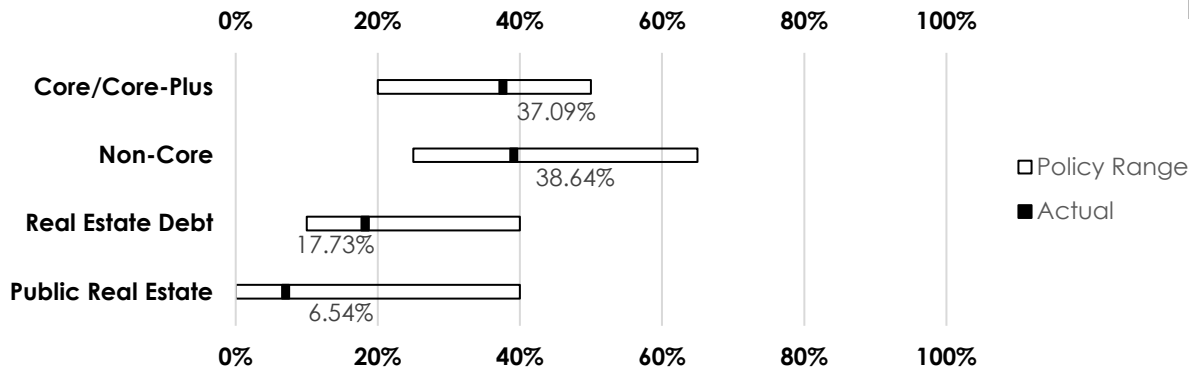
- Pricing dislocation remains, but the bottom is close at hand, transaction volumes remain depressed, but deal momentum is picking up, tight credit conditions persist.
- Fundamentals generally steady to declining, tenant demand is highly bifurcated by property type.
- Higher financing costs and capitalization rates continue to weigh on valuations.

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

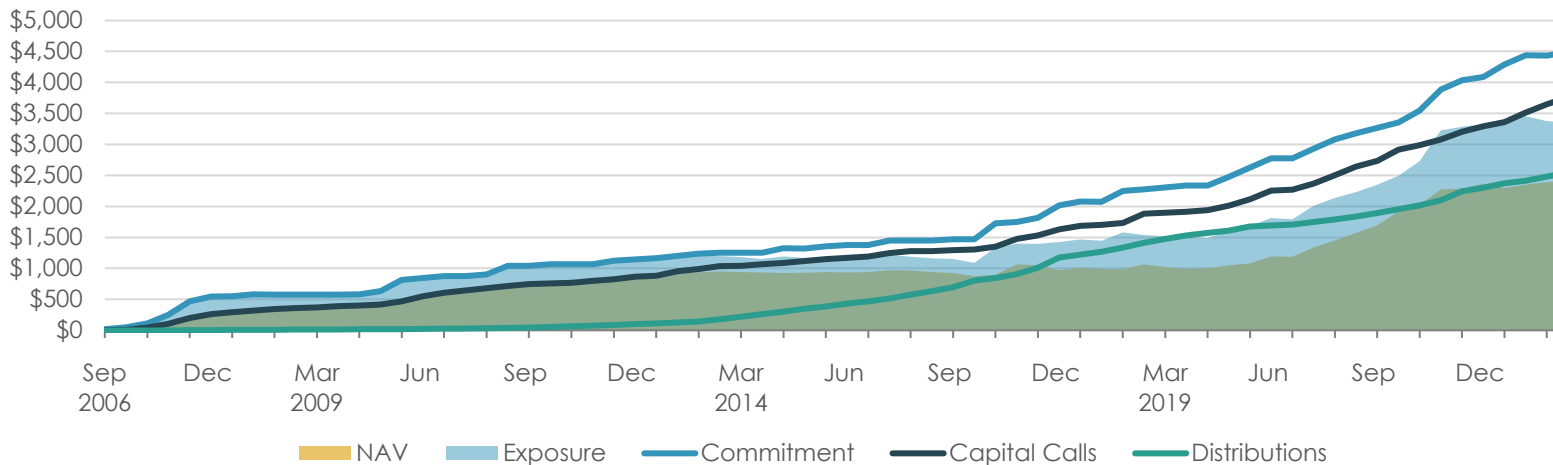
December 31, 2023

Real Estate Characteristics - Pension

Real Estate Asset Allocation



Private Real Estate Over Time 2006-2023



* Dollar values are in \$1,000,000
December 31, 2023

Real Estate Valuation

	Index	Change in Commercial Property Values		
	Value	Past Month	Past 12 Mos	Recent Peak
All Property	121.8	0.3%	-9%	-21%
Core Sector	121.1	0.5%	-9%	-24%
Apartment	136.9	1.8%	-10%	-28%
Industrial	213.6	0.0%	-1%	-16%
Mall	78.1	0.0%	0%	-20%
Office	73.4	0.0%	-22%	-35%
Strip Retail	108.7	0.0%	-6%	-18%
Health Care	120.5	0.0%	-11%	-20%
Lodging	105.6	0.0%	-2%	-7%
Manufactured Home Park	274.9	0.0%	-5%	-15%
Net Lease	94.1	0.0%	-4%	-19%
Self-Storage	248.1	0.0%	-11%	-21%

¹Green Street Commercial Property Price Index® - February 6, 2024

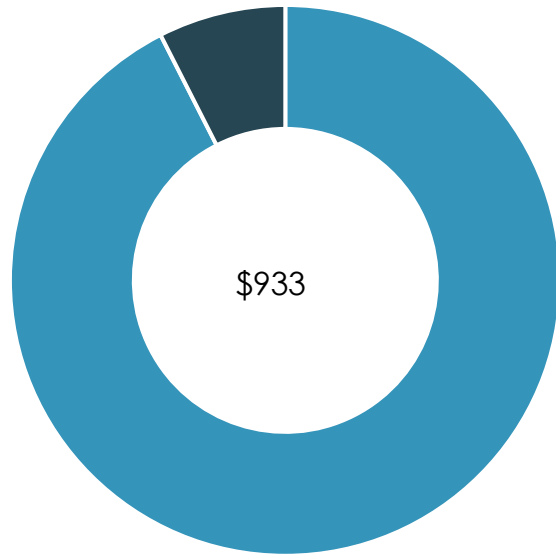
- Recent prices may be indicating the bottom is here.

Real Estate

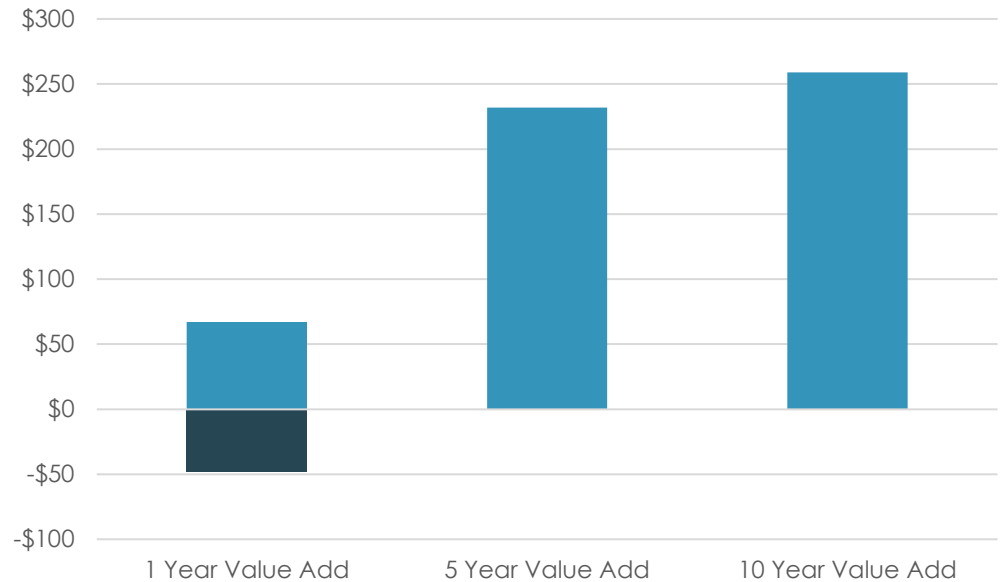
New Commitments FYTD

- Oak Street Real Estate Capital Fund VI, LP - \$50M (CAPP)

Real Assets Ownership Breakdown



■ Pension ■ Trust Funds



■ Pension ■ Trust Funds

Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	8.48%	4.49%	5.23%	3.53%	NA	NA
Trust Funds	-1.74%	4.50%	NA	NA	NA	NA
State Fund	NA	NA	NA	NA	NA	NA

- US oil production remains elevated and near all-time highs. Saudi Arabia maintains production cuts.
- US housing sales and construction improved in 4Q23.
- Southern timber prices and lumber declined in 4Q23.
- Aggregates volumes were down slightly while prices saw double digit increases on average.

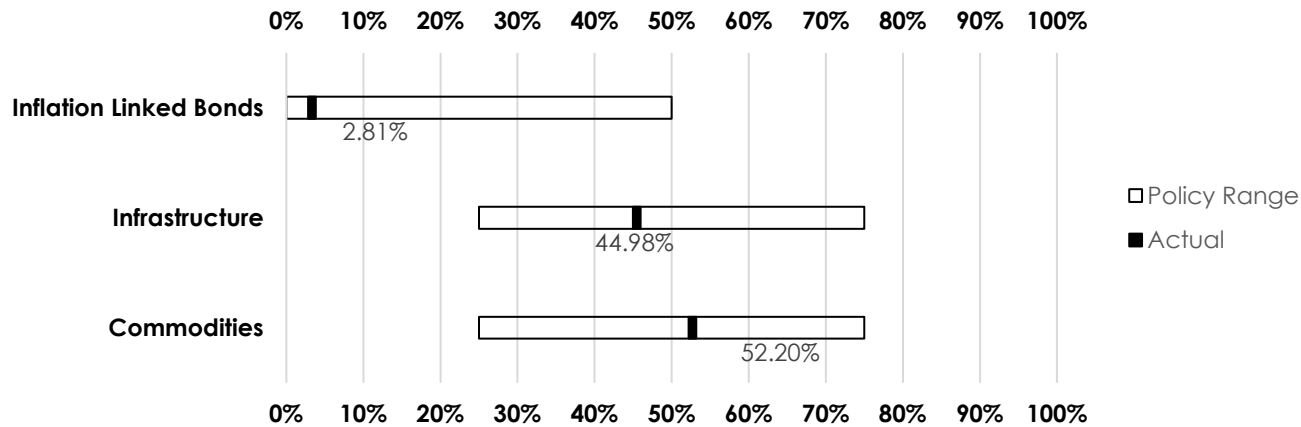
* Dollar values are in \$1,000,000

December 31, 2023

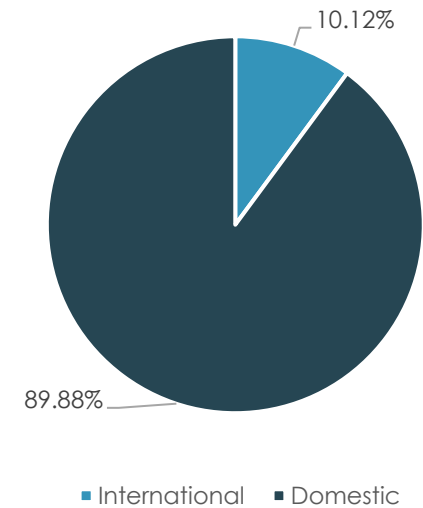
Real Assets

Characteristics - Pension

Real Assets Asset Allocation

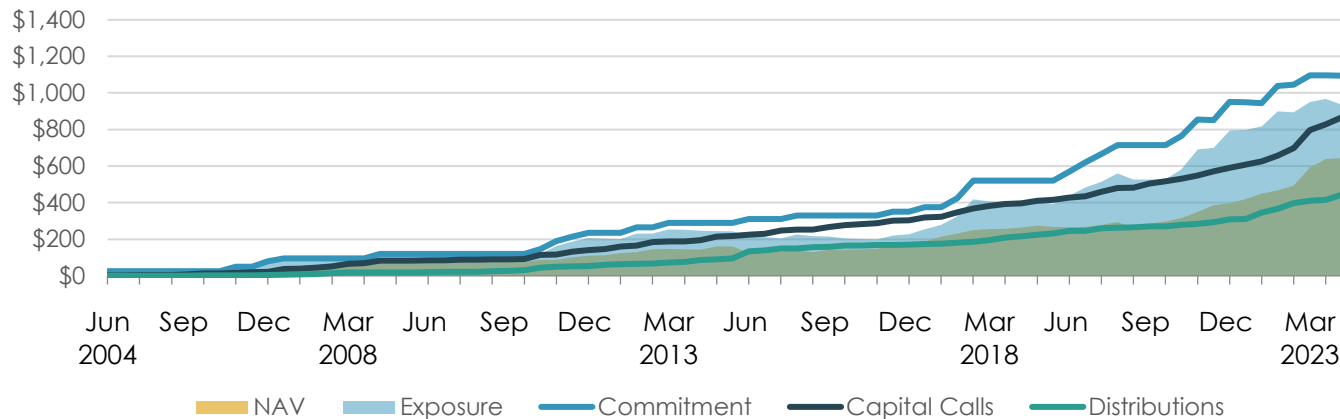


Domestic vs. International



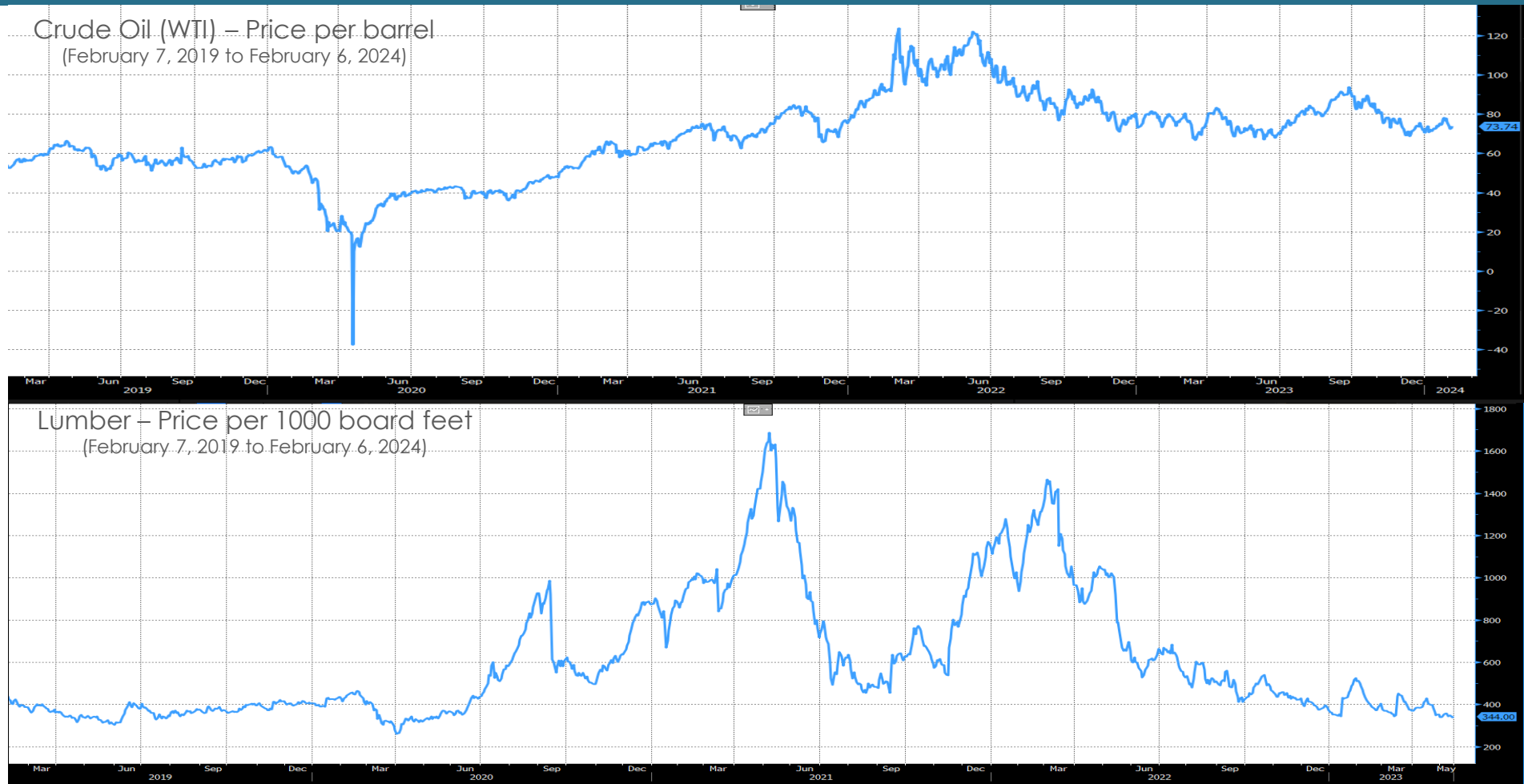
Private Real Assets Over Time

2004-2023



* Dollar values are in \$1,000,000
December 31, 2023

Real Assets Valuation



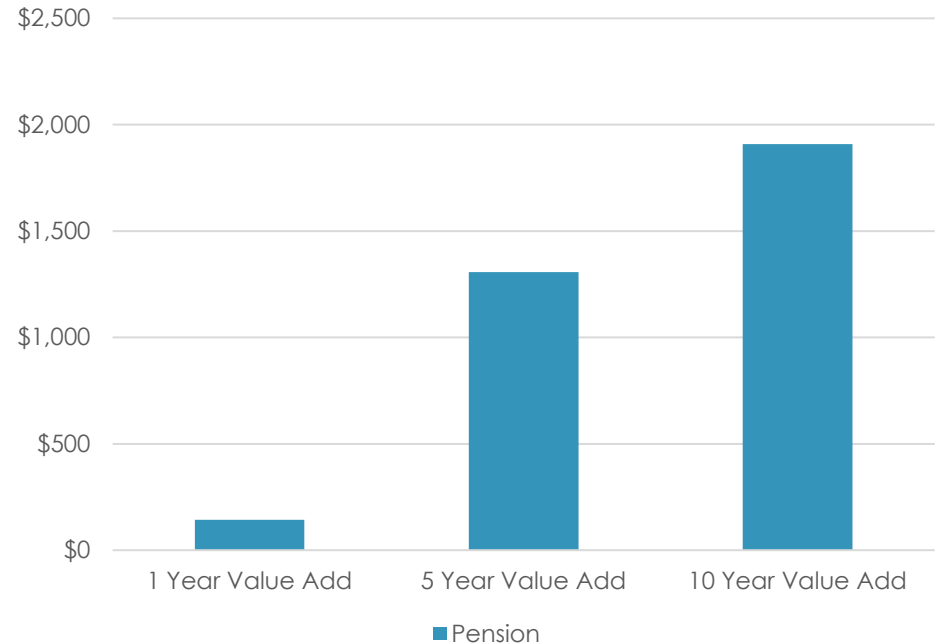
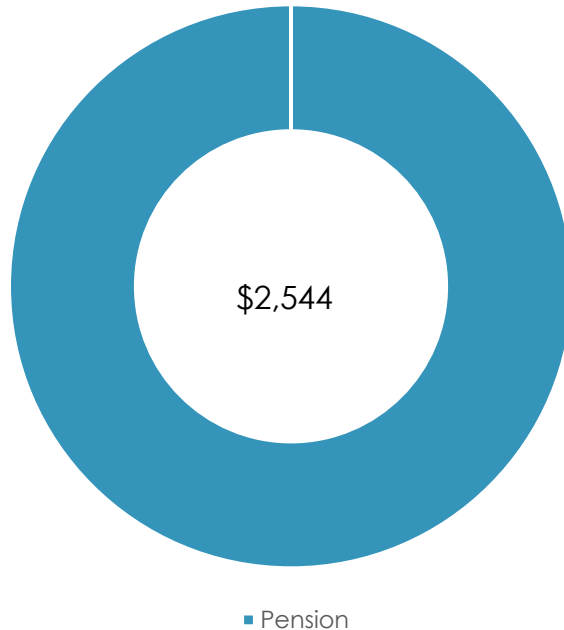
- Some relative stability in pricing against a backdrop of continued tensions in the Middle East, reduced OPEC production and a slowing Chinese economy.
- Lumber pricing has firmly settled back to pre-pandemic levels.

Real Assets

New Commitments FYTD

- EQT Infrastructure VI, LP - \$50M (CAPP)
- EQT Active Core Infrastructure, LP - €50M (~\$55M) CAPP / €35M (~\$38M) TFIP / €15M (~\$16M) MSF

Private Investments Ownership Breakdown



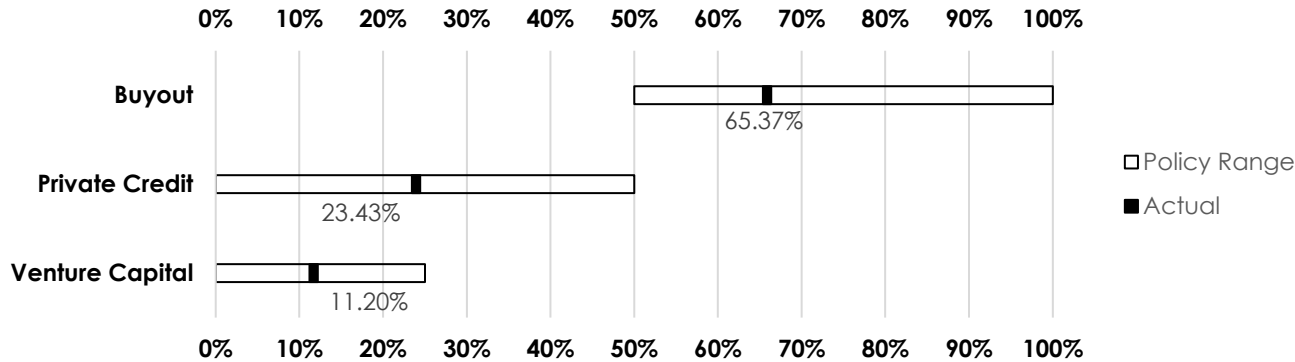
Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	6.08%	17.47%	14.50%	12.30%	12.89%	11.38%

- Long-term performance is strong relative to the benchmark and the portfolio continues to outperform.
- Recent markdowns have been modest and primarily focused on the Venture Capital funds. Relative underperformance over 1 year has been within expectations.

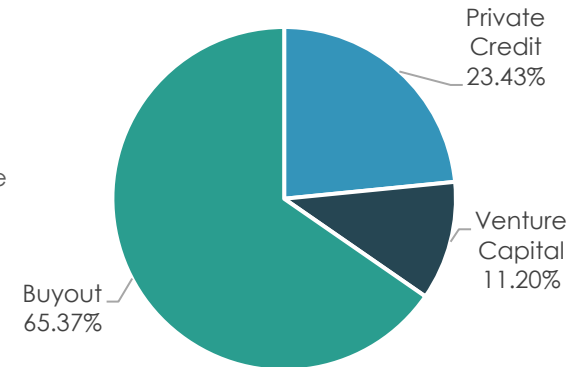
* Dollar values are in \$1,000,000
December 31, 2023

Private Investments Characteristics

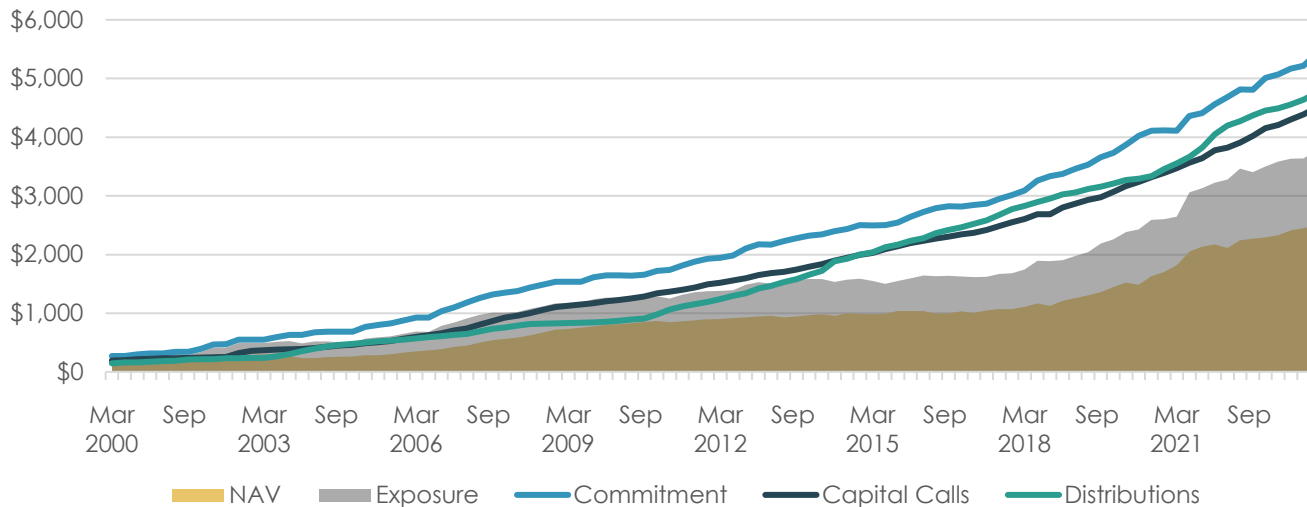
Private Investments Asset Allocation



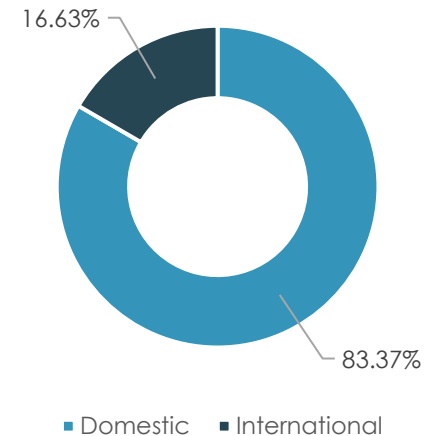
Strategy



Private Investments Over Time 2000 - 2023

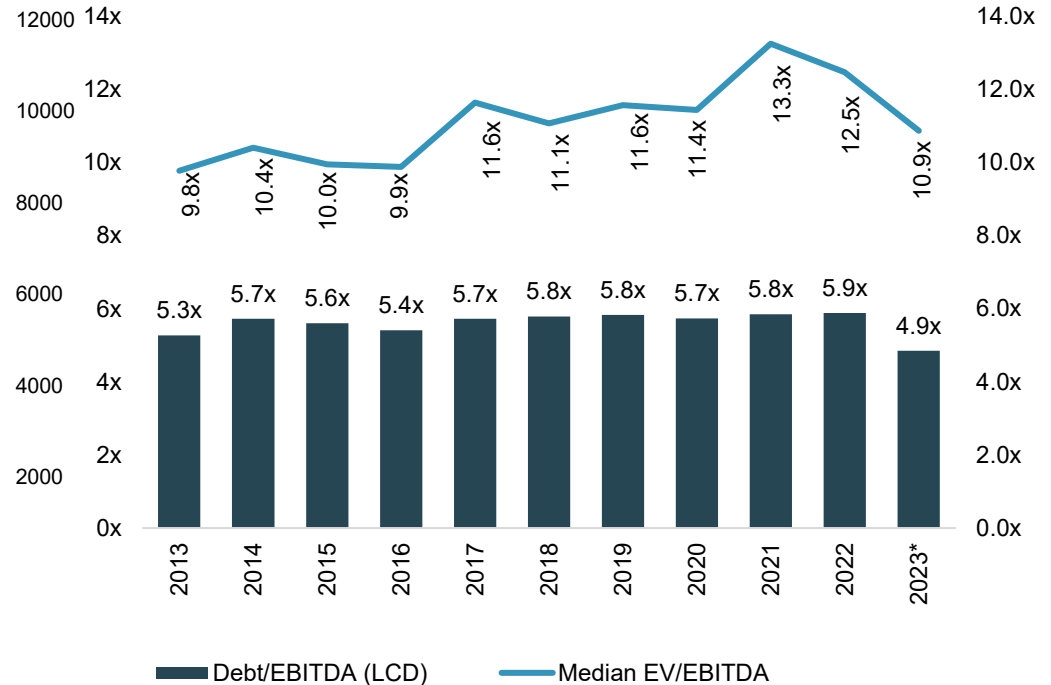
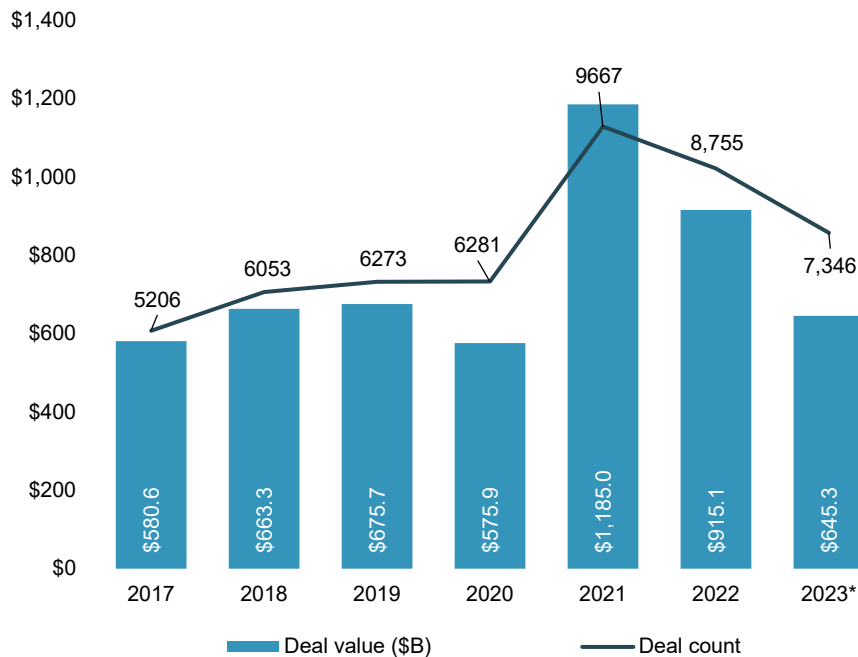


Domestic vs. International



* Dollar values are in \$1,000,000
December 31, 2023

Private Investments Valuation



- Calendar year deal activity is in line with pre-pandemic levels.
- Private Equity volumes are set to rebound in 2024 with a snapback in exit activity.
- Valuations and leverage peaked on deals announced in 2021/2022 and have been sliding ever since.
- Deal types like add-ons, that are less dependent on access to new debt, have taken a larger share of the current Private Equity deal market.

Source: PitchBook. *as of 12/31/2023

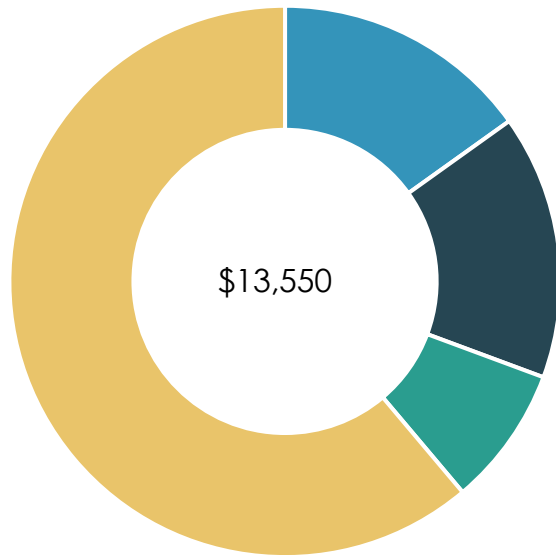
December 31, 2023

Private Investments

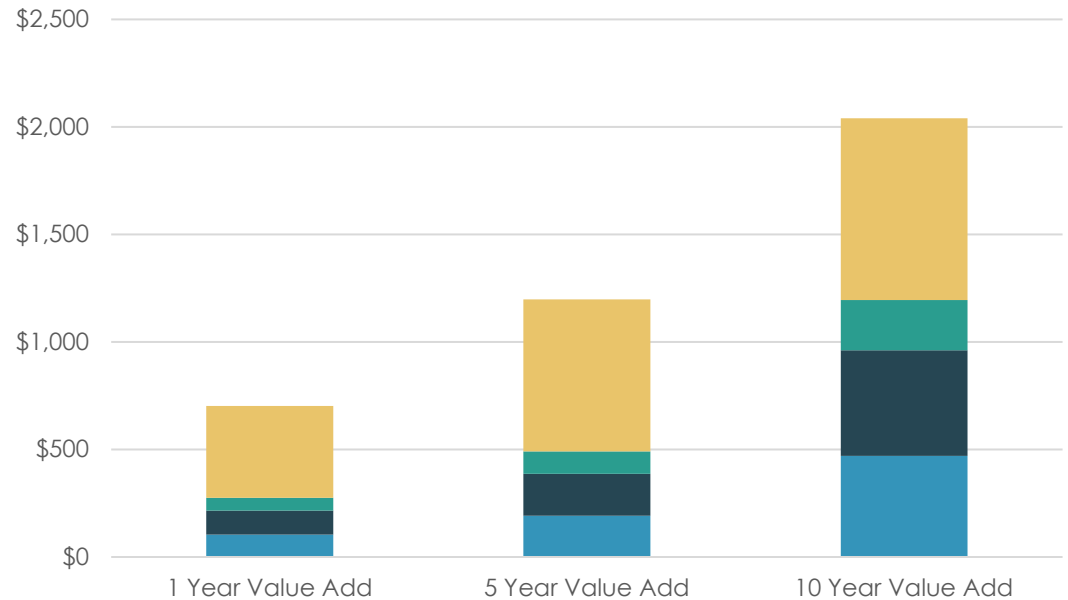
New Commitments FYTD

- NB Strategic Co-Investment Partners Fund V, LP - \$75M
- Kester Capital Fund III, LP - £40M (~\$50M)
- McCarthy Capital Fund VIII, LP - \$70M
- **Apiary Capital Partners Fund II, LP - £40M (~\$50M)**
- **Blue Sage Capital Fund IV, LP - \$60M**

Core Fixed Income Ownership Breakdown



■ Trust Funds ■ State Fund ■ STIP



■ Pension ■ Trust Funds ■ State Fund ■ STIP

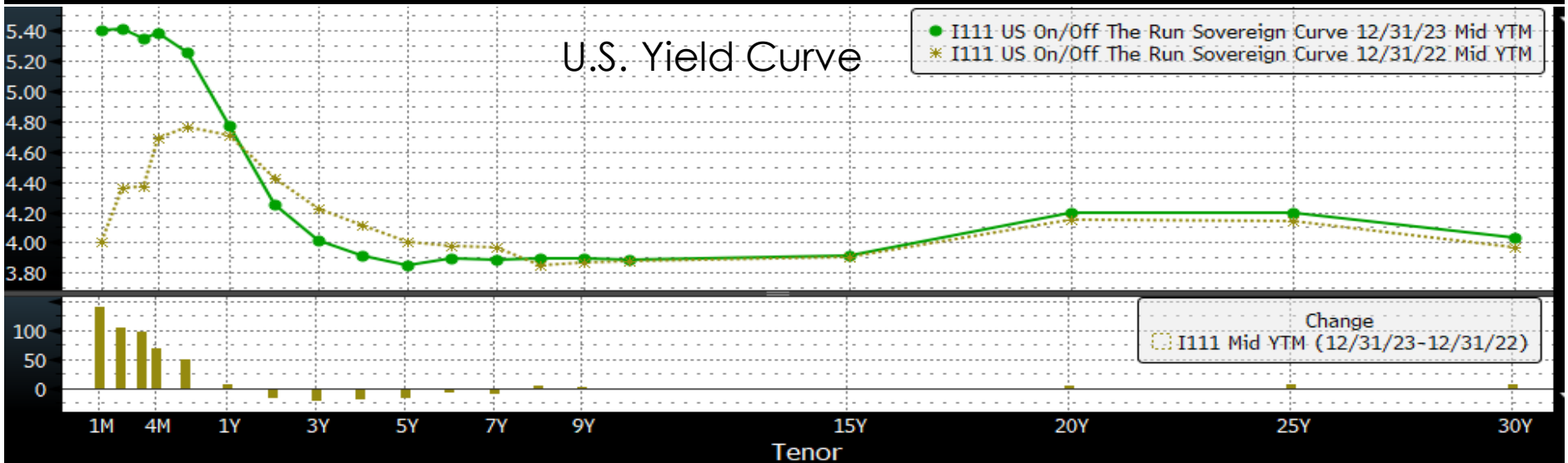
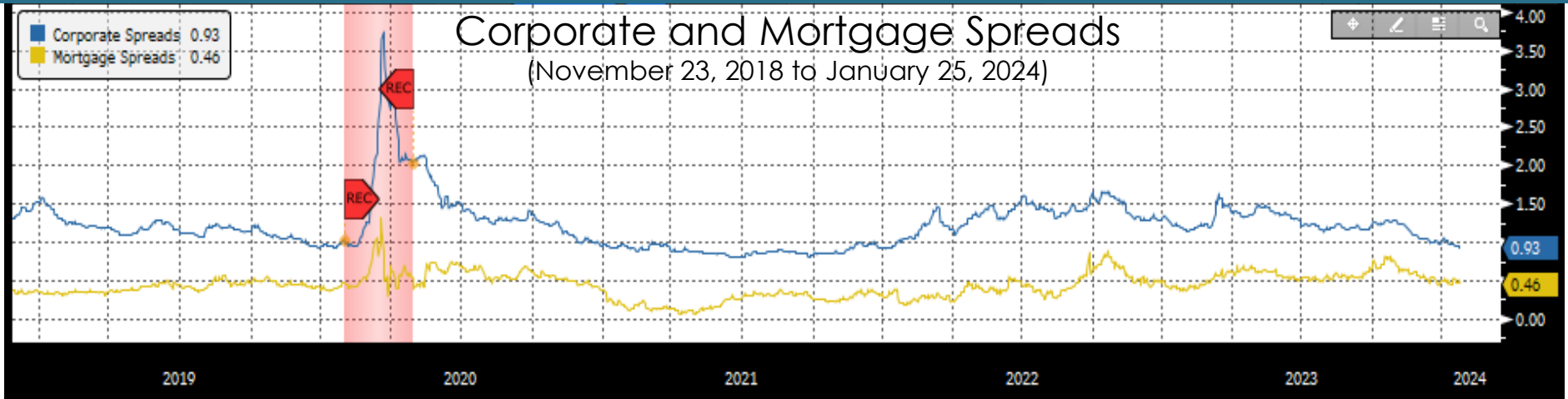
Performance	1 Year	1 Year Benchmark	5 Year	5 Year Benchmark	10 Year	10 Year Benchmark
Pension	5.43%	5.53%	1.15%	1.10%	1.94%	1.81%
Trust Funds	5.64%	5.53%	1.53%	1.10%	2.28%	1.81%
State Fund	5.66%	4.94%	1.72%	1.16%	1.97%	1.51%
STIP	5.13%	5.28%	1.97%	1.89%	1.38%	1.34%

- Interest rates finished the year mostly unchanged outside of the front end.
- The market is pricing in a decline 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, 2023

Core Fixed Income Valuation



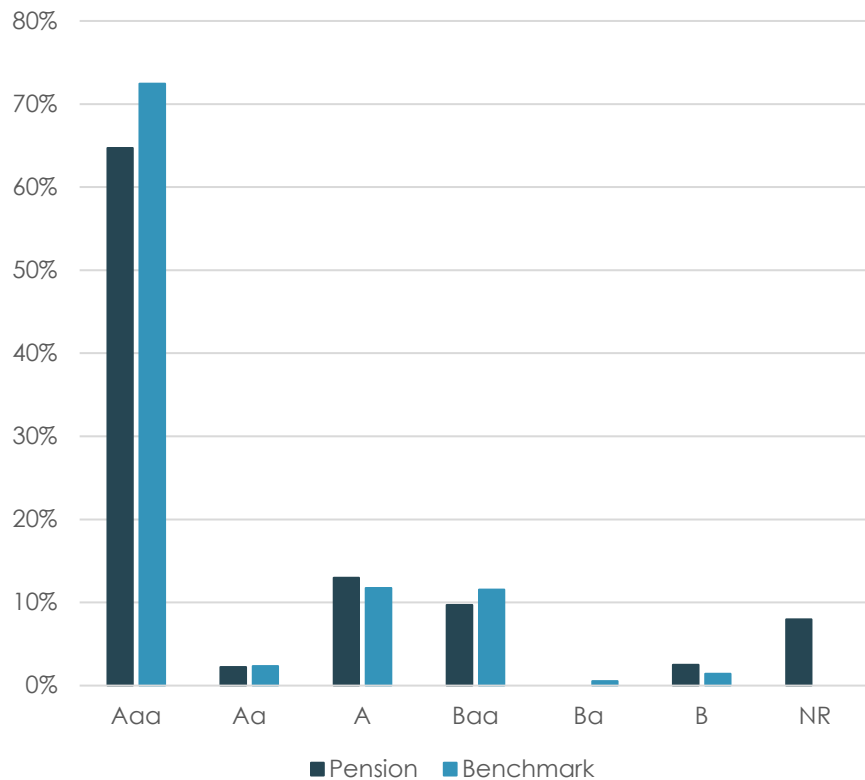
- Risk premiums have declined below historical averages.
- The front end of the yield curve remains inverted. However, yields in the middle of the curve have come down in anticipation of the Federal Reserve cutting short-term interest rates.

Core Fixed Income Characteristics - Pension

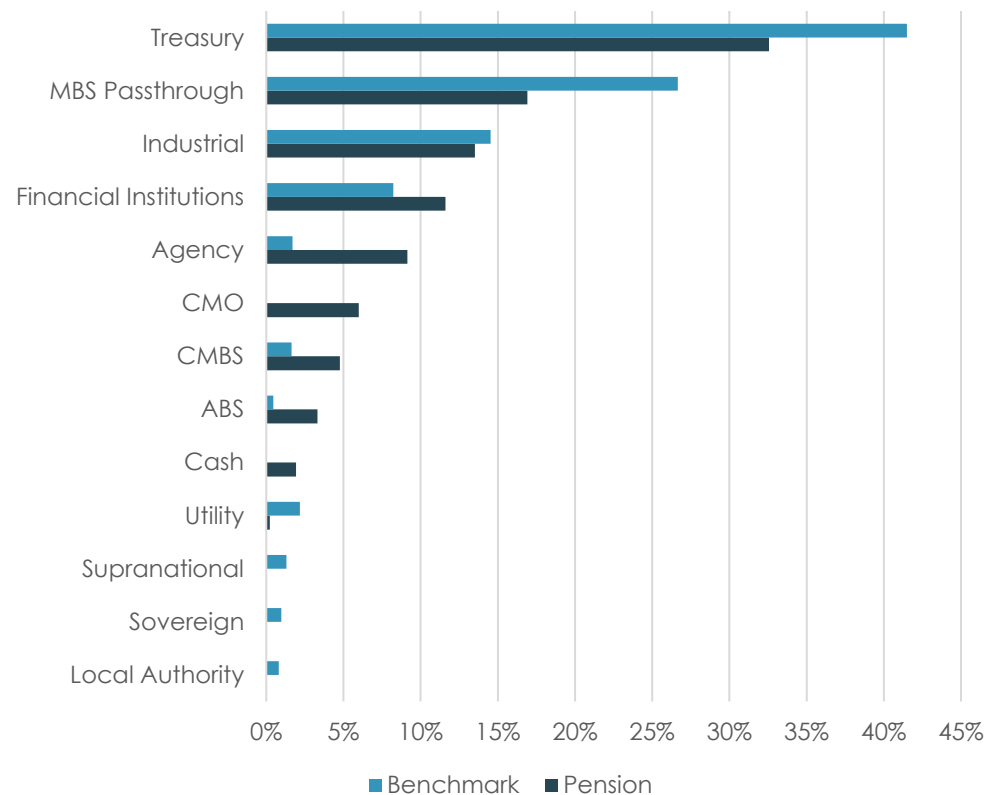
Core Fixed Income

	Portfolio	Index	Difference	% of Index
Duration (Yrs)	6.68	6.2	0.48	107.74%
Yield to Worst	4.71%	4.54%	0.17%	103.74%
CTD from Corporate	1.26	1.77	-0.51	71.19%

Credit Rating



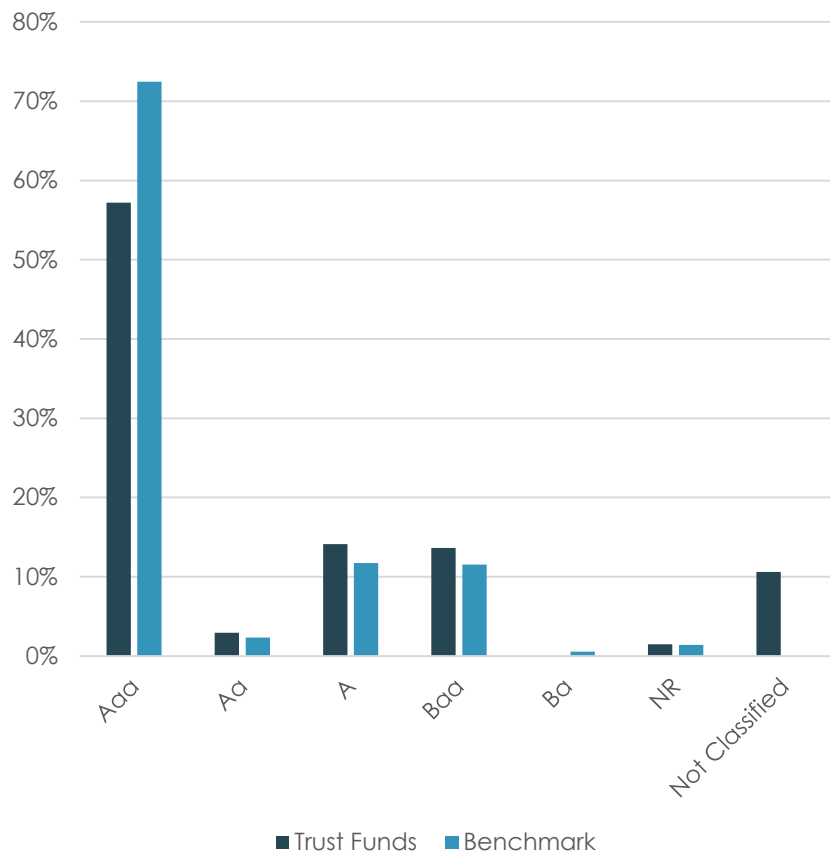
Sector



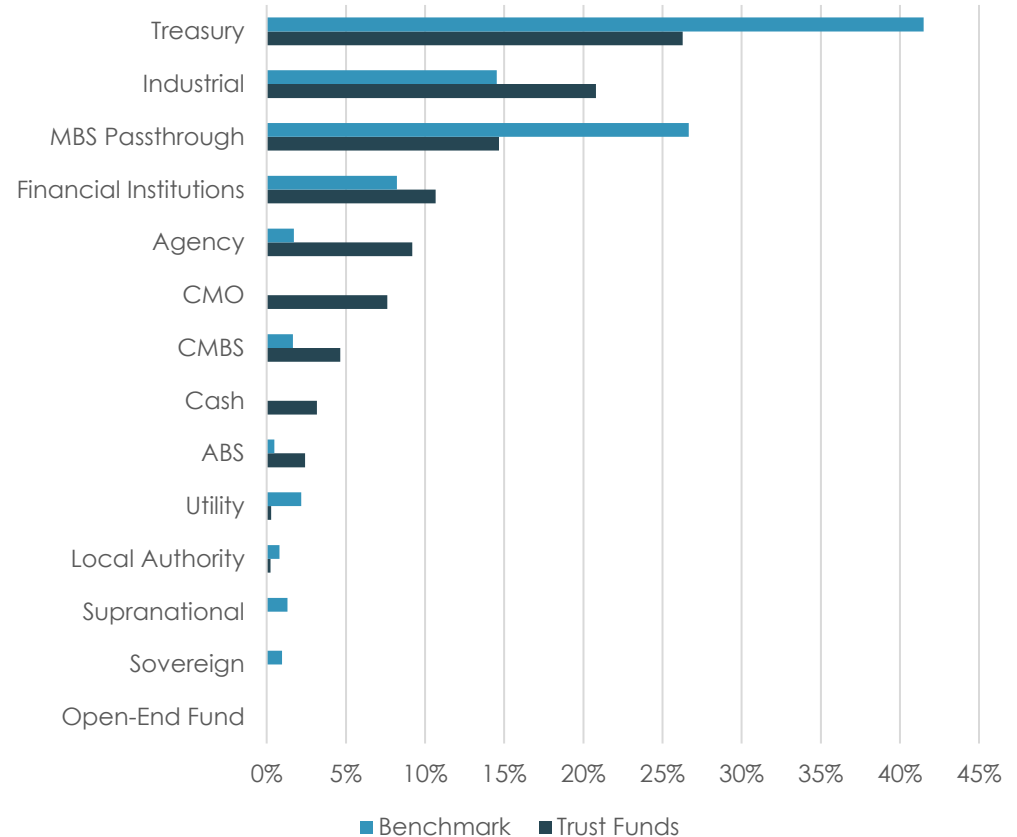
Core Fixed Income Characteristics – Trust Funds

	Trust Funds Investment Pool			
	Portfolio	Index	Difference	% of Index
Duration	6.53	6.2	0.33	105.32%
Yield to Worst	4.77%	4.54%	0.23%	105.07%
CTD from Corporate	1.6	1.77	-0.17	90.40%

Credit Rating



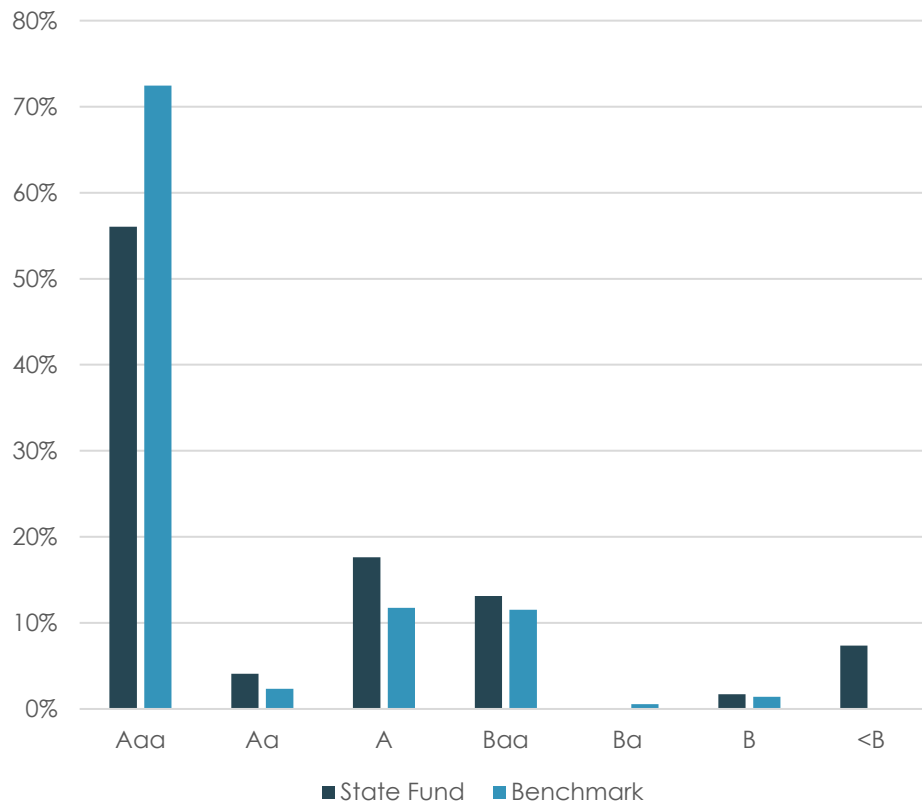
Sector



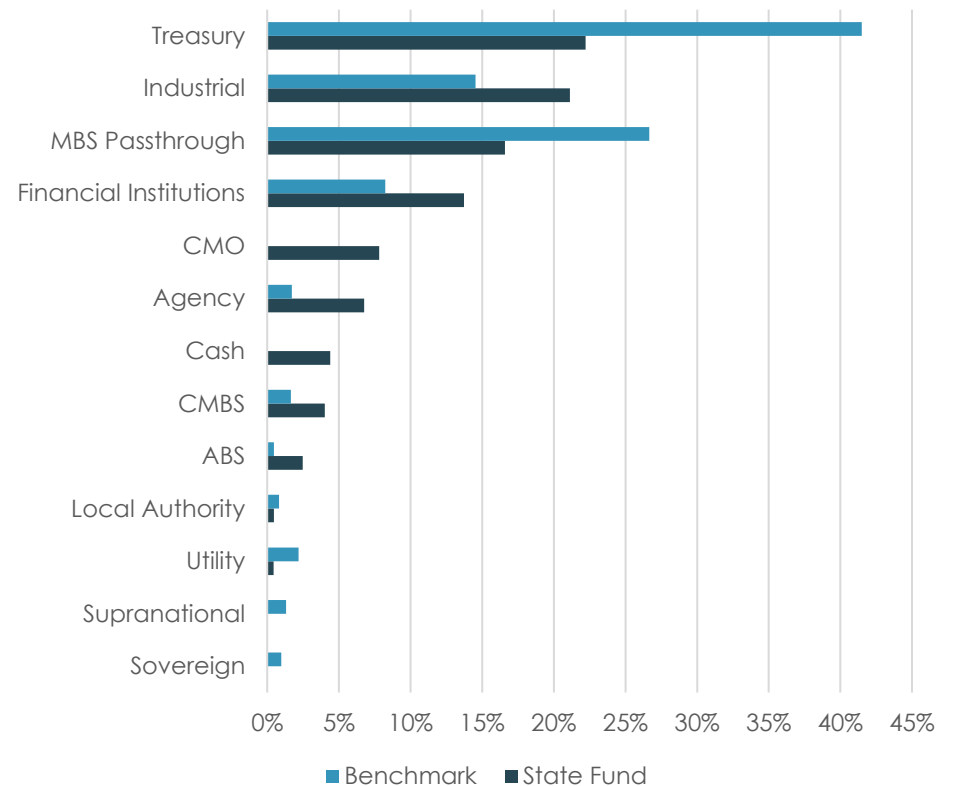
Core Fixed Income Characteristics – State Fund

State Fund Investment Pool				
	Portfolio	Index	Difference	% of Index
Duration	5.39	6.2	-0.81	86.94%
Yield to Worst	4.79%	4.54%	0.25%	105.51%
CTD from Corporate	1.43	1.77	-0.34	80.79%

Credit Rating



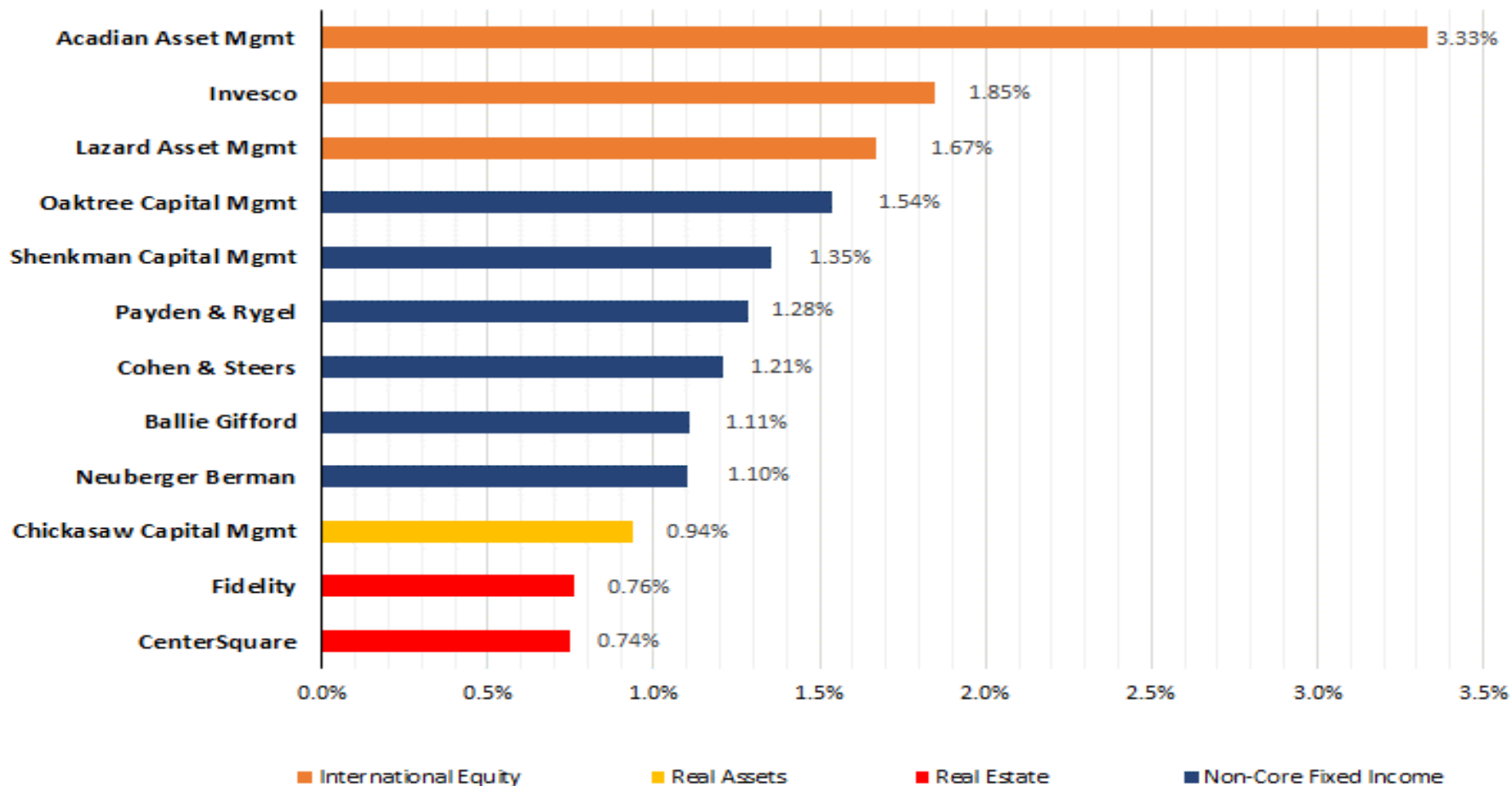
Sector



APPENDIX

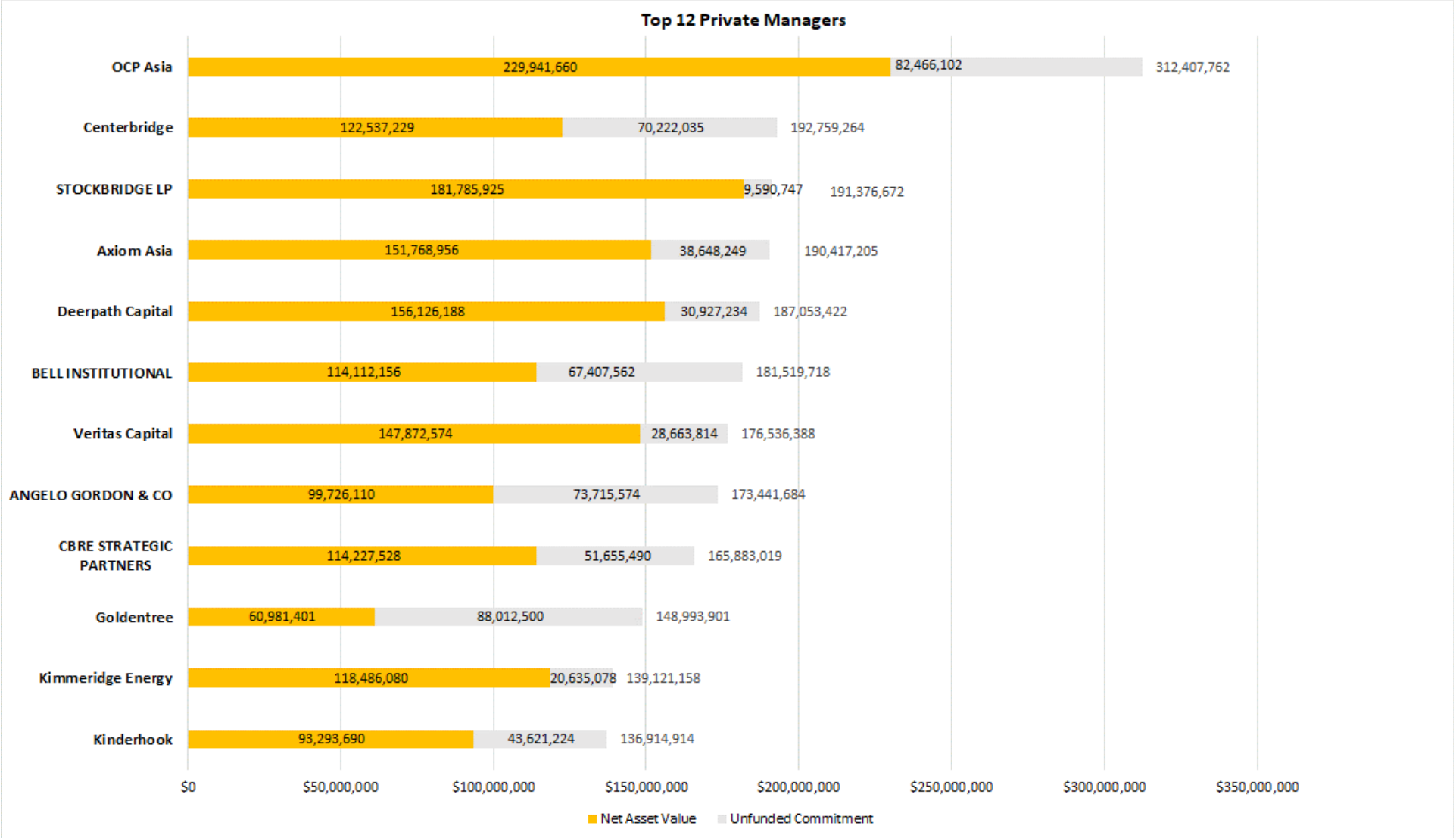
Risk Management Pension Holdings

Top 12 Active Managers



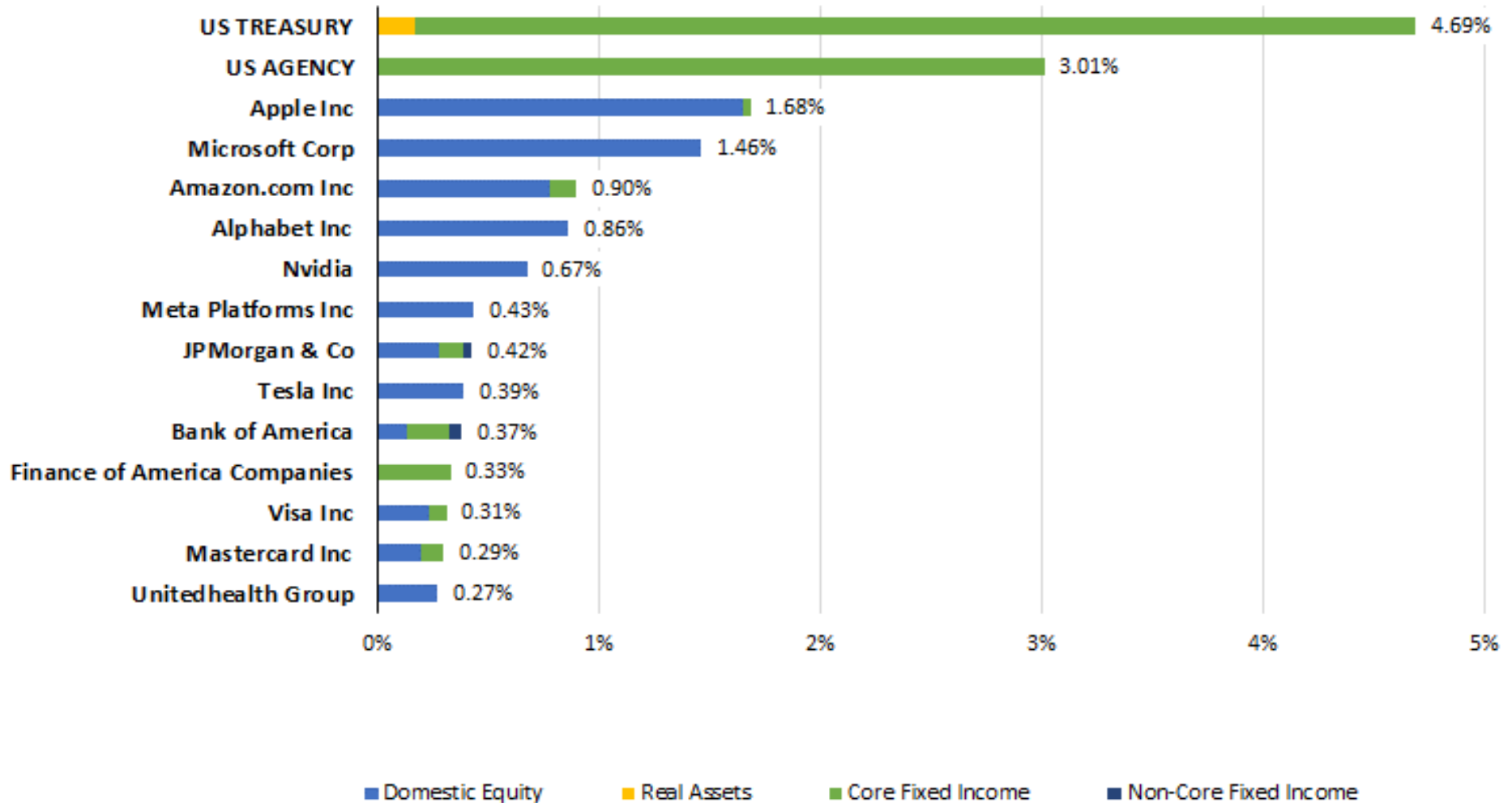
*Montana Public Retirement Plans shall have no greater than 5% of its Net Asset Value managed by any one external manager using an active investment strategy

Risk Management Pension Holdings



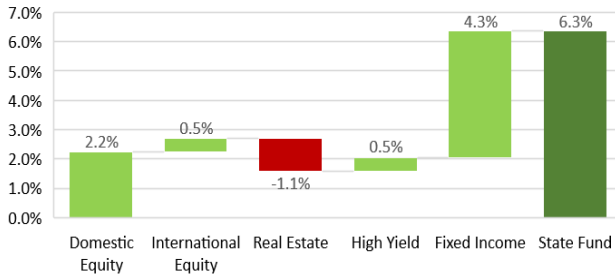
Risk Management Pension Holdings

Top 15 Issuers

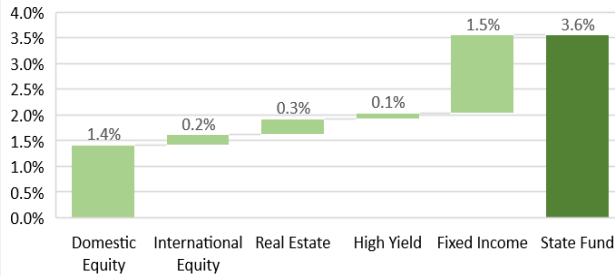


State Fund Performance

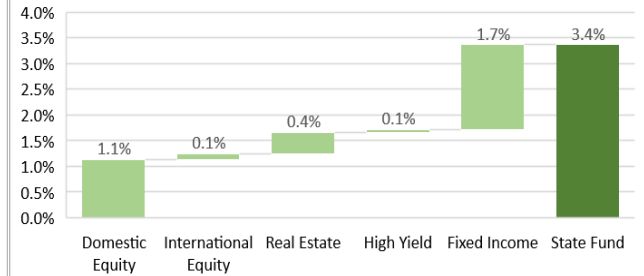
**1 Year
Contribution to Total Return**



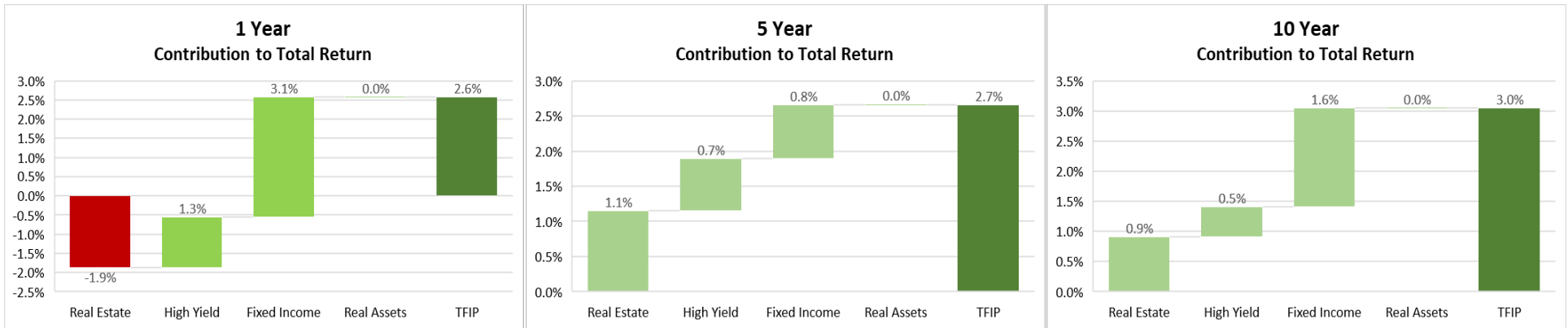
**5 Year
Contribution to Total Return**



**10 Year
Contribution to Total Return**



Trust Funds Investment Pool Performance



2024 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	29		

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 (dates TBD)

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 28-29

Education:

Core Fixed Income Asset Class Review
Budget Proposal for FY24-25

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:

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

Committee Meetings:

Audit: Annual Report and Financial Statements

February

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

Education:

International Equities Asset Class Review
RVK Annual Capital Market Assumptions

Reports:

Benchmarks Used by the Board

May

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

Education:

Trust Funds Investment Review
Non-Core Fixed Income Asset Class Review

Reports:

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

October

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

November

Education:

MPERA and TRS Relationship
Adoption - Asset Allocation Range Approval

Reports:

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

Committee Meetings:

Audit: Annual Report and Financial Statements

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 1/100th 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 temporally 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