

**REGULAR MEETING OF THE
MONTANA BOARD OF INVESTMENTS
DEPARTMENT OF COMMERCE
2401 Colonial Drive, 3rd Floor, Helena, Montana
June 8-9, 2020**

AGENDA

COMMITTEE MEETINGS

- A. Audit Committee – Maggie Peterson, Chair** **8:30 AM**
1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
 2. Approval of February 11, 2020 and April 14, 2020 Committee Minutes
 3. Comments from Chair and Reference to Checklist
 4. Audit Committee Charter Revisions – **Decision**
 5. Governance Policy Revisions – **Decision**
 6. Appendix I – **Decision**
 7. Appendix L – **Decision**
 8. FY20 Financial Statements – Update and Comments
- B. Human Resource Committee – Terry Cohea, Chair** **9:45 AM**
1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
 2. Executive Director General Comments
 3. Staffing Level Review
 4. Exempt Staff Pay Review and Recommendations – **Decision**
- C. Loan Committee – Jack Prothero, Chair** **11:00 AM**
1. Public Comment – *Public Comment on issues with Committee Jurisdiction*
 2. Approval of April 14, 2020 Committee Minutes
 3. INTERCAP Loans – **Decisions**
 4. In-State Loan Program – **Decision**

LUNCH SERVED **12:00 PM**

- Tab 1 CALL TO ORDER – Karl Englund, Chairman** **1:00 PM**
- A. Roll Call
 - B. Notice of Video Recording
 - C. Public Comment – *Public Comment on issues with Board Jurisdiction*
 - D. Approval of the April 14, April 17, and April 23, 2020 Meeting Minutes
 - E. Administrative Business
 1. Audit Committee Report – **Decisions**
 2. Human Resource Committee Report – **Decision**
 3. 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** **1:15 PM**
- A. Member Requests or Follow up from Prior Meeting
 - B. Monthly Snapshots
 - C. FY20 Budget Status/Expenditure Review
 - D. 2023 Biennial Budget Proposal – **Decision**
 - E. COVID-19 Update
 - F. Media Update
- Tab 3 MONTANA LOAN PROGRAM REPORT – Doug Hill, Dir. of In-State Loan Programs** **1:30 PM**
- Tab 4 BOND PROGRAM REPORT – Savannah Morgan, Bond Program Officer** **1:45 PM**
- A. Activity Report
 - B. Staff Approved Loans Report

Tab 5 MONTANA PROPERTIES (Board as a Landlord/Tenant Holdings) – Decisions Peggy MacEwen and Louise Welsh	2:00 PM
BREAK	3:00 PM
Tab 6 BENCHMARKS USED BY THE BOARD Jon Putnam, CFA, FRM, CAIA and Dan Zarling, CFA	3:15 PM
Tab 7 CAPITAL MARKET/ASSET ALLOCATION – RVK, Inc.	4:00 PM
ADJOURNMENT	5:00 PM

AGENDA – DAY 2

RECONVENE AND CALL TO ORDER – Karl Englund, Chairman	8:30 AM
A. Roll Call	
B. Notice of Video Recording	
C. Public Comment – <i>Public Comment on issues with Board Jurisdiction</i>	
Tab 8 INVESTMENT CONSULTANT QUARTERLY REVIEW – RVK, Inc.	8:35 AM
A. Executive Summary	
B. Capital Markets Review	
C. Quarterly Review	
Tab 9 DOMESTIC EQUITY ASSET CLASS REVIEW - Jon Putnam, CFA, CAIA, FRM and Rande Muffick, CFA	9:35 AM
BREAK	10:30 AM
Tab 10 POLICY STATEMENT REVIEW – Decisions Jon Putnam, CFA, FRM, CAIA	10:45 AM
Tab 11 BOARD MEMBER EDUCATION – RVK, Inc.	11:15 AM
LUNCH SERVED	12:00 PM
Tab 12 INVESTMENT UPDATE	1:30 PM
A. CIO Update – Jon Putnam, CFA, CAIA, FRM	
B. Risk Management – Dan Zarling, CFA	
C. Cash Management – Mike Pettit	
D. Private Equity – Michael Nguyen	
E. Real Estate – Ethan Hurley, CAIA	
F. Natural Resources – Ethan Hurley, CAIA	
G. Core Fixed Income – John Romasko, CFA	
H. Non-Core Fixed Income – Rande Muffick, CFA	
I. Domestic Equity – Rande Muffick, CFA	
J. International Equity – Rande Muffick, CFA	
K. STIP – Kirsten Haswell	
L. State Fund – Jon Putnam, CFA, CAIA, FRM	
M. Trust Fund Investment Pool – John Romasko, CFA	
RECAP OF STAFF TO DO LIST AND ADJOURNMENT – Karl Englund, Chairman	2:30 PM
Appendix	
A. Annual Board Meeting Schedule	
B. Systematic Work and Education Plan	
C. Acronym Index	
D. Terminology List	
E. Staff Org Chart	

**MONTANA BOARD OF INVESTMENTS
2401 Colonial Drive, 3rd Floor
Helena, Montana**

**Minutes of the Board Meeting Conference Call
2401 Colonial Drive, 3rd Floor
April 14, 2020
11:00 AM**

PRESENT *all via conference call:*

- Karl Englund, Board Chair
- Mark Noennig, Board Vice Chair
- Jack Prothero, Board Member
- Terry Cohea, Board Member
- Bruce Nelson, Board Member
- Jim Edwards, Board Member
- Diane Fladmo, Board Member
- Maggie Peterson, Board Member
- Jeff Greenfield, Board Member
- Representative Jim Hamilton
- Senator Fred Thomas
- Dan Villa, Executive Director
- Peggy MacEwen, Deputy Director
- Jon Putnam, CFA, FRM, CAIA, Chief Investment Officer
- Doug Hill, Director of In-State Loan Programs
- Julie Feldman, CPA, Financial Manager
- Polly Boutin, Associate Financial Manager
- Frank Cornwell, CPA, Associate Financial Manager
- Ethan Hurley, CAIA, Director of Real Estate/Natural Resources
- Michael Nguyen, Director of Private Investments
- Mike Pettit, Director of Operations
- Dan Zaring, CFA, CIPM, Director of Risk Management
- John Romasko, CFA, Director of Fixed Income
- Kirsten Haswell, Investment Analyst
- Steve Strong, Investment Analyst
- Louise Welsh, Senior Bond Program Officer
- Savannah Morgan, Bond Program Officer
- Dana Chapman, Office Manager/Board Secretary
- Adam Gill, Executive Director, Montana Facility Finance Authority
- Becky Gratsinger, CFA, RVK, Inc.
- Jim Voytko, RVK, Inc.
- Mark Higgins, CFA, RVK, Inc.

CALL TO ORDER

Board Chairman Karl Englund called the regular meeting of the Board of Investments (Board) to order at 11:01 a.m. As noted above a quorum of Board Members was present. Chairman Englund advised audio recording of the meeting was underway and asked for public comment on issues within Board jurisdiction. There was none.

Approval of Board Meeting Minutes

Chairman Englund called for approval of the February 11-12, 2020 Board Meeting Minutes and asked if there were any changes or revisions.

Member Maggie Peterson made a motion to approve the February 11-12, 2020 Board Meeting Minutes. Member Diane Fladmo seconded the motion. The motion carried.

Chairman Englund called for approval of the March 17, 2020 Special Board Meeting Minutes and asked if there were any changes or revisions.

Member Maggie Peterson made a motion to approve the March 17, 2020, Special Board Meeting Minutes. Member Terry Cohea seconded the motion. The motion carried.

Chairman Englund called for approval of the March 24, 2020 Special Board Meeting Minutes and asked if there were any changes or revisions.

Member Diane Fladmo made a motion to approve the Special March 17, 2020, Board Meeting Minutes. Member Maggie Peterson seconded the motion. The motion carried.

ADMINISTRATIVE BUSINESS

Audit Committee Report

The Audit Committee met prior to the Board meeting. Committee Chair Maggie Peterson reported there was one item before Committee regarding the RFP for a new custodial bank contract. The Committee approved a motion to allow staff to begin the Custodial Bank RFP process.

Committee Chair Peterson made a motion for full board approval to allow staff to move forward with the Custodial Bank RFP process. Member Jeff Greenfield seconded the motion. The motion carried.

Human Resources (HR) Committee Report

The HR Committee met prior to the Board meeting. Committee Chair Terry Cohea reported the Committee approved the hire of John Romasko as the Director of Fixed Income.

Committee Chair Cohea made a motion for full Board approval to hire Mr. Romasko as the new Director Fixed Income. Member Maggie Peterson seconded the motion. The motion carried.

Board Chairman Karl Englund thanked Mr. Romasko for his many years of service.

Loan Committee Report

The Loan Committee met prior to the Board meeting. Committee Chair Jack Prothero reported the Committee approved an INTERCAP loan for \$3,850,000 to Custer County to rebuild their recreation center.

Committee Chair Prothero stated the second loan before the Committee was an MFFA Master Loan Program refinance to Powell Memorial Hospital in Deer Lodge. The Master Loan of up to \$15.9 million will provide savings through the refinance of existing bonds. The Loan Committee approved the loan which was reviewed in detail.

Committee Chair Jack Prothero made a motion for full Board approval for the loan request to Powell Memorial Hospital. Member Terry Cohea seconded the motion. The motion carried.

Committee Chair Prothero complimented staff's ability to handle the requests coming in due to the COVID-19 outbreak.

Public Employees' Retirement System (PERS) and Teachers' Retirement System (TRS) Updates

Member Jeff Greenfield reported TRS is currently working remotely; the next TRS Board meeting is scheduled for May.

Member Maggie Peterson stated the PERS Board met on February 13th. The town of Manhattan has adopted the 457 plan; the Board recommended the hiring of RVK, Inc. as consultant; and an extension has been approved for the reporting center system plan. The Board also received another fee instruction on the stable value fund and an update on litigation. Many staff are working from home; the three vacant Board positions have been filled: Terri Hogan, an attorney at the benefits office, Aaron Pratt an active public employee and Joe Fowler an active public employee at Highway Patrol. The Board also received a risk analysis report from the actuaries which will be discussed at the next meeting in May.

Legislative Liaison Comments

Representative Jim Hamilton reported he has been working on local government projects regarding COVID-19 and a recommendation for the governor to sign is close to being finalized. The Legislative Finance Council will discuss a BARA study in a phone meeting on May 4th to discuss how state and local monies should come together. (Senator Fred Thomas arrived at the meeting later.)

EXECUTIVE DIRECTOR'S REPORT

Overall Comments

Executive Director Dan Villa noted the monthly snapshot is included in the packet. Director Villa stated staff have developed a process to track expenses regarding COVID-19 expenses. Staff will receive a \$50 stipend for individual telework expenses every four weeks that we are in telework status. This will be easier and more cost effective than tracking individual expenses. Staff have been working on a plan for returning to normal operations. BOI staff were the first ones out and will likely be the last ones back. Once the plan is developed it will be circulated to the Board. At this time, April 24th is the earliest return date, although we expect it will be the first week of May.

The next Board Meeting is scheduled for a two day meeting in late May, but there are options. We could move to a three day meeting in May to make up for this agenda and an otherwise full meeting. A three day in person meeting would add value. One option is to reschedule the May meeting for mid-June to ensure we are outside of the risk window.

After a brief discussion consensus was reached to reschedule the May meeting to two full days in June, final dates to be determined.

INVESTMENT POLICY STATEMENT REVISIONS

Montana State Fund

Mr. Jon Putnam reviewed proposed revisions to the Montana State Fund Investment Policy Statement. The Board reviewed the revisions at the February Board Meeting. State Fund adopted a resolution approving the proposed policy statements at their board meeting on March 13th.

Member Terry Cohea made a motion to approve the revised State Fund Investment Policy Statement. Member Jack Prothero seconded the motion. The motion carried.

Natural Resources/Real Estate

Mr. Ethan Hurley reviewed the proposed changes to the Natural Resources and Real Estate Investment Policy Statements. Some revisions are for administrative/grammatical changes for consistency. There are also changes on leverage at the fund level and investment restrictions to allow for more transparency.

The benchmark for Real Estate is changing to go back to the NCREIF Fund Index – Open End Diversified Core Equity (NFI-ODCE), which more accurately aligns with holdings. The Real Estate Investment Policy Statement revisions also include an allowance for separate accounts.

Member Jack Prothero asked if in the broad picture, these changes increased or decreased risk.

Mr. Hurley replied the changes more broadly diversify exposure and more clearly articulate how staff are contemplating those exposures. Risk is mitigated in both cases.

Vice Chair Mark Noennig made a motion to approve the changes to the Natural Resources and Real Estate Investment Policy Statements. Member Jeff Greenfield seconded the motion. The motion carried.

Private Investments – New Commitments

Mr. Michael Nguyen reported there were three new private equity commitments since the last meeting. Staff made a \$10 million commitment to Foundation Capital Leadership Fund II on February 27, 2020. This follows a previous commitment in April 2019 to Foundation Capital Fund IX. Foundation is a high conviction manager.

On February 12, 2020 staff made a \$50 million commitment to Odyssey Investment Partners Fund VI. Odyssey is a long term relationship of MBOI. Staff have committed to prior Funds III, IV and V and performance has been strong.

The third commitment on February 27, 2020 was to Sumeru Equity Partners Fund III, L.P. for \$50 million. Sumeru focuses on software and the team has a strong pedigree with a good track record. They came from Silver Lake, a much larger firm, and staff have gotten to know them over the past year. The fund target size is \$600 million – they focus on smaller deals.

Chairman Englund asked for a summary of the state of affairs in private investments.

Mr. Nguyen stated it has been business as usual for staff as far as commitment pacing and staff continue to be prudent. For these three investments, the managers had previously visited with staff in Helena as well as staff conducting onsite due diligence. Moving forward, staff will focus on the defense of the portfolio and the overall liquidity profile.

Natural Resources/Real Estate – New Commitments

Mr. Ethan Hurley stated there was one real estate commitment since the last meeting to Stockbridge Value Fund IV. This is the fourth investment with Stockbridge. They have a U.S. focus and invest in retail, multifamily, office and industrial. They have a stable team; Fund I was fully realized and all prior funds have had good performance. Stockbridge is a high conviction manager and staff was able to complete full due diligence. Fund IV has a European waterfall where the manager does not realize returns until after the limited partners. Investment capabilities are expected to slow somewhat due to the recent travel restrictions.

Member Bruce Nelson asked staff for their thoughts on how due diligence will work in general, now that they are not able to get out into the field.

Mr. Jon Putnam stated the future is a little unknown at this point. The assumption is staff will be able to get back to normal at some time. We would be very reluctant to hire any manager where we could not conduct complete due diligence. Staff may be more comfortable with existing relationships. For new managers, whether public or private, a lot can be done long distance, and a lot of data can be collected. However, staff would still want to conduct on site due diligence. If it becomes an issue at some point, staff will decide how to handle it.

Chairman Englund asked RVK to share their thoughts.

Mr. Mark Higgins agreed the Board is taking the right approach. This is a new situation where the global economy shuts down. It helps that the new investments already had due diligence completed. We will be figuring it out as we go along. There is no way to predict how long things will be impacted.

Mr. Jim Voytko added looking back to the Great Financial Crisis, the worst reaction was to slam on the breaks to private investments. When public markets go down there is usually an opportunity to commit at better values than we've seen in the last few years. Historically, it is not wise to change pacing but to follow a steady pace as the situation permits. You will want to keep an eye on the liquidity of the fund, the pacing study is built around illiquidity

Mr. Nguyen stated it depends on the duration and severity of how things play out. Limited travel is having minimal impacts on commitments through 2020 which has already been mapped out. The portfolio is old and deep and staff have a long history with managers, although travel restrictions may impact bringing on any new managers.

Director Villa stated looking at June meeting dates, staff will get a draft agenda worked up to be sure we can fit all scheduled items into two full days. Staff will coordinate with RVK for dates.

Executive Director Villa reviewed items on the "to do" list for the next Board meeting:

- 1. Board Meeting dates will be finalized in the next week for a two full day meeting in June.
- 2. Director Villa will distribute a draft two day agenda in the next couple of weeks.

Having no further business before the Board, the meeting was adjourned at 12:00 p.m.

Next Meeting

The next regular meeting of the Board will be June 8-9, 2020 in Helena, Montana. Complete copies of reports presented to the Board are on file with the Board of Investments.

MONTANA BOARD OF INVESTMENTS

APPROVE: _____
Karl J. Englund, Chairman

ATTEST: _____
Dan Villa, Executive Director

DATE: _____

**MONTANA BOARD OF INVESTMENTS
SPECIAL BOARD MEETING CONFERENCE CALL
2401 Colonial Drive, 3rd Floor
Helena, Montana
Thursday, April 17, 2020
1:00 PM**

PRESENT *all via conference call:*

- Karl Englund, Board Chair
- Mark Noennig, Board Vice Chair
- Terry Cohea, Board Member
- Bruce Nelson, Board Member
- Jim Edwards, Board Member
- Diane Fladmo, Board Member
- Maggie Peterson, Board Member
- Jeff Greenfield, Board Member
- Senator Fred Thomas
- Dan Villa, Executive Director
- Peggy MacEwen, Deputy Director
- Jon Putnam, CFA, FRM, CAIA, Chief Investment Officer
- Doug Hill, Director of In-State Loan Programs
- Rande Muffick, CFA, Deputy CIO/Director of Public Market Investments
- Polly Boutin, Associate Financial Manager
- April Madden, Investment Accountant
- Kelsey Gauthier, CPA, Investment Accountant
- Teri Kolnik, CFA, Investment Analyst
- Ethan Hurley, CAIA, Director of Real Estate/Natural Resources
- Michael Nguyen, Director of Private Investments
- Emily Kovarik, CPA, Investment Analyst
- Dan Zarling, CFA, CIPM, Director of Risk Management
- John Romasko, CFA, Director of Fixed Income
- Kirsten Haswell, Investment Analyst
- Steve Strong, Investment Analyst
- Thomas Winkler, CAIA, Investment Analyst
- Savannah Morgan, Bond Program Officer
- Dana Chapman, Office Manager/Board Secretary

Guests: Sheri Scurr, Legislative Services Division
John Harrington, Legislative Audit Division

CALL TO ORDER

Board Chairman Karl Englund called the Special Meeting of the Board of Investments (Board) to order at 1:01 p.m. The roll was called: Board Member Jack Prothero was absent and Senator Fred Thomas arrived late. As noted above a quorum of Board Members was present. Chairman Englund advised audio recording of the meeting was underway and asked for public comment on issues within Board jurisdiction. There was none.

Update to Board Members

Chairman Englund thanked Board and staff for being available. There is an unusual issue which although it does not require Board action, due to the amount of money involved, it is best to keep the

Board fully informed. The issue has to do with money the state will receive under the CARES Act. The funds would normally be put into STIP. However, this would drive down STIP returns, particularly in terms of the local government participants. Staff recognized the issue and looked at solutions for where the money could be legally put where that would not occur.

Executive Director Dan Villa explained he and Mr. Jon Putnam have provided the Board with a memo outlining a plan for the funds. With the passage of the CARES Act Montana will receive a total of \$1.25 billion from the federal government. Those funds will be flowing to the Board of Investments for custodial purposes under both constitutional and statutory fiat. Within that construct, the normal operation staff would have used would have had a negative impact on other Board of Investments participants. First of all, we're not sure when all of the cash will be flowing to the state, and without the ability to plan, the fixed income team is significantly limited as to what sort of purchases can be made. Secondly, not knowing the outflows of those dollars puts a strain on us from a liquidity perspective; the uncertainty of inflows and outflows will have a negative impact on potential yields for the dollars.

Staff wanted to hold these dollars for the state in a relatively liquid place that would still generate investment income without having negative consequences for the other participants. STIP is the vehicle with which we would typically hold these dollars.

Director Villa stated the proposal is a two-step process. First, the dollars would be held in the Treasurer's Account, a separately managed account. There it would be laddered so the maturity dates continue to roll, and dependent on expenditures out the other side, we can ensure there is adequate liquidity for the state. Staff will be asking at the Board Meeting call next week to amend the investment policy statement for the Treasurer's Account. The requested change will add another cash vehicle at the custodial bank to provide for an immediate liquidity vehicle for the state of Montana on the expenditure side. There is \$1.2 billion in the Treasurer's Account as of yesterday. Staff are proposing to keep \$100 million in a rolling mechanism in the interest bearing demand deposit account within our custodial bank State Street. As expenditures go out the door by the state of Montana, we would then roll those maturities of treasuries and agencies into that immediate cash vehicle.

Currently, the investment policy statement only allows for the STIF vehicle at State Street. The requested change in policy would allow that any cash vehicle within the custodial bank could be used for the purposes of holding assets in the Treasurer's Account. The second component requires that staff notify the Board when we are out of compliance with investment policies. Director Villa asked Mr. Putnam to address the Board.

Mr. Putnam stated with the influx of cash we will be out of policy with the Treasurer's Account. Under the policy staff are able to invest up to half of the projected total of the General Fund into longer term securities going out to three years. Historically, when the yield curve has been steep, staff have sometimes purchased treasuries or agencies and gone out a little further to earn a bit more interest than what the STIP portfolio would provide. More recently with the flat yield curve we have not done that, but with the injection from the CARES Act into the Treasurer's Account, we are already over the limit. The projected General Fund balance at this time is about \$600 million, meaning we could invest around \$300 million outside of STIP in treasury or agency securities.

As of Wednesday, we received \$625 million in from the CARES Act and are expecting another \$625 million next week, the vast majority of that will be invested in treasury or agency securities with relatively short terms. Currently we have them laddered weekly out through the end of May and we will continue to roll out until we get additional information on when the money might be spent down. The plan is to correct being out of policy compliance once that money is spent. Staff expect that to occur within the next couple of months.

Director Villa added the investment policy statement provides that staff notify the Board if we are out of compliance, and that we present a plan for remedy in the normal course of business.

Member Diane Fladmo asked how much interest staff expects to save on behalf of STIP participants by taking this action.

Mr. Putnam stated the securities staff are investing in within the Treasurer's Account for the CARES Act money are very short term in treasuries and agencies to allow for liquidity. Those securities on average are invested at about 8 basis points; the STIP portfolio yield as of yesterday was 98 basis points. Clearly if 20% of the fund was put in to something only yielding 8 basis points, it would drag down the yield.

Member Bruce Nelson asked Mr. Putnam to explain the new interest bearing deposit account recently negotiated with State Street Bank.

Mr. Putnam stated the Interest Bearing Demand Deposit Account (IBDDA) is a sweep vehicle. In all accounts we may have a bit of cash sitting for whatever reason, such as for a trade that does not settle, which would leave cash in the account. Previously there was no interest earned on that cash as it sat overnight as there was no mechanism to put it into State Street STIF. The IBDDA is a late day sweep vehicle that allows us to earn a little bit of interest on cash. Staff weren't initially thinking specifically of the CARES Act. However, after talking with State Street, they are able collect that money over all of our accounts and invest it, and they are able handle a large volume. This provides for one day liquidity and access to the cash the following day.

Mr. Putnam explained staff negotiated the rate with State Street Bank on the IBDDA. It has a one week rolling SOFR rate set on Tuesdays for the week. Given the stress of the current market, we have recently seen negative rates for T-Bills and sometimes agencies. Staff hope to avoid a negative interest rate which would lose money and the IBDDA should help. Staff have been working on putting the IBDDA into place for a while and the policy change will be a permanent one which staff will use going forward.

Member Maggie Peterson asked if the secured overnight financing rate is different than the one set by the federal government.

Mr. Putnam explained it is an overnight repo rate based on the SOFR and is not the same as the Federal Reserve rate. It is a vehicle for brokers and banks to provide overnight liquidity. The market sets the rate to whatever the repo rates are. Although it is heavily driven by the Federal Reserve short term rates, it is not based on it.

Mr. Putnam added staff have done a great job through this process without knowing when the money was coming in or where it would be put initially. Both US Bank and State Street Bank were a huge help along with the Department of Administration.

Director Villa stated staff will keep the Board informed. Mr. Putnam will have a memo and a redline version of the proposed revisions to the Separate Accounts Investment Policy Statement for the special Board Conference Call Meeting next Thursday, April 23.

Director Villa added after checking calendars with RVK and Board Members, the next regular Board Meeting will be held in the office on June 8 and 9. He also noted that staff met via conference call to discuss reentry into the office. A few revisions will be made to the plan and then it will be forwarded to Board Members.

Having no further business before the Board, the meeting was adjourned at 1:27 p.m.

MONTANA BOARD OF INVESTMENTS

APPROVE: _____
Karl J. Englund, Chairman

ATTEST: _____
Dan Villa, Executive Director

DATE: _____

BOI/drc 5/1/2020

**MONTANA BOARD OF INVESTMENTS
SPECIAL BOARD MEETING CONFERENCE CALL
2401 Colonial Drive, 3rd Floor
Helena, Montana
Thursday, April 23, 2020
10:00 AM**

PRESENT *all via conference call*:

- Karl Englund, Board Chair
- Mark Noennig, Board Vice Chair
- Jack Prothero, Board Member
- Terry Cohea, Board Member
- Bruce Nelson, Board Member
- Jim Edwards, Board Member
- Diane Fladmo, Board Member
- Maggie Peterson, Board Member
- Jeff Greenfield, Board Member
- Senator Fred Thomas
- Dan Villa, Executive Director
- Peggy MacEwen, Deputy Director
- Jon Putnam, CFA, FRM, CAIA, Chief Investment Officer
- Doug Hill, Director of In-State Loan Programs
- Rande Muffick, CFA, Deputy CIO/Director of Public Market Investments
- Julie Feldman, CPA, Financial Manager
- Polly Boutin, Associate Financial Manager
- Frank Cornwell, CPA, Associate Financial Manager
- April Madden, Investment Accountant
- Roberta Diaz, Investment Accountant
- Kelsey Gauthier, CPA, Investment Accountant
- Mike Pettit, Director of Operations
- Tim House, Investment Analyst
- Teri Kolnik, CFA, Investment Analyst
- Ethan Hurley, CAIA, Director of Real Estate/Natural Resources
- Dan Zarling, CFA, CIPM, Director of Risk Management
- Jason Brent, CFA, CAIA, Investment Officer, Public Investments
- John Romasko, CFA, Director of Fixed Income
- Kirsten Haswell, Investment Analyst
- Steve Strong, Investment Analyst
- Louise Welsh, Senior Bond Program Officer
- Linda Sharkey, Network Administrator
- Dana Chapman, Office Manager/Board Secretary

CALL TO ORDER

Board Chairman Karl Englund called the Special Meeting of the Board of Investments (Board) to order at 10:02 a.m. As noted above a quorum of Board Members was present. Chairman Englund advised audio recording of the meeting was underway and asked for public comment on issues within Board jurisdiction. There was none.

Separately Managed Accounts Investment Policy Statement

Mr. Jon Putnam explained the proposed changes to the Separately Managed Accounts Policy Statement.

The state of Montana and the Board of Investments have received \$1.25 billion of federal funds from the CARES Act. We received the first half last Wednesday, and the second half this week on Monday. Typically staff would put the funds in the Treasurer's Fund in STIP, but due to the large size and unknown outflows, staff is requesting approval to invest in an Interest Bearing Demand Deposit Account (IBDDA) available through our custodial bank, State Street. This will provide daily liquidity for a portion of the CARES Act funds held within the State Treasurer's Fund. Investments held within the IBDDA earn interest at the Secured Overnight Funding Rate (SOFR). Using the IBDDA will help protect STIP participants.

Other changes to the Policy include changes in the cash section on risk management providing some cleanup to make it more explicit in broadening the option to use other cash vehicles we may decide on for cash purposes. That change would apply to all of the separate accounts listed in the Policy.

Member Terry Cohea made a motion to accept the proposed changes to the Separately Managed Accounts Policy Statement. Member Diane Fladmo seconded the motion. The motion carried.

Executive Director Dan Villa provided an operations update and referenced his memo which has been provided to Board Members. Staff are tentatively scheduled to start working back in the office in phases beginning May 11th. However, given the four school districts involved, we will have to wait until they provide further information. Staff have the option to request a delayed return for medical or school/child care reasons.

- Week one will be include management and office administration.
- Week two will be directors, portfolio managers and accounting managers.
- Week three will be STIP and fixed income and individual accountants.

A new protocol for security and safety will be in place including dedicated entry ways and daily temperature taking.

Vice Chair Mark Noennig stated he was impressed by the carefulness of the plan.

Director Villa noted it has been a team effort, which included some assistance from hospital personnel. Some operations money has been spent for items such as hand sanitizer stations, and we have ordered individual cameras for each staff office work station. We will have no visitors to the office and no staff travel through June 30th and some work will continue remotely. We will set up new technology in the conference rooms. Additional investments in the office are offset by savings from the lack of travel.

Chairman Englund stated he's noticed a lot of people are saying that in certain instances the remote setup works so much better than they thought it would. It seems a lot more remote work will be used going forward.

Executive Director Villa reviewed items on the "to do" list for the next Board meeting:

- The next Board Meeting is scheduled for Monday and Tuesday, June 8 and 9; a draft agenda is in the works.
- We expect to be able to fit all items within two full days, although we may have the committee meetings start earlier than usual.
- Out of town Board Members may want to travel to Helena on Sunday.
- Agenda items include the domestic equity deep dive, the quarterly performance review, investment policy revisions and exempt staff performance reviews.

Having no further business before the Board, the meeting was adjourned at 10:18 a.m.

MONTANA BOARD OF INVESTMENTS

APPROVE: _____
Karl J. Englund, Chairman

ATTEST: _____
Dan Villa, Executive Director

DATE: _____

BOI/drc 4/27/2020

MONTANA BOARD OF INVESTMENTS

Department of Commerce

Street Address:
2401 Colonial Drive, 3rd Floor
Helena, MT 59601

Mailing Address:
PO Box 200126
Helena, MT 59620-0126



Phone: 406/444-0001
Facsimile: 406/449-6579
Website: www.investmentmt.com

TO: Members of the Board of Directors
FROM: Dan Villa, Executive Director
DATE: 5/22/2020
RE: June Executive Directors Report

1. Member Requests or Follow Up from Prior Meeting
2. Monthly Snap Shot – attachment
3. Monthly Website Traffic:



	Pages	Pageview	Unique Views	Landings	Exits	Time on Page
1	/	1,131	1,022	992	536	01:01
2	/meetings	710	519	323	409	01:47
3	/annualreportsaudits	485	430	386	400	10:03
4	/stip	314	287	187	156	00:49
5	/investments	303	261	103	102	00:51
6	/stip/dailyfactoryield	234	202	102	190	03:23
7	/2020meetings	220	100	35	87	02:00
8	/unifiedinvestments/quarterly	191	142	69	95	01:29
9	/loanprograms	182	155	76	66	01:09
10	/home	154	141	107	70	00:28

4. FY20 Budget Status/Expenditure Report – attachment
5. 2023 Biennial Budget Proposal – **Decision**

I recommend the Board submit the following for the 2023 Biennium Budget Executive Planning Process:

- 1 Administrative Assistant FTE with no new funding (would be absorbed within existing budget)
- Reduction in indirect rates paid to the Department of Commerce to reflect BOI administering many of its own functions. This will increase earnings to CAPP, Trust Fund, and STIP participants and will not require additional BOI capacity in either people or dollars above current staffing levels. We have discussed the service level issues with you on several occasions. Deputy Director MacEwen and I would be happy to discuss in more detail if you wish.

Even though we are not a general fund agency, I recommend we not request any new proposals for additional funding given the budget situation.

6. COVID-19 Update

I've attached all memos sent to BOI staff and Colonial building tenants throughout the course of the pandemic for your review and files. I'm extraordinarily proud of our team and how they handled this difficult situation. A few items of note for you:

- We used this opportunity to update some of our facilities for both function and safety. The former file room will now be the Committee Room with a large table for distancing and full telecommunications capability. The former Central Conference Room was too small to accommodate groups and was converted into a private office. The Large Conference Room, now the Board Room, is receiving much needed telecommunications upgrades. The secure file room had additional sliding files added to increase capacity for the long term and old files which were beyond their statutory or policy retention periods have been purged. Old and unused furniture was sent to surplus. Remaining projects include making a locked IT room to better secure our expensive inventory and adding a privacy wall and door to the Committee Room.
- Staff have been issued cameras and microphones to accommodate their work during travel bans. This will hopefully help us reduce travel budgets and communications costs into the future. We will no longer be purchasing desk top computers but will convert to pads or laptops during our regularly scheduled replacement cycles.
- ZOOM and Microsoft Teams will be our new technology platforms instead of Skype and OpenVoice conference calling at the direction of the Department of Administration. Staff will be trained on their use before we turn off the current systems.

7. Media Update

NBC Montana recently ran a story quoting the Bureau of Business and Economic Research as stating the assumed rate of return on pension investments should be no more than 4%. Dr. Patrick Barkey is the primary spokesperson. The story is attached.

Also attached is Dr. Barkey's analysis stating the 7.75% rate of return on pension investments is reasonable, likely to hold for the long-term and should be used to calculate the present value costs of an environmental reclamation bond for one of his clients.

MEMORANDUM

From: Patrick M. Barkey, Ph.D.
To: William Mercer, Holland & Hart, LLP
Date: March 10, 2016
Subject: Analysis of Inflation Rate and Discount Rate Assumptions for Environmental Bonding of the Golden Sunlight Mine

Montana law recognizes that the responsible development of Montana's mineral resources requires companies developing those resources to purchase bonds to cover the (future) costs of environmental remediation. These bonds protect the state from bearing those costs in the event that a private developer is bankrupt or otherwise unable to pay. In the case of hardrock mines, such as the Golden Sunlight mine near Whitehall in Jefferson County, Montana operated by Golden Sunlight Mines, Inc., a subsidiary of Barrick Gold Corporation, those costs can extend into the indefinite future. This is because, given current technology, the long-term treatment of sulfide minerals created through ongoing oxidization in exposed rock and mine waste can be the most cost-effective approach.

Given the long time horizons involved in calculating the appropriate bond amounts, two economic assumptions are of critical importance. The first is the inflation rate – defined as the annual percentage increase in all wages and prices in the national economy. Higher inflation rates make the purchasing power of dollars set aside today worth comparatively less in the future. The second assumption is the discount rate – defined as the annualized percentage rate of return that can be obtained from financial markets from appropriate investments of dollar resources today to meet obligations in the future. Given positive rates of return, a dollar's worth of cost incurred in the future can be met by setting aside less than a dollar today.

Both of these rates – the inflation rate, and the discount rate – are outcomes of the global marketplace. While there is some judgment involved in selecting the appropriate measure of each concept, there is ample historical data, freely available from public sources, to track and assess their variability and trends. For the purpose of bonding the environmental remediation of hardrock mines such as Golden Sunlight, it is the future trajectory of these rates that is of critical importance. This is, in essence, an actuarial issue in which principles and standards of actuarial practice apply.

Holland and Hart, LLP, have retained the Consultant to analyze the available data and to present findings pertaining to the appropriate assumptions concerning the inflation rate and the discount rate to be implemented in the bonding of the Golden Sunlight mine. This memo presents the findings of that analysis.

Inflation Assumptions: Background

There are a variety of inflation measures available in the publicly available data maintained by the Federal Government statistical agencies. The differences in the definitions and coverage of the various measures reflect their broad range of uses. Many of those measures pertain to sub-components of the entire universe of goods and services in the overall economy, and are not appropriate for the inflation adjustment required for the bond calculations at issue here. Other measures, such as the Consumer Price Index (CPI), refer to consumer goods only, and thus are not suited for pricing purchases made by businesses.

One widely followed measure of price inflation in the national economy is the implicit price deflator for Gross Domestic Product (GDP), commonly referred to as the GDP deflator. Maintained and published by the U.S. Bureau of Economic Analysis, the GDP deflator is the multiplicative factor used to convert GDP measured in current dollars into constant-dollar (or inflation adjusted) GDP. Since GDP is defined as the sum total of all goods and services produced in the U.S. economy, this index measures, in aggregate, the prices of all goods and services. Unlike the CPI, it allows for continuous change in the “market basket” of items included in the index.

The choice of which inflation measure to use is not a critical one, since most measures of total inflation in the economy are numerically similar. We have selected the percentage change in the GDP deflator as being appropriate for this analysis.

Discount Rate Assumptions: Background

Guidance developed by the American Academy of Actuaries recognizes four components to be recognized and weighed in making assumptions concerning rates of return on investments made to cover medium and long-term future obligations:

- an examination of long term trends;
- an evaluation of the appropriate level of risk;
- an examination of current yields on long-term instruments, and
- the actual experience of past investments.

It is important to note that because the investments made today to cover long-term obligations will be managed over a long span of time, current yields presented by the marketplace are only one of a set of factors to consider in determining the necessary size of those investments. Bonding adequacy, should those funds be needed, will hinge on the behavior of markets over the entire interval of time between the present and the point in time when the funds are expended. Market yields can be expected to change continuously during that interval, and the actuarial guidelines recognize the need to incorporate more information in projecting those yields than simply today’s market outcome.

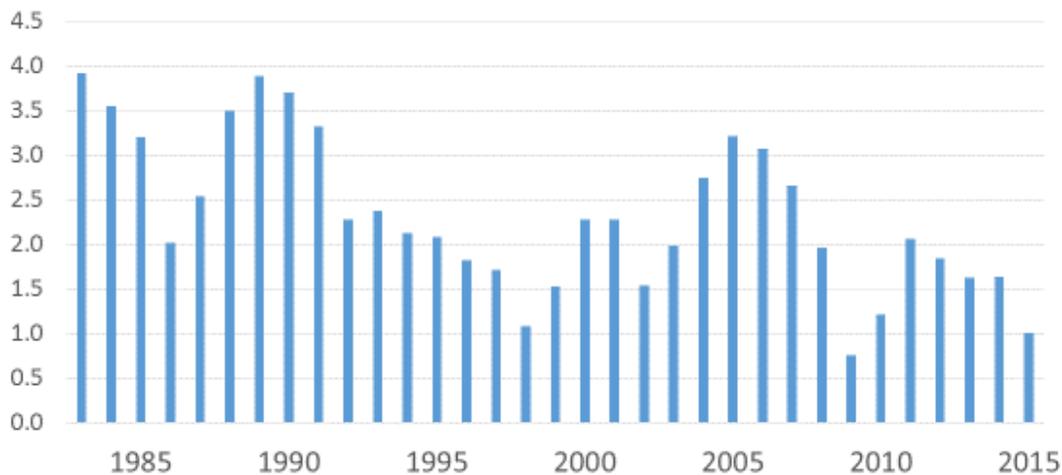
The actuarial standards also stress that the rate of return assumption should be “judged on its own merits and is not to be combined with other assumptions for the purpose of demonstrating reasonableness in the aggregate.” Thus any other issues about bond adequacy outside of the scope of the rate of return discussion should not be addressed through manipulation of this assumption.

The choice of the appropriate discount rate for bonding the Golden Sunlight mine presented here uses a blended approach. First, we examine long term trends in market yields, as suggested by the actuarial standards presented above. These are selected for a level of risk that is appropriate for the circumstances. Second, we examine yield assumptions made in a closely related setting – those made to assess the adequacy of financing state and local government pension obligations. Finally, we judgmentally combine the information to arrive at a conservative discount rate that is supported by the information available.

Inflation Rate Assumption: Findings

Globalization, technological change, and consistently applied policy decisions carried out by central banks have all had the effect of gradually lowering rates of general price inflation in most of the world’s developed economies since the early 1980’s. The recession and financial crisis of 2007-08 had an effect on prices as well, due to depressed aggregate demand.

Percent Growth in GDP Deflator, 1983-2015



Source: U.S. Bureau of Economic Analysis

Both the long term downward trend as well as the temporary effects of the recession of 2007-08 are apparent from the annual U.S. inflation rates based on the GDP deflator presented above. These data begin in 1983, which is roughly when the year the “great moderation” in inflation and interest rates in the U.S. is said to begin.

A twenty-five year average of annual inflation rates using this measure, encompassing the years 1991 through 2015, is 2.0 percent. This numerical estimate coincides with the Federal Reserve Bank’s inflation target in publicly announced monetary policy. Thus it makes sense to use this estimate for the calculations for the bonding requirements for the Golden Sunlight Mine.

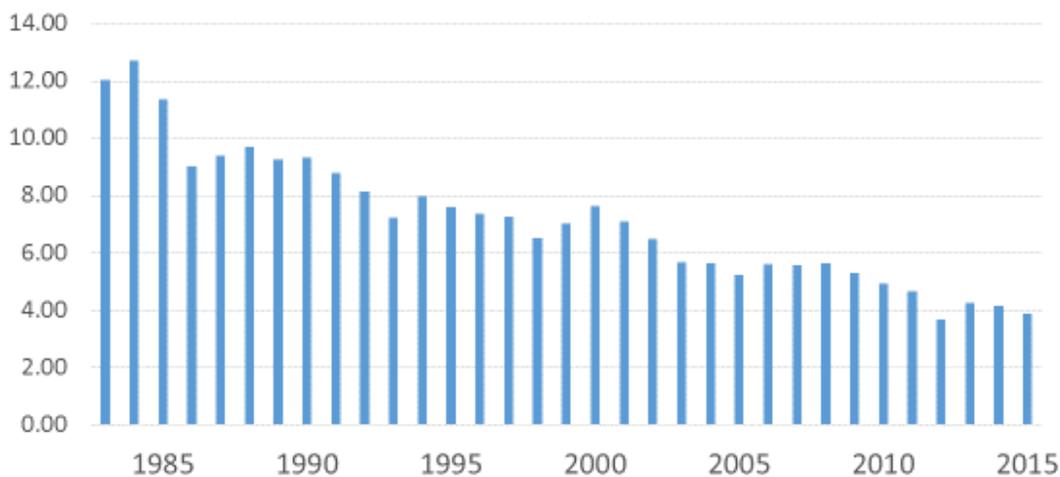
Discount Rate Assumptions: Findings

There is almost infinite variety in investment return information that could be incorporated into a projection of discount rates. The situation is clarified when one restricts those investments to those with high liquidity and very low default risk.

Selecting the appropriate risk level for discount rate assumptions is of especial importance. In recent years in particular, rates of return on the lowest risk investments have been extremely low. But in any time of the economic cycle, there is a tradeoff between risk and the rate of return.

Recognizing the nature of the event that environmental bonding is effectively insuring against, we can consider the annualized yield on the highest rated corporate bonds – those rated AAA by Moodys – as an appropriate benchmark to include in the analysis. Those yields, published by the Federal Reserve Bank of St. Louis, based on daily averages of all bonds, show a moderating trend similar to the inflation data presented above.

Yields on AAA Corporate Bonds, 1983-2015



Source: Federal Reserve Bank of St. Louis

Over much of the last twenty years, such bonds have produced yield spreads relative to 10-year maturity U.S. government bonds of between 1 to 2 percentage points (100 to 200 basis points), but bonds for individual AAA rated companies have empirically established a default risk on the order of 0.2 percent. Investment in a pool of such companies would have risk exposure much smaller than this. This makes their use as an extremely low risk investment benchmark return relevant for this analysis.

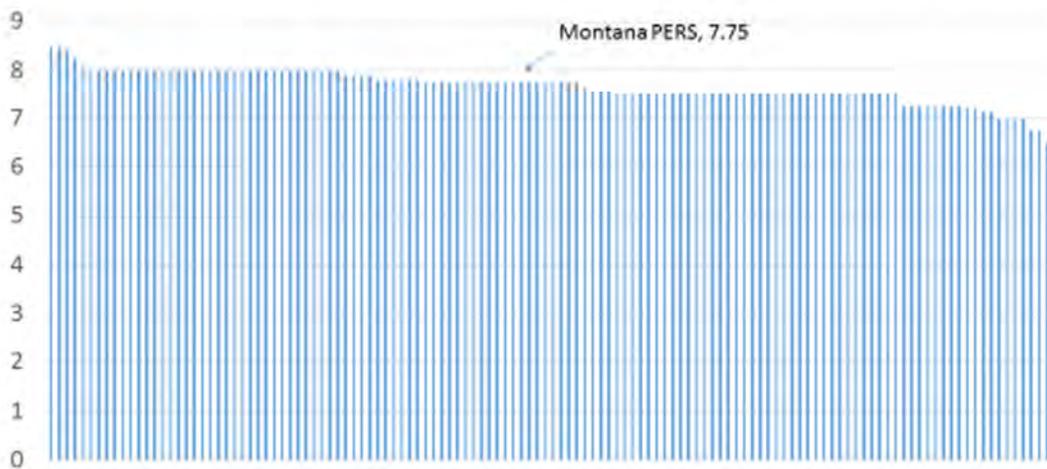
The 25-year average return in AAA corporate bonds from 1991 to 2015 has been 6.13 percent.

The basis for assumptions concerning the returns on investments made to meet long-term obligations has received a great deal of attention in the actuarial literature in a closely related setting – assessing the adequacy of funding future public pension obligations. State and other local governments set aside funds today to meet their commitments to pay pensions in the future, and assumptions concerning the rates of return they can expect to earn on those monies are critical to judging the adequacy the funding of those programs. The assumptions made by these government-backed plans – including Montana – is instructive in considering rates that would be applied to future commitments made for environmental remediation.

As shown in the figure on the next page, rate of return assumptions made by administrators of public pension plans, current as of the beginning of this year, are well in excess of historical returns on very low risk assets. On average the 127 plans tracked by the National Association of State Retirement Administrators assumed a rate of return of 7.62 percent on future investments. Two of the plans tracked by NASRA are Montana-based – Montana PERS and Montana Teachers. Each of those plans currently assumes investment returns of 7.75 percent.

Those assumptions are not out of line with the investment performance of those funds. As reported by NASRA, the annualized yield performance of this large group of funds as of the end of 2015 with maturities of 5, 10, 20 and 25 years has been 7.0, 5.8, 7.5 and 8.3 percent, respectively.

Rate of Return Assumptions of State and Local Pension Plans, Feb 2016



Source: National Association of State Retirement Administrators

In light of this information, a discount rate for longer term commitments such as the environmental bonds funded to insure taxpayers against bearing the costs of mine cleanup at Barrick's Golden Sunlight Mine of at least 6 percent would have ample justification. Our finding is that a rate set below that, at 5 percent, would be very conservative and supported by available data.

Summary

This memo has presented the findings of the Consultant retained by Holland & Hart, LLP, regarding the appropriate choice of two key economic parameters involved in environmental bonding of the Golden Sunlight Mine in Jefferson County, Montana. These concern (a) the rate of inflation, and (b) the rate or returns on low risk investments, or discount rate, that are likely to hold for medium and long-term future. I have documented the issues involved in making these projections, and have described and discussed the data that are relevant in determining the appropriate estimates.

My conclusions are that

- a rate of 2 percent (annually) for future inflation both concurs both with long term history as well as current Federal Reserve Bank policy, and thus is appropriate for the bonding issue at hand, and
- a rate of 5 percent for a discount rate not only is much lower than what states like Montana themselves assume for long term commitments made in public pension plans, but is also lower than the long term average yields of one of the safest investments available in the U.S. economy, namely, AAA rated corporate bonds.

For the lengthy time horizons involved in making these commitments, the historical performance of investment over a significant length of time, rather than the most recent outcomes in the marketplace, have more weight in setting the parameters of the bonds to be financed in making these commitments. This reflects both good economic forecasting practice, as well as conformance with the standards of the actuarial profession.

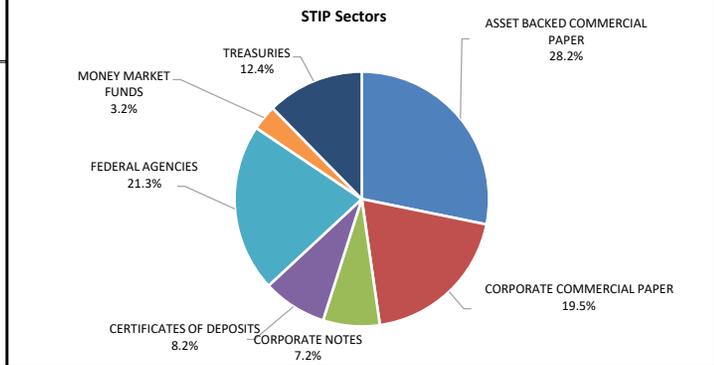
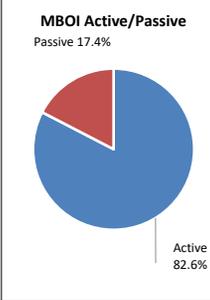
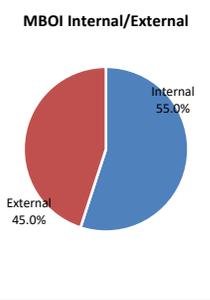
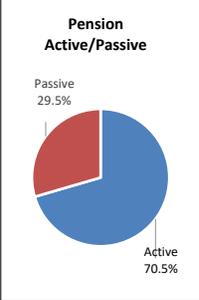
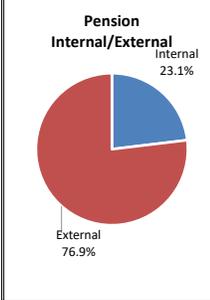
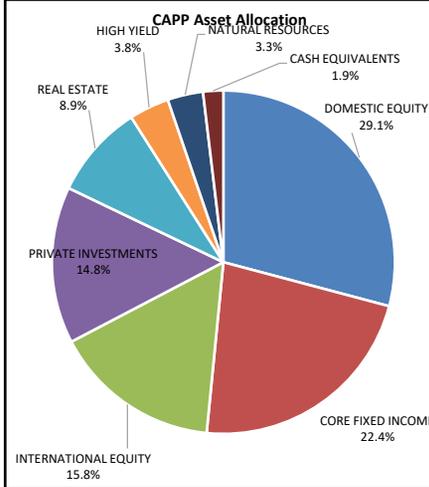
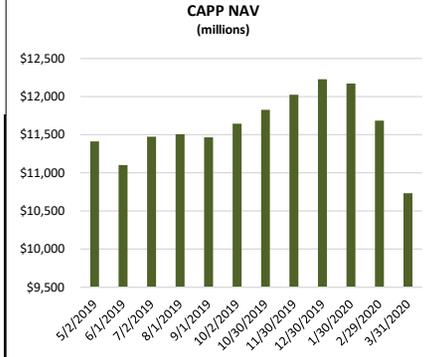
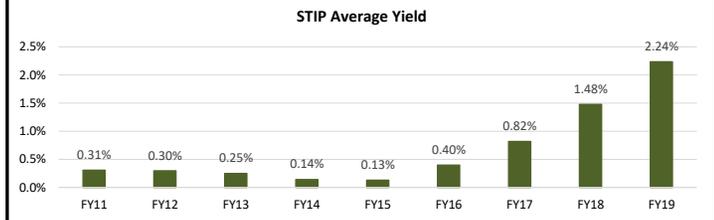
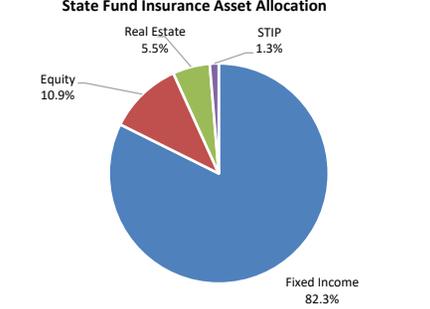
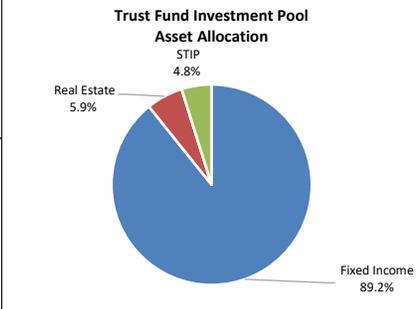
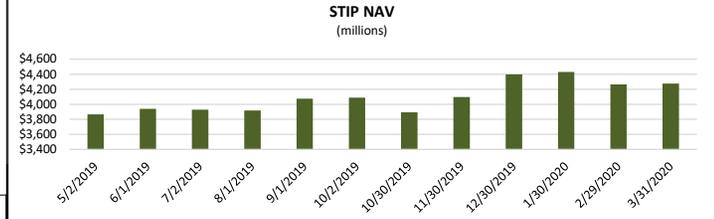
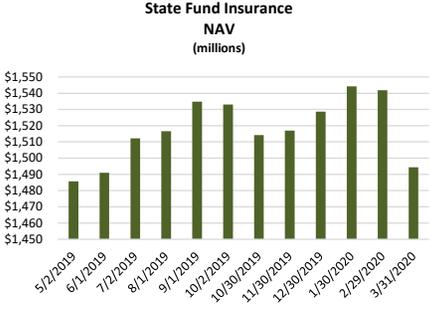
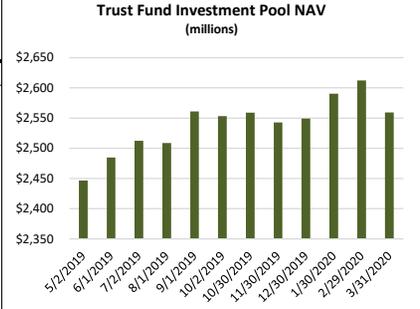
MBOI Snapshot
Asset Management View
3/31/2020 Unaudited



Assets Under Management \$19,053,754,435

CAPP	NAV	%	TFIP	NAV	%	State Fund	NAV	%	Non-Pool Fixed Income & Pending Activity	\$
DOMESTIC EQUITY	\$ 3,126,716,227	29.1%	Fixed Income	\$ 2,283,755,566	89.24%	Fixed Income	\$ 1,230,525,070	82.35%		
CORE FIXED INCOME	\$ 2,407,513,340	22.4%	Real Estate	\$ 151,542,576	5.92%	Equity	\$ 162,584,398	10.88%		
INTERNATIONAL EQUITY	\$ 1,693,029,315	15.8%	STIP	\$ 123,839,170	4.84%	Real Estate	\$ 81,742,626	5.47%		
PRIVATE INVESTMENTS	\$ 1,585,863,506	14.8%				STIP	\$ 19,494,980	1.30%		
REAL ESTATE	\$ 952,935,112	8.9%	Total	\$ 2,559,137,312	100.00%	State Fund Total	\$ 1,494,347,073	100.00%		(8,674,577)
HIGH YIELD	\$ 404,509,056	3.8%								
NATURAL RESOURCES	\$ 359,497,548	3.3%								
CASH EQUIVALENTS	\$ 203,964,078	1.9%								
CAPP Total	\$ 10,734,028,183	100.0%								

STIP*	NAV	%
ASSET BACKED COMMERCIAL PAPER	\$1,205,553,308	28.20%
FEDERAL AGENCIES	\$912,212,977	21.34%
CORPORATE COMMERCIAL PAPER	\$834,694,304	19.53%
TREASURIES	\$528,233,309	12.36%
CERTIFICATES OF DEPOSITS	\$349,144,818	8.17%
CORPORATE NOTES	\$307,738,417	7.20%
MONEY MARKET FUNDS	\$137,339,311	3.21%
STIP Total	\$4,274,916,445	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 \$199,523,768 is attributable the portion of STIP held within CAPP (\$75,775,410) and and TFIP (\$123,748,347) as a cash investment. Such value is represented in the NAV for the CAPP and STIP columns.

**MBOI Snapshot
Asset Ownership View
3/31/2020 Unaudited**



	CAPP Holdings	CAPP %	STIP Holdings*	STIP %	TFIP Holdings	TFIP %	Other Holdings ¹	Other %	Total Net Asset Value
Total Fund <small>\$(000)</small>	\$ 10,734,028	56.34%	\$ 4,075,393	21.39%	\$ 2,559,137	13.43%	\$ 1,685,196	8.84%	\$ 19,053,754
Pensions	CAPP	%	STIP	%	TFIP	%	Other	%	Total
FIREFIGHTER'S RETIREMENT	\$ 419,164	99.03%	\$ 4,106	0.97%	\$ -	0.00%	\$ -	0.00%	\$ 423,270
GAME WARDEN'S RETIREMENT	\$ 192,086	99.05%	\$ 1,844	0.95%	\$ -	0.00%	\$ -	0.00%	\$ 193,929
HIGHWAY PATROL RETIREMENT	\$ 137,852	99.09%	\$ 1,271	0.91%	\$ -	0.00%	\$ -	0.00%	\$ 139,123
JUDGE'S RETIREMENT	\$ 96,061	99.07%	\$ 905	0.93%	\$ -	0.00%	\$ -	0.00%	\$ 96,966
PUBLIC EMPLOYEES' RETIREMENT	\$ 5,334,495	99.05%	\$ 51,187	0.95%	\$ -	0.00%	\$ -	0.00%	\$ 5,385,682
SHERRIF'S RETIREMENT	\$ 347,900	99.02%	\$ 3,434	0.98%	\$ -	0.00%	\$ -	0.00%	\$ 351,335
POLICE RETIREMENT	\$ 396,514	99.02%	\$ 3,917	0.98%	\$ -	0.00%	\$ -	0.00%	\$ 400,430
TEACHER'S RETIREMENT	\$ 3,775,337	99.00%	\$ 38,281	1.00%	\$ -	0.00%	\$ -	0.00%	\$ 3,813,618
VOL. FIREMANS' RETIREMENT	\$ 34,620	99.03%	\$ 338	0.97%	\$ -	0.00%	\$ -	0.00%	\$ 34,958
Total	\$ 10,734,028	99.03%	\$ 105,283	0.97%	\$ -	0.00%	\$ -	0.00%	\$ 10,839,311
Trust Funds <small>\$(000)</small>	CAPP	%	STIP	%	TFIP	%	Other	%	Total
ABANDONED MINE TRUST	\$ -	0.00%	\$ 6,637	99.89%	\$ -	0.00%	\$ 8	0.11%	\$ 6,644
BELT WATER TREATMENT PLANT	\$ -	0.00%	\$ 1,650	6.32%	\$ 24,373	93.40%	\$ 72	0.28%	\$ 26,096
BPA MITIGATION TRUST FUND	\$ -	0.00%	\$ 5,212	45.64%	\$ 5,180	45.36%	\$ 1,027	8.99%	\$ 11,419
BUTTE AREA ONE RESTORATION	\$ -	0.00%	\$ 1,080	14.36%	\$ 6,424	85.38%	\$ 20	0.26%	\$ 7,525
BUTTE SILVER BOW	\$ -	0.00%	\$ 1,899	12.90%	\$ 12,779	86.83%	\$ 39	0.27%	\$ 14,717
CLARK FORK RIVER RESTORATION	\$ -	0.00%	\$ 7,539	24.34%	\$ 23,354	75.41%	\$ 76	0.25%	\$ 30,969
CLARK FORK SITE RAA	\$ -	0.00%	\$ 6,145	8.17%	\$ 68,837	91.55%	\$ 206	0.27%	\$ 75,188
COAL TAX CULTURAL TRUST FUND	\$ -	0.00%	\$ 781	4.84%	\$ 15,302	94.88%	\$ 45	0.28%	\$ 16,128
COAL TAX PARK ACQUISITION	\$ -	0.00%	\$ 1,781	5.97%	\$ 27,949	93.75%	\$ 83	0.28%	\$ 29,812
EAST HELENA COMPENSATION	\$ -	0.00%	\$ 4,370	71.66%	\$ 1,718	28.18%	\$ 10	0.16%	\$ 6,098
ENDOWMENT FOR CHILDREN	\$ -	0.00%	\$ 68	4.81%	\$ 1,341	94.91%	\$ 4	0.28%	\$ 1,413
FWP REAL PROPERTY TRUST	\$ -	0.00%	\$ 432	5.91%	\$ 6,862	93.82%	\$ 20	0.28%	\$ 7,314
HAROLD HAMM ENDOWMENT	\$ -	0.00%	\$ 4	8.63%	\$ 45	91.10%	\$ 0	0.27%	\$ 49
MONTANA HISTORICAL SOCIETY	\$ -	0.00%	\$ 557	13.91%	\$ 3,440	85.83%	\$ 11	0.26%	\$ 4,007
MONTANA POLE	\$ -	0.00%	\$ 7,955	27.44%	\$ 20,963	72.32%	\$ 69	0.24%	\$ 28,987
OLDER MONTANANS TRUST	\$ -	0.00%	\$ 119	11.55%	\$ 906	88.18%	\$ 3	0.27%	\$ 1,028
POTTER TRUST FUND	\$ -	0.00%	\$ 20	8.43%	\$ 220	91.30%	\$ 1	0.27%	\$ 241
RESOURCE INDEMNITY TRUST	\$ -	0.00%	\$ 23	0.02%	\$ 115,572	99.69%	\$ 333	0.29%	\$ 115,928
SMELTER HILL UP RESTORATIVE	\$ -	0.00%	\$ 3,006	30.93%	\$ 6,691	68.84%	\$ 23	0.23%	\$ 9,720
STREAMSIDE TAILINGS OPERABLE UNIT	\$ -	0.00%	\$ 2,250	11.67%	\$ 16,982	88.06%	\$ 52	0.27%	\$ 19,283
TOBACCO TRUST FUND	\$ -	0.00%	\$ 7,713	3.04%	\$ 245,018	96.67%	\$ 716	0.28%	\$ 253,446
TRUST AND LEGACY ACCOUNT	\$ -	0.00%	\$ 6,170	0.77%	\$ 791,527	98.94%	\$ 2,289	0.29%	\$ 799,985
UCFRB ASSESS/LITIG COST REC.	\$ -	0.00%	\$ 1,678	7.89%	\$ 19,527	91.84%	\$ 58	0.27%	\$ 21,263
UCFRB RESTORATION FUND	\$ -	0.00%	\$ 4,564	5.40%	\$ 79,746	94.32%	\$ 235	0.28%	\$ 84,546
UPPER BLACKFOOT RESPONSE	\$ -	0.00%	\$ 3,018	91.20%	\$ 287	8.67%	\$ 4	0.13%	\$ 3,309
WEED CONTROL TRUST	\$ -	0.00%	\$ -	0.00%	\$ 11,259	99.71%	\$ 32	0.29%	\$ 11,291
WILDLIFE HABITAT TRUST	\$ -	0.00%	\$ 1,118	7.12%	\$ 14,536	92.60%	\$ 43	0.28%	\$ 15,698
Z/L LT H2O TRUST FD	\$ -	0.00%	\$ 20,229	99.89%	\$ -	0.00%	\$ 23	0.11%	\$ 20,252
ZORTMAN/LANDUSKY LT H2O	\$ -	0.00%	\$ 15,554	99.89%	\$ -	0.00%	\$ 18	0.11%	\$ 15,572
Total	\$ -	0.00%	\$ 111,572	6.81%	\$ 1,520,838	92.85%	\$ 5,519	0.34%	\$ 1,637,929
Coal Severance <small>\$(000)</small>	CAPP	%	STIP	%	TFIP	%	Other	%	Total
BIG SKY ECON DEV FD	\$ -	0.00%	\$ 3,170	2.57%	\$ 119,822	97.15%	\$ 349	0.28%	\$ 123,341
PERMANENT COAL TRUST FUND	\$ -	0.00%	\$ 33,871	5.78%	\$ 379,248	64.75%	\$ 172,549	29.46%	\$ 585,668
SCHOOL FACILITIES FUND	\$ -	0.00%	\$ 6,233	10.99%	\$ 50,340	88.74%	\$ 152	0.27%	\$ 56,726
TREASURE ST. REG. WATER SYSTEM	\$ -	0.00%	\$ 1,192	1.16%	\$ 101,147	98.55%	\$ 293	0.29%	\$ 102,632
TREASURE STATE ENDOWMENT	\$ -	0.00%	\$ 3,228	1.09%	\$ 291,994	98.58%	\$ 964	0.33%	\$ 296,186
Total	\$ -	0.00%	\$ 47,694	4.10%	\$ 942,551	80.94%	\$ 174,308	14.97%	\$ 1,164,553
Operating Funds <small>\$(000)</small>	CAPP	%	STIP	%	TFIP	%	Other	%	Total
FWP LICENSE ACCOUNT	\$ -	0.00%	\$ 44,701	82.74%	\$ 7,234	13.39%	\$ 2,092	3.87%	\$ 54,027
LOCAL AGENCIES	\$ -	0.00%	\$ 1,485,022	99.88%	\$ -	0.00%	\$ 1,738	0.12%	\$ 1,486,760
MONTANA STATE UNIVERSITY	\$ -	0.00%	\$ 194,571	91.58%	\$ 17,603	8.29%	\$ 278	0.13%	\$ 212,452
MT TECH-UM AGENCY FUNDS	\$ -	0.00%	\$ 10,710	95.50%	\$ 491	4.38%	\$ 14	0.12%	\$ 11,214
STATE AGENCIES	\$ -	0.00%	\$ 547,870	99.88%	\$ -	0.00%	\$ 654	0.12%	\$ 548,524
TREASURER'S FUND	\$ -	0.00%	\$ 1,278,347	99.89%	\$ -	0.00%	\$ 1,401	0.11%	\$ 1,279,748
UNIV OF MONTANA	\$ -	0.00%	\$ 64,308	61.93%	\$ 31,720	30.54%	\$ 7,820	7.53%	\$ 103,848
Total	\$ -	0.00%	\$ 3,625,528	98.08%	\$ 57,048	1.54%	\$ 13,997	0.38%	\$ 3,696,573
Insurance Reserves <small>\$(000)</small>	CAPP	%	STIP	%	TFIP	%	Other	%	Total
MUS WORKERS COMPENSATION	\$ -	0.00%	\$ 10,743	71.24%	\$ 4,312	28.60%	\$ 25	0.16%	\$ 15,080
PERS DEFINED CONT DISABILITY	\$ -	0.00%	\$ 361	7.30%	\$ -	0.00%	\$ 4,580	92.70%	\$ 4,941
STATE FUND INSURANCE	\$ -	0.00%	\$ 19,460	1.30%	\$ -	0.00%	\$ 1,474,887	98.70%	\$ 1,494,347
SUBSEQUENT INJURY FUND	\$ -	0.00%	\$ 651	99.88%	\$ -	0.00%	\$ 1	0.12%	\$ 651
GROUP BENEFITS	\$ -	0.00%	\$ 77,846	73.32%	\$ 20,619	19.42%	\$ 7,711	7.26%	\$ 106,176
MUS GROUP INSURANCE	\$ -	0.00%	\$ 76,254	80.96%	\$ 13,769	14.62%	\$ 4,170	4.43%	\$ 94,193
Total	\$ -	0.00%	\$ 185,316	10.80%	\$ 38,701	2.26%	\$ 1,491,372	86.94%	\$ 1,715,389
Short Term Investment Pool									
Account	# Accounts	Total Market Value	%						
Total State	338	2,789,894,399.89	65.3%						
Total Local	173	1,485,022,044.65	34.7%						
Total STIP	511	\$ 4,274,916,445	100.0%						
STIP Reserve		\$ 51,891,123							
Average March 2020 STIP Yield		1.3341%							
InterCap Statistics									
Loans Outstanding		\$ 69,434,771							
Bonds Outstanding		\$ 90,670,000							
Number of Borrowers		172							
Loan Rate		1.00%							

MBOI Snapshot
Asset Management View
4/30/2020 Unaudited
Assets Under Management \$20,991,340,957

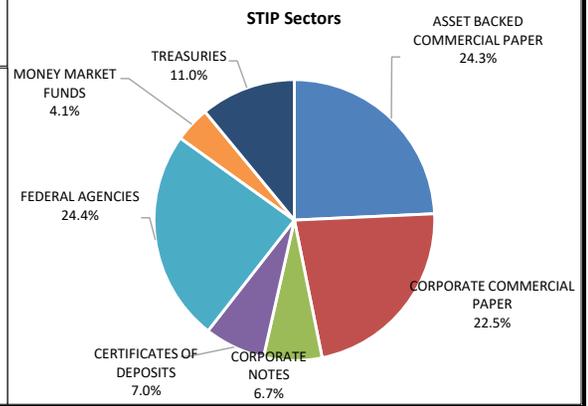
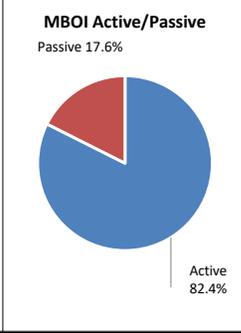
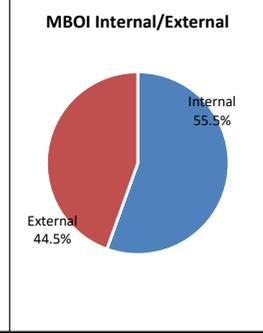
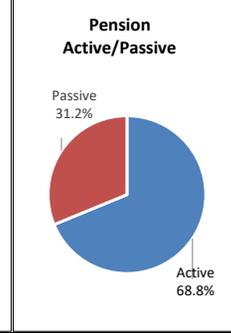
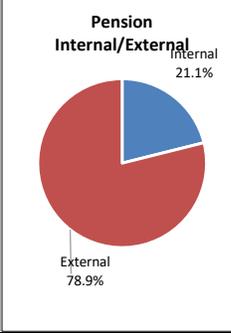
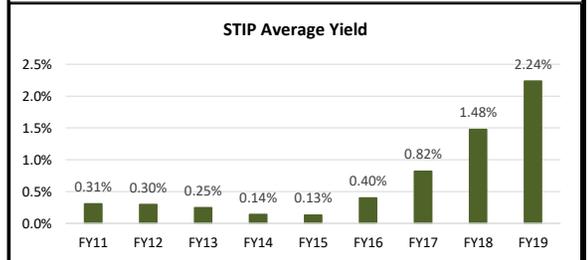
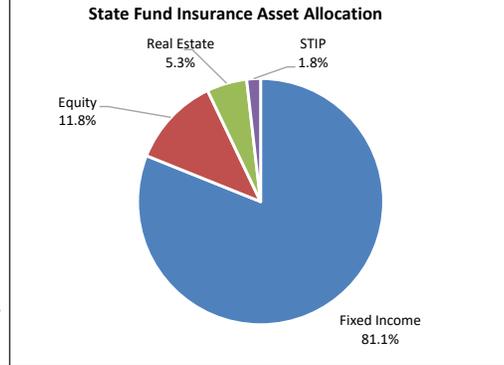
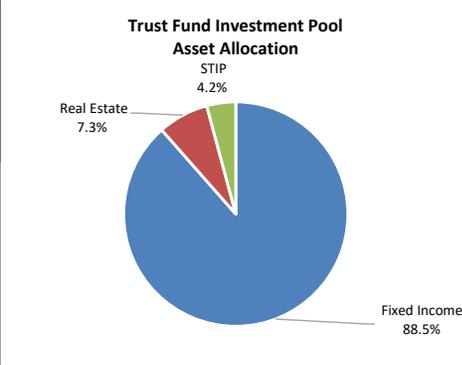
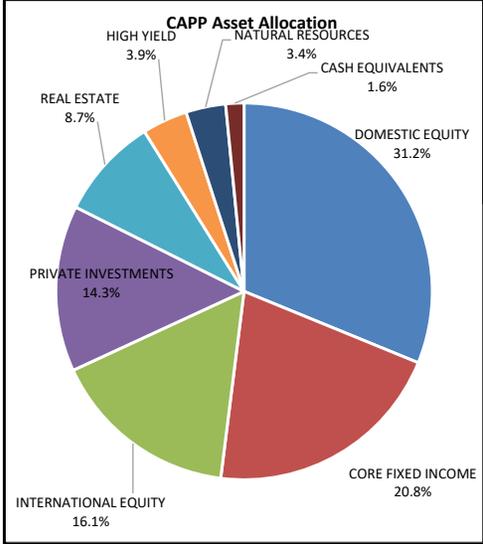
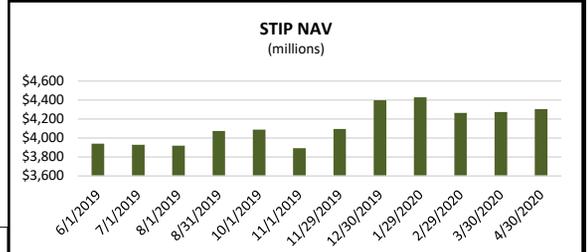
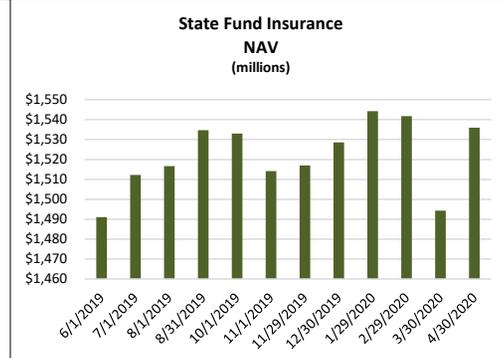
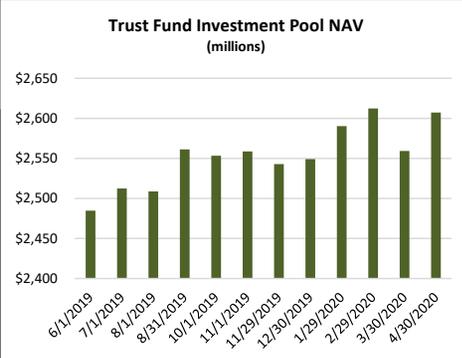
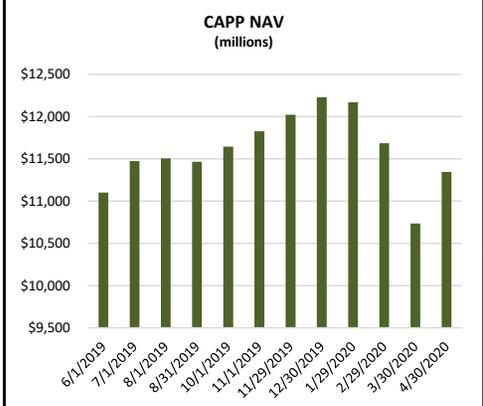


CAPP	NAV	%
DOMESTIC EQUITY	\$ 3,537,969,240	31.2%
CORE FIXED INCOME	\$ 2,359,902,139	20.8%
INTERNATIONAL EQUITY	\$ 1,831,205,083	16.1%
PRIVATE INVESTMENTS	\$ 1,618,063,756	14.3%
REAL ESTATE	\$ 992,048,595	8.7%
HIGH YIELD	\$ 441,213,093	3.9%
NATURAL RESOURCES	\$ 387,862,781	3.4%
CASH EQUIVALENTS	\$ 177,668,729	1.6%
CAPP Total	\$ 11,345,933,416	100.0%

TFIP	NAV	%
Fixed Income	\$ 2,307,682,377	88.51%
Real Estate	\$ 190,641,120	7.31%
STIP	\$ 108,988,698	4.18%
Total	\$ 2,607,312,196	100.00%

State Fund	NAV	%
Fixed Income	\$ 1,245,328,365	81.08%
Equity	\$ 181,602,516	11.82%
Real Estate	\$ 81,086,605	5.28%
STIP	\$ 27,916,435	1.82%
State Fund Total	\$ 1,535,933,921	100.00%

Other Fixed Income & Pending	\$	NAV	%
	1,198,354,993		
STIP*		NAV	%
FEDERAL AGENCIES		\$1,048,861,444	24.37%
ASSET BACKED COMMERCIAL PAPER		\$1,045,016,756	24.28%
CORPORATE COMMERCIAL PAPER		\$970,234,826	22.54%
TREASURIES		\$472,396,202	10.98%
CERTIFICATES OF DEPOSITS		\$301,792,768	7.01%
CORPORATE NOTES		\$288,764,256	6.71%
MONEY MARKET FUNDS		\$176,740,180	4.11%
STIP Total		\$4,303,806,432	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 \$224,611,120 is attributable the portion of STIP held within CAPP (\$115,679,277) and and TFIP (\$108,931,832) as a cash investment. Such value is represented in the NAV for the CAPP and STIP columns.

MBOI Snapshot
Asset Ownership View
4/30/2020 Unaudited



	CAPP Holdings	CAPP %	STIP Holdings*	STIP %	TFIP Holdings	TFIP %	Other Holdings ¹	Other %	Total Net Asset Value
Total Fund <small>\$(000)</small>	\$ 11,345,933	54.05%	\$ 4,079,195	19.43%	\$ 2,607,312	12.42%	\$ 2,958,900	14.10%	\$ 20,991,341

Pensions

	CAPP	%	STIP	%	TFIP	%	Other	%	Total
FIREFIGHTER'S RETIREMENT	\$ 443,227	99.02%	\$ 4,387	0.98%	\$ -	0.00%	\$ -	0.00%	\$ 447,614
GAME WARDEN'S RETIREMENT	\$ 203,688	99.04%	\$ 1,971	0.96%	\$ -	0.00%	\$ -	0.00%	\$ 205,659
HIGHWAY PATROL RETIREMENT	\$ 145,907	99.08%	\$ 1,359	0.92%	\$ -	0.00%	\$ -	0.00%	\$ 147,266
JUDGE'S RETIREMENT	\$ 101,725	99.06%	\$ 969	0.94%	\$ -	0.00%	\$ -	0.00%	\$ 102,694
PUBLIC EMPLOYEES' RETIREMENT	\$ 5,638,002	99.05%	\$ 54,320	0.95%	\$ -	0.00%	\$ -	0.00%	\$ 5,692,322
SHERRIF'S RETIREMENT	\$ 368,454	99.00%	\$ 3,708	1.00%	\$ -	0.00%	\$ -	0.00%	\$ 372,162
POLICE RETIREMENT	\$ 419,140	99.02%	\$ 4,149	0.98%	\$ -	0.00%	\$ -	0.00%	\$ 423,289
TEACHER'S RETIREMENT	\$ 3,989,338	99.06%	\$ 37,860	0.94%	\$ -	0.00%	\$ -	0.00%	\$ 4,027,199
VOL. FIREMANS' RETIREMENT	\$ 36,451	99.02%	\$ 359	0.98%	\$ -	0.00%	\$ -	0.00%	\$ 36,810
Total	\$ 11,345,933	99.05%	\$ 109,082	0.95%	\$ -	0.00%	\$ -	0.00%	\$ 11,455,015

Trust Funds \$(000)

	CAPP	%	STIP	%	TFIP	%	Other	%	Total
ABANDONED MINE TRUST	\$ -	0.00%	\$ 6,644	99.92%	\$ -	0.00%	\$ 5	0.08%	\$ 6,650
BELT WATER TREATMENT PLANT	\$ -	0.00%	\$ 1,600	6.05%	\$ 24,782	93.70%	\$ 66	0.25%	\$ 26,449
BPA MITIGATION TRUST FUND	\$ -	0.00%	\$ 6,239	54.14%	\$ 5,267	45.70%	\$ 18	0.16%	\$ 11,524
BUTTE AREA ONE RESTORATION	\$ -	0.00%	\$ 1,099	14.37%	\$ 6,532	85.40%	\$ 18	0.24%	\$ 7,649
BUTTE SILVER BOW	\$ -	0.00%	\$ 1,938	12.95%	\$ 12,993	86.81%	\$ 36	0.24%	\$ 14,967
CLARK FORK RIVER RESTORATION	\$ -	0.00%	\$ 7,607	24.21%	\$ 23,746	75.57%	\$ 69	0.22%	\$ 31,421
CLARK FORK SITE RAA	\$ -	0.00%	\$ 5,900	7.75%	\$ 69,992	92.00%	\$ 189	0.25%	\$ 76,081
COAL TAX CULTURAL TRUST FUND	\$ -	0.00%	\$ 525	3.19%	\$ 15,864	96.55%	\$ 42	0.26%	\$ 16,431
COAL TAX PARK ACQUISITION	\$ -	0.00%	\$ 1,574	5.18%	\$ 28,712	94.56%	\$ 77	0.25%	\$ 30,363
EAST HELENA COMPENSATION	\$ -	0.00%	\$ 4,375	71.37%	\$ 1,747	28.50%	\$ 8	0.13%	\$ 6,130
ENDOWMENT FOR CHILDREN	\$ -	0.00%	\$ 72	5.00%	\$ 1,363	94.75%	\$ 4	0.25%	\$ 1,439
FWP REAL PROPERTY TRUST	\$ -	0.00%	\$ 452	6.07%	\$ 6,977	93.68%	\$ 19	0.25%	\$ 7,448
HAROLD HAMM ENDOWMENT	\$ -	0.00%	\$ 4	8.74%	\$ 45	91.01%	\$ 0	0.25%	\$ 50
MONTANA HISTORICAL SOCIETY	\$ -	0.00%	\$ 560	13.78%	\$ 3,497	85.98%	\$ 10	0.24%	\$ 4,067
MONTANA POLE	\$ -	0.00%	\$ 7,800	26.73%	\$ 21,315	73.05%	\$ 62	0.21%	\$ 29,177
OLDER MONTANANS TRUST	\$ -	0.00%	\$ 47	4.44%	\$ 998	95.30%	\$ 3	0.25%	\$ 1,047
POTTER TRUST FUND	\$ -	0.00%	\$ 21	8.55%	\$ 224	91.21%	\$ 1	0.25%	\$ 245
RESOURCE INDEMNITY TRUST	\$ -	0.00%	\$ 23	0.02%	\$ 117,510	99.72%	\$ 309	0.26%	\$ 117,842
SMELTER HILL UP RESTORATIVE	\$ -	0.00%	\$ 2,525	25.62%	\$ 7,312	74.17%	\$ 21	0.22%	\$ 9,859
STREAMSIDE TAILINGS OPERABLE UNIT	\$ -	0.00%	\$ 2,250	11.50%	\$ 17,267	88.26%	\$ 47	0.24%	\$ 19,564
TOBACCO TRUST FUND	\$ -	0.00%	\$ 12,436	4.65%	\$ 254,211	95.10%	\$ 673	0.25%	\$ 267,320
TRUST AND LEGACY ACCOUNT	\$ -	0.00%	\$ 1,507	0.19%	\$ 807,853	99.55%	\$ 2,126	0.26%	\$ 811,486
UCFRB ASSESS/LITIG COST REC.	\$ -	0.00%	\$ 1,734	8.01%	\$ 19,855	91.74%	\$ 54	0.25%	\$ 21,642
UCFRB RESTORATION FUND	\$ -	0.00%	\$ 4,794	5.57%	\$ 81,084	94.18%	\$ 217	0.25%	\$ 86,095
UPPER BLACKFOOT RESPONSE	\$ -	0.00%	\$ 3,019	91.10%	\$ 292	8.80%	\$ 3	0.10%	\$ 3,314
WEED CONTROL TRUST	\$ -	0.00%	\$ 0	0.00%	\$ 11,448	99.74%	\$ 30	0.26%	\$ 11,478
WILDLIFE HABITAT TRUST	\$ -	0.00%	\$ 1,111	6.97%	\$ 14,780	92.78%	\$ 40	0.25%	\$ 15,931
Z/L LT H2O TRUST FD	\$ -	0.00%	\$ 20,252	99.92%	\$ -	0.00%	\$ 16	0.08%	\$ 20,269
ZORTMAN/LANDUSKY LT H2O	\$ -	0.00%	\$ 15,572	99.92%	\$ -	0.00%	\$ 13	0.08%	\$ 15,585
Total	\$ -	0.00%	\$ 111,681	6.68%	\$ 1,555,665	93.07%	\$ 4,175	0.25%	\$ 1,671,521

Coal Severance \$(000)

	CAPP	%	STIP	%	TFIP	%	Other	%	Total
BIG SKY ECON DEV FD	\$ -	0.00%	\$ 2,170	1.73%	\$ 122,848	98.01%	\$ 325	0.26%	\$ 125,343
PERMANENT COAL TRUST FUND	\$ -	0.00%	\$ 6,529	1.17%	\$ 375,441	67.41%	\$ 174,985	31.42%	\$ 556,954
SCHOOL FACILITIES FUND	\$ -	0.00%	\$ 1,233	2.14%	\$ 56,268	97.60%	\$ 149	0.26%	\$ 57,650
TREASURE ST. REG. WATER SYSTEM	\$ -	0.00%	\$ 1,192	1.14%	\$ 102,844	98.60%	\$ 271	0.26%	\$ 104,307
TREASURE STATE ENDOWMENT	\$ -	0.00%	\$ 3,232	1.07%	\$ 296,892	98.63%	\$ 899	0.30%	\$ 301,022
Total	\$ -	0.00%	\$ 14,355	1.25%	\$ 954,293	83.32%	\$ 176,629	15.42%	\$ 1,145,277

Operating Funds \$(000)

	CAPP	%	STIP	%	TFIP	%	Other	%	Total
FWP LICENSE ACCOUNT	\$ -	0.00%	\$ 42,772	81.93%	\$ 7,355	14.09%	\$ 2,077	3.98%	\$ 52,205
LOCAL AGENCIES	\$ -	0.00%	\$ 1,470,754	99.92%	\$ -	0.00%	\$ 1,195	0.08%	\$ 1,471,949
MONTANA STATE UNIVERSITY	\$ -	0.00%	\$ 181,084	90.91%	\$ 17,898	8.99%	\$ 200	0.10%	\$ 199,182
MT TECH-UM AGENCY FUNDS	\$ -	0.00%	\$ 10,723	95.46%	\$ 499	4.45%	\$ 10	0.09%	\$ 11,233
STATE AGENCIES	\$ -	0.00%	\$ 616,945	99.92%	\$ -	0.00%	\$ 471	0.08%	\$ 617,416
TREASURER'S FUND	\$ -	0.00%	\$ 1,261,587	50.21%	\$ -	0.00%	\$ 1,251,061	49.79%	\$ 2,512,647
UNIV OF MONTANA	\$ -	0.00%	\$ 58,547	60.94%	\$ 32,252	33.57%	\$ 5,275	5.49%	\$ 96,075
Total	\$ -	0.00%	\$ 3,642,413	73.43%	\$ 58,005	1.17%	\$ 1,260,290	25.41%	\$ 4,960,707

Insurance Reserves \$(000)

	CAPP	%	STIP	%	TFIP	%	Other	%	Total
MUS WORKERS COMPENSATION	\$ -	0.00%	\$ 11,268	71.90%	\$ 4,385	27.98%	\$ 20	0.13%	\$ 15,673
PERS DEFINED CONT DISABILITY	\$ -	0.00%	\$ 392	7.30%	\$ -	0.00%	\$ 4,970	92.70%	\$ 5,362
STATE FUND INSURANCE	\$ -	0.00%	\$ 27,896	1.82%	\$ -	0.00%	\$ 1,508,038	98.18%	\$ 1,535,934
SUBSEQUENT INJURY FUND	\$ -	0.00%	\$ 677	99.92%	\$ -	0.00%	\$ 1	0.08%	\$ 678
GROUP BENEFITS	\$ -	0.00%	\$ 83,035	77.86%	\$ 20,965	19.66%	\$ 2,645	2.48%	\$ 106,645
MUS GROUP INSURANCE	\$ -	0.00%	\$ 78,397	82.93%	\$ 14,000	14.81%	\$ 2,133	2.26%	\$ 94,530
Total	\$ -	0.00%	\$ 201,664	11.47%	\$ 39,350	2.24%	\$ 1,517,807	86.30%	\$ 1,758,821

Short Term Investment Pool

Account	#Accounts	Total Market Value	%
Total State	341	2,833,052,005.47	65.8%
Total Local	173	1,470,754,426.24	34.2%
Total STIP	514	\$ 4,303,806,432	100.0%
STIP Reserve		\$ 52,576,674	
Average March 2020 STIP Yield		0.9666%	

Intercap Statistics

Loans Outstanding	\$ 71,554,770
Bonds Outstanding	\$ 90,670,000
Number of Borrowers	173
Loan Rate	1.00%



Budget Monitoring As of 4/30/20

FY 2020 Year Complete 83.33% % Year Payroll Complete 78.24%

Subclass Fund	Acct Lvl 1	Acct Lvl 2	Standard Budget	Actuals Amt	Balance	Percent Expended
765N1 INVESTMENTS DIVISION - HB576			7,526,597.00	5,470,795.51	2,055,801.49	
	06014 BOI Municipal Finance Programs		627,236.00	406,327.85	220,908.15	
	61000 Personal Services		435,606.00	277,417.73	158,188.27	63.69%
		61100 Salaries	325,363.00	203,761.41	121,601.59	
		61300 Other Compensation	2,060.00	2,460.00	(400.00)	
		61400 Employee Benefits	116,818.00	71,196.32	45,621.68	
		61600 Vacancy Savings	(8,635.00)	0.00	(8,635.00)	
	62000 Operating Expenses		191,630.00	128,910.12	62,719.88	67.27%
		62100 Other Services	70,153.00	25,163.86	44,989.14	
		62200 Supplies & Materials	6,320.00	4,860.60	1,459.40	
		62300 Communications	7,521.00	5,613.93	1,907.07	
		62400 Travel	4,280.00	2,255.91	2,024.09	
		62500 Rent	51,333.00	48,242.37	3,090.63	
		62700 Repair & Maintenance	75.00	187.20	(112.20)	
		62800 Other Expenses	51,948.00	42,586.25	9,361.75	
	06527 Investment Division		6,899,361.00	5,064,467.66	1,834,893.34	
	61000 Personal Services		3,812,930.00	2,893,866.09	919,063.91	75.90%
		61100 Salaries	3,048,614.00	2,264,165.01	784,448.99	
		61300 Other Compensation	7,960.00	9,840.00	(1,880.00)	
		61400 Employee Benefits	833,371.00	619,861.08	213,509.92	
		61600 Vacancy Savings	(77,015.00)	0.00	(77,015.00)	
	62000 Operating Expenses		3,086,431.00	2,170,601.57	915,829.43	70.33%
		62100 Other Services	1,968,011.00	1,421,888.32	546,122.68	
		62200 Supplies & Materials	28,366.00	22,749.59	5,616.41	
		62300 Communications	34,963.00	29,164.07	5,798.93	
		62400 Travel	241,288.00	82,380.99	158,907.01	
		62500 Rent	208,438.00	169,028.02	39,409.98	
		62700 Repair & Maintenance	1,068.00	825.30	242.70	
		62800 Other Expenses	604,297.00	444,565.28	159,731.72	
765N3 LEGISLATIVE AUDIT (RST/BIEN)			105,198.00	64,650.35	40,547.65	
	06014 BOI Municipal Finance Programs		21,040.00	12,930.07	8,109.93	
	62000 Operating Expenses		21,040.00	12,930.07	8,109.93	61.45%
		62100 Other Services	21,040.00	12,930.07	8,109.93	
	06527 Investment Division		84,158.00	51,720.28	32,437.72	
	62000 Operating Expenses		84,158.00	51,720.28	32,437.72	61.46%
		62100 Other Services	84,158.00	51,720.28	32,437.72	
765S1 MEDB DEBT SERVICE - SA			3,033,115.00	2,332,033.60	701,081.40	
	06014 BOI Municipal Finance Programs		3,033,115.00	2,332,033.60	701,081.40	
	62000 Operating Expenses		17,000.00	0.00	17,000.00	0.00%
		62800 Other Expenses	17,000.00	0.00	17,000.00	
	69000 Debt Service		3,016,115.00	2,332,033.60	684,081.40	77.32%
		69100 Bonds	3,016,115.00	2,332,033.60	684,081.40	
Grand Total			10,664,910.00	7,867,479.46	2,797,430.54	

MONTANA BOARD OF INVESTMENTS

Department of Commerce

Street Address:
2401 Colonial Drive, 3rd Floor
Helena, MT 59601

Mailing Address:
PO Box 200126
Helena, MT 59620-0126



Phone: 406/444-0001
Facsimile: 406/449-6579
Website: www.investmentmt.com

TO: BOI Staff
FROM: Dan Villa, Executive Director
DATE: 3/4/2020
RE: Emergency Preparedness

This memo is in preparation for a very unpredictable and fluid situation surrounding the spread of COVID – 19 (aka Corona Virus). The directives contained herein stand until repealed by a subsequent memorandum.

Attached is the updated Business Continuity of Operations (COOP) plan for the Board of Investments (BOI), the Emergency Call Down List, Tele-Work Remote Access Instructions, and Functional Organizational Chart. Please keep a copy of this memorandum and all attachments both at your home and in your office. All are available in the M: Drive (<M:\ADMIN\COOP>).

The following will happen in the event we need to implement our COOP plan:

1. I will initiate the Emergency Call Down List to relay any necessary messages (ie. office shut down, incapacity of staff, Federal or State Disaster Declaration impacting BOI operations, etc). This will be followed by both an email and text message to all of you with the information.

Each day will be treated as a separate incident. For example, if we close the office on Monday, I will notify you again if we will remain closed on Tuesday and again for each subsequent day.

2. Each day we utilize the Emergency Call Down List we will have all staff conference calls at 9AM and again at 1PM. Please use the following call in number and passcode:

Call In: 1(877)273-4202
Conference Room: 211-965-892

The agenda for the call will be:

- Convene/Staff Roll Call – Executive Director
- Situation Update – Executive Director
- Investments Operations Update – CIO
- Accounting Operations Update – Deputy Financial Managers
- Bond Program Operations Update – Senior Bond Program Officer
- Loan Program Operations Update – Director of In-State Loan
- Next Steps/Adjourn – Executive Director

3. No one should enter the BOI office on Colonial Drive or the Backup Operations Site without permission from the Executive Director. All materials necessary for the conduct of BOI business should be taken with you each night, including but not limited to laptops, procedure manuals, RSA, State Street, US Bank tokens and Bloomberg B Units.
4. Use the REG code on your timesheet for hours you work remotely. Please coordinate your work with your immediate supervisor.

There are some immediate steps we need to take to be prepared. First, I will need to approve travel requests moving forward. Second, if you have been issued a laptop for tele-work purposes, please have Linda update it by COB Friday, March 5. Finally, Linda will be holding a training for Citrix access (remote access to our network drives) and EC500 (remote call forwarding) on Thursday, March 5 from 1-2 PM in the Large Conference Room. I encourage anyone unfamiliar with these services to attend. If you have a state issued laptop, please bring it to the training.

Lastly and significantly, if you're sick please just stay home.

This may seem premature or even excessive now; however, I'd rather be overprepared than under given the circumstances. Thanks for understanding and, most importantly, for everything you do for BOI and the million people we serve each day.

MONTANA BOARD OF INVESTMENTS

Department of Commerce

Street Address:
2401 Colonial Drive, 3rd Floor
Helena, MT 59601

Mailing Address:
PO Box 200126
Helena, MT 59620-0126



Phone: 406/444-0001
Facsimile: 406/449-6579
Website: www.investmentmt.com

TO: BOI Staff
FROM: Dan Villa, Executive Director
DATE: 3/12/2020
RE: Emergency Preparedness – Memorandum 2

This is additional guidance to the memorandum of 3/4/2020.

Effective immediately, please cancel any out of state visitors from traveling to BOI offices. The teleconference and Skype platforms are available for your use. Please coordinate with the front office to schedule conference rooms which have the necessary technological capabilities.

Out of state travel requests are denied until April 12, 2020. Any travel already scheduled through April 12 should be cancelled. Travel after that date may be booked but should be considered tentative as we continue to monitor the situation. The BOI will purchase travel insurance as work related travel arrangements are made.

If you are traveling for personal reasons, please let me know as soon as possible. BOI cannot and will not impose travel restrictions on your personal travel, however, you may be asked to work remotely upon your return to avoid possible exposure to coworkers.

Please use code "77 TWR" for your timesheets for telework. A previous memo directed you to use "REG," however, using "77 TWR" will allow us to quantify this time.

Finally, communication is going to be key to remaining productive and avoiding unnecessary concern. Please feel free to see or call me if you have any concerns, questions, or suggestions. I am activating my EC500 connection today and will leave it on for the foreseeable future.

Thank you all for your understanding as we work through this together.

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Mailing Address:
PO Box 200126
Helena, MT 59620-0126



Phone: 406/444-0001
Facsimile: 406/449-6579
Website: www.investmentmt.com

TO: BOI Staff
FROM: Dan Villa, Executive Director 
DATE: 3/19/2020
RE: Emergency Preparedness – Memorandum 2

This is additional guidance to the memorandum of 3/4/2020.

Effective immediately, please cancel any out of state visitors from traveling to BOI offices. The teleconference and Skype platforms are available for your use. Please coordinate with the front office to schedule conference rooms which have the necessary technological capabilities.

Out of state travel requests are denied until further notice.

Thank you all for your understanding as we work through these issues.

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Website: www.investmentmt.com



To: BOI Employees
From: Dan Villa, Executive Director *Dan Villa*
Date: April 17, 2020
Subject: Emergency Preparedness – Memorandum 3 – Employee Return to Office Plan

As we approach the end of the Governor's Directive for social distancing/teleworking and as COVID-19 cases continue to decline, it is time to start preparing for our new normal. The plan outlined below is how we will slowly return to in-office operations. The memo concludes with important information from the Centers for Disease Control and Occupational Safety and Health Administration. I will send a subsequent memorandum with specific dates once it is safe to do so.

Return to Work*: Employees returning to work will be staggered over a three week period according to the following schedule:

Week 1:

Executive Director, Deputy Director, Chief Investment Officer, Deputy Chief Investment Officer, Financial Manager, Office Manager, Administrative Assistant

Week 2:

Directors of Private Markets; Real Estate/Natural Resources; Operations; and Risk and their associated Investment Officers and Analysts, Public Markets Investment Officer and Analyst, Associate Financial Managers, Senior Bond Program Officer, Bond Program Officer, and Director of In-State Loans

Week 3:

Director of Fixed Income, Fixed Income Investment Analyst and Investment Accountants

*Accommodations for child care or for employees who have immediate contact with individuals who are high risk for infection should be directed to the Executive Director.

Employees will be admitted in small groups in 15 minute increments beginning at 7:00 AM. A sign up schedule will be distributed at the beginning of each week for the following week.

New Safety Protocols for the Office:

1. A no visitor policy will be in effect until at least June 30, 2020. Contractors will be able to complete their work by following the guidelines established for BOI employees.
2. A no work-related travel policy will be in effect for all BOI employees through June 30, 2020.
3. All BOI employees will enter and exit the building through the side entrance near the parking lot.

4. Upon entering the third floor, employees are to report to the intern office (next to Jon's office) to have their temperature taken and to answer the following questions at the beginning of each day:
 - a. "Do you have a temperature at or above 100.4 F or 38 C?"
 - b. "Do you have a fever, cough or shortness of breath?"
 - c. "Have you or a member of your household tested positive or are currently awaiting results for a COVID-19 test?"
 - d. Answering "yes" to any question will necessitate employees to work from home for that business day and to exit the building immediately.

If you can answer yes to any of the questions above, do not come into the office. Contact your supervisor to discuss a plan to continue working from home.

5. Employees will be provided masks which must be worn outside of their office at all times.
6. Employees will be provided disinfectants to use in their office. Keyboards, desktops, phones, etc. must be wiped down at the end of each day.
7. Hand sanitizer stations will be set up inside all ingress/egress doors, in the mailroom and near the copier/printer area for use.
8. Conference room use will be limited to:
 - a. Large Conference Room – 10 occupants
 - b. Small Conference Room – 4 occupants
 - c. Central Conference Room – Not for Use
 - d. Additional Conference Room in audit space (completion date TBD) – 6 occupants
9. Walking traffic flow will be in a counterclockwise fashion for all hallways to maintain social distancing best practices. Employees should look before leaving their office to ensure social distancing guidelines can be followed.
10. Communal silverware, dishes, coffee cups and other kitchenware will be eliminated. Employees will be supplied with reusable kitchenware to keep in their office and keep clean on their own. Dishes should be cleaned and dried immediately and returned to employee's office. No food should be left in the refrigerator overnight.

IMPORTANT INFORMATION FOR YOUR REVIEW

Although the pandemic possibly originated from humans exposed to infected animals, SARS-CoV-2 (COVID-19)—like other coronaviruses—spreads between people.

Risk Analysis based on OSHA Guidelines: Low or caution

OSHA definition of low risk is:

Lower Exposure Risk (Caution)

Jobs that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2. Workers in this category have minimal occupational contact with the public and other coworkers. Examples include:

- Remote workers (i.e., those working from home during the pandemic).
- Office workers who do not have frequent close contact with coworkers, customers, or the public.
- Manufacturing and industrial facility workers who do not have frequent close contact with coworkers, customers, or the public.

- Healthcare workers providing only telemedicine services.
- Long-distance truck drivers.

Prior to employees returning: Review the following information prior to returning to the office.

Information from the CDC:

Educate employees about how they can reduce the spread of COVID-19:

- Employees can take steps to protect themselves at work and at home. Older people and people with serious chronic medical conditions are at higher risk for complications.
- Follow the policies and procedures of your employer related to illness, cleaning and disinfecting, and work meetings and travel.
- Stay home if you are sick, except to get medical care. Learn what to do if you are sick.
- Inform your supervisor if you have a sick family member at home with COVID-19. Learn what to do if someone in your house is sick.
- Wash your hands often with soap and water for at least 20 seconds. Use hand sanitizer with at least 60% alcohol if soap and water are not available.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash and immediately wash hands with soap and water for at least 20 seconds. If soap and water are not available, use hand sanitizer containing at least 60% alcohol. Learn more about coughing and sneezing etiquette on the CDC website.
- Clean AND disinfect frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, and doorknobs. Dirty surfaces can be cleaned with soap and water prior to disinfection. To disinfect, use products that meet EPA's criteria for use against SARS-CoV-2[external icon](#), the cause of COVID-19, and are appropriate for the surface.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
- Practice social distancing by avoiding large gatherings and maintaining distance (approximately 6 feet or 2 meters) from others when possible.

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To: BOI Employees
From: Dan Villa, Executive Director
Date: April 17, 2020 *-Revised April 20, 2020-*
Subject: Emergency Preparedness – Memorandum 3 – Employee Return to Office Plan

As we approach the end of the Governor's Directive for social distancing/teleworking and as COVID-19 cases continue to decline, it is time to start preparing for our new normal. The plan outlined below is how we will slowly return to in-office operations. The memo concludes with important information from the Centers for Disease Control and Occupational Safety and Health Administration. I will send a subsequent memorandum with specific dates once it is safe to do so.

Return to Work*: Employees returning to work will be staggered over a three week period according to the following schedule:

Week 1:

Executive Director, Deputy Director, Chief Investment Officer, Deputy Chief Investment Officer, Financial Manager, Office Manager, Administrative Assistant, *IT Administrator*

Week 2:

Directors of Private Markets; Real Estate/Natural Resources; Operations; and Risk and their associated Investment Officers and Analysts, Public Markets Investment Officer and Analyst, Associate Financial Managers, Senior Bond Program Officer, Bond Program Officer, and Director of In-State Loans

Week 3:

Director of Fixed Income, Fixed Income Investment Analyst and Investment Accountants

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 - d. Answering "yes" to any question will necessitate employees to work from home for that business day and to exit the building immediately.

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8. Conference room use will be limited to:
 - a. Large Conference Room – 10 occupants
 - b. Small Conference Room – 4 occupants
 - c. Central Conference Room – Not for Use
 - d. Additional Conference Room in audit space (completion date TBD) – 6 occupants
 - e. ***Meadowlark Conference Room – 4 occupants***
9. Walking traffic flow will be in a counterclockwise fashion for all hallways to maintain social distancing best practices. Employees should look before leaving their office to ensure social distancing guidelines can be followed. ***Please observe the signage.***
10. Communal silverware, dishes, coffee cups and other kitchenware will be eliminated. Employees ***should supply their own*** kitchenware to keep in their office and keep clean on their own. Dishes should be cleaned and dried immediately and returned to employee's office. No food should be left in the refrigerator overnight. ***Please limit kitchen use to no more than two people at a time.***
11. ***Employees should depart the building by 5PM to accommodate additional custodial services.***

IMPORTANT INFORMATION FOR YOUR REVIEW

Although the pandemic possibly originated from humans exposed to infected animals, SARS-CoV-2 (COVID-19)—like other coronaviruses—spreads between people.

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- Stay home if you are sick, except to get medical care. Learn what to do if you are sick.
- Inform your supervisor if you have a sick family member at home with COVID-19. Learn what to do if someone in your house is sick.
- Wash your hands often with soap and water for at least 20 seconds. Use hand sanitizer with at least 60% alcohol if soap and water are not available.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
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Facsimile: 406/449-6579
Website: www.investmentmt.com



TO: Colonial Building Tenants
FROM: Dan Villa, Executive Director, Montana Board of Investments 
DATE: 5/5/2020
RE: Post-COVID 19 Office Precautions

First, I hope you and yours are safe and well!

As we approach returning to our shared office space here at the Colonial building, there are a few precautions we will be implementing in order to protect you, your coworkers, and families. Your individual departments and/or divisions may implement additional requirements but those listed below are for those of us who share the Colonial building. All provisions are temporary until the risk of COVID 19 has dissipated.

1. Dedicated Entrances/Exits – We will have dedicated entrances and exits to help maximize social distancing between floors. The main and north side entrances are reserved for first floor tenants. The back entrance is reserved for second floor tenants. The south side entrance is reserved for third floor tenants. Tenant key cards will be temporarily disabled for doors that do not lead to the immediate workspace through the designated entrance. All exits will be available in case of an emergency.
2. Dedicated Parking – Parking areas near tenants' respective entrances will be made available for their sole use. The dedicated visitor parking in front is suspended and reserved for first-floor tenants. The rear parking lot is devoted to second floor tenants. Third floor tenants will park in the large lot only.
3. ADA Compliance – Please continue to observe all handicap parking spaces. The elevator will be available for all individuals requiring it. BOI will set up sanitation stations outside the elevator doors on all floors.

I've attached the BOI specific safety protocols for your reference. These will apply to all BOI staff. Again, your division or department may implement their own versions of the attached in addition to the above building specific safeguards.

Thank you all for understanding and following these new safety precautions. Together, we can each do our part in helping to prevent the spread of this disease. Feel free to contact me directly if you have any questions or suggestions. We're all learning and adjusting to this rapidly changing situation and I'm happy to hear your feedback.

State and economist's predictions differ on pension plan earnings

by Heidi Meili

Wednesday, May 20, 2020

NBC MONTANA

State and economist's predictions differ on pension plan earnings. (NBC Montana image)

MISSOULA, Mont. — Politicians often tell you, law requires Montana to operate debt free. That is true of our state's two-year general operating budget. In fact, Montana has a surplus in money for general day-to-day operations.

However, economists warn, like most states, Montana owes debts not included in the general operating budget.

These include obligations to pay state workers' pensions in retirement, and bonds for infrastructure.

In this news report, we are focusing only on the state pension fund.

Teachers are among state employees Montana is obligated to pay a retirement pension.

Matthew Driessen is the DeSmet School Principal in Missoula.

He says teachers and staff members work hard in their careers, and prepare our children for the real world, even when many children are dealing with stresses outside the classroom.

"Great teachers deal with all this, regardless of what's happening at home and in the community and making the lessons relevant," said Driessen.

The Bureau of Business and Economic Research at the University of Montana assures us that the state will pay pensions, but predicts shortcomings in current funding that Montana will have to make up elsewhere.

"There's an imbalance there. There are not sufficient funds set aside to pay for those promises we've made. At some point in the future, taxpayers of the future are going to be asked to make up the difference. That in itself, is a deficit. It's something in the books that has to be paid, that we are committed to do, but we haven't set the funds aside to do," said Patrick Barkey, The Director of The Bureau of Business and Economic Research.

Barkey likens pension programs to two tracks that move along into perpetuity. One is the investment earnings on what workers are depositing each month. The other is what a state is

obligated to pay out. When the two move along at the same rate, pensions are 100% funded. When the obligation track is moving faster than the investment earnings track, pensions are underfunded.

The Montana Board of Investments figures current investment growth should cover 74% of Montana's pension obligations.

However, Barkey figures earnings will likely only cover 50% of what Montana will owe.

Economists say the state of Illinois is one of the worst states with pension debt; only having 30% of its future pension obligations covered.

Officials also say Illinois, New Jersey and Kentucky are facing nightmare scenarios too.

However pensions are covered, The Desmet School Principal says teachers deserve security in retirement.

"Teaching is a tough job. After 20 to 30 years of service doing that, we say, "We are going to make sure you are taken care of. Thank you very much." That's the contract we need to adhere to," said Driessen.

Should pension obligations to state workers fall short in Montana, economists say other programs may have to make up the difference.

If schools were to get fewer state dollars, or families had to take on new tax burdens, administrators say learning could suffer.

"There is a direct correlation between the more fiscal stress a family has financially and the student's performance on their standardized tests. The more stress a family has financially, the lower their student's standardized test scores. That has been documented. It is in studies. That's why the fiscal health of a community is so crucial to the academic well-being of the children," said DeSmet School Principal, Matthew Driessen.

The Montana Board of Investments says returns on an investment fund that pays state pensions is close to 8%, and would cover about 74% of Montana's pension obligation.

However, the University of Montana Bureau of Business and Economic Research says models are overshooting these estimates.

"We have assets set aside to pay for obligations in the future. Those assets are invested. They earn a return. If the return is about 4%, which is a reasonable estimate, then we're about 50% underfunded, in the sense that the assets are 50% of what they need to be in order to fully fund those future obligations we are committed to do," said Barkey.

The Bureau of Business and Economic Research predicts Montana's returns could fall short within the next five to ten years, forcing Montana possibly dip into the state's two-year operating budgets, raise taxes or find some other source of money.

Public school officials say operating budget shortfalls often lead to larger class sizes, fewer staff members and cuts to meal programs.

"We do everything we can to make a safe, productive environment. You see that all go away. It gets undermined," said Driessen.

State officials and UM researchers disagree on investment income to cover Montana pensions.

The Montana Board of Investments says the Bureau of Business and Economic Research's 4% prediction is an unheard of low, and an independent analysis ranks Montana's pension fund among the best Wall Street performers.

The board's director says Montana added more than \$8 billion to the main pension fund between 2009 and 2019.

Even though state officials and UM researchers disagree on the performance of investment funds, all agree that Montana will pay state retirees their full pensions.

MEMORANDUM

Montana Board of Investments

Department of Commerce

2401 Colonial Drive, 3rd Floor
Helena, MT 59601 (406) 444-0001

To: Board of Directors

From: Doug Hill-Director In-State Loan Programs

Date: May 20, 2020

Subject: Commercial and Residential Loan Portfolios

As of April 30, 2020, the Commercial loan portfolio balance was \$208,995,596 and represents 113 loans. There are currently two loan reservations that total \$7,950,000 and seven loans committed that total \$21,657,500. The commercial loan portfolio, excluding the Veterans Home Loan Program, Multifamily Coal Trust Homes Program, and Intermediary Relending Program has a yield of 2.91%. There are no loans past due over 30 days.

The Residential loan portfolio reflected an outstanding balance, as of April 20, 2020, of \$3,121,006 and represents 80 loans with a yield of 6.58%. There are no outstanding reservations. There are two loans, with an FHA guaranty, over 90 days past due totaling \$130,279 or 4.17% of the portfolio.

The Veterans Home Loan Mortgage portfolio reflected an outstanding balance, as of April 20, 2020, of \$47,691,656 and represents 270 loans with a yield of 1.87%. There are six reservations totaling \$1,146,906 with a projected yield of 1.22%. There is one loan over 90 days past due totaling \$170,698, or 0.36% of the portfolio.

The Multifamily Coal Trust Homes Program reflected an outstanding balance, as of May 11, 2020, of \$1,675,560 and represents two loans with a yield of 2.69%. There are five reservations totaling \$12,868,626. The remaining available funds is \$455,814. There are no past due loans.

The Intermediary Relending Program reflected an outstanding balance, as of April 30, 2020, of \$4,249,432 and represents 32 loans with a yield of 2.00%. There is \$242,189 available to advance. There are three loans committed that total \$937,500. There are no past due loans.

INTERCAP Loan Program

Activity Summary

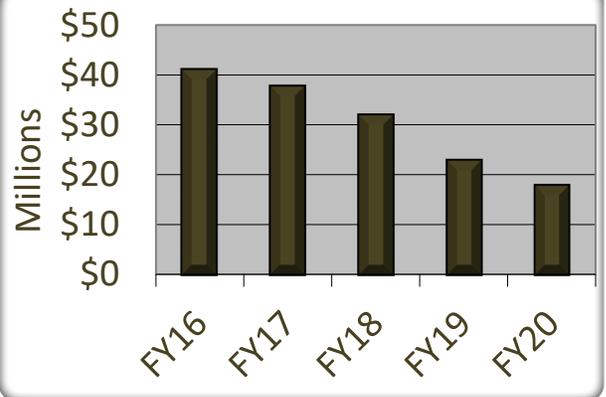
As of March 31, 2020

Since Inception 1987 - March 2020

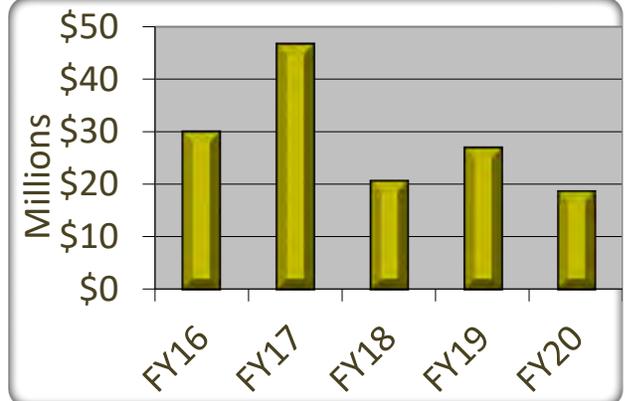
Total Bonds Issued	168,000,000
Total Loan Commitments	629,780,498
Total Loans Funded	599,542,863
Total Bonds Outstanding	90,670,000
Total Loans Outstanding	69,434,771
Loan Commitments Pending	30,237,635

FY2020		
Month	Commitments	Fundings
July-19	\$ 1,447,634	\$ 1,028,463
August	710,000	2,252,511
September	782,700	2,466,764
October	4,800,000	1,882,130
November	5,032,000	3,147,838
December	62,374	3,311,600
January	-	425,624
February	4,357,906	2,012,052
March	875,816	2,149,444
April	-	-
May	-	-
June-20	-	-
To Date	\$ 18,068,430	\$ 18,676,426

Commitments FY16-FY20



Fundings FY16-FY20



Note: Commitments include withdrawn and expired loans.

Variable Loan Rate History February 16, 2013 - February 15, 2021

February 16, 2013 - February 15, 2014	1.00%	February 16, 2017 - February 15, 2018	2.50%
February 16, 2014 - February 15, 2015	1.00%	February 16, 2018 - February 15, 2019	3.15%
February 16, 2015 - February 15, 2016	1.25%	February 16, 2019 - February 15, 2020	3.37%
February 16, 2016 - February 15, 2017	1.55%	February 16, 2020 - February 15, 2021	2.50%*

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

MEMORANDUM

Montana Board of Investments

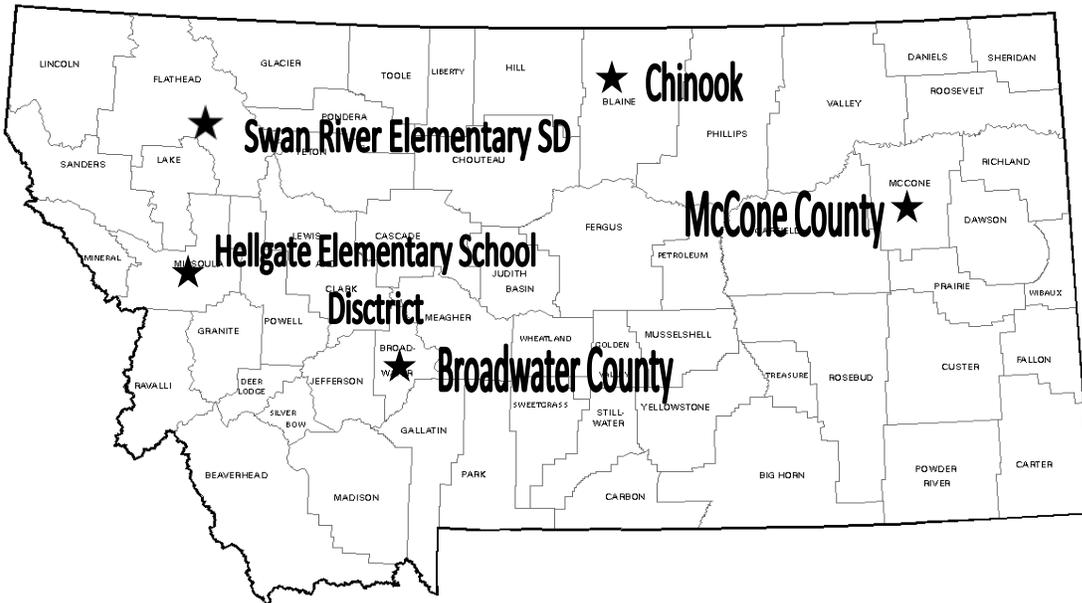
Department of Commerce

2401 Colonial Drive, 3rd Floor

(406) 444-0001

To: Members of the Board
From: Savannah Morgan, Bond Program Officer *SM*
Date: June 8, 2020
Subject: INTERCAP Staff Approved Loans Committed

Staff approved the following loans between January 1, 2020 to March 31, 2020.



Borrower:	Hellgate Elementary School District (Missoula)
Purpose:	Purchase snow removal equipment
Staff Approval Date:	February 14, 2020
Board Loan Amount:	\$ 75,006
Other Funding Sources:	\$ 0
Total Project Cost:	\$ 75,006
Term:	5 years

Borrower:	Swan River Elementary School District (Bigfork)
Purpose:	Replace and repair school roof
Staff Approval Date:	February 18, 2020
Board Loan Amount:	\$120,000
Other Funding Sources:	\$ 20,000
Total Project Cost:	\$140,000
Term:	15 years

Borrower:	McCone County
Purpose:	Purchase backhoe loader with attachments
Staff Approval Date	February 21, 2020
Board Loan Amount:	\$77,900
Other Funding Sources:	\$ 0
Total Project Cost:	\$77,900
Term:	5 years

Borrower:	City of Chinook
Purpose:	Interim financing – water distribution system improvements
Staff Approval Date	March 4, 2020
Board Loan Amount:	\$ 789,000
Other Funding Sources:	\$1,490,000
Total Project Cost:	\$2,397,000
Term:	2 years

Borrower:	Broadwater County
Purpose:	Solid Waste Department improvements and purchase canisters
Staff Approval Date	March 9, 2020
Board Loan Amount:	\$86,816
Other Funding Sources:	\$ 0
Total Project Cost:	\$86,816
Term:	10 years

**Montana Board of Investments
Loan Committee
INTERCAP Loan Summary and Approval**



Borrower City of Scobey

Date June 8, 2020

Approval Date _____

The City requests a \$2,500,000 interim loan in anticipation of the United States Department of Agriculture (USDA) Rural Development Services (RD)¹ long-term financing for phase two of its water distribution system improvements project. The loan will be for up to two (2) years and in the form of a bond anticipation note (BAN). The project went out for bid in November of 2019, and the projected drawdown will be for summer/fall of 2020.

The funding package for the \$5,558,000 total project cost is as follows:

Borrower Portion		\$ 425,000
Department of Natural Resources – RRGL ² Grant		125,000
Department of Commerce – TSEP ² Grant		500,000
Rural Development (RD) Grants		2,008,000
INTERCAP Interim Loan	\$2,500,000	
Rural Development (RD) Loan		<u>2,500,000³</u>
	Total	\$ 5,558,000

¹ <http://www.rurdev.usda.gov/>

²Renewable Resource Grant Program
Treasure State Endowment Program

³ Includes a 9% contingency for the construction portion of the budget

Authorization

7-7-109 Montana Code Annotated (MCA) (2) (a) When all conditions exist precedent to the offering for sale of bonds of a political subdivision in any amount and for any purpose authorized by law or the political subdivision has applied for and received a commitment for a grant or loan of state or federal funds, its governing body may by resolution issue and sell, in anticipation of the receipt of the grant, loan, or bonds in an amount not exceeding the total amount of bonds authorized or the total amount of the loan or grant that is committed, notes maturing within not more than three years from the date on which the notes are issued.

INTERCAP Debt

The City has one outstanding loan for phase one of the same project the Board committed \$2,500,000 to in May 2018. The loan will be paid off June 10, 2020 releasing the \$636,000 remaining commitment.

RD Commitment

The Code of Federal Regulations (CFR) Title 7, Chapter Xvii, Part 1780, Sub Part B, Section §1780.39 (b)(5)(i)(d) states, *“For all loans exceeding \$500,000, where funds can be borrowed at reasonable interest rates on an interim basis from commercial sources for the construction period, such interim financing may be obtained so as to preclude the necessity for multiple advances of Rural Utilities Services (RUS i.e. RD) loan funds. However, the approval official may make an exception when interim financing is cost prohibitive or unavailable. Guidance on informing the private lender of RUS’s commitment is available from the Agency. When interim commercial financing is used, the application will be processed, including obtaining construction bids, to the stage where the RUS loan would normally be closed, that is immediately prior to the start of construction. The RUS loan should be closed as soon as possible after the disbursement of all interim funds.”*

RD staff works closely with the borrower, engineer, other state and federal agencies and technical assistance providers throughout the planning, application and construction phases of all RD financed projects to ensure each

one is a viable project, a sound credit, and in the government's best interest. Prior to authorizing draws on the interim loan, RD staff goes through an exhaustive process to ensure the borrower meets the multitude of requirements as if they were to close and release funds on the RD long-term revenue bond. RD provides three documents to Board staff that evidence their due diligence and commitment to fund the project as follows:

- Letter of Conditions (LOC): The LOC assures the Board that the processing office completed the credit analysis, verified user number and rate revenue sufficient to support all costs of the facility after the project is complete, validated the engineering design, and oversaw environmental due diligence. The approving official, Community Programs Director (Director), reviews the application package, the LOC delineating the conditions the applicant must meet prior to closing, and the processing office's recommendation to approve. If the applicant agrees to the conditions and the Director concurs with the processing office's findings, the funds are obligated to the project. It is important to note that RD will not issue the LOC unless funds have been appropriated by Congress and are available. The Director affirmed that Congress does not claw back funding once appropriated.
- USDA, Office of General Counsel (OGC) Closing Instructions: The closing instructions assure the Board that RD approved the loan, obligated funds to the project, and the OGC reviewed and approved all the bond proceedings. The closing instructions list the items that need to be completed prior to closing. As required in the above federal regulation, all the requirements are met prior to closing and releasing funds either on an RD loan or, if interim financing is involved, authorizing any interim draws. A 5%-10% contingency, depending on the complexity of the system, is added after bids are received to establish the total project cost.
- Letter of Intent ("I" Letter): The Director's "I" letter acknowledges that INTERCAP is the interim financing source, that each draw will be authorized by RD and that funds will be available to payoff both principal and interest on the INTERCAP loan when the engineer issues the Certificate of Substantial Completion to the contractor for RD loan only projects. However, over 90% of the cases involve RD grant funds as well. The amount of grant versus loan depends on the borrower's available cash. RD requires the loan be closed before the first draw of RD grant funds so that when construction is 60-80% complete, INTERCAP is paid in full and RD carries through to project completion. If there is financial hardship in the community, the project is grant only with no loan component or interim financing involved.

Repayment

The bond proceeds from the City's issuance and sale of a revenue bond to RD will repay the BAN. Special conditions to the Board's commitment to ensure the revenue bond takes out the BAN are as follows:

1. Prior to disbursing funds, the Board requires evidence of RD's commitment to pay off the BAN with a long-term loan. Copies of the following will provide sufficient evidence:
 - RD Letter of Conditions (**MBOI has on file**)
 - USDA Office of General Council (OGC) Loan Closing Instruction
 - RD Letter of Intent to Fund ("I" Letter)
2. The Board will require approval from RD for each specific draw on the loan.
3. The Board requires the City to hire Bond Counsel to prepare the necessary BAN documents and provide the opinion at closing. The Bond Counsel needs to be nationally recognized and rendering a bond counsel opinion in the last ten years.

Recommendation

Providing interim financing is in step with INTERCAP’s statutory mission to reduce, to the extent possible, costs of public indebtedness to taxpayers and residents. Since 1996, INTERCAP and RD have been successful partners in this endeavor, saving communities with populations under 10,000 on interest expense that is better spent towards their vital water and wastewater projects protecting the health and quality of life in Montana. Funds are never drawn until the RD-approved construction contract documents have been signed and RD is satisfied there are sufficient funds to build the total project. To date, the Board has never been obliged to convert any of these BANs into a long-term revenue bond. Approval recommended.

Staff Loan Committee

Dan Villa, Executive Director	<u>Dan Villa</u>	Recommended	<u>5/21/2020</u>
Peggy MacEwen, Deputy Director	<u>Peggy MacEwen</u>	Recommended	<u>5/18/2020</u>
Louise Welsh, Sr. Bond Program Officer	<u>Louise Welsh</u>	Recommended	<u>5/18/2020</u>
Savannah Morgan, Bond Program Officer	<u>Savannah Morgan</u>	Recommended	<u>5/18/2020</u>

Board Loan Committee – June 8, 2020

Jack Prothero, Chairperson – Loan Committee	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
Bruce Nelson, Member	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
Terry Cohea, Member	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
Jim Edwards, Member	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain

Approved _____



MONTANA

BOARD OF INVESTMENTS



**Montana Trust Fund
Real Estate Holdings**

June 2020 Report



- * MBOI Owned Buildings
- * Buildings Held in Trust Fund Investment Pool
- * March 30, 2020 Fair Value = \$19.2 Million
- * FY19 Net Operating Income = \$1,197,815
- * Two Recommendations Requiring Board decisions





Summary

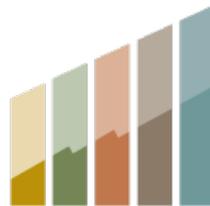
	N Park Ave.	Colonial Dr.	California St.	9th Ave.	Bozeman	Total
Fair Value as of March 30, 2020	6,415,000	9,900,000	290,000	470,000	2,140,000	19,215,000
Income for FY19	781,183	1,102,384	-	96,840	269,924	2,250,331
Gain/Loss FY19	300,454	706,474	(2,260)	37,643	155,504	1,197,815
IRR	8.93%	9.8%	1.12%	29.98%	6.82%	



100 North Park Avenue, Helena, MT



Year Built:	1982
Purchase Date:	January 1986
Purchase Price:	\$4,864,326
Current Value:	\$6,415,000
IRR:	8.93%
Tenants:	3 State Agencies, MPERA & TRS

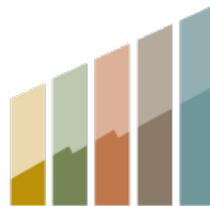


2401 Colonial Drive, Helena, MT



Year Built:	1999
Purchase Date:	August 1997*
Purchase Price:	\$6,481,741
Current Value:	\$9,900,000
IRR:	9.8%
Tenants:	2 State Agencies

*In August 1997, the Board authorized the purchase of land to construct an office building as a real estate investment. The three story building was occupied in November 1999.

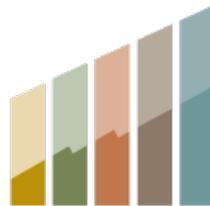


California Street, Helena, MT



This property is to the west of the Colonial property and behind the Marriott Delta Hotel.

Purchase Date:	December 1998
Purchase Price:	\$204,835
Current Value:	\$290,000
Square Feet:	1.96 acres – raw land
IRR:	1.12%



1712 9th Avenue, Helena, MT



Year Built:	1968
Purchase Date:	November 2000
Purchase Price:	*
Current Value:	\$470,000
IRR:	29.98%
Tenants:	2 State Agencies

*MPERA purchased the property as an investment in 1969. Title to the property was vested in the State of Montana for the use of MPERA. A corrective deed was issued in 2000 naming the Board of Investments as owner.

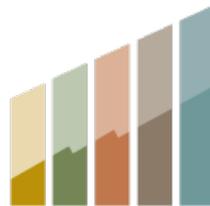


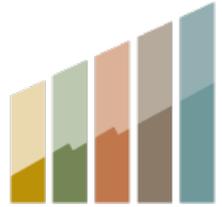
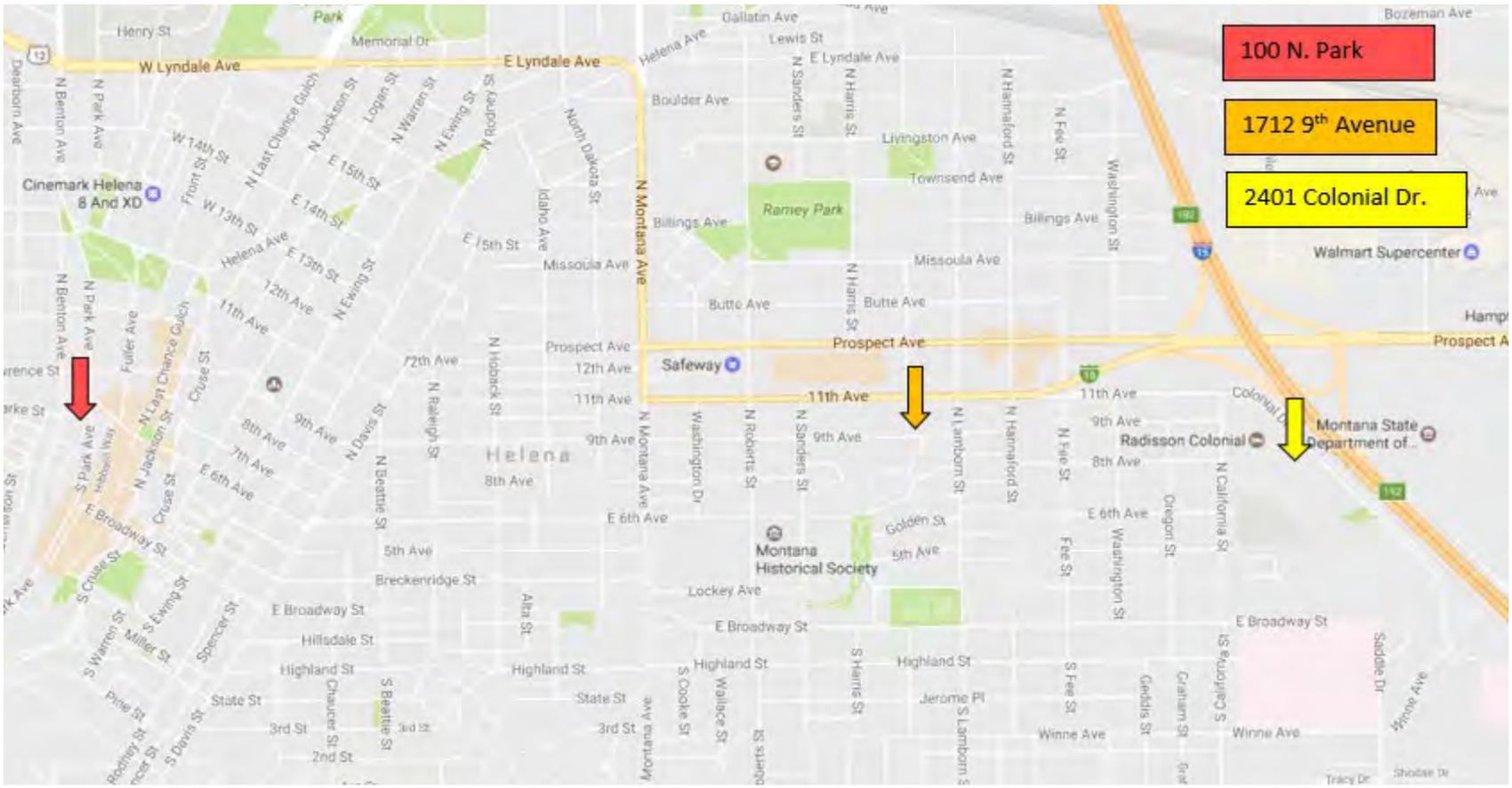
2273 Boot Hill Court, Bozeman, MT

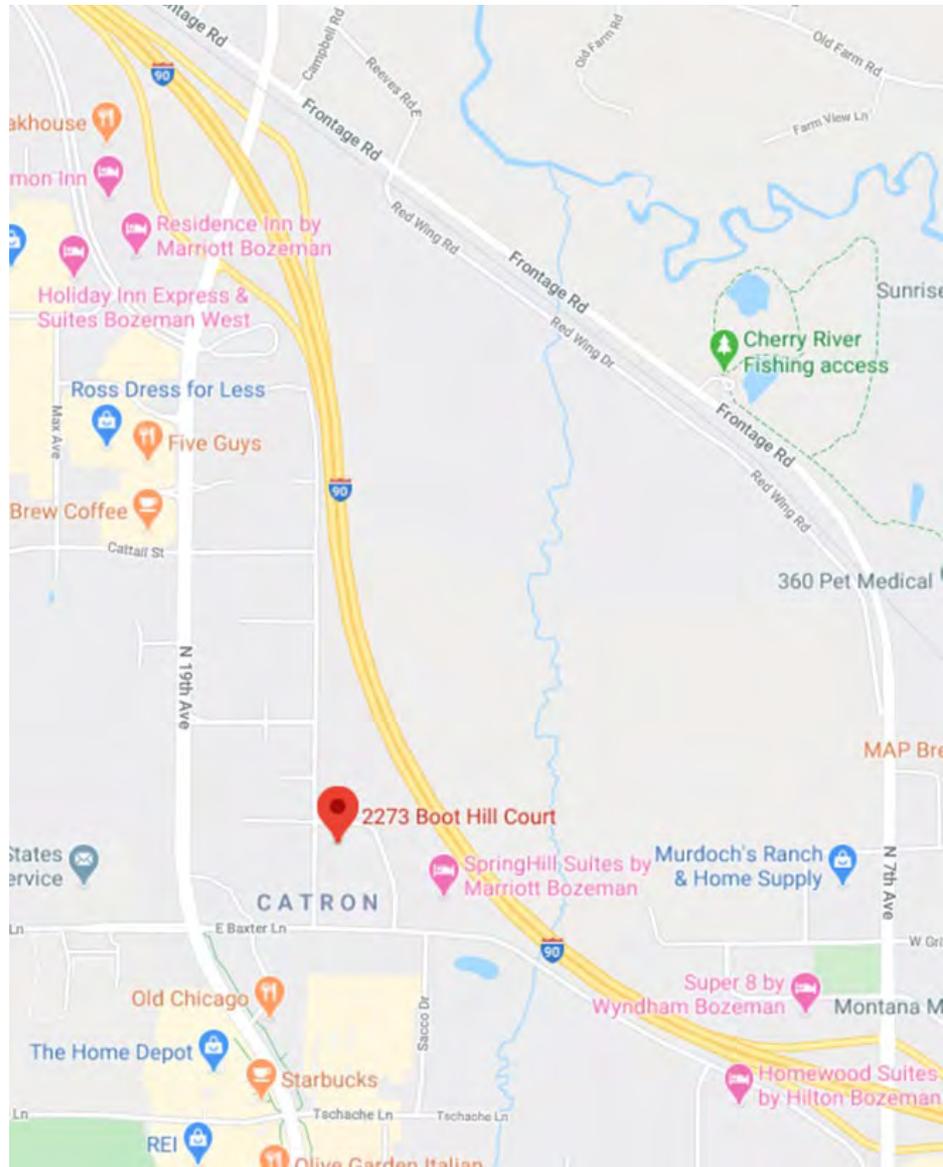


Year Built:	2004
Purchase Date:	August 1999*
Purchase Price:	\$2,051,032
Current Value:	\$2,140,000
IRR:	6.82%
Tenants:	4 State Agencies

*In August 1999, the Board authorized the construction and purchase of an office building. The one story building was occupied in April 2004. The building is on land leased from DNRC. The Lan lease expires in 2040.







Decision #1 – Land Swap with School

Decision

Enter into an agreement with the District to swap land and terminate all agreements, easements, and right of ways.

History (1998)

- Encroachment Permit – Provided BOI use of City Property
- Access Easement – Grants BOI access to District Property on Northwest side of property
- Parking Spaces Agreement – Designates 33 parking spaces as District Parking
- Drainage and Snow Removal – Grants BOI 60' strip on southeastern boarder for snow removal and drainage and Gazebo site

Benefits

- Divest of low IRR property
- Create clear borders of control and ownership by eliminating all Easements, Right of Ways, and Agreements and aligning land ownership with current use.



Decision #2 – Purchase TRS Building

Facts

- Estimated Purchase Price \$1,900,000
- Estimated value in 2040 (Based on North Park Ave appreciation) \$2,489,000
- IRR (Projected through 2040) 6.11%
- Lease in place with 3% escalation on rent for next 10 years
- Building renovated and re-roofed

Risks

- Freeze placed on rental increases
- Unforeseen expense

Benefits

- No major expense identified for next several years
- Lease in place with escalation
- On Capital Complex and in high demand area



Pension Asset Class Benchmarks Review

Dan Zarling, CFA, CIPM

June 8, 2020



Performance Benchmark Definition	3
Asset Class Benchmarking Criteria	4
Domestic Equity	5
International Equity	6
Private Investments	7
Real Estate	8
Natural Resources	9
Non Core Fixed Income	10
Core Fixed Income	11
Cash Equivalents	12
Summary	13
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- **A performance standard that the asset class or portfolio is measured against**
- **A performance benchmark measures relative performance and is characterized by its construction methodology**
 - Passive Index based on market capitalization
 - Opportunity set or universe of funds - Open End Diversified Core Equity
 - “Peer” Comparison - Public pensions of similar size
 - Customized benchmark – Strategic Weight Policy Benchmark
 - Absolute Return - actuarial expected return
- **No perfect benchmark – must weigh the trade-offs**

- **Specified in Advance**

Benchmark should be constructed prior to asset class evaluation

- **Appropriate**

Benchmark should represent the risks and returns of the asset class

- **Measurable**

Benchmark performance calculation should align with the asset class and be published by a credible source

- **Unambiguous**

Securities and weights should be observable

- **Relevant**

Benchmark should reflect the mandate, objective or strategy

- **Accountable**

The asset manager should be accountable for asset class over/under performance relative to the benchmark

- **Investable**

The asset manager should have the option of passively investing in the benchmark

- MSCI USA Investable Market Index is representative of domestic equity market - Covers 99% of US publicly traded securities.

MSCI USA IMI

Specified in Advance



Appropriate



Measurable



Unambiguous



Relevant



Accountable



Investable



- MSCI ACWI ex US IMI is representative of global markets - Covers 99% of publicly traded securities outside the US.

MSCI ACWI ex US IMI

Specified in Advance



Appropriate



Measurable



Unambiguous



Relevant



Accountable

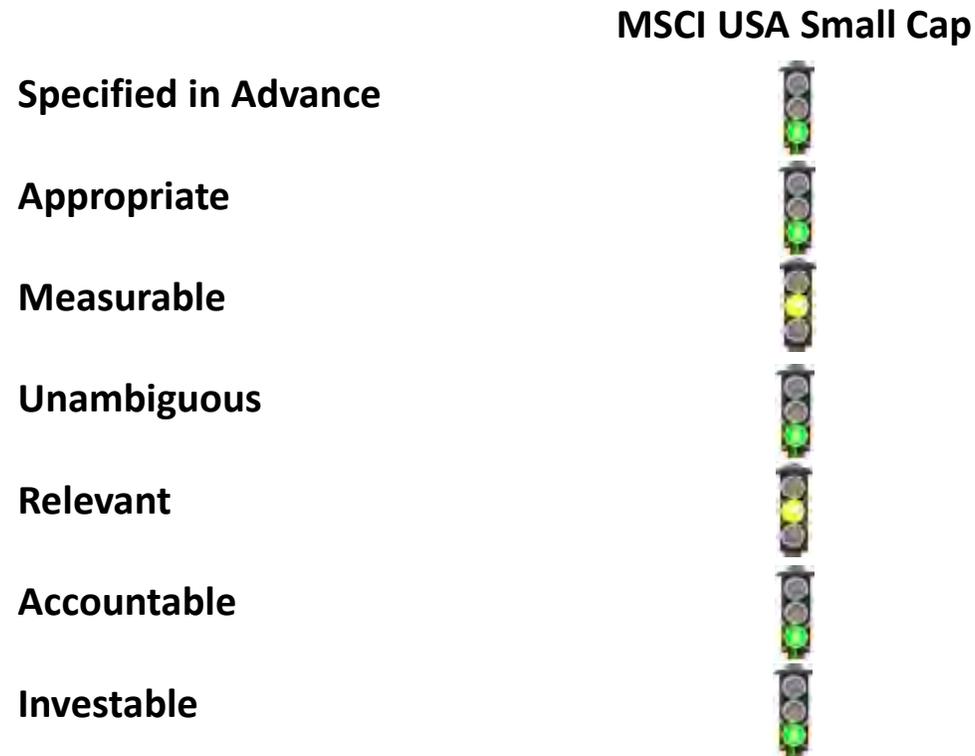


Investable



Private Investments – MSCI USA Small Cap

- MSCI USA Small Cap Index consists of small cap companies making it comparable to companies held within the private equity portfolio. Important tradeoffs include: Index members are publicly traded, differences in sector weights, and the index performance is measured daily. Quarterly tracking error is significant but long term returns align with the asset class.
- An aggregate of actual private equity funds is also published by 3rd party vendors and can also be utilized to determine quartile ranking of funds by strategy and vintage year.



- The Open End Diversified Core Equity index (ODCE) is an aggregate of 24 core real estate commingled funds adhering to a set of core attributes defined by the National Council of Real Estate Investment Fiduciaries (NCREIF).
- Private real estate returns are primarily determined by appraisals rather than actual asset sales.
- ODCE Performance calculation is more aligned with the Private Real Estate Asset Class than a publicly traded index.

Open End Diversified Core Equity Index

Specified in Advance



Appropriate



Measurable



Unambiguous



Relevant



Accountable



Investable



- The MSCI ACWI Commodity Producers Index is concentrated in 58% Oil and Gas companies, 31% metals and mining, 8% in Agriculture Products and Chemical Fertilizers and 3% in Paper/Other.
- The index performance is measured daily so tracking error is significant but long term performance aligns with the asset class. However, the index weights are different than the Natural Resources asset class.
- An index aggregating actual closed end natural resource funds is unavailable.
- Customizing a benchmark would be problematic and not a long term solution.

MSCI ACWI Commodity Producers

Specified in Advance



Appropriate



Measurable



Unambiguous



Relevant



Accountable

Investable

Non Core Fixed Income – Bloomberg Barclays US High Yield 2% Issuer Capped

- Benchmark represents the investable US High Yield fixed income market.
- Index weights impacted by large issuers migrating from Investment Grade to High Yield.
- Non Core Fixed Income asset class consists of high yield managers but potential expansion in Emerging Market Debt and other fixed income strategies.

BBG US High Yield - 2% Issuer Capped

Specified in Advance

Appropriate

Measurable

Unambiguous

Relevant

Accountable

Investable



- Benchmark represents the investable US Investment Grade fixed income market.
- Index weights have grown substantially in government securities and the “BBB” credit ratings tier.

BBG US Aggregate Bond

Specified in Advance

Appropriate

Measurable

Unambiguous

Relevant

Accountable

Investable



- The benchmark aligns with risks and returns of the asset class.
- The traditional LIBOR index is likely being replaced by the Secured Overnight Financing Rate (SOFR).

Federal Reserve US Treasury Constant Maturity 1 Month Index

Specified in Advance

Appropriate

Measurable

Unambiguous

Relevant

Accountable

Investable



Pension Asset Class

Pension Retirement

Domestic Equity

International Equity

Private Investments

Real Estate

Natural Resources

Non Core Fixed Income

Core Fixed Income

Cash Equivalents

Current Benchmarks

Strategic Weight Policy Benchmark

MSCI U.S. IMI Index

MSCI ACWI ex USA IMI

MSCI USA Small Cap

Open End Diversified Core Equity (ODCE)

MSCI AC World Commodity Producers

Bloomberg Barclays US High Yield - 2% Issuer Capped

Bloomberg Barclays US Aggregate Bond

Federal Reserve US Treasury Constant Maturity

1 Month Index

The USA Investable Market Index (IMI)

is designed to measure the performance of the large, mid and small cap segments of the US market. With 2,465 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in the US.

The MSCI USA Small Cap Index

is designed to measure the performance of the small cap segment of the US equity market. With 1,835 constituents, the index represents approximately 14% of the free float-adjusted market capitalization in the US.

The MSCI ACWI ex USA Investable Market Index (IMI)

captures large, mid and small cap representation across 22 of 23 Developed Markets (DM) countries (excluding the United States) and 26 Emerging Markets (EM) countries. With 6,140 constituents, the index covers approximately 99% of the global equity opportunity set outside the US.

The MSCI ACWI Commodity Producers Index

captures the global opportunity set of commodity producers in the energy, metal and agricultural sectors. Constituents are selected from the equity universe of MSCI ACWI, the parent index, which covers mid and large cap securities across 23 Developed Markets (DM) and 26 Emerging Markets (EM) countries. All index constituents are categorized in one of twelve sub-industries according to the Global Industry Classification Standard (GICS®), including: integrated oil & gas, oil & gas exploration & production, gold, steel, aluminum, precious metals & minerals, agricultural products, paper products, and forest products.

All MSCI IMI indices are based on the MSCI Global Investable Market Indexes (GIMI) Methodology - a comprehensive and consistent approach to index construction that allows for meaningful global views and cross regional comparisons across all market capitalization size, sector and style segments and combinations. This methodology aims to provide exhaustive coverage of the relevant investment opportunity set with a strong emphasis on index liquidity, investability and replicability. The index is reviewed quarterly - in February, May, August and November with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the large, mid and small capitalization cutoff points are recalculated.

MSCI's Global Investable Market Index (GIMI) methodology targets 99% of the universe of stocks based on robust investability requiren segment represents the final 14% to achieve the full equity risk premium. MSCI's GIMI approach to size segments and coverage is cons without gaps or overlaps in coverage, helping investors allocate assets efficiently.

NFI Open End Diversified Core Equity Index (ODCE)

The NFI-ODCE (NCREIF Fund Index - Open-End Diversified Core Equity) is a fund-level capitalization weighted, time-weighted return index and includes property investments at ownership share, cash balances and leverage (i.e., returns reflect the fund's actual asset ownership positions and financing strategy).

The NFI-ODCE, like the NPI and other stock and bond indices, is a capitalization-weighted Index based on each funds Net Invested Capital, which is defined as Beginning Market Value Net Assets (BMV), adjusted for Weighted Cash Flows (WCF) during the period. To the extent WCF are not available; which may be the case for older liquidated funds, BMV is used. Indices are typically capitalization-weighted as they better represent the universe and the performance of the overall marketplace. Total Return of any capitalization weighted Index is therefore more influenced by the larger funds (based on Net Invested Capital) included in the Index.

Bloomberg Barclays US Aggregate Index

The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency). The US Aggregate Index was created in 1986 with history backfilled to January 1, 1976. For each index, Bloomberg maintains two universes of securities: The Returns (Backward) and the Projected (Forward) Universes.

Bloomberg Barclays US Corporate High Yield Index

The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on the indices' EM country definition, are excluded. The index was created in 1986, with history backfilled to July 1, 1983. The 2% issuer capped index follows the same rules as the uncapped version, but limits the exposure of each issuer to 2% of the total market value and redistributes any excess market value index wide on a pro rata basis.

Federal Reserve US Treasury Constant Maturity 1-Month Index

One month yield based on the constant maturity US Treasury series.



Executive Summary and Capital Markets Review

Montana Board of Investments

Period Ended: March 31, 2020



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2	Capital Markets Review	Page 9

Executive Summary



CAPITAL MARKETS REVIEW & TOTAL FUND PERFORMANCE HIGHLIGHTS

Economic and Capital Market Review

The first quarter of 2020 was a historic period, as a local outbreak of a previously unknown coronavirus in the Hubei Province of China morphed into a global pandemic. As of the writing of this summary, the disease caused by the virus, named COVID-19, has infected millions and resulted in greater than 300,000 fatalities. In order to contain the virus and reduce the burden on healthcare systems, governments around the globe temporarily shut down substantial segments of their economies. Actions taken to date include travel restrictions, prohibition of large social gatherings and events, forced closure of non-essential businesses, and in more extreme cases shutting down entire cities. Compounding the effects of COVID-19, Saudi Arabia and Russia commenced an oil price war in early March. The ensuing price drop in oil placed further pressure on both equity and fixed income markets, as well as threatening the stability of countries that are heavily dependent upon oil revenues.

In order to mitigate the economic impact of these actions, the United States quickly enacted large-scale monetary and fiscal policy programs. On the monetary front, the United States Federal Reserve (the Fed) announced two emergency rate cuts—first by 50 basis points on March 3 and then by 100 basis points on March 16—returning the Fed funds rate to the zero bound. In addition, given the limited impact of interest rate cuts, the Fed announced an open-ended Quantitative Easing program in conjunction with multiple liquidity enhancing programs. On the fiscal front, the US Federal government passed the bipartisan Coronavirus Aid, Relief, and Economic Securities (CARES) Act, which provided \$2.3 trillion in fiscal stimulus. The size and speed of US fiscal and monetary policy were unprecedented, and at least in the short term, these programs have played an important role in stabilizing equity and fixed income markets.

In terms of capital market activity, risk assets experienced substantial declines during the quarter. Although equities attracted greater attention in the headlines, stresses in lesser followed markets in many ways played a greater role in prompting a rapid monetary response. For example, spreads in short-term commercial paper and interbank lending markets relative to the target federal funds rate reached their highest levels since the Global Financial Crisis, as the market began to price in severely elevated credit risks. These short-term funding pressures created an elevated demand for dollars, leading to spillover effects and forced selling of other assets. Credit markets across the quality spectrum sold off sharply, as issuance seized up and investors found a lack of willing buyers amid record mutual fund and ETF outflows. Credit ETFs, which normally track the value of their underlying bonds, routinely closed at large discounts to their Net Asset Value (NAV) due to liquidity mismatches and difficulty in price discovery. Lower-quality credit assets, such as high yield debt and bank loans, fell in excess of 20% intra-month, while investment grade debt and high-quality structured credit also suffered severe losses. Key market index returns for Q1 2020 can be found in **Figure 1** on the following page.

Figure 1: Key Market Index Returns
Period Ending March 31, 2020

Index	Asset Class	QTD/ CYTD	FYTD	1 Year	5 Year	10 Year
S&P 500 (Cap Wtd)	US Large Cap Equity	-19.60	-10.82	-6.98	6.73	10.53
Russell 2000	US Small Cap Equity	-30.61	-25.55	-23.99	-0.25	6.90
MSCI EAFE (Net)	Int'l Developed Markets	-22.83	-17.42	-14.38	-0.62	2.72
MSCI Emerging Markets (Net)	Int'l Emerging Markets	-23.60	-18.18	-17.69	-0.37	0.69
Bloomberg US Agg Bond	US Fixed Income	3.15	5.68	8.93	3.36	3.88
NCREIF ODCE (Gross)	Private Real Estate	0.98	3.84	4.88	8.46	11.45
Bloomberg Commodity (TR)	Commodities	-23.29	-21.37	-22.31	-7.76	-6.74

MBOI Performance Highlights: Total Fund

Figure 2 shows the performance of the MBOI pension plans, as represented by the Public Employees' Retirement Plan. A short commentary regarding performance at the total fund level is also provided below.

Figure 2: MBOI Total Fund Performance (Net of Fees)
Period Ending March 31, 2020

	QTD/ CYTD	FYTD ¹	1 Year	3 Years	5 Years	7 Years	10 Years
Total Fund Composite (Net)	-11.21	-6.09	-3.37	3.64	4.41	6.24	7.32
Public Employees Benchmark	-23.90	-18.57	-16.36	-1.25	1.66	4.57	N/A
<i>Difference</i>	12.69	12.48	12.99	4.89	2.75	1.67	N/A
Rank	44	43	45	38	17	10	6

¹ Fiscal year to date covers the trailing period beginning July 1, 2019.

RVK Commentary

- **Negative Returns Across Most Asset Classes** – The portfolio posted a return of -11.21% net of fees, driven by negative returns in International and Domestic Equity, which returned -23.81% and -21.19%, respectively, as well as Natural Resources which returned -16.33%. Fixed income returned 1.09% for the quarter.
- **Capital Preservation of Private Assets** – Since the commencement of the extended equity bull market following the 2008/2009 global financial crisis, private asset exposure has served as an overall drag on total portfolio returns relative to benchmark due to the lagged nature of the valuations for these assets. However, during the intense market sell-off in the first quarter of 2020, the lagged nature of these valuations had the opposite effect. While this led to substantial relative outperformance versus the public employee's benchmark during the quarter, it is important to reinforce the fact that this is largely the result of the inherent imprecision when benchmarking the performance of illiquid assets – especially over short periods of time. Nevertheless, the net result for the quarter was to dampen portfolio losses substantially.

- **Favorable Performance Relative to Peers** – Relative to peers, the MBOI portfolio continues to rank favorably. Over the past 5-, 7- and 10-year periods, the total fund ranked in the top quartile. Over the past 3-years, the Total Fund has ranked slightly above median. Finally, on a risk-adjusted basis, the plans continue to perform well over a ten-year period, providing returns that exceed those of peers with slightly less risk. A graphic demonstrating this relationship can be found on **page 13** of the Performance Report.
- **Mixed Relative Performance for Most Asset Class Composites** – The asset class composites, with the exception of Domestic Equity and Core Fixed Income, posted positive returns relative to their respective benchmarks over the quarter. The Domestic Equity Pool underperformed its benchmark by 25 basis points and Core Fixed Income underperformed its benchmark by 5 basis points. On the other hand, Non-Core Fixed Income outperformed its benchmark by 106 basis points and the International Equity Pool outperformed its benchmark by 30 basis points.

In the illiquid asset pools (i.e., Private Investments, Real Estate, and Natural Resources), relative returns were positive largely due to the illiquid nature of the underlying investments. The Natural Resources Pool outperformed by 2,247 basis points, Private Investments outperformed its benchmark by 3,193 basis points, and the Real Estate Pool outperformed by 2,432 basis points. As we have discussed in past meetings, over short time periods, illiquid asset pools may deviate substantially from public market indices. This issue is most acute in extreme up markets (MBOI composites underperform) or extreme down markets (MBOI composites outperform).

Finally, the Trust Funds Investment Pool underperformed its index by 142 basis points, while the Short Term Investment Pool kept pace with its respective benchmark posting an absolute return of 0.39%.

MBOI Performance Highlights: Asset Class Composites

As of March 31, 2020, CAPP assets totaled approximately \$10.7 billion, and STIP assets totaled approximately \$4.3 billion.¹ The performance relative to benchmarks and peers for the major asset class composites held within the CAPP are summarized on **pages 17-18** of the quarterly performance report. A high level commentary on each asset class is also provided below (in addition to non-retirement asset pools, such as the Trust Funds Investment Pool). Unless stated otherwise, all returns are reported on a net of fees basis. For Natural Resources, historical performance remains limited to 36 months or less, as this pool was recently established by the MBOI.

- **Montana Domestic Equity Pool** – The MBOI Domestic Equity Pool returned -21.19% for the quarter, underperforming the Domestic Equity Custom Index by 25 basis points. Relative to peers, the pool ranked in the 36th percentile for the quarter. The quarter saw double digit negative returns for major indexes across all sizes, segments, and styles. Throughout the quarter, active managers overall posted mixed returns relative to their benchmarks, and the MBOI's performance mirrored this trend. Large-cap managers generally outperformed small and mid-cap, returning -19.55% for the quarter. At the individual manager level, active manager performance for the MBOI was mixed. For example, Vaughan Nelson and J.P. Morgan outperformed their respective benchmarks by 613 and 234 basis points during the quarter, while DFA, T. Rowe, and Jacobs Levy trailed their

¹ In 2017, MBOI streamlined the accounting and reporting for retirement plan assets. The most notable change involved the creation of the "Consolidated Asset Pension Pool" (CAPP). Under the CAPP structure, all retirement plans hold an allocation to a single investment pool (CAPP), as well as an allocation to the Short Term Investment Pool (STIP).

benchmarks by 185, 130, and 123 basis points, respectively. In spite of mixed relative performance, the domestic equity portfolio has performed in line with peers, ranking above median over all trailing periods.

- **Montana International Equity Pool** – The MBOI International Equity Pool returned -23.81% for the quarter, outperforming the International Equity Custom Benchmark by 30 basis points. Relative to peers, the pool ranked in the 54th percentile for the quarter, and has outperformed its benchmark over all trailing periods from one to ten years. Relative to peers, however, the pool has lagged over longer term trailing periods.
- **Core & Non-Core Fixed Income** – The Core & Non-Core Fixed Income Pool returned 1.09% for the quarter, underperforming the Bloomberg US Aggregate Bond Index by 206 basis points. The Core Fixed Income Pool returned 3.10% for the quarter and currently consists of both internally and externally managed portfolios. Non-Core Fixed income currently consists of High Yield, which returned -11.62% for the quarter and outperformed the Bloomberg US High Yield 2% Issuer Cap Index by 106 basis points as active managers provided strong relative returns.
- **Trust Funds Investment Pool** – The Trust Funds Investment Pool returned 1.73% for the quarter, trailing the Bloomberg US Aggregate Bond Index by 142 basis points. The strong relative long-term performance of the pool continues to benefit from strong internal management of the bond pool, along with small allocations to both real estate and high yield.
- **Natural Resources** – The Natural Resources pool returned -16.33% for the quarter, outperforming the MSCI ACW Commodity Producers Index (USD) (Net) by 2,247 basis points. As a new investment pool in the CAPP, relative performance for this pool only extends back 36 months, thus a meaningful assessment of relative performance of this pool will take additional time. In addition, relative to most other pools in the portfolio, it is important to note that the underlying investments in this pool differ substantially from those held in the benchmark. Thus relative performance should be viewed with caution, particularly over short to mid-term investment horizons.
- **Real Estate Pool** – The Real Estate Pool returned -2.67% for the quarter, outperforming the Real Estate Custom Index by 2,432 basis points. Relative to peers, the pool has struggled in the short term, but performed at or around median over trailing periods extending beyond 3 years. Drivers of both absolute and relative performance continue to be the timing of entry into the asset class, as well as material differences between benchmark and portfolio holdings.
- **Short Term Investment Pool** – The Short Term Investment Pool returned 0.39% for the quarter, marginally outperforming the iMoneynet Money Fund Median², and also outperforming the Federal Reserve US Treasury 1-Month Constant Maturity Rate by 10 basis points. Over the past year, the pool returned 2.05%, however given the interest rate cuts during March, future STIP returns are likely to be considerably lower in the near future.

² The iMoneynet Money Fund Median is reported on a gross of fees basis.

- **Private Investments Pool** – The Private Investments Pool returned 0.67% for the quarter, which outperformed the MSCI US Small Cap Index by 3,193 basis points. As we have discussed in past meetings, private investments provide valuable diversification and return enhancement for the MBOI pension plans. Over the last 10 years, the portfolio has returned 12.54% net of fees, making it the highest-returning asset class over the long run. In addition, during major market drawdowns like we have seen this quarter, private equity can provide substantial volatility reduction due to the lagged pricing inherent in the asset class.

Capital Markets Review



First Quarter Economic Environment

Key Economic Indicators

The first quarter of 2020 was dramatic as a local outbreak of a previously unknown coronavirus in the Hubei Province of China morphed into a global pandemic, which led to cases in the millions and casualties in the tens of thousands. Governments around the globe closed down huge portions of their economies, imposing travel restrictions, cancelling social gatherings, shuttering non-essential businesses, and locking down entire cities to reduce the virus' spread. In response, the Federal Reserve announced two emergency rate cuts, first by 50 basis points on March 3 and then by 100 basis points on March 16. By March 23, the Fed announced open-ended Quantitative Easing alongside a host of other liquidity enhancing programs, just as President Trump signed the \$2.3 Trillion Coronavirus Aid, Relief, and Economic Securities (CARES) Act into law. Markets did not begin heavily discounting the economic risks associated with the COVID-19 outbreak until the last week of February. As recently as February 19, 2020, the S&P 500 closed at an all-time high of 3,386. Over the next 3 weeks, the S&P 500 closed in bear market territory representing the fastest 20% drawdown from an all-time high in the history of the index.

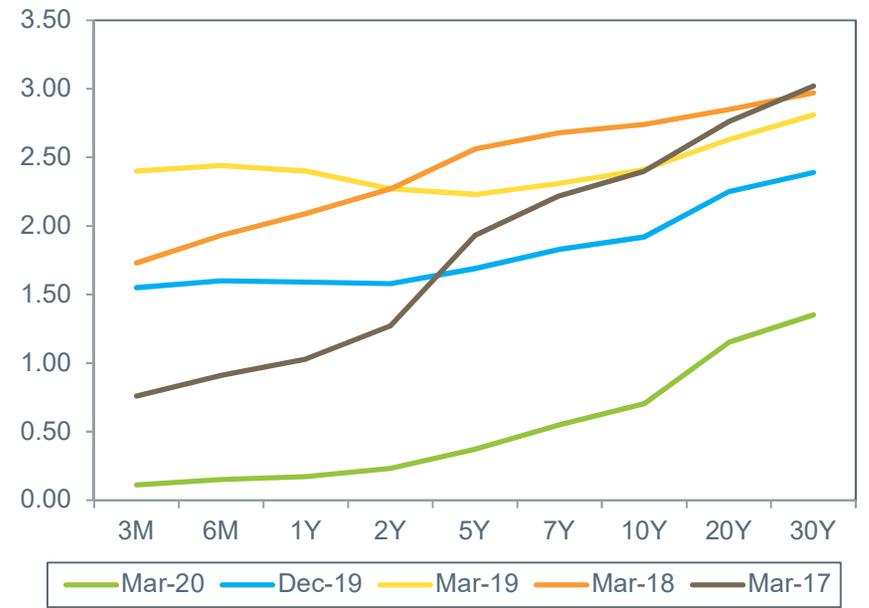
Economic Indicators	Mar-20	Dec-19	Mar-19	Mar-17	20 Yr
Federal Funds Rate (%)	0.08 ▼	1.55	2.43	0.82	1.73
Breakeven Infl. - 5 Yr (%)	0.53 ▼	1.70	1.79	1.95	1.84
Breakeven Infl. - 10 Yr (%)	0.93 ▼	1.79	1.87	1.98	2.02
CPI YoY (Headline) (%)	1.5 ▼	2.3	1.9	2.4	2.2
Unemployment Rate (%)	4.4 ▲	3.5	3.8	4.4	5.9
Real GDP YoY (%)	0.3 ▼	2.3	2.7	2.1	2.1
PMI - Manufacturing	49.1 ▲	47.8	54.6	56.4	52.6
USD Total Wtd Idx	122.82 ▲	114.72	115.05	114.76	102.96
WTI Crude Oil per Barrel (\$)	20.5 ▼	61.1	60.1	50.6	62.1
Gold Spot per Oz (\$)	1,577 ▲	1,517	1,292	1,249	951

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-19.60	-19.60	-6.98	6.73	10.53
Russell 2000	-30.61	-30.61	-23.99	-0.25	6.90
MSCI EAFE (Net)	-22.83	-22.83	-14.38	-0.62	2.72
MSCI EAFE SC (Net)	-27.52	-27.52	-18.15	0.97	4.81
MSCI Emg Mkts (Net)	-23.60	-23.60	-17.69	-0.37	0.69
Bloomberg US Agg Bond	3.15	3.15	8.93	3.36	3.88
ICE BofAML 3 Mo US T-Bill	0.58	0.58	2.25	1.19	0.64
NCREIF ODCE (Gross)	0.98	0.98	4.88	8.46	11.45
FTSE NAREIT Eq REIT (TR)	-27.30	-27.30	-21.26	-0.35	7.40
HFRI FOF Comp	-8.79	-8.79	-5.48	0.00	1.75
Bloomberg Cmdbt (TR)	-23.29	-23.29	-22.31	-7.76	-6.74

Key Economic Indicators



Treasury Yield Curve (%)



First Quarter Review

Broad Market

US markets hit their peak in mid-February before growing concerns about the spread of COVID-19 caused the S&P 500 to drawdown nearly -34% over the remainder of the quarter. However, buoyed by the stimulus provided in the CARES Act, the market experienced a 15.5% gain from the trough to end Q1.

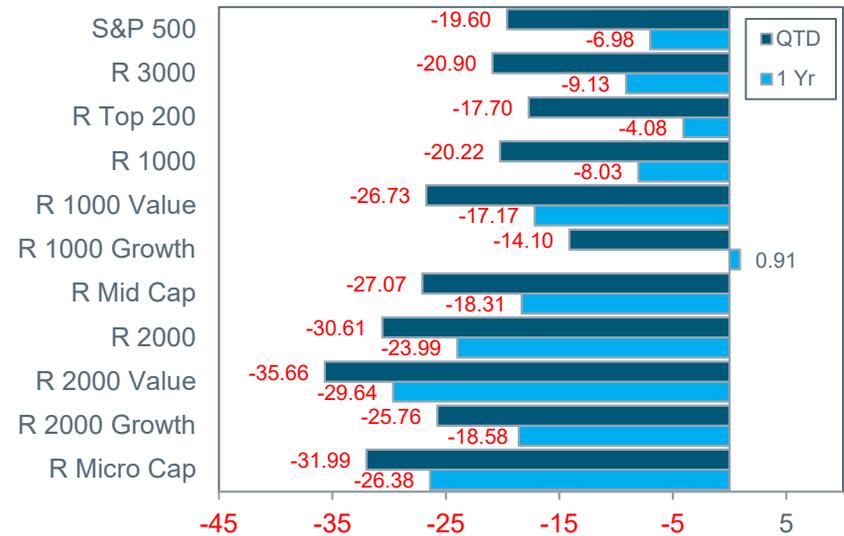
Market Cap

Small- and mid-cap stocks were hit the hardest by COVID-19 pandemic fears with the Russell 2000 and Russell Mid Cap indexes down -30.6% and -27.1%, respectively. The Russell 1000 index also ended the quarter down -20.2%.

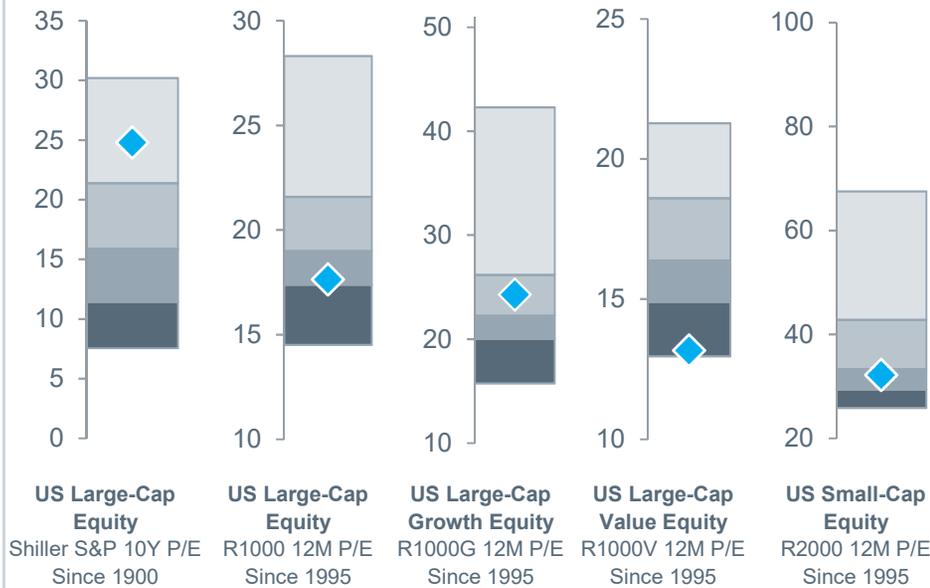
Style and Sector

Value underperformed growth across all market capitalizations, experiencing a sharper drawdown and slower recovery than growth. In addition, active management continued to deliver mixed results in Q1 with approximately 50% providing excess returns.

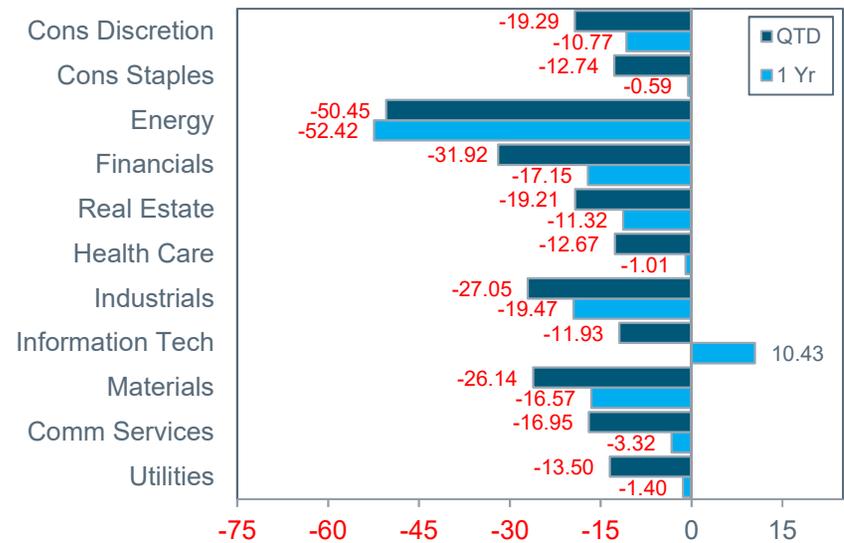
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

First Quarter Review

Developed Markets

Developed international markets fared slightly worse than domestic markets during Q1 with broad indexes declining nearly 25%. Sectors were negative across the board, but defensive sectors, such as healthcare, consumer staples, and utilities held up better amidst the volatility. By region, performance was not as diverse as it was by sector, although Japan provided investors a measure of safety.

Emerging Markets

For the quarter, emerging markets were the worst performing equity asset class, trailing by a thin margin. Emerging markets were negative across sectors and countries but the disparity by region was wider than the developed world, as there was a flight to perceived quality by country.

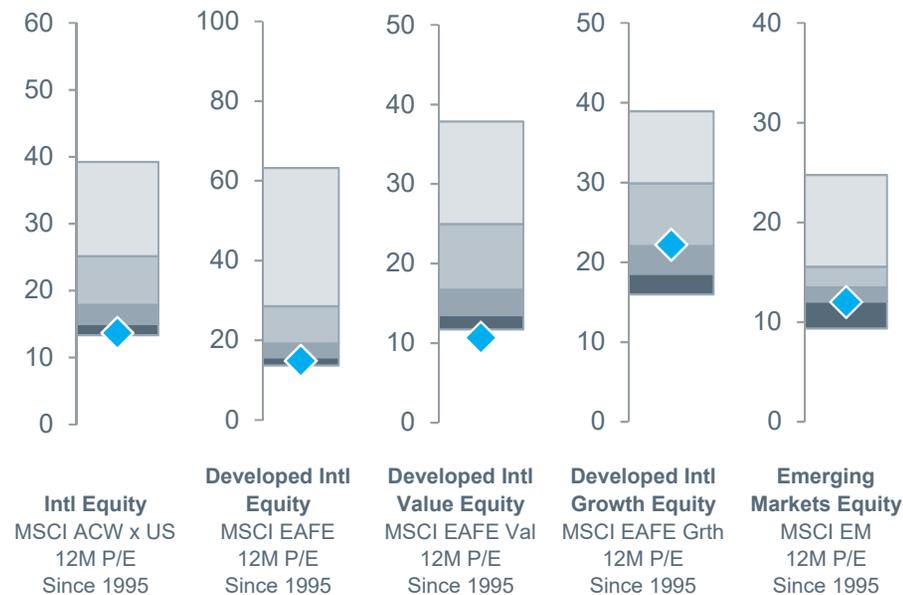
Market Cap & Style

In both developed international markets and emerging markets, value stocks continued to underperform growth, while large-cap stocks outperformed small-cap for the quarter.

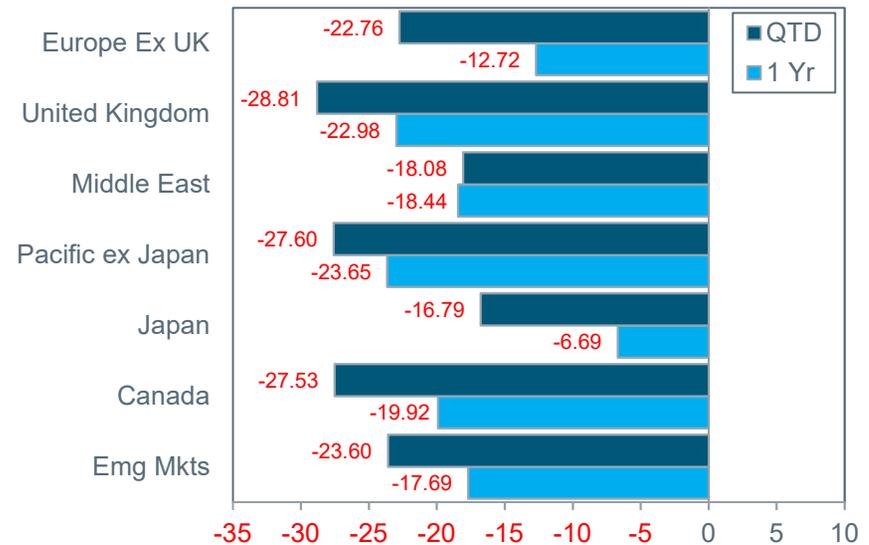
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. All returns are shown net of foreign taxes on dividends.

First Quarter Review

Broad Market

COVID-19-related fears and subsequent monetary policy responses led Treasury yields to steep declines of more than 100 basis points across all maturities. As of March 9th, the 30-year yield ended at just 0.99%, marking the first time ever that all maturities ended below the 1% threshold.

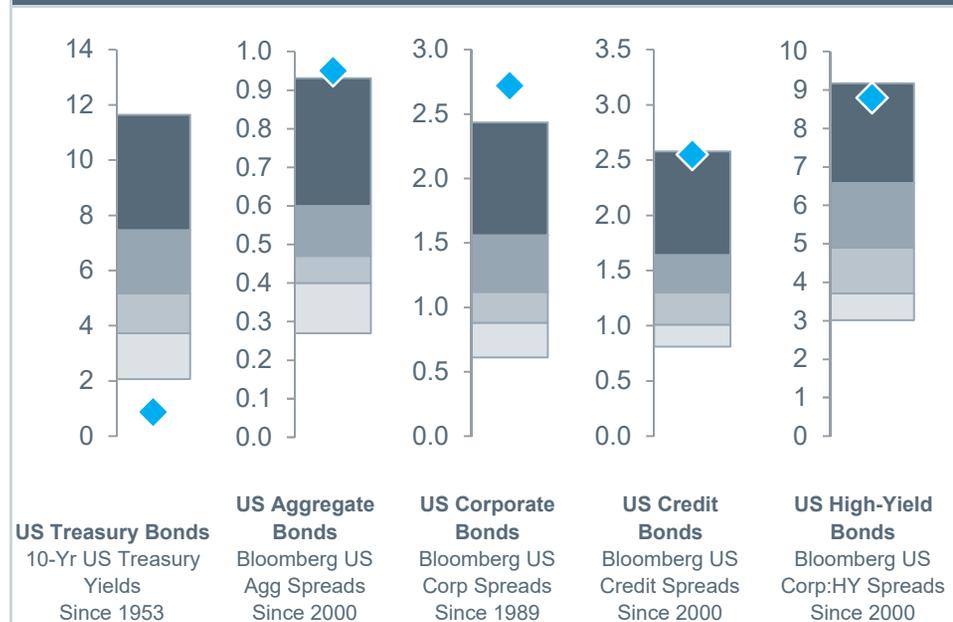
Credit Market

Credit experienced significant selloffs and volatility over the quarter. In all, the Bloomberg US Corporate Index returned -3.6% in Q1 with bifurcated returns between quality groups as AAA-rated bonds returned 4.7% while BBB-rated bonds returned -7.1%.

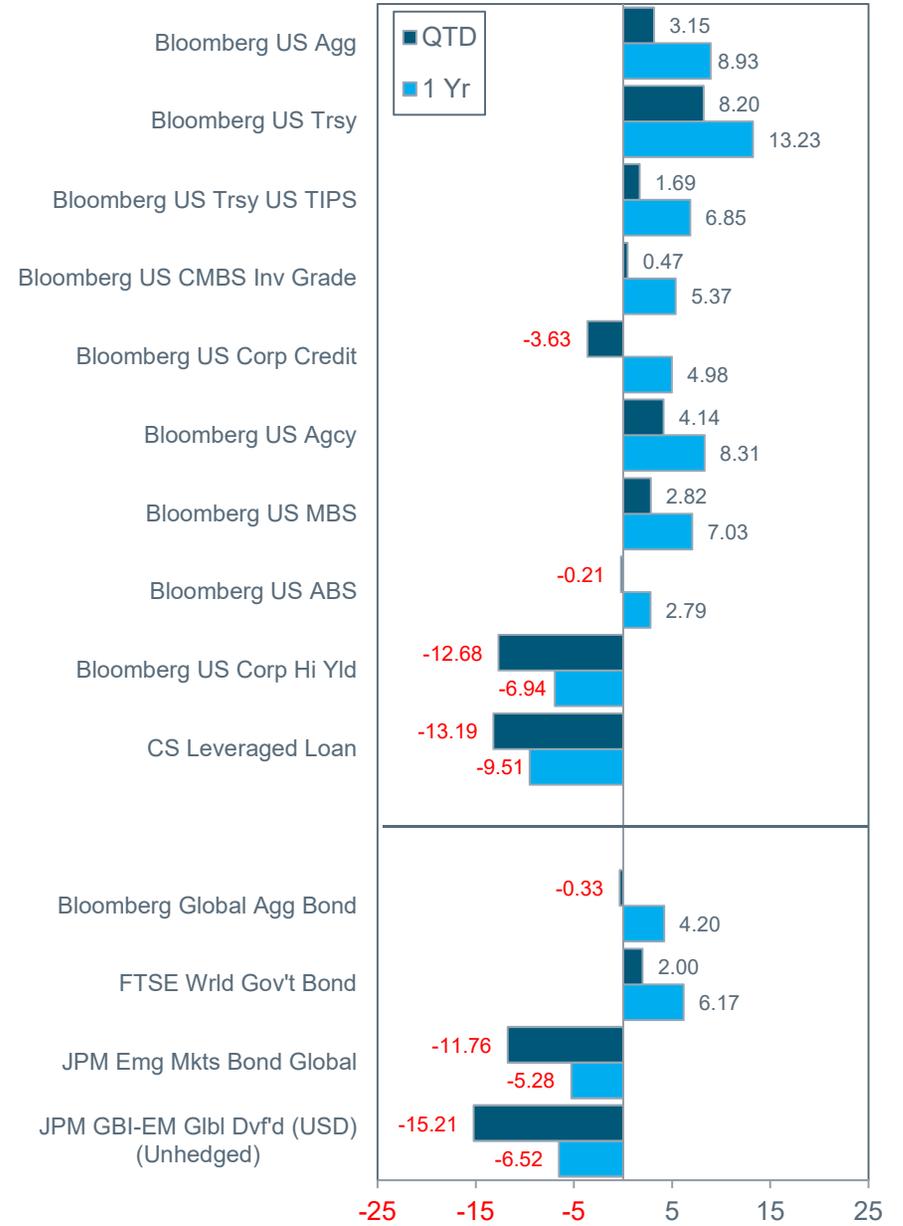
Emerging Market Debt

Emerging market debt suffered from both declining oil prices and coronavirus-induced reductions in demand. The JPM EMBI Global Diversified Index had its worst quarterly decline in more than 20 years, returning -13.4%, worse than the total losses experienced in 2008.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



First Quarter Review - Absolute Return

General Market - Hedge Funds

The HFRI Fund Weighted Composite Index returned -8.3% for the quarter, led lower by hedged equity (-13.0%) and event-driven (-15.0%) strategies that generally maintain significant net market exposure. Equity Long/Short (ELS) managers protected against major capital impairment through strong short alpha generation, particularly through bets against stocks in the physical retail or travel and leisure sub-sectors.

General Market - Global Tactical Asset Allocation (GTAA)

GTAA managers largely provided negative absolute returns during the quarter with long-biased strategies generally underperforming a static and less diversified blend of 60% US equity and 40% US fixed income. Strategies that provided the weakest relative returns versus peers tended to have higher relative allocations to emerging markets equities or exposure to oil markets and US small-cap equities. Long-biased managers that outperformed peers on a relative basis tended to have more exposure across US markets as opposed to emerging markets, both within fixed income and equities.

First Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Performance across DIS managers RVK tracks was generally negative on an absolute basis during Q1, though there was dispersion among strategies driven by exposure differences. In a reversal from 2019, managers with larger TIPS allocations tended to outperform peers as riskier assets saw relatively large drawdowns during the quarter. Managers that underperformed by the widest margins versus peers emphasized allocations to REITs, global listed infrastructure and/or global natural resource equities in varying proportions.

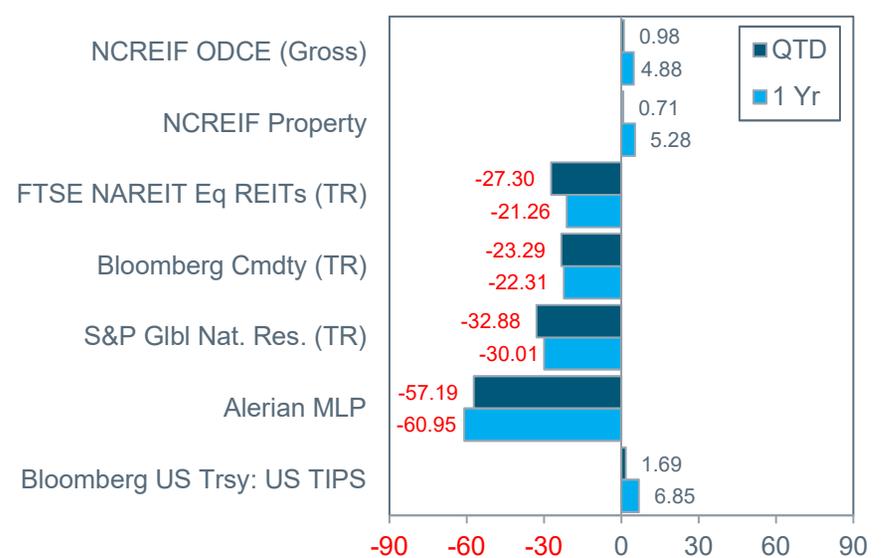
General Market - Real Estate

Core private real estate returned 0.98% during Q1, as reported by the NCREIF-ODCE Index. Total return comprised of a 1.02% gain from income with a -0.04% loss due to price appreciation. While the income component remained in line with historical levels, price appreciation experienced a decrease of -0.51% compared to Q4. Public real estate returns trailed private by a wide margin during Q1.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of March 31, 2020

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD
Best	35.03	39.38	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	6.21
	32.18	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	3.15
	26.34	15.97	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	1.69
	19.31	11.63	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	0.98
	18.37	11.17	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	0.58
	16.32	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	-8.41
	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.44	-12.68
	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	-19.60
	10.39	5.49	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	-22.83
	4.85	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	-23.29
	4.34	1.87	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	-23.60
	2.72	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	-27.30
	2.07	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-27.52
Worst	0.49	-15.70	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-30.61
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



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Quarterly Investment Performance Analysis

Montana Board of Investments

Period Ended: March 31, 2020



Montana Board of Investments
Comparative Performance
Retirement Plans

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Public Employees' Retirement - Net	-11.21	-6.09	-3.37	3.64	4.41	6.24	7.32	5.06	16.77	-2.63	14.80	7.32	1.86	7.17	07/01/1994
Public Employees' Benchmark	-23.90	-18.57	-16.36	-1.25	1.66	4.57	N/A	N/A	21.23	-5.57	15.35	9.12	1.40	N/A	
Difference	12.69	12.48	12.99	4.89	2.75	1.67	N/A	N/A	-4.46	2.94	-0.55	-1.80	0.46	N/A	
Public Employees' Retirement - Gross	-11.08	-5.73	-2.80	4.23	4.95	6.78	7.88	5.46	17.44	-2.03	15.34	7.78	2.31	7.48	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	38	17	10	6	36	42	44	63	56	7	49	
Teachers' Retirement - Net	-11.20	-6.08	-3.36	3.63	4.41	6.24	7.33	5.06	16.78	-2.64	14.76	7.33	1.86	7.18	07/01/1994
Teachers' Benchmark	-23.90	-18.57	-16.37	-1.26	1.65	4.57	N/A	N/A	21.21	-5.57	15.32	9.11	1.40	N/A	
Difference	12.70	12.49	13.01	4.89	2.76	1.67	N/A	N/A	-4.43	2.93	-0.56	-1.78	0.46	N/A	
Teachers' Retirement - Gross	-11.07	-5.72	-2.78	4.22	4.95	6.78	7.89	5.46	17.45	-2.03	15.31	7.80	2.32	7.49	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	38	17	10	6	36	41	44	64	56	7	48	
Police Retirement - Net	-11.21	-6.08	-3.36	3.64	4.41	6.25	7.31	5.04	16.80	-2.63	14.79	7.32	1.86	7.04	07/01/1994
Police Benchmark	-23.91	-18.59	-16.39	-1.26	1.65	4.56	N/A	N/A	21.23	-5.57	15.33	9.11	1.40	N/A	
Difference	12.70	12.51	13.03	4.90	2.76	1.69	N/A	N/A	-4.43	2.94	-0.54	-1.79	0.46	N/A	
Police Retirement - Gross	-11.08	-5.72	-2.78	4.23	4.95	6.79	7.86	5.43	17.47	-2.02	15.33	7.78	2.31	7.35	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	37	17	10	6	39	40	43	63	56	7	59	

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B 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. Retirement plan benchmarks' inception dates were updated to 1/1/2011.



Montana Board of Investments
Comparative Performance
Retirement Plans

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Firefighters' Retirement - Net	-11.21	-6.08	-3.37	3.64	4.41	6.25	7.31	5.04	16.79	-2.62	14.79	7.32	1.87	7.03	07/01/1994
Firefighters' Benchmark	-23.91	-18.59	-16.38	-1.26	1.65	4.57	N/A	N/A	21.23	-5.57	15.33	9.12	1.41	N/A	
Difference	12.70	12.51	13.01	4.90	2.76	1.68	N/A	N/A	-4.44	2.95	-0.54	-1.80	0.46	N/A	
Firefighters' Retirement - Gross	-11.08	-5.72	-2.79	4.23	4.95	6.79	7.87	5.43	17.46	-2.01	15.34	7.78	2.32	7.34	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	37	17	10	6	38	41	43	63	56	7	60	
Sheriffs' Retirement - Net	-11.20	-6.10	-3.38	3.63	4.41	6.24	7.31	5.06	16.75	-2.62	14.80	7.33	1.86	7.06	07/01/1994
Sheriffs' Benchmark	-23.89	-18.57	-16.36	-1.25	1.66	4.57	N/A	N/A	21.22	-5.56	15.35	9.13	1.40	N/A	
Difference	12.69	12.47	12.98	4.88	2.75	1.67	N/A	N/A	-4.47	2.94	-0.55	-1.80	0.46	N/A	
Sheriffs' Retirement - Gross	-11.07	-5.74	-2.81	4.22	4.95	6.78	7.86	5.45	17.42	-2.02	15.34	7.79	2.32	7.37	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	38	17	10	6	36	42	43	63	56	7	58	
Highway Patrol Retirement - Net	-11.19	-6.08	-3.36	3.65	4.41	6.24	7.33	5.07	16.78	-2.62	14.79	7.30	1.87	7.06	07/01/1994
Highway Patrol Benchmark	-23.87	-18.55	-16.33	-1.24	1.66	4.55	N/A	N/A	21.24	-5.56	15.34	9.09	1.41	N/A	
Difference	12.68	12.47	12.97	4.89	2.75	1.69	N/A	N/A	-4.46	2.94	-0.55	-1.79	0.46	N/A	
Highway Patrol Retirement - Gross	-11.06	-5.72	-2.78	4.24	4.96	6.79	7.89	5.46	17.45	-2.01	15.33	7.77	2.32	7.37	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	44	43	45	37	17	10	6	35	41	43	63	57	7	58	

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B 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. Retirement plan benchmarks' inception dates were updated to 1/1/2011.

Montana Board of Investments
Comparative Performance
Retirement Plans

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	20 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Game Wardens' Retirement - Net	-11.22	-6.12	-3.39	3.63	4.41	6.23	7.31	5.04	16.77	-2.62	14.81	7.31	1.88	7.07	07/01/1994
Game Wardens' Benchmark	-23.90	-18.58	-16.36	-1.25	1.66	4.57	N/A	N/A	21.23	-5.56	15.36	9.14	1.40	N/A	
Difference	12.68	12.46	12.97	4.88	2.75	1.66	N/A	N/A	-4.46	2.94	-0.55	-1.83	0.48	N/A	
Game Wardens' Retirement - Gross	-11.09	-5.76	-2.82	4.22	4.95	6.77	7.86	5.43	17.44	-2.01	15.35	7.78	2.33	7.38	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	45	43	45	38	17	10	6	38	42	43	62	56	7	58	
Judges' Retirement - Net	-11.21	-6.10	-3.38	3.64	4.41	6.24	7.31	5.06	16.78	-2.64	14.82	7.32	1.86	7.07	07/01/1994
Judges' Benchmark	-23.91	-18.58	-16.37	-1.25	1.66	4.55	N/A	N/A	21.26	-5.58	15.37	9.10	1.40	N/A	
Difference	12.70	12.48	12.99	4.89	2.75	1.69	N/A	N/A	-4.48	2.94	-0.55	-1.78	0.46	N/A	
Judges' Retirement - Gross	-11.08	-5.74	-2.81	4.23	4.95	6.78	7.87	5.46	17.45	-2.03	15.36	7.79	2.32	7.38	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	45	43	45	37	17	10	6	36	41	44	62	56	7	58	
Volunteer Firefighters' Retirement - Net	-11.22	-6.10	-3.38	3.64	4.39	6.23	7.32	5.52	16.79	-2.64	14.79	7.16	1.91	6.87	07/01/1994
Volunteer Firefighters' Benchmark	-23.94	-18.60	-16.40	-1.27	1.64	4.57	N/A	N/A	21.26	-5.59	15.33	9.11	1.41	N/A	
Difference	12.72	12.50	13.02	4.91	2.75	1.66	N/A	N/A	-4.47	2.95	-0.54	-1.95	0.50	N/A	
Volunteer Firefighters' Retirement - Gross	-11.09	-5.74	-2.80	4.23	4.93	6.77	7.88	5.91	17.46	-2.04	15.34	7.63	2.36	7.18	07/01/1994
All Public Plans > \$3B Total Fund Median	-11.68	-6.54	-3.30	3.96	4.41	5.71	6.71	5.20	17.08	-2.79	16.05	7.95	0.58	7.46	
Rank	45	43	45	37	17	10	6	16	41	44	63	64	7	66	

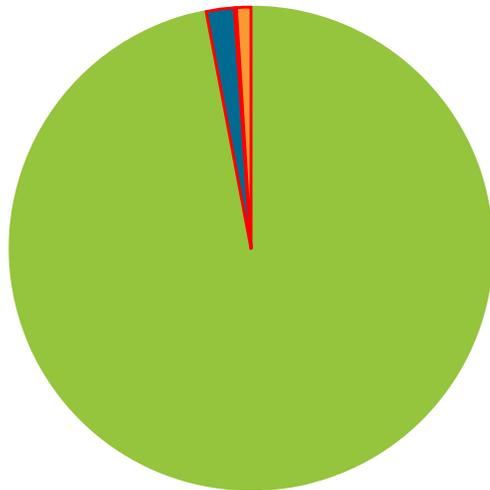
Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees. Benchmark returns reflect unmanaged indices which are not impacted by management fees. Fiscal year ends on 06/30. Since inception performance may vary from State Street reported performance due to calculation methodology differences. Retirement plan benchmarks' inception dates were updated to 1/1/2011.

Montana Board of Investments
 Asset Allocation by Segment
 Retirement Plans

As of March 31, 2020

	Consolidated Asset Pension Pool (CAPP)		Short Term Investment Pool (STIP)		Total Fund	
	(\$)	%	(\$)	%	(\$)	%
Public Employees' Retirement	5,334,495,115	49.70	51,186,867	48.62	5,385,681,982	49.69
Teachers' Retirement	3,775,337,223	35.17	38,280,565	36.36	3,813,617,788	35.18
Firefighters' Retirement	419,163,850	3.91	4,106,023	3.90	423,269,873	3.90
Police Retirement	396,513,824	3.69	3,916,514	3.72	400,430,338	3.69
Sheriffs' Retirement	347,900,113	3.24	3,434,477	3.26	351,334,590	3.24
Game Wardens' Retirement	192,085,604	1.79	1,843,545	1.75	193,929,150	1.79
Highway Patrol Retirement	137,851,781	1.28	1,271,183	1.21	139,122,964	1.28
Judges' Retirement	96,060,748	0.89	904,908	0.86	96,965,656	0.89
Volunteer Firefighters' Retirement	34,619,886	0.32	338,477	0.32	34,958,363	0.32
Retirement Plans Total Fund Composite	10,734,028,145	99.03	105,282,560	0.97	10,839,310,704	100.00

March 31, 2020 : \$10,839,310,704

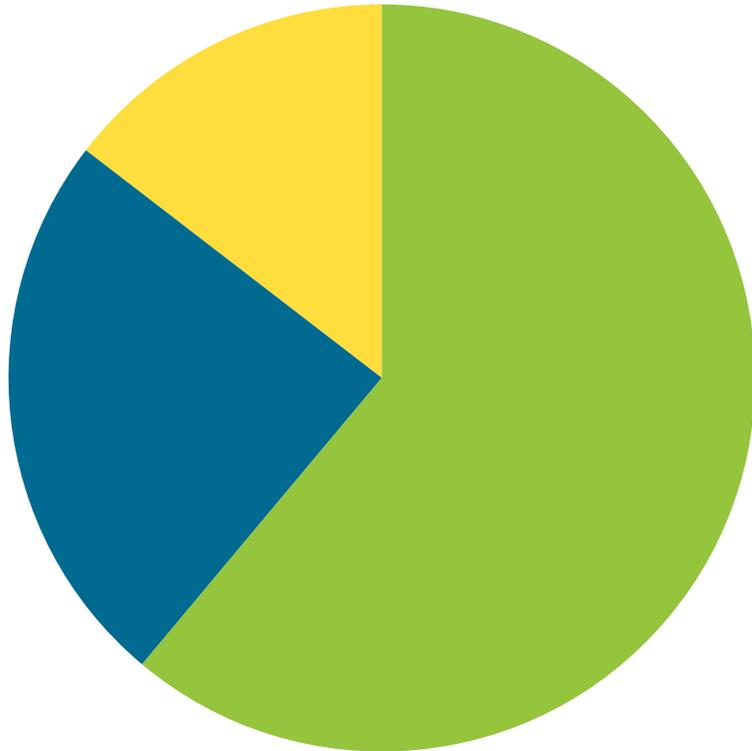


Segments	Market Value (\$)	Allocation (%)
CAPP Ex Cash	10,515,022,438	97.01
CAPP Cash Pension	203,964,078	1.88
CAPP Asset Class Cash	15,041,629	0.14
Short Term Investment Pool (STIP)	105,282,560	0.97
Total Cash	324,288,266	2.99

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.



March 31, 2020 : \$17,568,069,662



	Market Value (\$)	Allocation (%)
Consolidated Asset Pension Pool (CAPP)	10,734,028,183	61.10
Short Term Investment Pool	4,274,904,167	24.33
Trust Funds Investment Pool	2,559,137,312	14.57

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 March 31, 2020

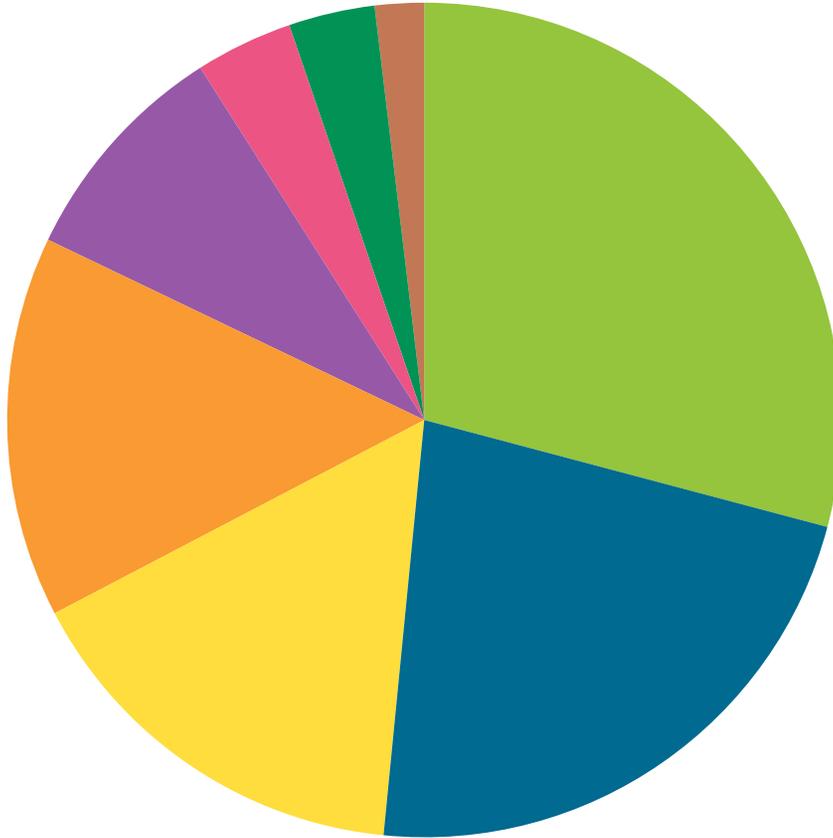
	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Consolidated Asset Pension Pool (CAPP)	-11.32	-6.14	-3.36	3.74	N/A	N/A	N/A	17.12	-2.74	N/A	N/A	N/A	3.74	04/01/2017
CAPP Custom Benchmark	-24.12	-18.74	-16.49	-1.21	N/A	N/A	N/A	21.68	-5.74	N/A	N/A	N/A	-1.21	
Difference	12.80	12.60	13.13	4.95	N/A	N/A	N/A	-4.56	3.00	N/A	N/A	N/A	4.95	
Trust Funds Investment Pool	1.73	4.23	7.46	4.69	3.76	3.87	4.86	8.98	0.45	4.01	4.02	1.83	6.11	10/01/1995
Bloomberg US Agg Bond Index	3.15	5.68	8.93	4.82	3.36	3.19	3.88	8.72	0.01	3.54	2.65	0.55	5.27	
Difference	-1.42	-1.45	-1.47	-0.13	0.40	0.68	0.98	0.26	0.44	0.47	1.37	1.28	0.84	
Short Term Investment Pool	0.39	1.43	2.05	1.85	1.31	0.97	0.77	2.28	1.98	1.11	0.61	0.22	2.45	04/01/1997
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	2.37	
Difference	0.10	0.20	0.23	0.08	0.07	0.04	0.04	0.14	0.03	-0.04	0.09	0.01	0.08	
iMoney.net Money Fund (Gross) Median	0.36	1.46	2.13	1.97	1.39	1.05	0.82	2.45	2.15	1.21	0.61	0.25	2.43	
Difference	0.03	-0.03	-0.08	-0.12	-0.08	-0.08	-0.05	-0.17	-0.17	-0.10	0.00	-0.03	0.02	

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 March 31, 2020

March 31, 2020 : \$10,734,028,291



	Market Value (\$)	Allocation (%)
Domestic Equity	3,126,716,210	29.13
Core Fixed Income	2,407,513,347	22.43
International Equity	1,693,029,316	15.77
Private Investments	1,585,863,502	14.77
Real Estate	952,935,231	8.88
Non-Core Fixed Income	404,509,058	3.77
Natural Resources	359,497,550	3.35
Cash Pension	203,964,078	1.90

Allocations shown may not sum up to 100% exactly due to rounding. Core Fixed Income currently consists of Investment Grade Credit, US Treasury & Agency, and TIPS. Non-Core Fixed Income currently consists of High Yield. Private Investments currently consist of Private Equity, Private Credit, Venture Capital, and Passive ETFs.



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

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Equity	-21.19	-13.40	-9.98	2.99	5.01	8.42	9.67	30.75	-7.09	20.79	11.46	0.86	7.78	05/01/2003
Domestic Equity Custom Index	-20.94	-12.70	-9.18	4.01	6.02	9.10	10.25	31.14	-5.20	21.05	13.03	1.01	8.58	
Difference	-0.25	-0.70	-0.80	-1.02	-1.01	-0.68	-0.58	-0.39	-1.89	-0.26	-1.57	-0.15	-0.80	
International Equity	-23.81	-18.35	-15.64	-1.84	-0.25	1.45	2.31	22.86	-14.99	28.67	3.87	-3.57	3.63	04/01/1997
International Equity Custom Index	-24.11	-18.55	-16.32	-2.34	-0.66	1.03	2.09	21.63	-14.76	27.81	4.41	-4.60	3.90	
Difference	0.30	0.20	0.68	0.50	0.41	0.42	0.22	1.23	-0.23	0.86	-0.54	1.03	-0.27	
Core & Non-Core Fixed Income	1.09	3.03	5.64	3.63	2.96	3.04	4.36	7.52	0.51	3.20	3.98	0.48	N/A	04/01/1997
Core Fixed Income	3.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.13	12/01/2019
Bloomberg US Agg Bond Index	3.15	5.68	8.93	4.82	3.36	3.19	3.88	8.72	0.01	3.54	2.65	0.55	3.08	
Difference	-0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.05	
Non-Core Fixed Income	-11.62	-7.89	-5.60	0.68	N/A	N/A	N/A	13.98	-2.27	N/A	N/A	N/A	0.68	04/01/2017
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	0.76	
Difference	1.06	1.32	1.34	-0.08	N/A	N/A	N/A	-0.34	-0.19	N/A	N/A	N/A	-0.08	
Natural Resources	-16.33	-18.44	-18.61	-2.87	N/A	N/A	N/A	-2.18	5.55	N/A	N/A	N/A	-2.87	04/01/2017
MSCI ACW Cmdty Producers Index (USD) (Net)	-38.80	-39.03	-38.91	-10.99	-6.54	-6.74	-4.81	13.06	-11.75	13.70	32.44	-25.83	-10.99	
Difference	22.47	20.59	20.30	8.12	N/A	N/A	N/A	-15.24	17.30	N/A	N/A	N/A	8.12	
Real Estate	-2.67	0.43	1.69	6.09	8.39	9.42	9.86	6.97	9.19	9.17	8.82	14.27	3.86	06/01/2006
Real Estate Custom Index	-26.99	-22.00	-20.99	-3.02	2.30	5.03	7.45	25.84	-4.57	5.99	9.08	13.86	3.85	
Difference	24.32	22.43	22.68	9.11	6.09	4.39	2.41	-18.87	13.76	3.18	-0.26	0.41	0.01	
Cash Pension	0.52	1.45	2.10	N/A	N/A	N/A	N/A	2.28	2.00	N/A	N/A	N/A	1.88	05/01/2017
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	1.79	
Difference	0.23	0.22	0.28	N/A	N/A	N/A	N/A	0.14	0.05	N/A	N/A	N/A	0.09	
Private Investments*	0.67	8.31	11.90	12.58	10.81	11.73	12.54	12.95	11.55	15.20	7.37	7.20	12.13	05/01/2002
Private Equity Custom Index	-31.26	-26.18	-24.51	-3.37	2.18	8.84	10.85	27.38	-9.99	20.59	20.11	3.68	8.85	
Difference	31.93	34.49	36.41	15.95	8.63	2.89	1.69	-14.43	21.54	-5.39	-12.74	3.52	3.28	

For additional information on the Private Equity Custom Index, please see the Addendum. *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. Core Fixed Income currently consists of Investment Grade Credit, US Treasury & Agency, and TIPS. Non-Core Fixed Income currently consists of High Yield. Private Investments currently consist of Private Equity, Private Credit, Venture Capital, and Passive ETFs.



Montana Board of Investments
Comparative Performance
Investment Pools

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Equity	-21.14	-13.23	-9.75	3.31	5.32	8.74	10.02	31.13	-6.78	21.16	11.77	1.14	8.07	05/01/2003
All Public Plans-US Equity Segment Median	-21.71	-14.52	-11.12	2.88	4.72	8.21	9.75	30.04	-5.88	20.32	12.87	0.21	8.07	
Rank	36	30	31	41	35	32	36	28	74	31	75	26	46	
Population	67	66	66	60	59	49	41	67	68	89	92	84	12	
International Equity	-23.75	-18.13	-15.35	-1.52	0.08	1.78	2.68	23.28	-14.72	29.06	4.24	-3.25	4.05	04/01/1997
All Public Plans-Intl. Equity Segment Median	-23.50	-17.28	-14.57	-1.17	0.29	2.41	3.56	23.77	-13.67	28.81	4.00	-2.57	N/A	
Rank	54	66	65	64	67	80	83	63	77	46	44	64	N/A	
Population	67	65	65	61	60	48	40	66	70	83	88	78	N/A	
Core & Non-Core Fixed Income	1.10	3.07	5.68	3.67	3.00	3.08	4.40	7.56	0.54	3.24	4.02	0.52	N/A	04/01/1997
All Public Plans-US Fixed Income Segment Median	0.20	2.61	5.45	3.90	3.30	3.21	4.41	9.15	-0.25	4.49	4.54	0.21	N/A	
Rank	38	46	46	63	70	62	52	78	22	77	61	37	N/A	
Population	72	71	71	66	65	57	45	70	74	85	92	79	N/A	
Core Fixed Income	3.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.15	12/01/2019
All Public Plans-US Fixed Income Segment Median	0.20	2.61	5.45	3.90	3.30	3.21	4.41	9.15	-0.25	4.49	4.54	0.21	0.45	
Rank	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	
Population	72	71	71	66	65	57	45	70	74	85	92	79	71	
Trust Funds Investment Pool	1.75	4.28	7.54	4.77	3.84	3.96	4.95	9.06	0.53	4.10	4.12	1.89	6.17	10/01/1995
All Public Plans-US Fixed Income Segment Median	0.20	2.61	5.45	3.90	3.30	3.21	4.41	9.15	-0.25	4.49	4.54	0.21	N/A	
Rank	31	25	19	21	14	16	26	51	22	61	59	5	N/A	
Population	72	71	71	66	65	57	45	70	74	85	92	79	N/A	
Real Estate	-2.12	1.39	3.68	7.86	10.04	11.01	11.55	8.65	11.12	10.91	10.26	15.68	5.33	06/01/2006
All Public Plans-Real Estate Segment Median	1.47	4.63	7.16	8.20	9.77	10.95	11.64	7.60	8.78	8.84	9.91	13.42	N/A	
Rank	92	96	91	58	35	49	52	38	14	26	45	13	N/A	
Population	43	35	35	26	21	17	13	36	29	32	29	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. Core Fixed Income currently consists of Investment Grade Credit, US Treasury & Agency, and TIPS. Non-Core Fixed Income currently consists of High Yield.

Montana Board of Investments
Comparative Performance
Equity Composites

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Large Cap Equity - Net	-19.55	-10.95	-7.13	4.78	6.46	9.56	10.35	31.06	-4.71	21.66	11.30	1.76	6.71	12/01/2006
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	6.93	
Difference	0.05	-0.13	-0.15	-0.32	-0.27	-0.06	-0.18	-0.43	-0.33	-0.17	-0.66	0.38	-0.22	
Domestic Large Cap Equity - Gross	-19.51	-10.83	-6.97	4.96	6.63	9.73	10.57	31.29	-4.52	21.82	11.45	1.91	6.93	12/01/2006
IM U.S. Large Cap Equity (SA+CF) Median	-20.53	-12.36	-8.66	4.01	5.73	9.01	10.24	30.20	-5.12	21.70	11.01	0.94	6.97	
Rank	39	40	40	40	37	36	40	41	44	49	47	39	52	
Domestic Large Cap Active - Net	-19.43	-11.12	-7.31	4.43	5.94	9.47	10.23	31.03	-5.88	21.85	9.63	2.40	6.15	07/01/2007
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	6.58	
Difference	0.17	-0.30	-0.33	-0.67	-0.79	-0.15	-0.30	-0.46	-1.50	0.02	-2.33	1.02	-0.43	
Domestic Large Cap Active - Gross	-19.29	-10.69	-6.73	5.03	6.49	10.03	10.78	31.82	-5.34	22.40	10.12	2.88	6.66	07/01/2007
IM U.S. Large Cap Equity (SA+CF) Median	-20.53	-12.36	-8.66	4.01	5.73	9.01	10.24	30.21	-5.12	21.72	11.01	0.94	6.61	
Rank	37	36	36	40	39	33	35	34	55	43	57	32	48	
Domestic Mid Cap Equity - Net	-29.71	-24.87	-22.30	-3.14	-0.06	4.17	7.22	28.03	-10.75	19.45	12.30	-3.29	6.00	01/01/2005
Russell Mid Cap Index	-27.07	-21.54	-18.31	-0.81	1.85	6.35	8.77	30.54	-9.06	18.52	13.80	-2.44	7.08	
Difference	-2.64	-3.33	-3.99	-2.33	-1.91	-2.18	-1.55	-2.51	-1.69	0.93	-1.50	-0.85	-1.08	
Domestic Mid Cap Equity - Gross	-29.71	-24.87	-22.36	-2.80	0.39	4.68	7.76	28.11	-10.28	20.18	12.97	-2.71	6.48	01/01/2005
IM U.S. Mid Cap Equity (SA+CF) Median	-26.11	-19.99	-16.86	-0.63	2.54	6.86	9.12	30.14	-9.12	19.70	12.71	-1.12	7.79	
Rank	71	73	70	58	70	77	75	64	59	49	49	69	86	
Domestic Small Cap Equity - Net	-31.00	-26.52	-24.76	-4.41	0.08	4.85	7.38	25.76	-10.51	15.65	19.31	-1.61	9.16	03/01/2003
Russell 2000 Index	-30.61	-25.55	-23.99	-4.64	-0.25	4.21	6.90	25.53	-11.01	14.65	21.31	-4.41	8.49	
Difference	-0.39	-0.97	-0.77	0.23	0.33	0.64	0.48	0.23	0.50	1.00	-2.00	2.80	0.67	
Domestic Small Cap Equity - Gross	-30.93	-26.31	-24.47	-3.99	0.60	5.43	8.02	26.25	-10.09	16.27	19.97	-0.93	9.69	03/01/2003
IM U.S. Small Cap Equity (SA+CF) Median	-30.96	-25.91	-24.01	-4.58	0.29	4.95	7.87	25.87	-10.62	15.14	20.87	-2.36	9.82	
Rank	50	52	53	45	47	44	49	48	48	44	57	36	54	

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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
International Large Cap Passive - Net	-23.30	-17.96	-15.48	-1.78	-0.22	1.37	2.27	21.59	-14.04	27.79	4.87	-4.71	4.22	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	-23.36	-18.02	-15.57	-1.96	-0.64	1.06	2.05	21.51	-14.20	27.19	4.50	-5.66	3.99	
Difference	0.06	0.06	0.09	0.18	0.42	0.31	0.22	0.08	0.16	0.60	0.37	0.95	0.23	
International Large Cap Passive - Gross	-23.28	-17.92	-15.43	-1.72	-0.15	1.45	2.34	21.66	-13.98	27.88	4.96	-4.63	4.29	06/01/2009
International Equity Active - Net	-24.72	-18.76	-15.49	-1.46	0.48	2.23	2.96	25.83	-16.18	30.82	2.63	0.41	2.54	04/01/1997
MSCI ACW Ex US Index (USD) (Net)	-23.36	-18.02	-15.57	-1.96	-0.64	1.06	2.05	21.51	-14.20	27.19	4.50	-5.66	N/A	
Difference	-1.36	-0.74	0.08	0.50	1.12	1.17	0.91	4.32	-1.98	3.63	-1.87	6.07	N/A	
International Equity Active - Gross	-24.61	-18.44	-15.04	-0.94	1.01	2.75	3.47	26.48	-15.73	31.50	3.17	0.90	3.05	04/01/1997
IM International Large Cap Core Equity (SA+CF) Median	-22.61	-17.15	-13.81	-1.50	-0.06	2.64	3.95	23.88	-14.63	26.49	1.52	0.25	5.50	
Rank	82	69	62	39	25	47	62	28	67	13	30	42	100	
International Value - Net	-24.87	-20.64	-17.68	-1.80	-0.30	1.72	2.15	20.76	-13.97	30.72	5.59	-5.94	0.35	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	-28.55	-24.85	-23.68	-6.48	-3.50	-1.24	0.10	15.72	-13.97	22.66	8.92	-10.06	-0.25	
Difference	3.68	4.21	6.00	4.68	3.20	2.96	2.05	5.04	0.00	8.06	-3.33	4.12	0.60	
International Value - Gross	-24.77	-20.33	-17.25	-1.29	0.22	2.26	2.71	21.37	-13.52	31.39	6.17	-5.46	0.92	11/01/2006
IM International Large Cap Value Equity (SA+CF) Median	-26.03	-20.32	-18.53	-4.04	-1.37	1.27	3.01	21.19	-14.58	26.02	4.23	-1.92	1.92	
Rank	37	51	41	25	28	35	60	47	40	12	30	82	80	
International Growth - Net	-21.24	-14.07	-9.30	0.69	1.41	2.72	3.38	31.39	-16.09	28.01	0.51	1.69	1.84	11/01/2006
MSCI ACW Ex US Grth Index (USD) (Net)	-18.25	-11.17	-7.31	2.53	2.10	3.25	3.91	27.34	-14.43	32.01	0.12	-1.25	2.84	
Difference	-2.99	-2.90	-1.99	-1.84	-0.69	-0.53	-0.53	4.05	-1.66	-4.00	0.39	2.94	-1.00	
International Growth - Gross	-21.13	-13.71	-8.80	1.25	1.98	3.27	3.93	32.10	-15.61	28.74	1.12	2.21	2.38	11/01/2006
IM International Large Cap Growth Equity (SA+CF) Median	-19.54	-12.96	-8.22	2.68	1.97	3.99	5.28	28.33	-13.90	31.38	-0.07	2.28	3.57	
Rank	73	63	60	65	49	69	80	19	66	68	34	51	80	
International Small Cap - Net	-29.27	-22.78	-21.29	-4.63	-0.56	1.90	3.74	23.91	-18.90	33.61	1.84	5.16	2.10	09/01/2006
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	-29.01	-22.12	-21.18	-4.89	-0.81	1.05	2.79	22.42	-18.20	31.65	3.91	2.60	2.64	
Difference	-0.26	-0.66	-0.11	0.26	0.25	0.85	0.95	1.49	-0.70	1.96	-2.07	2.56	-0.54	

Gross of fees performance is not available (N/A) for the International Small Cap composite which currently consists of DFA Intl Sm Co;I (DFISX), DFA Emg Mkts Sm Cap;I (DEMSX), BlackRock ACWI Ex-US Small Cap (CF), Templeton Investment Counsel (SA), and American Century Investment Mgmt (SA).

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 Sub Composites

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Large Cap Passive - Net	-19.54	-10.84	-7.01	5.01	6.57	9.51	10.48	30.99	-3.94	21.34	12.01	0.83	4.96	05/01/2000
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	4.97	
Difference	0.06	-0.02	-0.03	-0.09	-0.16	-0.11	-0.05	-0.50	0.44	-0.49	0.05	-0.55	-0.01	
Domestic Large Cap Passive - Gross	-19.54	-10.83	-7.01	5.01	6.58	9.52	10.49	31.00	-3.93	21.35	12.03	0.84	4.99	05/01/2000
IM U.S. Large Cap Index Equity (SA+CF) Median	-20.19	-11.75	-8.01	4.67	6.25	9.35	10.41	31.41	-4.78	21.70	12.03	0.96	5.11	
Rank	18	37	42	41	44	44	41	65	18	58	51	58	80	
Domestic Large Cap Enhanced - Net	-20.90	-12.17	-8.24	5.38	6.81	9.83	10.83	32.81	-4.20	24.21	9.73	3.18	7.15	06/01/2006
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	7.50	
Difference	-1.30	-1.35	-1.26	0.28	0.08	0.21	0.30	1.32	0.18	2.38	-2.23	1.80	-0.35	
Domestic Large Cap Enhanced - Gross	-20.84	-11.98	-7.98	5.67	7.11	10.15	11.15	33.17	-3.96	24.53	10.05	3.50	7.46	06/01/2006
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	7.54	
Rank	64	46	46	22	19	24	20	14	29	20	58	25	55	
Domestic Large Cap 130/30 - Net	-19.19	-10.95	-7.16	3.70	5.21	9.21	10.03	30.67	-7.10	20.28	9.54	1.61	7.75	03/01/2008
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	7.92	
Difference	0.41	-0.13	-0.18	-1.40	-1.52	-0.41	-0.50	-0.82	-2.72	-1.55	-2.42	0.23	-0.17	
Domestic Large Cap 130/30 - Gross	-19.05	-10.49	-6.53	4.48	5.94	9.95	10.78	31.57	-6.32	21.10	10.22	2.26	8.48	03/01/2008
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	7.90	
Rank	34	27	29	42	45	27	27	33	70	62	55	38	29	

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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Large Cap Equity														
BlackRock MSCI US Equity Index (SA) - Net	-19.65	-10.97	-7.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-7.17	04/01/2019
MSCI US Index (USD) (Gross)	-19.65	-10.95	-7.14	5.05	6.55	9.53	10.50	31.64	-4.50	21.90	11.61	1.32	-7.14	
Difference	0.00	-0.02	-0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.03	
BlackRock MSCI US Equity Index (SA) - Gross	-19.65	-10.96	-7.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-7.17	04/01/2019
SPDR S&P 500 ETF (SPY) - Net	-18.80	-9.59	-5.78	N/A	N/A	N/A	N/A	31.49	-5.30	N/A	N/A	N/A	4.44	07/01/2017
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	4.42	
Difference	0.80	1.23	1.20	N/A	N/A	N/A	N/A	0.00	-0.92	N/A	N/A	N/A	0.02	
Northern Trust MSCI US Index (SA) - Net	-19.64	-10.96	-7.11	N/A	N/A	N/A	N/A	31.70	N/A	N/A	N/A	N/A	-1.30	11/01/2018
MSCI US Index (USD) (Gross)	-19.65	-10.95	-7.14	5.05	6.55	9.53	10.50	31.64	-4.50	21.90	11.61	1.32	-1.33	
Difference	0.01	-0.01	0.03	N/A	N/A	N/A	N/A	0.06	N/A	N/A	N/A	N/A	0.03	
Northern Trust MSCI US Index (SA) - Gross	-19.64	-10.95	-7.10	N/A	N/A	N/A	N/A	31.71	N/A	N/A	N/A	N/A	-1.29	11/01/2018
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	-2.53	
Rank	44	36	38	N/A	N/A	N/A	N/A	32	N/A	N/A	N/A	N/A	35	
Domestic Equity Pool STIF - Net	-0.13	0.87	1.48	1.66	1.16	N/A	N/A	2.27	2.01	1.03	0.51	N/A	1.16	04/01/2015
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	1.24	
Difference	-0.42	-0.36	-0.34	-0.11	-0.08	N/A	N/A	0.13	0.06	-0.12	-0.01	N/A	-0.08	
T. Rowe U.S. Structured Research (SA) - Net	-20.90	-12.17	-8.24	5.31	7.06	9.90	10.60	32.81	-4.20	23.94	10.68	3.30	7.90	06/01/2006
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	7.50	
Difference	-1.30	-1.35	-1.26	0.21	0.33	0.28	0.07	1.32	0.18	2.11	-1.28	1.92	0.40	
T. Rowe U.S. Structured Research (SA) - Gross	-20.84	-11.98	-7.98	5.59	7.34	10.21	10.91	33.17	-3.96	24.24	10.98	3.61	8.22	06/01/2006
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	7.54	
Rank	64	46	46	24	16	23	24	14	29	24	46	24	27	
Jacobs Levy 130/30 (SA) - Net	-20.88	-13.21	-9.41	N/A	N/A	N/A	N/A	31.63	N/A	N/A	N/A	N/A	-1.71	04/01/2018
MSCI US Index (USD) (Gross)	-19.65	-10.95	-7.14	5.05	6.55	9.53	10.50	31.64	-4.50	21.90	11.61	1.32	0.82	
Difference	-1.23	-2.26	-2.27	N/A	N/A	N/A	N/A	-0.01	N/A	N/A	N/A	N/A	-2.53	
Jacobs Levy 130/30 (SA) - Gross	-20.74	-12.75	-8.77	N/A	N/A	N/A	N/A	32.55	N/A	N/A	N/A	N/A	-0.95	04/01/2018
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	-0.71	
Rank	61	58	57	N/A	N/A	N/A	N/A	21	N/A	N/A	N/A	N/A	53	

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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
J.P. Morgan 130/30 (SA) - Net	-17.26	-8.37	-4.56	4.81	6.02	9.98	10.42	30.55	-6.93	22.86	10.30	0.01	8.86	03/01/2008
S&P 500 Index (Cap Wtd)	-19.60	-10.82	-6.98	5.10	6.73	9.62	10.53	31.49	-4.38	21.83	11.96	1.38	7.92	
Difference	2.34	2.45	2.42	-0.29	-0.71	0.36	-0.11	-0.94	-2.55	1.03	-1.66	-1.37	0.94	
J.P. Morgan 130/30 (SA) - Gross	-17.10	-7.90	-3.94	5.61	6.80	10.78	11.22	31.42	-6.13	23.79	11.09	0.72	9.66	03/01/2008
IM U.S. Large Cap Core Equity (SA+CF) Median	-20.02	-12.29	-8.37	4.08	5.73	9.23	10.30	29.96	-5.16	21.84	10.54	1.42	7.90	
Rank	13	9	11	23	24	14	19	36	67	27	45	59	8	
Domestic Mid Cap Equity														
iShares:Core S&P Md-Cp (IJH) - Net	-29.71	-24.87	-22.59	N/A	N/A	N/A	N/A	26.24	-13.95	N/A	N/A	N/A	-6.22	07/01/2017
S&P Mid Cap 400 Index (Cap Wtd)	-29.70	-24.80	-22.51	-4.09	0.56	4.91	7.88	26.20	-11.08	16.24	20.74	-2.18	-5.13	
Difference	-0.01	-0.07	-0.08	N/A	N/A	N/A	N/A	0.04	-2.87	N/A	N/A	N/A	-1.09	

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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Domestic Small Cap Equity														
Vaughan Nelson Management (SA) - Net	-29.53	-25.55	-23.31	-6.82	-1.58	4.07	6.67	25.34	-13.78	6.83	20.50	0.16	6.06	03/01/2007
Russell 2000 Val Index	-35.66	-30.60	-29.64	-9.51	-2.42	1.80	4.79	22.39	-12.86	7.84	31.74	-7.47	2.35	
Difference	6.13	5.05	6.33	2.69	0.84	2.27	1.88	2.95	-0.92	-1.01	-11.24	7.63	3.71	
Vaughan Nelson Management (SA) - Gross	-29.39	-25.13	-22.74	-6.12	-0.81	4.90	7.54	26.25	-13.13	7.66	21.49	0.98	6.94	03/01/2007
IM U.S. Small Cap Value Equity (SA+CF) Median	-34.99	-29.50	-28.18	-8.65	-2.01	2.94	6.50	25.17	-14.24	11.59	26.39	-4.29	4.54	
Rank	17	17	17	27	30	15	20	35	38	77	76	8	10	
BlackRock MSCI US Sm Cap Equity Index (CF) - Net	-31.23	-26.16	-24.49	N/A	N/A	N/A	N/A	27.30	-9.96	N/A	N/A	N/A	-4.85	07/01/2017
MSCI US Sm Cap Index (USD) (Net)	-31.36	-26.47	-24.90	-4.22	-0.14	4.47	7.32	26.74	-10.40	16.75	19.15	-4.11	-5.31	
Difference	0.13	0.31	0.41	N/A	N/A	N/A	N/A	0.56	0.44	N/A	N/A	N/A	0.46	
BlackRock MSCI US Sm Cap Equity Index (CF) - Gross	-31.22	-26.14	-24.47	N/A	N/A	N/A	N/A	27.34	-9.93	N/A	N/A	N/A	-4.81	07/01/2017
DFA US Sm Cap Tr (CF) - Net	-32.46	-28.13	-26.58	-7.14	-1.23	3.79	7.20	21.66	-12.27	11.86	24.42	-2.64	9.01	03/01/2003
Russell 2000 Index	-30.61	-25.55	-23.99	-4.64	-0.25	4.21	6.90	25.53	-11.01	14.65	21.31	-4.41	8.49	
Difference	-1.85	-2.58	-2.59	-2.50	-0.98	-0.42	0.30	-3.87	-1.26	-2.79	3.11	1.77	0.52	
DFA US Sm Cap Tr (CF) - Gross	-32.39	-27.93	-26.32	-6.81	-0.88	4.15	7.57	22.07	-11.95	12.25	24.85	-2.29	9.33	03/01/2003
IM U.S. Small Cap Core Equity (SA+CF) Median	-31.69	-26.81	-24.60	-4.58	0.75	5.29	8.28	24.86	-10.69	15.18	20.77	-1.35	9.70	
Rank	61	65	61	76	74	75	67	72	64	72	21	62	58	
iShares:Russ 2000 ETF (IWM) - Net	-30.66	-25.59	-24.17	N/A	N/A	N/A	N/A	25.52	N/A	N/A	N/A	N/A	-12.88	05/01/2018
Russell 2000 Index	-30.61	-25.55	-23.99	-4.64	-0.25	4.21	6.90	25.53	-11.01	14.65	21.31	-4.41	-12.80	
Difference	-0.05	-0.04	-0.18	N/A	N/A	N/A	N/A	-0.01	N/A	N/A	N/A	N/A	-0.08	

Gross of fees performance is not available (N/A) for the following funds: SPDR S&P 500 ETF (SPY), iShares:Core S&P Md-Cp (IJH), and iShares:Russ 2000 ETF (IWM).

The current annual expense ratios for the SPDR S&P 500 ETF (SPY), iShares:Core S&P Md-Cp (IJH), and iShares:Russ 2000 ETF (IWM) are 0.09%, 0.06%, and 0.19%, 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.

Montana Board of Investments
Comparative Performance
International Equity Managers

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
International Developed Large Cap Equity														
Acadian Asset Non-US Equity (SA) - Net	-25.39	-20.75	-19.34	-1.64	1.27	2.66	4.10	19.38	-13.44	34.76	12.40	-7.75	1.23	11/01/2006
MSCI ACW Ex US Val Index (USD) (Net)	-28.55	-24.85	-23.68	-6.48	-3.50	-1.24	0.10	15.72	-13.97	22.66	8.92	-10.06	-0.25	
Difference	3.16	4.10	4.34	4.84	4.77	3.90	4.00	3.66	0.53	12.10	3.48	2.31	1.48	
Acadian Asset Non-US Equity (SA) - Gross	-25.28	-20.43	-18.92	-1.13	1.80	3.19	4.66	19.98	-12.99	35.45	13.01	-7.26	1.79	11/01/2006
IM ACWI Ex US Value (SA+CF) Median	-26.85	-20.43	-18.54	-4.06	-1.36	1.14	2.98	21.34	-14.78	26.02	4.87	-3.25	1.92	
Rank	36	51	53	23	11	20	27	59	26	8	10	85	52	
Lazard Asset Management (SA) - Net	-24.53	-20.57	-16.54	-2.07	N/A	N/A	N/A	21.70	-14.32	27.00	0.22	N/A	-1.89	06/01/2015
Lazard Custom Index	-23.36	-18.02	-15.57	-3.29	-1.54	0.19	1.11	21.51	-15.55	22.66	8.92	-10.06	-2.30	
Difference	-1.17	-2.55	-0.97	1.22	N/A	N/A	N/A	0.19	1.23	4.34	-8.70	N/A	0.41	
Lazard Asset Management (SA) - Gross	-24.43	-20.26	-16.11	-1.57	N/A	N/A	N/A	22.31	-13.88	27.65	0.77	N/A	-1.37	06/01/2015
IM ACWI Ex US Value (SA+CF) Median	-26.85	-20.43	-18.54	-4.06	-1.36	1.14	2.98	21.34	-14.78	26.02	4.87	-3.25	-2.27	
Rank	34	48	28	26	N/A	N/A	N/A	43	35	38	86	N/A	35	
BlackRock ACW Ex US SuperFund A (CF) - Net	-23.32	-17.96	-15.39	-1.75	-0.42	1.27	2.26	21.77	-13.99	27.49	4.77	-5.49	4.20	06/01/2009
MSCI ACW Ex US Index (USD) (Net)	-23.36	-18.02	-15.57	-1.96	-0.64	1.06	2.05	21.51	-14.20	27.19	4.50	-5.66	3.99	
Difference	0.04	0.06	0.18	0.21	0.22	0.21	0.21	0.26	0.21	0.30	0.27	0.17	0.21	
BlackRock ACW Ex US SuperFund A (CF) - Gross	-23.30	-17.92	-15.33	-1.68	-0.35	1.35	2.34	21.85	-13.93	27.58	4.86	-5.42	4.28	06/01/2009
IM All ACWI Ex US (SA+CF) Median	-22.67	-16.61	-12.92	-0.69	0.55	2.95	4.04	24.92	-14.64	28.74	2.11	-0.59	5.79	
Rank	58	60	61	62	61	74	85	65	43	62	25	84	83	
iShares:MSCI EAFE ETF (EFA) - Net	-22.96	-17.66	-14.80	N/A	N/A	N/A	N/A	22.03	-12.88	N/A	N/A	N/A	-4.03	07/01/2017
MSCI EAFE Index (USD) (Net)	-22.83	-17.42	-14.38	-1.82	-0.62	1.75	2.72	22.01	-13.79	25.03	1.00	-0.81	-4.08	
Difference	-0.13	-0.24	-0.42	N/A	N/A	N/A	N/A	0.02	0.91	N/A	N/A	N/A	0.05	
Baillie Gifford (SA) - Net	-19.93	-10.72	-5.38	2.19	N/A	N/A	N/A	34.34	-17.35	31.99	0.73	N/A	1.94	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	-18.25	-11.17	-7.31	2.53	2.10	3.25	3.91	27.34	-14.43	32.01	0.12	-1.25	1.50	
Difference	-1.68	0.45	1.93	-0.34	N/A	N/A	N/A	7.00	-2.92	-0.02	0.61	N/A	0.44	
Baillie Gifford (SA) - Gross	-19.83	-10.38	-4.91	2.71	N/A	N/A	N/A	34.99	-16.93	32.66	1.28	N/A	2.47	06/01/2015
IM ACWI Ex US Growth (SA+CF) Median	-19.71	-12.01	-7.75	2.77	2.11	3.99	5.53	29.56	-13.78	32.56	-0.76	1.29	1.50	
Rank	56	23	19	53	N/A	N/A	N/A	9	85	49	33	N/A	33	

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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Invesco (SA) - Net	-22.21	-16.45	-12.07	-0.46	N/A	N/A	N/A	29.29	-15.17	24.92	0.32	N/A	-0.43	06/01/2015
MSCI ACW Ex US Grth Index (USD) (Net)	-18.25	-11.17	-7.31	2.53	2.10	3.25	3.91	27.34	-14.43	32.01	0.12	-1.25	1.50	
Difference	-3.96	-5.28	-4.76	-2.99	N/A	N/A	N/A	1.95	-0.74	-7.09	0.20	N/A	-1.93	
Invesco (SA) - Gross	-22.09	-16.08	-11.54	0.14	N/A	N/A	N/A	30.05	-14.64	25.70	1.01	N/A	0.20	06/01/2015
IM ACWI Ex US Growth (SA+CF) Median	-19.71	-12.01	-7.75	2.77	2.11	3.99	5.53	29.56	-13.78	32.56	-0.76	1.29	1.50	
Rank	90	89	81	82	N/A	N/A	N/A	44	56	91	36	N/A	81	
International Equity Pool STIF - Net	0.36	1.37	1.98	1.77	1.20	N/A	N/A	2.24	1.94	0.92	0.47	N/A	1.20	04/01/2015
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	1.24	
Difference	0.07	0.14	0.16	0.00	-0.04	N/A	N/A	0.10	-0.01	-0.23	-0.05	N/A	-0.04	
International Developed Small Cap Equity														
American Century Investment Mgmt (SA) - Net	-23.21	-15.40	-12.15	0.78	2.39	N/A	N/A	29.44	-20.76	43.80	-5.31	11.32	1.17	03/01/2014
MSCI ACW Ex US Sm Cap Grth Index (USD) (Net)	-25.96	-18.78	-17.30	-2.59	0.47	2.05	3.55	24.61	-18.27	33.64	-0.28	6.50	-0.06	
Difference	2.75	3.38	5.15	3.37	1.92	N/A	N/A	4.83	-2.49	10.16	-5.03	4.82	1.23	
American Century Investment Mgmt (SA) - Gross	-23.04	-14.86	-11.41	1.63	3.25	N/A	N/A	30.50	-20.09	44.99	-4.49	12.25	2.03	03/01/2014
IM ACWI Ex US Growth (SA+CF) Median	-19.71	-12.01	-7.75	2.77	2.11	3.99	5.53	29.56	-13.78	32.56	-0.76	1.29	2.33	
Rank	94	76	79	72	31	N/A	N/A	42	100	6	79	1	55	
BlackRock MSCI ACW Ex US Sm Cap Index (CF) - Net	-28.87	-21.94	-20.89	-4.55	-0.51	1.34	N/A	22.68	-17.85	31.96	4.26	2.87	3.02	02/01/2012
MSCI ACWI Ex US Sm Cap Index IMI (USD) (Net)	-29.01	-22.12	-21.18	-4.89	-0.81	1.05	2.79	22.42	-18.20	31.65	3.91	2.60	2.76	
Difference	0.14	0.18	0.29	0.34	0.30	0.29	N/A	0.26	0.35	0.31	0.35	0.27	0.26	
BlackRock MSCI ACW Ex US Sm Cap Index (CF) - Gross	-28.90	-21.87	-20.80	-4.43	-0.37	1.49	N/A	22.90	-17.74	32.15	4.44	3.04	3.18	02/01/2012
DFA Intl Sm Co;l (DFISX) - Net	-30.21	-22.82	-21.14	-5.67	-0.39	1.96	3.71	24.21	-19.41	30.24	5.74	5.89	5.20	11/01/2004
MSCI Wrld Ex US Sm Cap Index (USD) (Net)	-28.39	-20.44	-19.04	-3.60	0.39	2.34	3.95	25.41	-18.07	31.04	4.32	5.46	5.00	
Difference	-1.82	-2.38	-2.10	-2.07	-0.78	-0.38	-0.24	-1.20	-1.34	-0.80	1.42	0.43	0.20	
Templeton Investment Counsel (SA) - Net	-31.40	-26.02	-25.05	-5.42	-2.44	N/A	N/A	24.17	-18.48	33.07	-1.13	1.81	-1.86	03/01/2014
Templeton Custom Index	-29.01	-22.12	-21.18	-5.89	-1.32	0.62	2.42	22.42	-19.75	29.72	8.24	-1.25	-1.80	
Difference	-2.39	-3.90	-3.87	0.47	-1.12	N/A	N/A	1.75	1.27	3.35	-9.37	3.06	-0.06	
Templeton Investment Counsel (SA) - Gross	-31.24	-25.53	-24.40	-4.60	-1.59	N/A	N/A	25.20	-17.78	34.21	-0.23	2.73	-0.99	03/01/2014
IM ACWI Ex US Value (SA+CF) Median	-26.85	-20.43	-18.54	-4.06	-1.36	1.14	2.98	21.34	-14.78	26.02	4.87	-3.25	-1.22	
Rank	89	88	88	54	57	N/A	N/A	26	84	8	89	9	44	

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Montana Board of Investments
Comparative Performance
International Equity Managers

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
International Emerging Equity														
BlackRock MSCI Emg Mkts Index NL (CF) - Net	-23.59	-18.28	-17.82	-1.77	-0.57	-0.60	N/A	18.12	-14.69	37.05	10.85	-15.15	-0.04	02/01/2012
MSCI Emg Mkts Index (USD) (Net)	-23.60	-18.18	-17.69	-1.62	-0.37	-0.40	0.69	18.44	-14.58	37.28	11.19	-14.92	0.19	
Difference	0.01	-0.10	-0.13	-0.15	-0.20	-0.20	N/A	-0.32	-0.11	-0.23	-0.34	-0.23	-0.23	
BlackRock MSCI Emg Mkts Index NL (CF) - Gross	-23.57	-18.21	-17.73	-1.69	-0.44	-0.44	N/A	18.25	-14.60	37.16	11.08	-14.99	0.12	02/01/2012
iShares:MSCI Em Mkts (EEM) - Net	-23.80	-18.66	-18.09	-2.93	N/A	N/A	N/A	18.12	-16.45	36.86	N/A	N/A	0.89	01/01/2017
MSCI Emg Mkts Index (USD) (Net)	-23.60	-18.18	-17.69	-1.62	-0.37	-0.40	0.69	18.44	-14.58	37.28	11.19	-14.92	1.84	
Difference	-0.20	-0.48	-0.40	-1.31	N/A	N/A	N/A	-0.32	-1.87	-0.42	N/A	N/A	-0.95	
DFA Emg Mkts Sm Cap;I (DEMSX) - Net	-31.56	-28.28	-27.73	-8.60	N/A	N/A	N/A	14.88	-17.56	N/A	N/A	N/A	-5.77	02/01/2017
MSCI Emg Mkts Sm Cap Index (USD) (Net)	-31.37	-28.28	-28.98	-9.64	-5.17	-3.52	-1.34	11.51	-18.59	33.84	2.28	-6.85	-6.93	
Difference	-0.19	0.00	1.25	1.04	N/A	N/A	N/A	3.37	1.03	N/A	N/A	N/A	1.16	

Gross of fees performance is not available (N/A) for the following funds: iShares:MSCI EAFE ETF (EFA), International Equity Pool STIF, DFA Intl Sm Co;I (DFISX), iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX).

The current annual expense ratios for the iShares:MSCI EAFE ETF (EFA), DFA Intl Sm Co;I (DFISX), iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX) are 0.32%, 0.52%, 0.68%, and 0.67%, respectively.

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Montana Board of Investments
Comparative Performance
Core Fixed Income Managers

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
US Fixed Income Aggregate - Net	3.32	N/A	N/A	N/A	N/A	3.25	12/01/2019							
Bloomberg US Agg Bond Index	3.15	5.68	8.93	4.82	3.36	3.19	3.88	8.72	0.01	3.54	2.65	0.55	3.08	
Difference	0.17	N/A	N/A	N/A	N/A	0.17								
TIPS Portfolio (Internal) - Net	0.35	2.00	4.61	2.63	N/A	N/A	N/A	6.96	-0.13	N/A	N/A	N/A	2.63	04/01/2017
Bloomberg US Trsy Infl Notes 1-10 Yr Index	0.31	1.92	4.50	2.54	2.18	0.98	2.52	6.85	-0.25	1.90	4.01	-0.52	2.54	
Difference	0.04	0.08	0.11	0.09	N/A	N/A	N/A	0.11	0.12	N/A	N/A	N/A	0.09	
Reams Asset Core Plus (SA) - Net	4.35	6.77	9.77	5.37	3.88	3.48	4.70	8.08	1.31	3.21	4.18	0.07	5.78	10/01/2008
Reams Custom Index	1.30	3.79	6.98	4.20	3.25	3.14	3.99	8.72	0.01	3.83	3.91	0.43	4.64	
Difference	3.05	2.98	2.79	1.17	0.63	0.34	0.71	-0.64	1.30	-0.62	0.27	-0.36	1.14	
Reams Asset Core Plus (SA) - Gross	4.40	6.92	9.97	5.56	4.06	3.66	4.88	8.28	1.49	3.38	4.35	0.24	5.97	10/01/2008
IM U.S. Broad Market Core+ FI (SA+CF) Median	-0.41	2.18	5.64	4.15	3.43	3.40	4.55	9.94	-0.36	4.81	4.68	0.31	5.69	
Rank	1	2	2	2	7	29	33	93	4	95	57	53	36	
Core Fixed Income STIF - Net	0.39	N/A	N/A	N/A	N/A	0.52	12/01/2019							
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	0.42	
Difference	0.10	N/A	N/A	N/A	N/A	0.10								

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

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Neuberger Berman High Yield (SA) - Net	-12.18	-8.53	-6.41	0.38	2.15	2.87	5.37	13.75	-1.99	5.80	14.98	-4.32	5.64	01/01/2010
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	5.95	
Difference	0.50	0.68	0.53	-0.38	-0.63	-0.47	-0.27	-0.57	0.09	-1.70	-2.15	0.11	-0.31	
Neuberger Berman High Yield (SA) - Gross	-12.09	-8.23	-6.00	0.83	2.61	3.33	5.84	14.26	-1.56	6.27	15.50	-3.89	6.12	01/01/2010
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	6.04	
Rank	52	48	50	63	58	56	44	49	48	79	33	75	44	
Oaktree US High Yield (SA) (CAPP) - Net	-12.07	-8.09	-5.56	N/A	N/A	N/A	N/A	15.44	-3.99	N/A	N/A	N/A	-1.14	01/01/2018
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	-1.01	
Difference	0.61	1.12	1.38	N/A	N/A	N/A	N/A	1.12	-1.91	N/A	N/A	N/A	-0.13	
Oaktree US High Yield (SA) (CAPP) - Gross	-11.96	-7.74	-5.09	N/A	N/A	N/A	N/A	16.02	-3.47	N/A	N/A	N/A	-0.63	01/01/2018
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	-0.66	
Rank	49	40	40	N/A	N/A	N/A	N/A	15	92	N/A	N/A	N/A	49	
Shenkman High Yield Fixed Income (SA) (CAPP) - Net	-10.95	-7.18	-4.84	N/A	N/A	N/A	N/A	13.65	-1.96	N/A	N/A	N/A	-0.50	12/01/2017
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	-0.85	
Difference	1.73	2.03	2.10	N/A	N/A	N/A	N/A	-0.67	0.12	N/A	N/A	N/A	0.35	
Shenkman High Yield Fixed Income (SA) (CAPP) - Gross	-10.84	-6.84	-4.38	N/A	N/A	N/A	N/A	14.18	-1.46	N/A	N/A	N/A	-0.02	12/01/2017
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	-0.46	
Rank	33	30	30	N/A	N/A	N/A	N/A	50	46	N/A	N/A	N/A	36	
Non-Core Fixed Income STIF - Net	0.37	1.38	1.99	N/A	N/A	N/A	N/A	2.23	1.91	N/A	N/A	N/A	3.31	05/01/2017
Short Term Custom Index	0.29	1.23	1.82	1.77	1.24	0.93	0.73	2.14	1.95	1.15	0.52	0.21	1.79	
Difference	0.08	0.15	0.17	N/A	N/A	N/A	N/A	0.09	-0.04	N/A	N/A	N/A	1.52	

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Montana Board of Investments
Comparative Performance
TFIP Fixed Income Managers

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Trust Funds Investment Pool Internally Managed	2.35	4.82	8.17	4.80	3.54	3.54	4.47	8.99	0.30	3.78	3.41	1.03	5.94	10/01/1995
Bloomberg US Agg Bond Index	3.15	5.68	8.93	4.82	3.36	3.19	3.88	8.72	0.01	3.54	2.65	0.55	5.27	
Difference	-0.80	-0.86	-0.76	-0.02	0.18	0.35	0.59	0.27	0.29	0.24	0.76	0.48	0.67	
Trust Funds Investment Pool Internally Managed	2.35	4.82	8.17	4.80	3.54	3.54	4.47	8.99	0.30	3.78	3.41	1.03	5.94	10/01/1995
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.73	4.48	7.83	4.77	3.47	3.38	4.26	9.19	0.06	4.04	3.10	0.82	5.62	
Rank	42	43	42	49	45	30	30	63	30	64	43	29	14	
Shenkman High Yield Fixed Income (SA) (TFIP) - Net	-11.08	-7.55	N/A	-7.55	07/01/2019									
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	-9.21	
Difference	1.60	1.66	N/A	1.66										
Shenkman High Yield Fixed Income (SA) (TFIP) - Gross	-10.97	-7.22	N/A	-7.22	07/01/2019									
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	-8.44	
Rank	35	34	N/A	34										
Oaktree US High Yield (SA) (TFIP) - Net	-12.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-8.44	08/01/2019
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	-9.72	
Difference	0.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.28	
Oaktree US High Yield (SA) (TFIP) - Gross	-11.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-8.13	08/01/2019
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	-8.91	
Rank	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	
Neuberger Berman High Yield (SA) (TFIP) - Net	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	04/01/2020
Bloomberg US HY 2% Issuer Cap Index	-12.68	-9.21	-6.94	0.76	2.78	3.34	5.64	14.32	-2.08	7.50	17.13	-4.43	N/A	
Difference	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	
Neuberger Berman High Yield (SA) (TFIP) - Gross	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	04/01/2020
IM U.S. High Yield Bonds (SA+CF) Median	-12.01	-8.44	-6.01	1.10	2.78	3.40	5.74	14.11	-1.68	7.50	14.07	-2.11	N/A	
Rank	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	

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. Neuberger Berman High Yield (SA) was funded in the Trust Fund Investment Pool in March 2020.



Montana Board of Investments
Comparative Performance
Trust Accounts

As of March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Abandoned Mine Trust	0.39	1.46	2.13	1.82	1.41	1.36	1.60	2.41	1.85	1.04	1.10	0.90	3.97	12/01/1993
Belt Water Treatment Plant Fund	1.65	3.99	7.07	N/A	N/A	N/A	N/A	8.56	N/A	N/A	N/A	N/A	5.88	03/01/2018
Big Sky Economic Development Fund	1.72	4.10	7.22	4.59	3.69	3.80	4.78	8.67	0.48	3.97	3.98	1.82	5.00	07/01/2005
Butte Area One Restoration	1.52	3.51	5.89	3.90	3.00	2.77	3.16	6.76	1.24	2.92	2.60	1.20	3.45	11/01/2008
Clark Fork River Restoration	1.41	3.48	6.03	3.83	2.98	2.87	3.41	7.04	0.96	2.85	2.72	1.37	3.77	11/01/2008
Coal Tax Cultural Trust Fund	1.67	4.04	7.15	4.55	3.67	3.78	4.76	8.64	0.47	3.96	3.95	1.79	6.06	12/01/1993
Coal Tax Park Acquisition	1.65	4.01	7.12	4.55	3.65	3.75	4.74	8.63	0.48	3.96	3.90	1.78	6.03	12/01/1993
East Helena Compensation Fund	1.19	2.93	4.82	3.29	2.51	2.31	N/A	5.52	1.20	2.56	2.12	0.91	2.25	01/01/2013
Endowment for Children	1.67	4.02	7.10	4.51	3.56	3.68	4.66	8.54	0.46	3.89	3.66	1.70	5.05	08/01/2007
FWP License Account	0.61	1.84	2.90	2.08	1.53	1.25	1.30	3.33	1.50	1.11	0.84	0.61	2.98	11/01/1997
FWP Mitigation Trust Fund	1.01	2.70	4.58	2.79	1.94	1.70	1.84	5.46	1.14	1.15	0.67	0.87	3.93	12/01/1993
FWP Real Property Trust	1.66	4.03	7.12	4.52	3.61	3.69	4.61	8.62	0.51	3.80	3.82	1.73	5.42	12/01/1993
Group Benefits	0.77	2.13	3.43	2.38	1.78	1.56	1.65	4.01	1.37	1.30	1.16	1.06	3.91	12/01/1993
Harold Hamm Endowment	1.62	3.95	6.99	3.79	N/A	N/A	N/A	8.45	0.57	1.11	N/A	N/A	3.18	07/01/2016
Montana Pole	1.53	3.67	6.34	4.08	3.23	3.25	4.01	7.48	0.74	3.38	3.23	1.56	5.17	09/01/1996
Montana State University	0.50	1.66	2.53	2.11	1.54	1.26	1.23	2.87	1.87	1.39	0.95	0.39	2.06	08/01/2004
Montana Tech-UM Agency Funds	0.45	1.55	2.28	1.96	1.40	1.08	0.94	2.56	1.91	1.22	0.72	0.27	1.85	03/01/2003
MT BOI - Clark Fork Site	1.59	3.84	6.71	4.31	3.46	3.42	4.04	8.00	0.67	3.64	3.63	1.56	4.42	11/01/2008
MT BOI UOFM Other	0.94	2.55	4.02	2.84	2.30	2.10	2.19	4.54	1.42	2.15	2.34	1.13	3.01	08/01/2002
MUS Group Insurance	0.63	1.89	2.95	2.27	1.76	1.56	N/A	3.39	1.96	1.09	1.33	1.26	1.51	10/01/2011
MUS Workers Compensation	0.78	2.31	3.77	2.74	N/A	N/A	N/A	4.43	1.62	1.80	N/A	N/A	2.22	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 March 31, 2020

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	Since Incep.	Inception Date
Older Montanans Trust	1.87	4.26	7.36	4.60	3.67	3.75	4.44	8.62	0.49	3.87	3.86	1.72	4.89	08/01/2007
Permanent Coal Trust Excl Crp	1.36	3.35	5.80	4.03	3.43	3.63	4.45	6.81	1.28	3.49	3.79	2.23	5.75	12/01/1993
PERS Defined Cont Disability	-14.51	-8.64	-5.53	2.67	N/A	N/A	N/A	20.77	-4.88	14.57	3.42	N/A	3.39	09/01/2015
Potter Trust Fund	1.63	3.96	7.00	4.48	N/A	N/A	N/A	8.47	0.51	3.87	N/A	N/A	3.77	06/01/2016
Resource Indemnity Trust	1.73	4.16	7.37	4.65	3.74	3.85	4.80	8.88	0.44	4.01	4.02	1.82	6.14	12/01/1993
School Facilities Fund	1.69	3.98	6.80	N/A	N/A	N/A	N/A	7.88	-0.13	N/A	N/A	N/A	4.14	01/01/2018
Smelter Hill Up Restorative	1.29	3.05	4.99	3.30	2.44	2.19	2.28	5.64	1.57	1.85	1.79	0.92	2.38	11/01/2008
State Fund Insurance	-1.83	0.99	3.82	3.80	3.41	3.60	4.48	9.65	0.38	5.05	3.50	2.21	5.49	12/01/1993
Streamside Tailings Operable Unit	1.57	3.81	6.67	4.26	3.41	3.50	4.34	7.92	0.57	3.69	3.58	1.69	5.38	02/01/1999
Subsequent Injury Fund	0.39	1.43	2.05	1.85	1.31	0.96	0.80	2.28	1.98	1.11	0.61	0.22	3.06	12/01/1993
Tobacco Trust Fund	1.69	4.06	7.17	4.56	3.68	3.80	4.78	8.67	0.46	3.96	3.99	1.82	5.67	01/01/2001
Treasurers	0.39	1.42	2.05	1.84	1.31	1.00	0.79	2.28	1.97	1.07	0.68	0.27	2.90	12/01/1993
Treasure State Endowment	1.80	4.22	7.40	4.66	3.73	3.85	4.81	8.81	0.46	4.00	3.98	1.82	6.01	12/01/1993
Treasure State Reg. Water System	1.71	4.13	7.30	4.63	3.71	3.82	4.79	8.80	0.45	4.00	3.96	1.82	5.82	06/01/2000
Trust and Legacy Account	1.71	4.12	7.31	4.63	3.72	3.84	4.80	8.84	0.43	4.00	4.01	1.82	6.72	07/01/1991
UCFRB Assess/Litig Cost Rec	1.63	3.97	7.03	4.46	3.58	3.64	4.44	8.50	0.49	3.77	3.84	1.65	5.74	07/01/1999
UCFRB Restoration Fund	1.70	4.09	7.16	4.54	3.56	3.63	4.56	8.52	0.67	3.73	3.52	1.70	5.65	06/01/1999
Upper Blackfoot Response	0.73	2.16	3.59	2.64	2.05	1.78	N/A	4.24	1.49	1.90	1.74	0.84	1.72	09/01/2010
Weed Control Trust	1.73	4.16	7.37	4.66	3.74	3.86	4.68	8.88	0.44	4.01	4.02	1.82	5.29	12/01/1993
Wildlife Habitat Trust	1.63	3.97	7.05	4.48	3.58	3.67	4.59	8.54	0.51	3.78	3.79	1.73	5.43	12/01/1993
Zortman/Landusky LT H2O	0.39	1.43	2.05	1.84	1.39	1.25	3.49	2.28	1.98	1.01	1.36	0.84	6.50	09/01/1999
Z/L Long Term H2O Trust Fund	0.39	1.43	2.05	1.84	1.45	1.25	3.26	2.28	1.98	1.08	1.39	1.15	4.35	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.
- 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: SPDR S&P 500 ETF (SPY), Domestic Equity Pool STIF, iShares:Core S&P Md-Cp (IJH), iShares:Russ 2000 ETF (IWM), DFA Intl Sm Co;I (DFISX), iShares:MSCI EAFE ETF (EFA), International Equity Pool STIF, iShares:MSCI Em Mkts (EEM), and DFA Emg Mkts Sm Cap;I (DEMSX). The current annual expense ratios are as listed below.

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 and 100% MSCI US REIT Index (USD) (Gross) thereafter.
- The Private Equity Custom Index consists of 100% S&P 1500 Comp Index+4% (1 Qtr Lag) through 04/30/2017 and 100% MSCI US Small Cap Index (USD) (Gross) 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.

Trust Accounts Comments

- The Belt Water Treatment Plant Fund was added in 03/2018.
- The School Facilities Fund was added in 01/2018.
- The Potter Trust Fund and the Harold Hamm Endowment were added in 06/2016.
- MUS Workers Compensation was added in 04/2016.

Manager Transition Comments

- Neuberger Berman High Yield (SA) and TFIP Private Real Estate were funded in the Trust Fund Investment Pool during Q1 2020.
- 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.
- 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.
- INTECH Enhanced Plus was liquidated in 06/2017.
- 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.
- BlackRock Equity Index Fund A (CF) and BlackRock Mid Cap Equity Index A (CF) were liquidated in 05/2017.
- DFA Emg Mkts Sm Cap;I (DEMSX) was funded in 02/2017.
- SPDR S&P 500 ETF (SPY) was liquidated in 01/2017.

Manager Transition Comments (cont.)

- 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.
- 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.
- Nicholas Investment Partners was liquidated in 07/2016. Residual assets from liquidation were distributed in 03/2017.
- 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.
- 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.

Miscellaneous Comments

- Fiscal year ends on 06/30.
- During Q4 2019 Diversifying Strategies investments were liquidated and Investment Grade Credit, US Treasury & Agency, and TIPS were consolidated into the Core Fixed Income composite.
- Non-Core Fixed Income currently consists of High Yield.
- Private Investments currently consist of Private Equity, Private Credit, Venture Capital, and Passive ETFs.

Montana Board of Investments
 Fee Schedule

As of March 31, 2020

	Fee Schedule	Market Value As of 03/31/2020 (\$)
SPDR S&P 500 ETF (SPY)	0.09 % of Assets	153,107,290
iShares:Core S&P Md-Cp (IJH)	0.06 % of Assets	20,921,128
iShares:Russ 2000 ETF (IWM)	0.19 % of Assets	58,604,092
iShares:MSCI EAFE ETF (EFA)	0.32 % of Assets	102,857,040
DFA Intl Sm Co;I (DFISX)	0.52 % of Assets	67,388,919
iShares:MSCI Em Mkts (EEM)	0.68 % of Assets	73,048,439
DFA Emg Mkts Sm Cap;I (DEMSX)	0.67 % of Assets	19,862,874

ETF fees are sourced from Morningstar and/or the investment manager. Mutual Fund fees are provided by staff.



PORTLAND

BOISE

CHICAGO

NEW YORK

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Montana Domestic Equities

Asset Class Review

Presented by:

Jon Putnam, Chief Investment Officer

**Rande Muffick, Deputy CIO/Director of Public Market
Investments**

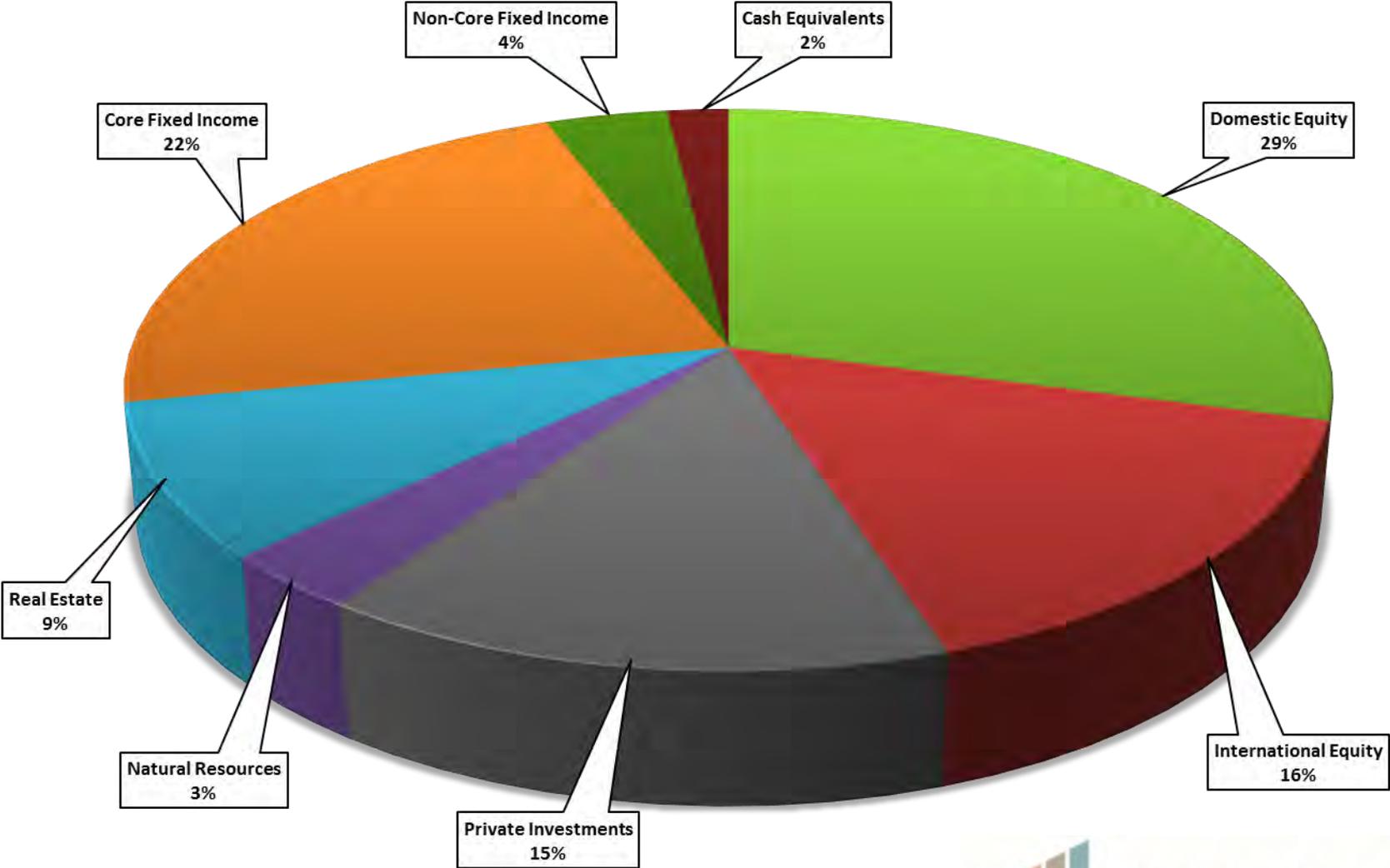


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March 31, 2020

CAPP as of 3/31/2020



March 31, 2020

Domestic Equities

- Largest asset class
- Major driver of CAPP returns
- High relative long-term returns
- High relative volatility in returns
- Highly liquid assets
- Objective: Attain highest possible total return within parameters of the Domestic Equities Investment Guidelines

March 31, 2020

MSCI USA IMI - Characteristics

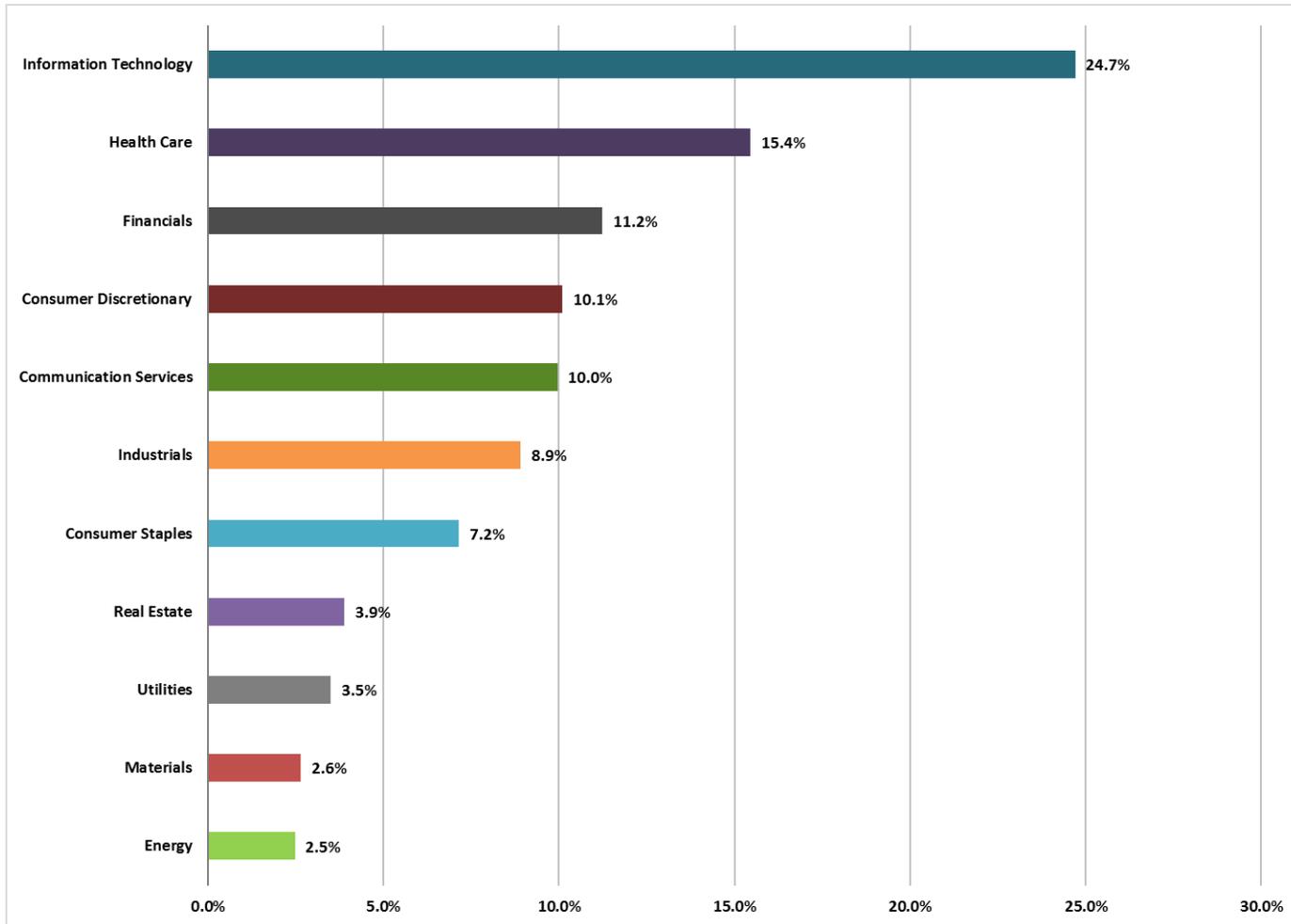
	Current (3/31/20)	Historical Range (Trailing 7 Years)	
		Minimum	Maximum
Dividend Yield	2.25	1.68	2.25
Est 3-5 Yr EPS Growth	10.82	10.33	14.04
Price/Book	2.70	2.23	3.35
Price/Cash Flow	10.05	8.85	14.04
P/E using FY1 Est	16.47	14.23	20.12
Price/Sales	1.70	1.21	2.23
ROE	20.98	15.92	20.98
Market Cap (Weighted Average, \$ Billions)	243	83	265
Number of Holdings	2,383	2,383	2,548

Annualized Return *	7.65
Annualized Standard Deviation *	14.85
Sharpe Ratio *	0.43

* Trailing 15 Years

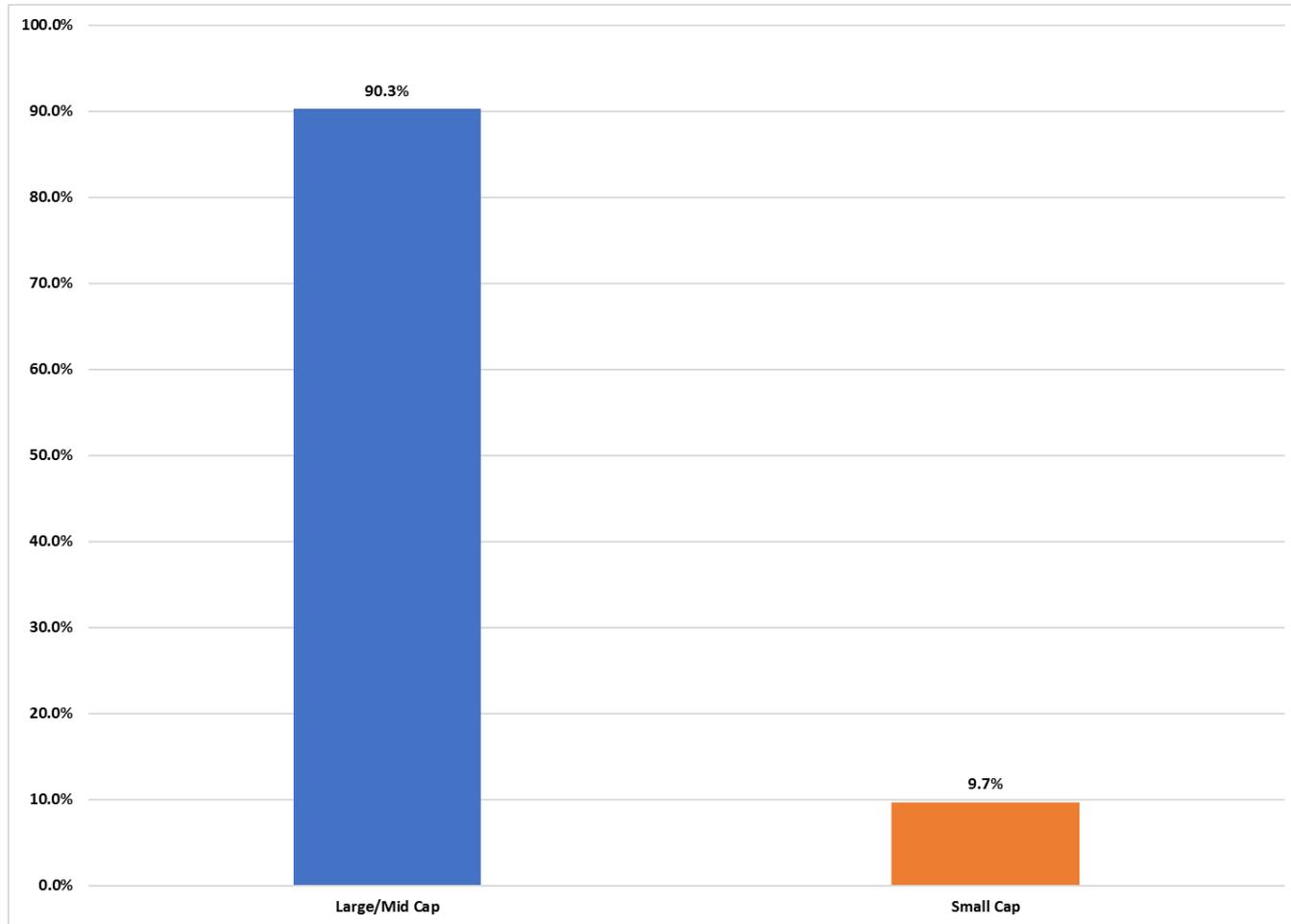
March 31, 2020

MSCI USA IMI - Sectors as of 3/31/2020



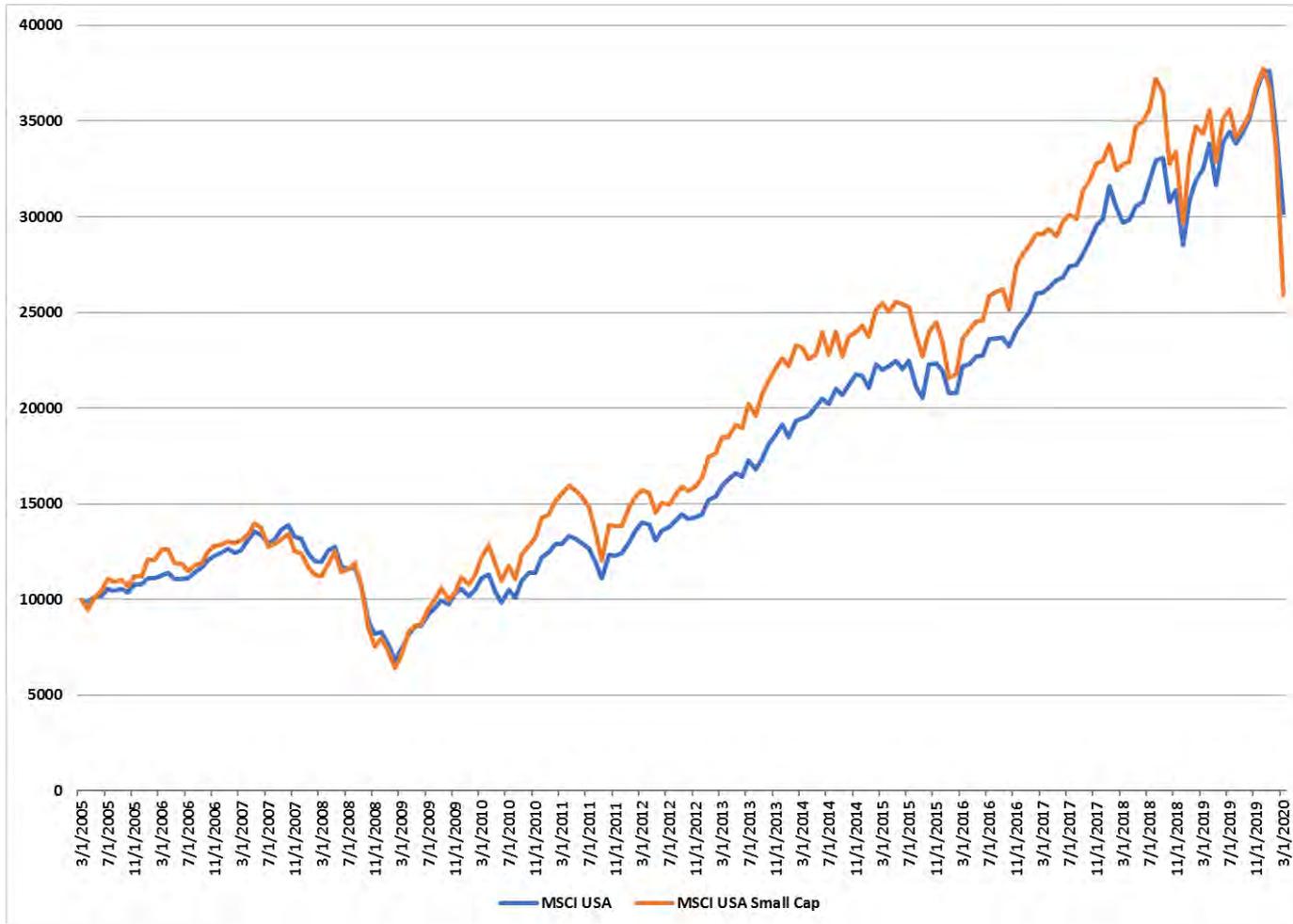
March 31, 2020

MSCI USA IMI - Market Capitalization as of 3/31/2020



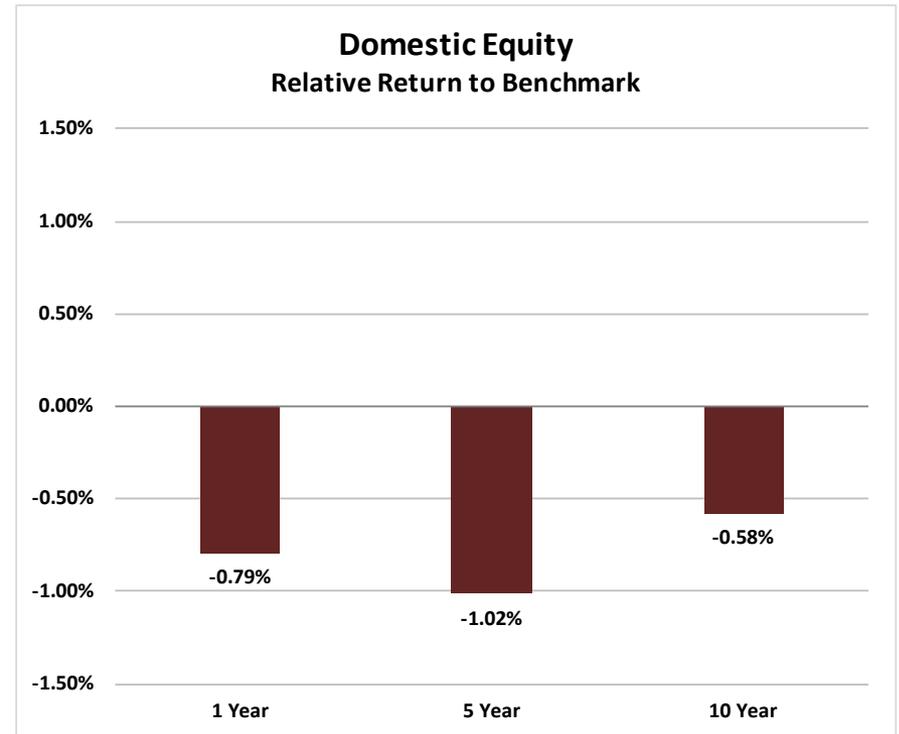
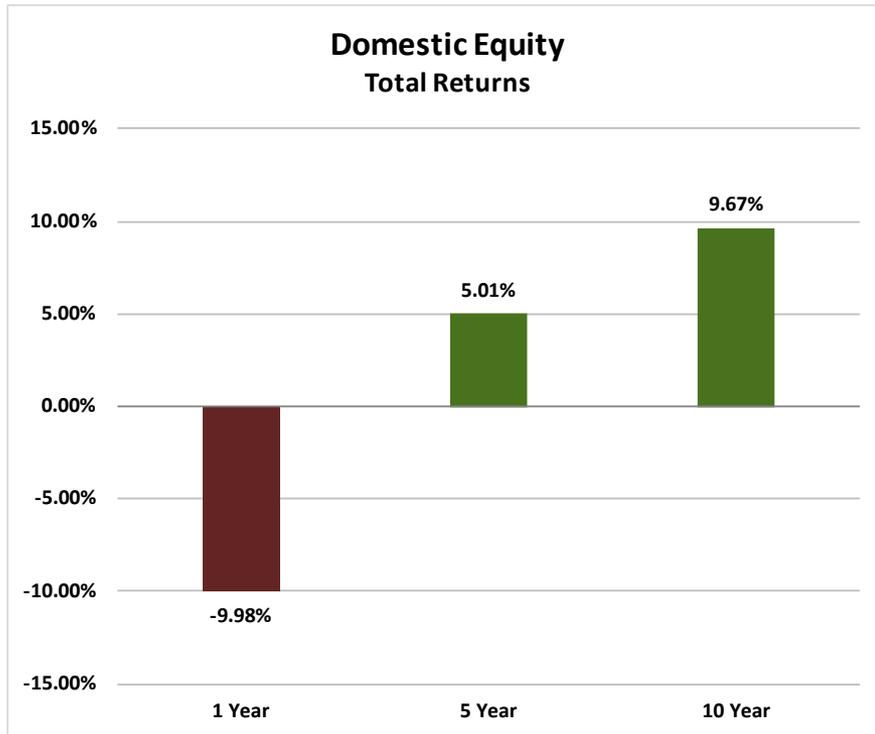
March 31, 2020

Cumulative Returns



March 31, 2020

Domestic Equities Performance History



Benchmark: Domestic Equity – PAC Custom Blend

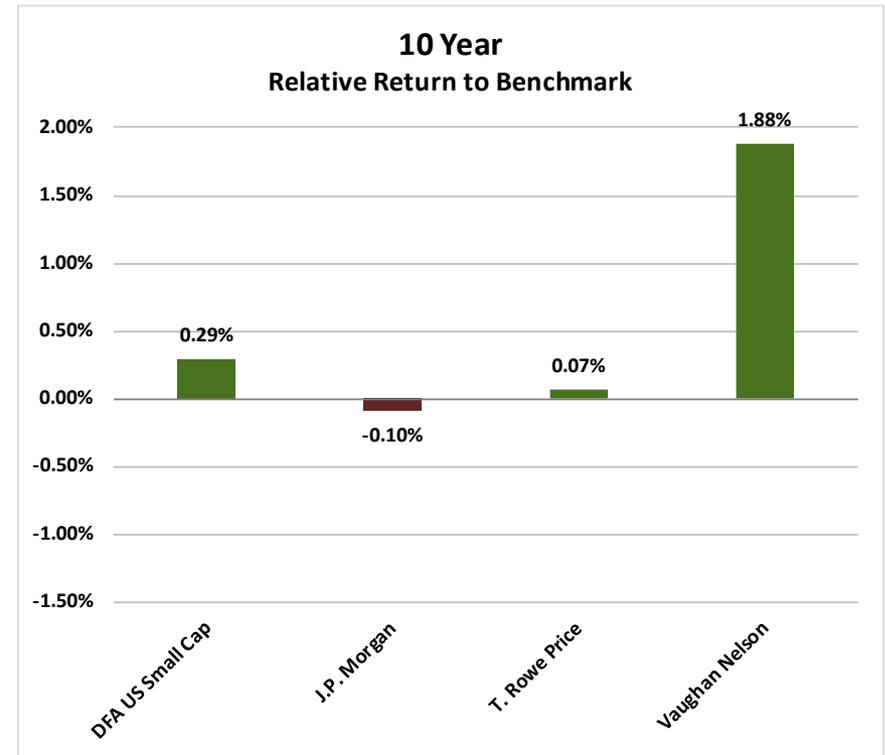
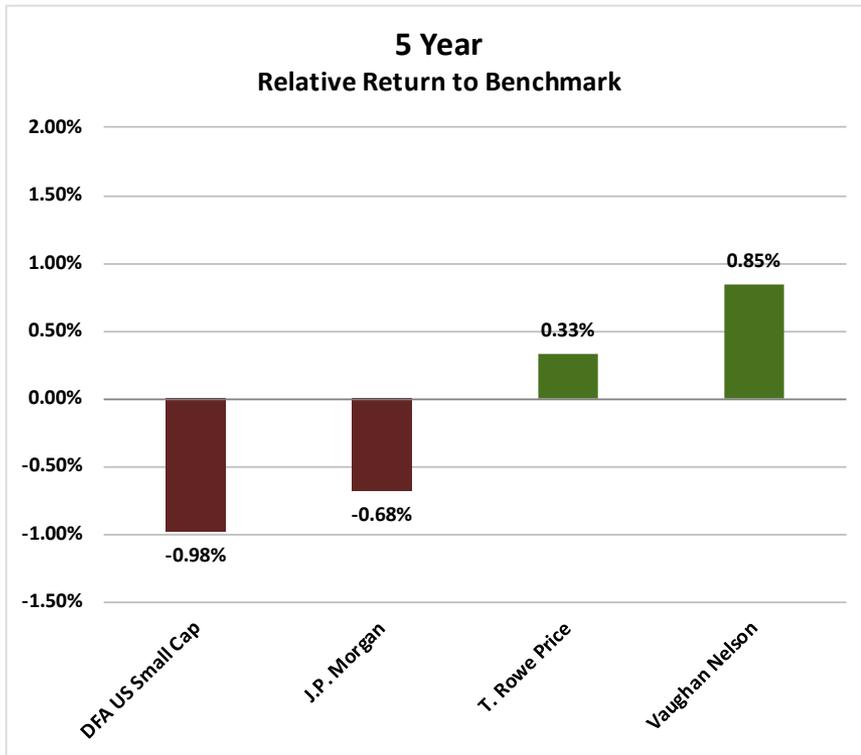
March 31, 2020

Performance History - Peer Comparisons

	QTD/ CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Domestic Equity	-21.14	-13.23	-9.75	3.31	5.32	8.74	10.02
All Public Plans-US Equity Segment Median	-21.71	-14.52	-11.12	2.88	4.72	8.21	9.75
Rank	36	30	31	41	35	32	36
Population	67	66	66	60	59	49	41

March 31, 2020

Performance History - Active Manager Returns



March 31, 2020

RVK Analysis & Conclusions

- Active management in US Equity was unlikely to generate excess return for institutional portfolios during the past 20 years.
- Over the past 10 years, more than 75% of surveyed public funds with greater than \$1 billion saw their US Equity allocations underperform the Russell 3000.
- The large and mid-cap portion of the US Equity market is highly efficient with high correlations among stocks.
- There continues to be a reasonably strong opportunity to generate excess returns in small-cap US Equity via active management. MBOI staff have a positive track record of selecting investment managers capable of exploiting these inefficiencies.
- Style bias (value vs. growth) and capitalization size bias (small vs. large) can incur extended performance leadership cycles which are difficult to predict.

March 31, 2020

RVK Analysis & Conclusions

- RVK would recommend a primarily passive allocation to US large and mid-cap stocks due to the high degree of market efficiency.
- RVK is supportive of pursuing active management in US small-cap stocks (assuming the investor has appropriate resources) due to the lower degree of market efficiency, coupled with MBOI's strong record of manager selection in this area.
- RVK believes institutional investors should be wary of taking large allocation positions that vary significantly by style or market capitalization relative to a broad index. Specific styles can remain out of favor for an extended period of time and there is no guarantee that the style bias will add to future returns.

March 31, 2020

Current Structure

- Diversified approach
- Combination of Indexed and Active Portfolios
- Significantly passive within large-caps
- Significantly active within small-caps
- Complementary Active Portfolios
- Cash level of less than 1%

March 31, 2020

Current Structure - Types of Portfolios

- Exchange Traded Funds (ETFs)
- Indexed Portfolios
- Actively Managed Portfolios
 - Enhanced Indexed Portfolios
 - Active Portfolios
 - Fundamental
 - Quantitative
 - Long Only and Partial Long/Short

March 31, 2020

Current Structure - Types of Portfolios

Index Portfolios

BlackRock MSCI USA Equity Index Fund

BlackRock MSCI USA Small Cap Equity Index Fund

Northern Trust MSCI USA Equity Index Fund

Domestic Equity ETFs (SPY, IJH, IWM)

Actively Managed Portfolios

Enhanced Index

T. Rowe Price

Long Only

DFA

Vaughan Nelson

Partial Long/Short

J.P. Morgan

Jacobs Levy

Current Structure - Manager Tenures with MBOI

- BlackRock 15 Years
- Northern Trust 1.5 Years
- J.P. Morgan 12 Years
- Jacobs Levy 2 Years
- T. Rowe Price 14 Years
- DFA 17 Years
- Vaughan Nelson 13 Years

March 31, 2020

Current Structure - Positioning as of 3/31/2020

Manager Name	Market Value	% of Total	Approved Range	Benchmark Weight
CASH EQUIVALENTS	1,242,658	0.0%	0% - 5%	N/A
LARGE / MID CAP	2,752,782,385	88.0%	N/A	90.3%
PASSIVE *	2,027,678,257	64.8%		
BlackRock MSCI USA Index Fund	928,874,591	29.7%		
Northern Trust MSCI USA Index Fund	924,775,248	29.6%		
ETF - S&P 500 (SPY)	153,107,290	4.9%		
ETF - S&P 400 (IJH)	20,921,128	0.7%		
ENHANCED INDEX	113,461,014	3.6%		
T. Rowe Price	113,461,014	3.6%		
130/30	611,643,114	19.6%		
Jacobs Levy	319,988,974	10.2%		
J.P. Morgan	291,654,140	9.3%		
SMALL CAP **	372,844,554	11.9%	0% - 19.7%	9.7%
PASSIVE *	131,377,664	4.2%		
BlackRock MSCI USA Small Cap Index Fund	72,773,571	2.3%		
ETF - Russell 2000 (IWM)	58,604,092	1.9%		
ACTIVE	241,466,890	7.7%		
Vaughan Nelson	121,930,570	3.9%		
Dimensional Fund Advisors US Small Cap	119,536,320	3.8%		
Domestic Equity - PAC	3,126,869,596	100.0%		

* Passive total shall be greater than 45%

** Maximum small cap weight = Benchmark small cap weight plus 10%

March 31, 2020

Due Diligence and Monitoring

- External Manager Evaluation Policy
- Staff performs due diligence and monitoring:
 - Investment guidelines
 - Manager Scorecard
 - Quarterly review process
 - Attribution and research data sourced from FactSet
 - eVestment Database
 - On-site visits
- Continual development of a 'bench' of managers of interest
- RVK involvement

Management Fees

- Implementing a cost effective approach
- Total fees reduced substantially compared to previous years (3 year chart)
- Active management fees paid primarily in Small Cap portfolios and Partial Long/Short portfolios
- Staff monitors fees at the manager level and in aggregate at the asset class level

March 31, 2020

Management Fees (Then and Now)

	Average Balance	% of Total	Manager Expenses	Expense Ratio
2017	3,846,027,151	100.0%	9,182,899	0.24%
Active	1,642,557,557	42.7%	8,950,388	0.54%
Large/Mid	1,298,905,112	33.8%	6,681,509	0.51%
Small	343,652,444	8.9%	2,268,879	0.66%
Passive	2,203,469,594	57.3%	232,510	0.01%
Large/Mid	2,086,232,664	54.2%	195,662	0.01%
Small	117,236,930	3.0%	36,848	0.03%
2018	3,984,969,056	100.0%	11,624,336	0.29%
Active	1,964,954,441	49.3%	11,176,522	0.57%
Large/Mid	1,460,695,245	36.7%	7,956,003	0.54%
Small	504,259,196	12.7%	3,220,519	0.64%
Passive	2,020,014,615	50.7%	447,814	0.02%
Large/Mid	1,832,153,002	46.0%	273,643	0.01%
Small	187,861,613	4.7%	174,171	0.09%
2019	3,400,754,480	100.0%	6,818,454	0.20%
Active	1,234,291,601	36.3%	6,427,576	0.52%
Large/Mid	890,939,616	26.2%	4,551,974	0.51%
Small	343,351,985	10.1%	1,875,601	0.55%
Passive	2,166,462,879	63.7%	390,878	0.02%
Large/Mid	1,996,947,613	58.7%	226,124	0.01%
Small	169,515,266	5.0%	164,754	0.10%

March 31, 2020

Summary

- The Domestic Equities Asset Class is well diversified.
- Performance versus benchmark has been difficult yet substantially above average compared to peers.
- Implemented many of the observations put forth by RVK's analysis.
- Strong due diligence process driven by staff and in consultation with RVK.
- Management fees paid as a percentage of assets are low and have decreased recently.
- Will carry minimal cash level going forward per the new policy statement.

MONTANA BOARD OF INVESTMENTS

Department of Commerce

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To: Members of the Board
From: Jon Putnam, CIO
Date: June 9, 2020
Subject: Proposed Changes to Investment Policies

Montana Separate Accounts IPS

- Changed language from “Separately Managed Investments” to “Separately Managed Accounts” throughout the document.
- Section 10. Risk Management, e) Cash Investments, added “any cash vehicle at the Custodial Bank”
- Added “any cash vehicle at the Custodial Bank” to Permitted Investments for all accounts
- Changed language and format to be consistent with the Governance Policy
 - Constitution and Montana Code citations
 - Custodial Bank references
 - Investment Policy Statement Review
- Cleanup of abbreviations

Public Retirement Plans IPS

- Section 10. Risk Management, e) Cash Investments, added “any cash vehicle at the Custodial Bank”
- For each Asset Class, removed the language under “Other Restrictions” for cash held. No cash will be permanently held at the Asset Class level. Cash will be moved to or from the asset class as contributions or distributions from managers occur. This is consistent with the change made to Real Estate and Natural Resources in April.
- Schedule II-B, International Equities Asset Class, changed restriction #3. Emerging Market securities to be + or – 10% of the benchmark weight. Previously, it was only +10% of the benchmark weight.
- Schedule II-C, Private Investments Asset Class, changed restriction #1. The limit on a single Direct Limited Partnership is 2% of the Montana Public Retirement Plan changed from 7.5% of the Private Investments Asset Class. This is consistent with the change made to Real Estate and Natural Resources in April.
- Changed language and format to be consistent with the Governance Policy
 - Constitution and Montana Code citations
 - Custodial Bank references
 - Investment Policy Statement Review
- Cleanup of abbreviations

Trust Funds Investment Pool IPS

- Schedule II-A, Real Estate Asset Class, changed restriction #1. No less than 85% of the Real Estate Asset Class shall be invested in Core Real Estate has been changed to 75%.
- For each Asset Class, removed the language under “Other Restrictions” for cash held. No cash is held at the Asset Class level.
- Changed language and format to be consistent with the Governance Policy
 - Constitution and Montana Code citations
 - Custodial Bank references
 - Investment Policy Statement Review
- Cleanup of abbreviations

State Fund Investment Pool IPS

- Section 10. Risk Management, e) Cash Investments, added “any cash vehicle at the Custodial Bank”
- Schedule II D, Investment Grade Fixed Income Asset Class, changed restriction #12. Exposure to BBB rated securities limited to 30% of the market value of the IG Fixed Income Asset Class rather than 25% of the entire State Fund Investment Portfolio.
- Changed language and format to be consistent with the Governance Policy
 - Constitution and Montana Code citations
 - Custodial Bank references
 - Investment Policy Statement Review
- Cleanup of abbreviations

MONTANA SEPARATELY MANAGED
ACCOUNTS~~INVESTMENTS~~
POLICY

Approved April 5, 2017

~~Revised April 2, 2019~~

~~Revised February 11, 2020~~

Last Revised ~~April 23~~June 9, 2020

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1. Introduction:

This policy is effective upon adoption and supersedes all previous Investment Policy ~~ies~~ Statement (IPS) related to the investment management of the separately managed accounts investments that contain guidelines and objectives in the Appendices.

Montana has more than 40 separately managed accounts investments. These separately managed accounts investments consist of trust, insurance and operating accounts which have been created by the state Constitution, statutorily by the legislature or as part of settlements between the state and outside entities.

Each separately managed account investment has unique investment needs. Each separately managed account investment has a defined set of guidelines and objectives that are detailed in the Appendices or within the separately managed account's investment's existing IPS investment policy statement.

Many separately managed accounts investments participate in the Short-Term Investment Pool (STIP) and the Trust Funds Investment Pool (TFIP). The pools are commingled funds which operate similar to mutual funds. ~~The STIP and Trust Funds Investment Pool (TFIP) and the Short-Term Investment Pool (STIP)~~ each have their own IPS's investment policy statements.

2. Purpose:

The purpose of this policy statement is to provide a broad strategic framework for separately managed accounts investments under the guidance of the Montana Board of Investments.

3. Legal and Constitutional Authority:

~~The Montana Constitution~~, Article VIII, Section 13, of the Montana Constitution requires that the Legislature provide for a Unified Investment Program for public funds. Section 17-6-201, Montana Code Annotated (MCA) established the Unified Investment Program, created the Montana Board of Investments (the "Board") and gave the Board sole authority to invest state funds, in accordance with state law and the state constitution.

Section 17-6-201(1), MCA, requires the Board to operate under the "prudent expert principle," defined as: The Unified Investment program for public funds must be administered by the Board of Investments in accordance with the "prudent expert principle," defined as:

- 1) "Discharging its duties with the care, skill, prudence, and diligence, under the same circumstances then prevailing that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character with like aims;
- 2) Diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so; and
- 3) Discharging its duties solely in the interest of and for the beneficiaries of the funds managed."

The Board, as the investment fiduciary of the separately managed accounts investments, is responsible for establishing the investment parameters for all separately managed accounts investments.

4. Strategic Investment Objectives

The strategic investment objective is unique for each separately managed account investment. The strategic investment objective for each separately managed account investment will be addressed in the guidelines and objectives in the Appendices.

However, the Board's overall objective is to achieve the highest level of investment performance compatible with each separately managed ~~account's investment's~~ risk tolerance and prudent investment practices. The Board seeks to maintain a long-term perspective in formulating and implementing investment policies and evaluating investment performance subject to the specific objectives and constraints of each separately managed ~~account investment~~.

5. Time Horizon

The time horizon is unique for each separately managed ~~account investment~~. The time horizon for each separately managed ~~account investment~~ will be addressed in the guidelines and objectives in the Appendices.

6. Performance Measurement

The ~~IPS investment policy~~ benchmark is unique for each separately managed ~~account investment~~. The ~~IPS investment policy~~ benchmark for each separately managed ~~account investment~~ will be addressed in the guidelines and objectives in the Appendices.

The ~~IPS investment policy~~ benchmark approximates the return that would be achieved if the separately managed ~~account investment~~ implemented a passively managed portfolio. Deviations from the policy benchmark measure the contribution of active investment management in the separately managed ~~account investment~~, rebalancing policy and its execution, fees and investment implementation generally.

7. Roles and Responsibilities:

Board of Investments – The Board is responsible for approving the IPS for any separately managed ~~account investment Policy Statement~~ and has the authority to manage all separately managed ~~accounts investments~~ as it considers prudent, and subject to such limitations as contained in law and the state Constitution. The Board reviews this document periodically and, as needed, approves any changes to the policy.

As described in the Board of Investments Governance Manual, the Board delegates authority to the Executive Director, Chief Investment Officer (CIO), and other Staff to execute the day to day duties required to carry out the Board's mission.

Executive Director – The Executive Director is empowered by the Board to sign any and all documents required to conduct Board business, unless there are specific written policies or instructions from the Board to the contrary. The Executive Director is responsible for the oversight of all separately managed ~~accounts investments~~ and the establishment of the financial reporting procedures and the collection and reporting of all income.

Chief Investment Officer – The ~~Chief Investment Officer (CIO)~~ is empowered by the Board to serve as the principal staff person responsible for overseeing the investment activities under the Board's jurisdiction in compliance with the Board's policies. The CIO, with the support of other staff, is responsible for recommending ~~IPS investment policy~~ changes for Board approval.

Investment Staff – The investment staff is responsible for, but not limited to, the following:

- Managing day-to-day separately managed ~~account investment~~ operations;
- Investing separately managed ~~account investment~~ assets and monitoring compliance in accordance with this ~~IPSPolicy~~;
- Reporting to the Board the separately managed ~~account investment~~ results and investment characteristics at least annually; and
- Reporting any deviations from the IPS Investment Policy to the Board.

Investment Consultant – The investment consultant assists the CIO and Staff with policy recommendations and provides advice to the Board. The investment consultant shall provide assistance to Staff as requested in conjunction with the management of all separately managed accounts investments.

8. Strategic Asset Allocation

The strategic asset allocation is unique for each separately managed account investment. The strategic asset allocation for each separately managed account investment will be addressed in the guidelines and objectives in the Appendices.

9. Rebalancing

The actual asset allocation mix may deviate from time to time from the approved asset allocation ranges due to financial market performance, cash flows, and manager performance. Material deviations from the asset allocation ranges can alter the expected return and risk of the separately managed accounts investments. Rebalancing separately managed account investment assets to remain within the Board-approved allocation ranges is delegated to staff in consultation with the ~~Chief Investment Officer (CIO)~~ and the Executive Director. Any necessary rebalancing will be made in a timely manner and will take into consideration associated costs and current market conditions.

10. Risk Management

a. Liquidity

The liquidity requirements are unique for each separately managed account investment. Staff works closely with the representatives for each account to determine their needs. The liquidity requirements are addressed by the permitted investments and corresponding restrictions within the Investment Guidelines for each separately managed account investment.

b. Monitoring/Reporting – Transparency

Staff shall provide annual reporting to the Board regarding the asset allocation and performance of the separately managed accounts investments to confirm these items are known and adhere to all ~~IPS Investment Policy~~ requirements and expectations.

c. Leverage

Leverage is a significant risk factor. Assets in separately managed accounts investments managed directly by ~~MBOI-Board~~ staff are not allowed to employ leverage.

The use of derivative securities can generate additional leverage even if the derivative is being used to reduce the risk in other investments. Individual assets in separately managed accounts investments managed directly by MBOI staff are not allowed to use derivatives.

~~The Short-Term Investment Pool (STIP)~~ is not allowed to employ leverage or use derivatives. The use of leverage and derivatives within the ~~Trust Funds Investment Pool (TFIP)~~ is addressed within the TFIP IPS Investment Policy.

d. Cash Investments

Cash investments held in any separately managed account investment, in the TFIP or any managed account within it, entail an element of credit risk. Thus, only approved cash investment vehicles are permitted. These include:

STIP; any cash vehicle at the ~~C~~ustodial ~~B~~ank; or any SEC-registered money market fund employed by an external asset manager which specifically address credit risk in their respective investment guidelines.

11. Investment Pools

a. Trust Funds Investment Pool (TFIP)

~~The Trust Funds Investment Pool (TFIP)~~ will provide separately managed ~~accounts~~investments with exposure to a broad and diverse spectrum of investment grade and non-investment grade fixed income as well as real estate assets. Investment grade fixed income will be primarily managed internally. Non-investment grade fixed income will be primarily managed by external asset managers. Real estate will be managed by external asset managers.

The specific strategic objectives, performance criteria, and investment guidelines for TFIP are detailed in the ~~Trust Funds Investment Pool (TFIP)~~ ~~IPS~~Investment Policy.

b. Short-Term Investment Pool (STIP)

~~The Short-Term Investment Pool (STIP)~~ will provide separately managed ~~accounts~~investments with exposure to Cash related investments. STIP will be managed internally utilizing an active investment strategy. The specific strategic objectives, performance criteria, and investment guidelines for STIP are detailed in the ~~Short-Term Investment Pool (STIP)~~ ~~IPS~~Investment Policy.

12. Securities Lending

Section 17-1-113, MCA, authorizes the Board to lend securities held by the state. The Board may lend its publicly traded securities ~~held in the investment pools,~~ through an agent, to other market participants in return for compensation. Currently, through an explicit contract, ~~State Street Bank and Trust,~~ the state's ~~C~~ustodial ~~B~~ank, manages the state's securities lending program. The Board seeks to assess the risks, such as counterparty and reinvestment risk, associated with each aspect of its securities lending program. The Board requires borrowers to maintain collateral at 102 percent for domestic securities and 105 percent for international securities. To ensure that the collateral ratio is maintained, securities on loan are marked to market daily and the borrower must provide additional collateral if the value of the securities on loan increases. In addition to the strict collateral requirements imposed by the Board, the credit quality of approved borrowers is monitored continuously by the contractor. From time to time, Staff or the investment manager may restrict a security from the loan program upon notification to ~~the Custodial Bank~~~~State Street Bank~~. Staff will monitor the securities lending program, and ~~the CIO~~ will periodically report to the Board on the status of the program.

13. Exercise of Investor Rights

a. Proxy Voting

~~Per the Montana Constitution,~~ Article VIII, Section 13 ~~of the Montana Constitution requires that~~ “no public funds shall be invested in private corporate capital stock” with the exception of public retirement system and state compensation insurance fund assets. Therefore, separately managed ~~accounts~~investments do not participate in proxy voting.

b. Class Action Litigation

Claims under state and federal securities laws arising out of losses on securities under the Board's management are assets subject to the Board's fiduciary duty of prudent management. The Board shall take reasonable, cost effective steps to identify, pursue and collect upon claims under securities laws for losses suffered by the Board

on its investment. Accordingly, the Board maintains a detailed litigation policy, including steps outlined in the ~~Board's Montana Board of Investments~~ Governance Manual, Appendix F.

14. Investment Policy Statement Review

~~Per Board's Governance Policy, "the Board shall create, maintain, and revise as necessary Investment Policy Statements (IPS) for each separate account it manages. The IPS shall cite the law establishing the account if such law exists, the permissible investments authorized by law, and establish an investment range for each of the permissible investments. The Board shall review such policies at least annually or more frequently at the request of Board staff. IPS may only be revised in a public meeting. All IPS shall be posted on the Board's web site for review by the public." The Board intends to keep this Policy updated as it modifies or amends the underlying contents. As stated in the Governance Policy, "the Board shall review this Investment Policy at least annually or more frequently at the request of Board staff. Statements may only be revised in a public meeting. All Statements shall be posted on the Board's web site for review by the public."~~

APPENDIX I:

Trust Funds: Investment Objectives and Guidelines

Department of Agriculture

- Schedule I-A: Noxious Weed Management Trust Fund

Department of Environmental Quality

- Schedule I-B: Belt Water Treatment Plant Fund
- Schedule I-C: Abandoned Mine Land Reclamation Trust
- Schedule I-D: Clark Fork Site Response Action Fund
- Schedule I-E: Montana Pole Superfund Site Settlement Fund
- Schedule I-F: Streamside Tailings Operable Settlement Fund
- Schedule I-G: Upper Blackfoot Response Action and Restoration Fund
- Schedule I-H: Zortman/Landusky Long Term Water
- Schedule I-I: Zortman/Landusky Long Term Water Trust

Department of Fish, Wildlife and Parks

- Schedule I-J: Coal Tax Park Trust Fund
- Schedule I-K: Fish, Wildlife & Parks Mitigation Trust Fund
- Schedule I-L: Real Property Trust Fund
- Schedule I-M: Wildlife Habitat Trust Fund

Department of Health and Human Services

- Schedule I-N: Endowment for Children
- Schedule I-O: Older Montanans Trust Fund
- Schedule I-P: Tobacco Trust Fund

Department of Justice

- Schedule I-Q: Butte Area One Restoration Fund
- Schedule I-R: Clark Fork Restoration Fund
- Schedule I-S: East Helena Compensation Fund
- Schedule I-T: Smelter Hill Uplands Restoration Fund
- Schedule I-U: Upper Clark Fork River Basin Reserve Fund
- Schedule I-V: Upper Clark Fork River Basin Restoration Fund

Department of Natural Resources and Conservation

- Schedule I-W: Public School Trust

Department of Revenue

- Schedule I-X: Resource Indemnity Trust Fund

Montana Arts Council

- Schedule I-Y: Cultural Trust Fund

Montana Historical Society

- Schedule I-Z: Historical Society Trust Funds

University Endowments

- Schedule I-AA: Harold Hamm Endowment
- Schedule I-AB: Potter Trust Fund

City and County of Butte-Silver Bow

- Schedule I-AC: Butte Area Redevelopment Trust Authority

Department of Environmental Quality (Additional DEQ)

- Schedule I-AD: Barker Hughesville St Response
- Schedule I-AE: Flying J CECRA Facilities Fund
- Schedule I-AF: Libby Asbestos Site State Cost
- Schedule I-AG: Luttrill Pit – Oper & Maint

Schedule I-A
Investment Objectives and Guidelines
Noxious Weed Management Trust Fund

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Noxious Weed Management Trust Fund investments under the guidance of the Board.

The Noxious Weed Management Trust Fund was established in 1985 by the Montana Legislature ~~Section MCA 80-7-811, MCA~~. It is sponsored by the Montana Department of Agriculture. The principal amount of ten million dollars (\$10,000,000) shall remain inviolate unless appropriated by the vote of three-fourths (3/4) of the members of each house of the legislature or an emergency described in ~~Section MCA 80-7-815, MCA~~. Principal in excess of ten million dollars (\$10,000,000) may be appropriated by a majority vote of each house of the legislature. Appropriations of the interest and income shall be used only to fund the noxious weed management program, as provided by law.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Noxious Weed Management Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Noxious Weed Management Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark**.

Time Horizon:

The Noxious Weed Management Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

The ~~Board Montana Board of Investments~~ will have full discretion to manage the Noxious Weed Management Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions

or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Noxious Weed Management Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)

Other Restrictions:

1. A maximum of 100% of the market value of the portfolio will be invested in ~~the Trust Funds Investment Pool~~ (TFIP.)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-B
Investment Objectives and Guidelines
Belt Water Treatment Plant Fund

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Belt Water Treatment Plant Fund investments under the guidance of the Board.

The Belt Water Treatment Plant Fund consists of funds originated from various Montana Department of Environmental Quality (DEQ) sources, all of which derive from payments from the Office of Surface Mining Reclamation and Enforcement. Expenditures from the funds will be used for the operation and maintenance of the water treatment plant to be constructed in Cascade County, Montana. Expenditures are expected to begin in 2022 and follow the schedule provided by the DEQ, as updated.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Belt Water Treatment Plant Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Belt Water Treatment Plant Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Belt Water Treatment Plant Fund a long-term expendable trust fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Belt Water Treatment Plant Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or

compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Belt Water Treatment Plant Fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-C
Investment Objectives and Guidelines
Abandoned Mine Land Reclamation Trust

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment guidelines is to provide a framework for the Abandoned Mine Land Reclamation Trust fund under the guidance of the board.

The Abandoned Mine Land Reclamation Trust fund was established in December ~~12, 1993~~~~12/01/1993~~ by the Montana Legislature Section MCA-82-2-1006, MCA. It is administered by the Montana Department of Environmental Quality. Proceeds of the fund will be expended for to pay for reclamation or drainage abatement on eligible lands or waters.

Funds for the Abandoned Mine Land Reclamation Trust Fund are held in MU11.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Abandoned Mine Land Reclamation Trust fund; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

Attain above benchmark total return for all investments within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Abandoned Mine Land Reclamation Trust fund consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Abandoned Mine Land Reclamation Trust fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)

3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-D
Investment Objectives and Guidelines
Clark Fork Site Response Action Fund

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Clark Fork Site Response Action Fund investments under the guidance of the Board.

The Clark Fork Site Response Action Fund originated in 2008, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), in order to settle certain litigation and to provide for the funding of the remedial action at the Clark Fork River (CFR) Operable Unit. The settlement involves, among other things, payment by ARCO plus accrued interest. Those funds and the earnings from the investment of those funds are to be used by the State with oversight, input and approval from the United States [Environmental Protection Agency \(EPA\)](#) for the purpose of remediating the CFR over an estimated ten to twelve year period. Any funds left over after clean-up will be transferred, with EPA approval, to the Clark Fork State Restoration Account (established under the same Consent Decree). The fund balance at that time is expected to be mostly Trust Funds Investment Pool units (TFIP).

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Clark Fork Site Response Action Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Clark Fork Site Response Action Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Clark Fork Site Response Action Fund is an expendable fund. Major expenditures are expected to continue through 2019, and projections though 2024 on a smaller scale. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~**MBOI** will have full discretion to manage the Clark Fork Site Response Action Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Clark Fork Site Response Action Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 20% of the market value of the portfolio will be invested in U.S. Treasury and Agency Bonds.
2. A maximum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-E
Investment Objectives and Guidelines
Montana Pole Superfund Site Settlement Fund

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment guidelines is to provide a framework for the Montana Pole Superfund Site Settlement Fund under the guidance of the board.

The Montana Pole Superfund Site Settlement Fund was established in July 1996 through a Consent Decree among Montana Department of Environmental Quality (DEQ), the Environmental Protection Agency (EPA), Atlantic Richfield Company, Burlington Northern Railroad, Montana Resource and others. Funds and earnings from settlement proceeds are used solely for remediating hazardous substance contamination at the Montana Pole Site. The fund is administered by the DEQ. The Policy may be modified by agreement of the DEQ and EPA.

Funds for the Montana Pole Superfund Site Settlement Fund are held in MU14.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana Pole Superfund Site Settlement Fund; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

Attain above benchmark total return for all investments within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana Pole Superfund Site Settlement Fund consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana Pole Superfund Site Settlement Fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Corporate Securities rated A3/A- or better
3. Agency Mortgage Backed Securities
4. Trust Funds Investment Pool (TFIP)
5. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 40% will be held in direct Government/Agency securities.
2. A maximum of 25% will be allowed in direct Agency Mortgage Backed Securities. It is expected there will be no allocation to this asset type.
3. A maximum of 40% will be allowed in direct Corporate Securities. It is expected there will be no allocation to this asset type.
4. A maximum of 80% in TFIP.
5. A maximum of 50% in STIP.
6. The maximum maturity of Government/Agency and Corporate securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-F
Investment Objectives and Guidelines
Streamside Tailing Operable Settlement Fund

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Streamside Tailing Operable Settlement Fund investments under the guidance of the Board.

The Streamside Tailing Operable Settlement Fund originated in 1998, when a Consent Decree between the State of Montana, the United States, the Atlantic Richfield Company (ARCO), and others was created in order to settle certain litigation, and to provide funding for the implementation of the remedy for the Streamside Tailings Operable Unit of the Silver Bow Creek/Butte Area (original portion) NPL Site. Funds paid by ARCO and the earnings from the investment of those funds are to be used by the State and EPA for the purpose of remediating the mine waste contamination at the Streamside Tailings Operable Unit. Any funds, including earnings, which are not ultimately required for the remediation of the Streamside Tailings Operable Unit are to be used by the State for natural resource damage restoration purposes, and will be transferred to the Upper Clark Fork Restoration Fund. The fund balance at that time is expected to be mostly Trust Funds Investment Pool units (TFIP).

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Streamside Tailing Operable Settlement Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Streamside Tailing Operable Settlement Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Streamside Tailing Operable Settlement Fund is an expendable fund. Major expenditures are expected to continue through 2018, and projections through 2020 on a smaller scale. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Streamside Tailing Operable Settlement Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Streamside Tailing Operable Settlement Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency Bonds
2. A maximum of 90% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-G
Investment Objectives and Guidelines
Upper Blackfoot Response Action and Restoration Fund

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Upper Blackfoot Response Action and Restoration Fund investments under the guidance of the Board.

The Upper Blackfoot Response Action and Restoration Fund originated in 2008, when a Settlement Agreement was entered between the State of Montana, the United States, Asarco, LLC (Asarco) and the Atlantic Richfield Company (ARCO), in order to settle certain bankruptcy and other claims and to provide for the funding of response and restoration actions at the Upper Blackfoot Mining Complex (UBMC). All funds paid by Asarco and ARCO and the earnings from the investment of these funds are to be used by the State, as Lead Agency, in consultation with the United States Forest Service, for the purpose of conducting response and restoration activities within the UBMC Site. These actions include the removal of the Mike Horse Impoundment as provided in the USFS Action Memorandum dated July 23, 2007, and any amendments thereto. In addition, the State would perform additional remedial and restoration work outside the scope of the Action Memorandum, including the cleanup of tailings along the Upper Blackfoot River, Beartrap Creek, and Mike Horse Creek and restoration of those streams with the intention of restoring westslope cutthroat and bull trout to the area.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Upper Blackfoot Response Action and Restoration Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Upper Blackfoot Response Action and Restoration Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Upper Blackfoot Response Action and Restoration Fund is an expendable fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Upper Blackfoot Response Action and Restoration Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Upper Blackfoot Response Action and Restoration Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 80% of the market value of the portfolio will be invested in U.S. Treasury and Agency Bonds.
2. A maximum of 30% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
3. A minimum of 10% of the market value of the portfolio will be invested in the ~~Short Term Investment Pool~~ (STIP).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-H
Investment Objectives and Guidelines
Zortman/Landusky Long Term Water

Effective Date of Schedule: October 3, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment guidelines is to provide a framework for the Zortman/Landusky Long Term Water fund under the guidance of the board.

The Zortman/Landusky Long Term Water fund was established in June of 1999 at the request of the Montana Department of Environmental Quality. It was funded from proceeds incidental to the bankruptcy and surety bond of Zortman Mining Inc. Proceeds of the fund will be expended for environmental cleanup and treatment of water at the former mine site.

Funds for the Zortman/Landusky Long Term Water Fund are held in MU30.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Zortman/Landusky Long Term Water fund; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

Attain above benchmark total return for all investments within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Zortman/Landusky Long Term Water fund consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Zortman/Landusky Long Term Water fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)

3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-I
Investment Objectives and Guidelines
Zortman/Landusky Long Term Water Trust

Effective Date of Schedule: October 3, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment guidelines is to provide a framework for the Zortman/Landusky Long Term Water Trust fund under the guidance of the board.

The Zortman/Landusky Long Term Water Trust fund was established in July of 2005 by the Montana Legislature. It was funded with annual transfers of \$1.2 million by the Montana Department of Environmental Quality from the Orphan Share account. The transfers were to continue until the value of the fund was projected to be \$19.3 million on January 1, 2018. Proceeds of the fund will be expended for long-term or perpetual water treatment at the Zortman and Landusky mine sites.

Funds for the Zortman/Landusky Long Term Water Trust fund are held in MU67.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Zortman/Landusky Long Term Water Trust fund; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

Attain above benchmark total return for all investments within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Zortman/Landusky Long Term Water Trust fund consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Zortman/Landusky Long Term Water Trust fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-J
Investment Objectives and Guidelines
Coal Tax Park Trust Fund

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Coal Tax Park Trust Fund account under the guidance of the Board.

The Coal Tax Park Trust Fund was established under Section MCA: 15-35-108, MCA, as a non-expendable trust fund for parks acquisition or management. Income from this permanent fund account, excluding unrealized gains and losses, must be appropriated for the acquisition, development, operation, and maintenance of any sites and areas described in Section MCA: 23-1-102, MCA.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Coal Tax Park Trust Fund account;
and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Coal Tax Park Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Coal Tax Park Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Coal Tax Park Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Coal Tax Park Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP.)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-K
Investment Objectives and Guidelines
Fish, Wildlife & Parks Mitigation Trust Fund

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Fish, Wildlife & Parks Mitigation Trust Fund account under the guidance of the Board.

The Fish, Wildlife & Parks Mitigation Trust Fund was established under ~~MCA:Section~~ 87-1-611, ~~MCA~~, and was originally created because of an agreement between Bonneville Power Administration and the State of Montana pertaining to Wildlife Mitigation for Libby and Hungry Horse Dams. The fund provides for fish and wildlife mitigation or enhancement.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Fish, Wildlife & Parks Mitigation Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Fish, Wildlife & Parks Mitigation Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Fish, Wildlife & Parks Mitigation Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Fish, Wildlife & Parks Mitigation Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Fish, Wildlife & Parks Mitigation Trust Fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 50% of the market value of the portfolio will be invested directly in U.S. Government / Agency securities; and
2. The maximum maturity of U.S. Government / Agency securities will be 6 years.
3. A maximum of 70% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~(TFIP); and
4. A minimum of 10% of the market value of the portfolio will be invested in the ~~Short-Term Investment Pool~~(STIP).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-L
Investment Objectives and Guidelines
Real Property Trust Fund

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Real Property Trust Fund account under the guidance of the Board.

The Real Property Trust Fund was established under ~~MCA:Section~~ 87-1-601, ~~MCA~~, as a non-expendable trust fund for the operation, development, and maintenance of real property under management of the Department of Fish, Wildlife & Parks (FWP). Money received from the sale of real property, oil, gas or mineral deposits, and from leases is deposited into this permanent fund account except as provided by ~~Section MCA: 87-1-621, MCA~~.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Real Property Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Real Property Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Real Property Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Real Property Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Real Property Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-M
Investment Objectives and Guidelines
Wildlife Habitat Trust Fund

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Wildlife Habitat Trust Fund account under the guidance of the Board.

The Wildlife Habitat Trust Fund was established under ~~MCA:Section~~ 87-1-242, ~~MCA~~, as a non-expendable trust to secure, develop and maintain wildlife habitat. Funding is established from the sale of specific hunting licenses or permits and is subject to appropriation by the Legislature.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Wildlife Habitat Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Wildlife Habitat Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Wildlife Habitat Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Wildlife Habitat Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Wildlife Habitat Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP.)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-N
Investment Objectives and Guidelines
Endowment for Children

Effective Date of Schedule: August 22, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Endowment for Children Fund under the guidance of the Board.

The Endowment for Children Fund was established under Section MCA: 52-7-105, MCA, “to provide a permanent source of funding to support the programs and services referred to in Section MCA: 52-7-101, MCA, “to fund services and activities related to a broad range of child abuse and neglect prevention activities and family resource programs operated by nonprofit or public community-based educational and service organizations.”

Timing of expenditures is uncertain. Staff will rely on expenditure estimates from the Montana Department of Public Health and Human Services.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Endowment for Children; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Endowment for Children fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the fund to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark** each weighted proportionately to the portfolio’s holdings, over a five-year moving average.

Time Horizon:

Endowment for Children is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Endowment for Children portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Endowment for Children may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-O
Investment Objectives and Guidelines
Older Montanans Trust Fund

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Older Montanans Trust Fund investments under the guidance of the Board.

The Older Montanans Trust Fund was created in Section MCA 52-3-115, MCA, to establish new, innovative services or to expand existing services for the benefit of Montana residents 60 years of age or older that will enable those Montanans to live an independent lifestyle in the least restrictive setting, and will promote the dignity of and respect for those Montanans.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Older Montanans Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Older Montanans Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Older Montanans Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Older Montanans Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Older Montanans Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A minimum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP.)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-P
Investment Objectives and Guidelines
Tobacco Trust Fund

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Tobacco Trust Fund investments under the guidance of the Board.

The Tobacco Trust Fund was created from the Master Settlement Agreement from the nation's largest tobacco companies to pay at least \$205 billion over 25 years (in 1999). The Tobacco Trust Fund is established in [Section MCA-17-6-601, MCA](#), where forty percent of the tobacco settlement will be placed for health care benefits, services, or coverage and tobacco disease prevention (described in [Section MCA 17-6-606, MCA](#)). A special revenue fund account is also established in [Section MCA-17-6-603, MCA](#), where nine-tenths of the interest and income derived from the trust fund must be deposited.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Tobacco Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Tobacco Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Tobacco Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~[The Board](#) will have full discretion to manage the Tobacco Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Tobacco Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A minimum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-Q
Investment Objectives and Guidelines
Butte Area One Restoration Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Butte Area One Restoration Fund (MBOI account MU3F) investments under the guidance of the Board.

The Butte Area One Restoration Fund originated in 2008, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), to settle certain litigation and to provide for the funding of restoration action at the Butte Area One. Funds are used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) to restore, replace or acquire the equivalent of injured natural resources or lost services.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Butte Area One Restoration Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Butte Area One Restoration Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Butte Area One Restoration Fund is an expendable fund. Major expenditures are expected to continue through 2019. Additional expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Butte Area One Restoration Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or

compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Butte Area One Restoration Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~.
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-R
Investment Objectives and Guidelines
Clark Fork Restoration Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Clark Fork Restoration Fund (MBOI account MU3H) investments under the guidance of the Board.

The Clark Fork Restoration Fund originated in 2008, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), to settle certain litigation and to provide for the funding of restoration action the Clark Fork River, from Warm Springs Ponds to the former Milltown Reservoir. Funds are used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) to restore aquatic and terrestrial resources.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Clark Fork Restoration Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Clark Fork Restoration Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Clark Fork Restoration Fund is an expendable fund. Expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Clark Fork Restoration Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Clark Fork Restoration Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-S
Investment Objectives and Guidelines
East Helena Compensation Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the East Helena Compensation Fund (MBOI account MU3S) investments under the guidance of the Board.

The East Helena Compensation Fund originated in 2006 through a legal settlement with and subsequent claim in bankruptcy on the ASARCO company. The action was taken for natural resource restoration damages and compensatory damages for lost use of resources. Funds will be used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) for wildlife habitat restoration, recreation and open space.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the East Helena Compensation Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the East Helena Compensation Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The East Helena Compensation Fund is an expendable fund. Major expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~ The Board will have full discretion to manage the East Helena Compensation Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The East Helena Compensation Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-T
Investment Objectives and Guidelines
Smelter Hill Uplands Restoration Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Smelter Hill Uplands Restoration Fund (MU3I) investments under the guidance of the Board.

The Smelter Hill Uplands Restoration Fund originated in 2008, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), to settle certain litigation and to provide for the funding of restoration action on lands injured by emissions from the Anaconda Smelter. Funds are used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) to remediate and restore damaged lands.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Smelter Hill Uplands Restoration Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Smelter Hill Uplands Restoration Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Smelter Hill Uplands Restoration Fund is an expendable fund. Expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Smelter Hill Uplands Restoration Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Smelter Hill Uplands Restoration Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-U
Investment Objectives and Guidelines
Upper Clark Fork River Basin Reserve Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Upper Clark Fork River Basin Reserve Fund (MU22) investments under the guidance of the Board.

The Upper Clark Fork River Basin Reserve Fund originated in 1999, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), to settle certain litigation and to provide for the funding of restoration action on and around the Clark Fork River and tributaries generally above the confluence of the Little Blackfoot River. Funds are used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) to cover potential cost over-runs of the Streamside Tailings Operable Unit if any and then to the Upper Clark Fork River Basin Restoration Fund.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Upper Clark Fork River Basin Reserve Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Upper Clark Fork River Basin Reserve Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Upper Clark Fork River Basin Reserve Fund is an expendable fund. Expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Upper Clark Fork River Basin Reserve Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Upper Clark Fork River Basin Reserve Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-V
Investment Objectives and Guidelines
Upper Clark Fork River Basin Restoration Fund

Effective Date of Schedule: May 23, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Upper Clark Fork River Basin Restoration Fund (MBOI account MU21) investments under the guidance of the Board.

The Upper Clark Fork River Basin Restoration Fund originated in 1999, a Consent Decree was entered between the State of Montana, the United States and Atlantic Richfield Company (ARCO), to settle certain litigation and to provide for the funding of restoration action on and around the Clark Fork River and tributaries generally above the confluence of the Little Blackfoot River. Funds are used by the Natural Resource Damage Program of the Montana Department of Justice (NRDP) to restore, rehabilitate or replace injured natural resources.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Upper Clark Fork River Basin Restoration Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Upper Clark Fork River Basin Restoration Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Upper Clark Fork River Basin Restoration Fund is an expendable fund. Expenditures are expected in future years, as projected and periodically updated by the NRDP. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Upper Clark Fork River Basin Restoration Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Upper Clark Fork River Basin Restoration Fund may only invest in the following:

1. U.S. Treasury Bonds
2. U.S. Agency Bonds
3. Trust Funds Investment Pool (TFIP)
4. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP).
2. A maximum of 60% of the market value of the portfolio will be invested in U.S. Treasury and Agency bonds.
3. The maximum maturity of U.S. Treasury and Agency bonds will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-W
Investment Objectives and Guidelines
Public School Trust

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Public School Trust investments (formerly referred to as the Trust and Legacy Fund) under the guidance of the Board.

The Public School Trust was established in 1973 by Article X⁷ Section 2 of the Montana Constitution. The trust consists primarily of land granted to the State of Montana by the United States or other entities. The Public School Trust is administered by the Montana Department of Natural Resources.

Per Article X⁷ Section 5 of the Montana Constitution, ninety-five percent of all interest received on fund investments and ninety-five percent of all income received from fund owned land shall be equitably apportioned to public school districts. Five percent of all interest received on fund investments and five percent of all income received from fund owned land shall be added to the Public School Trust.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Public School Trust account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Public School Trust portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Public School Trust is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Public School Trust portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Public School Trust may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A minimum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~
{TFIP.}

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-X
Investment Objectives and Guidelines
Resource Indemnity Trust Fund

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Resource Indemnity Trust Fund investments under the guidance of the Board.

The Resource Indemnity Trust Fund is a trust that was established in 1973 by Article IX Section 2 of the Montana Constitution in the amount of \$100 million. The principal of the trust “shall forever remain inviolate”. Earnings from the fund are to be used to “improve the total environment and rectify damage to the environment” per [Section MCA-15-38-203, MCA](#). The trust is administered by the Department of Revenue.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Resource Indemnity Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Resource Indemnity Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio’s holdings, over a five-year moving average.

Time Horizon:

Resource Indemnity Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~[The Board](#) will have full discretion to manage the Resource Indemnity Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Resource Indemnity Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A minimum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP.)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-Y
Investment Objectives and Guidelines
Cultural Trust Fund

Effective Date of Schedule: April 3, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Cultural Trust Fund investments under the guidance of the Board.

The Cultural Trust Fund was created from the Coal Tax Park Acquisition Fund, which is funded by coal severance tax collections. The Cultural Trust Fund is established in Section MCA-15-35-108, MCA. Income from this trust fund, excluding unrealized gains and losses, must be appropriated for protection of works of art in the state capital and for other cultural and aesthetic projects.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Cultural Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Cultural Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Cultural Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Cultural Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Cultural Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A minimum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~
{TFIP.}

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-Z
Investment Objectives and Guidelines
Montana Historical Society Trust Funds

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Montana Historical Society Trust Funds investments under the guidance of the Board.

The policy and guidelines apply to the accounts listed below:

MHS Education	MU9F
MHS Stewart Trust	MU9G
MHS Acquisitions Trust	MU9H
MHS Nygard Family Endowment	MU9I
MHS James Bradley Memorial Fund	MU9J
MHS Thomas Teakle Trust Fund	MU9L
MHS Merritt Wheeler Memorial Fund	MU9M
MHS Sobotka Memorial Trust	MU9N
MHS Charles Bair Trust	MU9O
MHS Churchill Trust	MU9P
MHS Harriet E Miller Trust	MU9Q
MHS Haynes Collection Trust	MU9R
MHS Ronald Schmid Trust	MU9S
MHS Senate Art	MU9U
MHS Sobotka Trust	MU9V
MHS Women’s Mural	MU9W
MHS General Trust	MU9X
Montana Historical Society	MU9Y

The various accounts are long-term in nature. The long-term nature of the accounts is established by legislative intent, donor intent or MHS Management’s intent.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana Historical Society Trust Funds; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Montana Historical Society Trust Funds portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Montana Historical Society Trust Funds are permanent accounts. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana Historical Society Trust Funds portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana Historical Society Trust Funds may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

**Schedule I-AA
Investment Objectives and Guidelines
Harold Hamm Endowment**

Effective Date of Schedule: November 15, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Harold Hamm Endowment investments under the guidance of the Board.

The Harold Hamm Endowment was created for the benefit of Helena College via a gift from Harold W. Hamm. The endowment distributes scholarships to students and faculty in the Aviation and Maintenance Technology program on an annual basis.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Harold Hamm Endowment account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Harold Hamm Endowment portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Harold Hamm Endowment is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Harold Hamm Endowment portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Harold Hamm Endowment may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 95% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AB
Investment Objectives and Guidelines
Potter Trust Fund

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Potter Trust Fund investments under the guidance of the Board.

The Potter Loan Trust Fund was created for the benefit of Montana Tech per the Last Will and Testament of Peter Potter. The Trust is utilized by Montana Tech to provide financial aid assistance for students and to reimburse the university some administrative expenses.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Potter Trust Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Potter Trust Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Potter Trust Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Potter Trust Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Potter Trust Fund may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 97% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool (TFIP)~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AC
Investment Objectives and Guidelines
Butte Area Redevelopment Trust Authority

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Butte-Silver Bow Redevelopment Trust Authority (MBOI account MU9Z) investments under the guidance of the Board.

The Butte Redevelopment Trust Authority was created through a legal settlement between the government of Butte-Silver Bow and Atlantic Richfield Company. Funds and investment earnings from the settlement are used to achieve redevelopment objectives in Butte. The projects and activities financed include a variety of work to promote the redevelopment of the Butte Hill and adjacent areas.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Butte Area Redevelopment Trust Authority account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Butte Area Redevelopment Trust Authority portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Butte Area Redevelopment Trust Authority is an expendable fund. Moderate expenditures are expected to continue through 2033. Additional expenditures are expected in future years, as projected and periodically updated by the Authority. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Butte Area Redevelopment Trust Authority portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Butte Area Redevelopment Trust Authority may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 96% of the market value of the portfolio will be invested in the TFIP.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AD
Investment Objectives and Guidelines
Barker Hughesville St Response

Effective Date of Schedule: February 11, 2020

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Barker Hughesville St Response investments under the guidance of the Board.

Department of Environmental Quality (DEQ) filed a bankruptcy claim after ASARCO declared bankruptcy in 2005. DEQ made a claim for about \$43 million for the Barker Hughesville Mining District (BHMD) site. DEQ's claim was reduced to an allowed claim of \$7.1 million. The claim was paid in full with interest of about 17% or \$1,254,450.62. The funds in the DEQ special account are now at about \$9 million after earning some interest the last few years. The court also determined that the funds could only be spent on or at the BHMD site. Of the five ASARCO properties in Montana, the BHMD site is the only site that ASARCO did not own. Therefore, the court directed settlement funds to be provided directly to DEQ and into a special account. For the other four Montana sites, a special ASARCO Trust Fund was set up. These sites are Black Pine Mine (Philipsburg), Iron Mt. Mine/Flat Creek (Superior), Upper Blackfoot Mining Complex and East Helena Smelter.

DEQ is committed to only spending the funds at the BHMD site. DEQ believes most of the funds should be held in reserve for potential long-term operation and maintenance (O&M) costs related to the orphan share mines which DEQ must contribute 100% of the O&M costs. If opportunities arise to contribute to the clean-up cost of solid mining waste remedies, DEQ may try to help fund a portion of that work with the settlement funds. EPA and DEQ are currently working on completing an Operable Unit 1 Feasibility Study (FS) to address the orphan share mines upstream of the Block P Mine. Once the solid mining waste Record of Decision (ROD) is completed, it would be appropriate to discuss funding sources for those remedial response actions. DEQ is not opposed to spending some of the bankruptcy funds on the orphan share mining waste clean-ups. However, it is unknown when that may occur. Expenditures are expected to follow the schedule provided by the DEQ, as updated.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Barker Hughesville St Response account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Barker Hughesville St Response portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Barker Hughesville St Response is a long-term expendable trust fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Barker Hughesville St Response portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Barker Hughesville St Response may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AE
Investment Objectives and Guidelines
Flying J CECRA Facilities Fund

Effective Date of Schedule: February 11, 2020

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Flying J CECRA Facilities Fund investments under the guidance of the Board.

In 2008, Flying J (and its subsidiaries) filed a chapter 11 bankruptcy. The Department of Environmental Quality (DEQ) had claims under Montana's Comprehensive Environmental Cleanup and Responsibility Act (CECRA) and other statutes. The fund is a result of a settlement agreement to settle claims at Tank Hill (\$1,648,768.68), Big West Oil (\$150,000), and Diamond Asphalt (\$894,979.10) that was approved by the bankruptcy court in July 2010.

At Big West Oil, another liable person is conducting the final cleanup. Once the Big West Oil cleanup is complete and the site enters the operations and maintenance phase (approximately 2022), DEQ expects the liable person to request the \$150,000 (plus any interest) be applied to DEQ's future oversight costs.

At Tank Hill, other liable persons are conducting investigation and cleanup. Once the Tank Hill cleanup is complete and the site enters the operations and maintenance phase (approximately 2025), expenditures are expected to follow the schedule provided by the DEQ, as updated.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Flying J CECRA Facilities Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Flying J CECRA Facilities Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Flying J CECRA Facilities Fund a long-term expendable trust fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~**The Board** will have full discretion to manage the Flying J CECRA Facilities Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Flying J CECRA Facilities Fund may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AF
Investment Objectives and Guidelines
Libby Asbestos Site State Cost

Effective Date of Schedule: February 11, 2020

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Libby Asbestos Site State Cost investments under the guidance of the Board.

In October 2002, the Libby Asbestos Superfund Site (Site) was listed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL). As part of the W.R. Grace bankruptcy proceedings, Montana and W.R. Grace entered into a \$5M settlement to be used for the state's 10% cost share for Operation and Maintenance (O&M) costs at some areas of the site. Expenditures are expected to follow the schedule provided by the DEQ, as updated.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Libby Asbestos Site State Cost account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Libby Asbestos Site State Cost portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Libby Asbestos Site State Cost is a long-term expendable trust fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Libby Asbestos Site State Cost portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Libby Asbestos Site State Cost may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule I-AG
Investment Objectives and Guidelines
Luttrill Pit - Oper & Maint

Effective Date of Schedule: February 11, 2020

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Luttrill Pit - Oper & Maint investments under the guidance of the Board.

The Luttrell Pit is a part of the Basin Mine Site, a former heap leach gold mine located 17 miles southwest of Helena. The mine was developed and operated by Pegasus Gold Corp. (Pegasus) in the early 1990's. Pegasus closed the mine in 1993 and conducted a partial reclamation of the site. In 1998 Pegasus Gold Corp. declared bankruptcy. As the result of the bankruptcy settlement, The Montana Department of Environmental Quality (DEQ) became the owner of site and continues with reclamation activity.

During and after the Bankruptcy, the [Environmental Protection Agency \(EPA\)](#) entered into agreement with the Bankruptcy Trustee and later, the DEQ, to use a portion of the site (the Luttrell Pit) as a repository for historic mine waste from abandoned mine sites located throughout the region. As part of this Agreement, EPA has payed rental and use fees (\$2,301,278.21) to DEQ, as part of their on-going operation. As per Agreement between EPA and DEQ, the Operation and Maintenance (O&M) of the site is the responsibility of DEQ, once work at the site is completed and the repository has a final cap. DEQ will use monies collected from EPA to fund O&M. At present, EPA has no plans for placement of a final cap on the repository. DEQ does not envision any O&M costs until 2030.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Luttrill Pit - Oper & Maint account;
and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Luttrill Pit - Oper & Maint portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

The Luttrill Pit - Oper & Maint a long-term expendable trust fund. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Luttrill Pit - Oper & Maint portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board [of Investments](#) at the next scheduled quarterly Board meeting.

Permitted Investments:

The Luttrill Pit - Oper & Maint may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 99% of the market value of the portfolio will be held in any combination of TFIP or Government/Agency securities.
2. The maximum maturity of Government/Agency securities will be 6 years.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

APPENDIX II:
Insurance Funds: Investment Objectives and Guidelines

- Schedule II-A: Montana University System Group Insurance
- Schedule II-B: Montana University System Workers Compensation
- Schedule II-C: State Employee Group Benefits

Schedule II-A
Investment Objectives and Guidelines
Montana University System Group Insurance

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Montana University System Group Insurance account under the guidance of the Board.

The Montana University System Group Insurance account was established as the reserve for the self-insured health plan for the Montana University system.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana University System Group Insurance account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Montana University System Group Insurance account portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Montana University System Group Insurance account is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana University System Group Insurance portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana University System Group Insurance account may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 50% of the market value of the portfolio will be invested in U.S. Government/U.S. Agency securities;
2. U.S. Government/U.S. Agency securities will have a maximum maturity of 5 years;
3. A maximum of 40% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~(TFIP); and
4. A minimum of \$10 million will be invested in the ~~Short-Term Investment Pool~~(STIP).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule II-B
Investment Objectives and Guidelines
Montana University System Workers Compensation

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the Montana University System Workers Compensation investments under the guidance of the Board.

The Montana University System Workers Compensation MWS began operations on July 1, 2003 as a self-insurance program to provide workers compensation coverage for the Montana University System. This is an operating account requiring significant liquidity. However, the Department of Labor and Industry DL requires the Program to maintain adequate reserves to meet the Program's anticipated and contingency funding needs in the event of adverse developments or uncharacteristically high costs, so investment in the TFIP is considered prudent to achieve a higher level of investment income.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana University System Workers Compensation account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Montana University System Workers Compensation portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Montana University System Workers Compensation is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board, may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana University System Workers Compensation portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any

exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana University System Workers Compensation may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 35% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP.)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule II-C
Investment Objectives and Guidelines
State Employee Group Benefits

Effective Date of Schedule: April 5, 2017

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the State Employee Group Benefits account under the guidance of the Board.

The State Employee Group Benefits account was established under ~~Section MCA-2-18-808, MCA,~~ “to establish a program under which the state may provide state employees with adequate group hospitalization, health, medical, disability, life, and other related group benefits in an efficient manner and at an affordable cost.”

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the State Employee Group Benefits account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the State Employee Group Benefits portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio’s holdings, over a five-year moving average.

Time Horizon:

State Employee Group Benefits is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the State Employee Group Benefits portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

State Employee Group Benefits may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 50% of the market value of the portfolio will be invested in U.S. Government/U.S. Agency securities;
2. U.S. Government/U.S. Agency securities will have a maximum maturity of 5 years;
3. A maximum of 40% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP); and
4. A minimum of \$10 million will be invested in the ~~Short-Term Investment Pool~~ (STIP).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

APPENDIX III:
Operating Funds: Investment Objectives and Guidelines

- Schedule III-A: Montana State University - Bozeman
- Schedule III-B: Montana Tech
- Schedule III-C: University of Montana - Missoula
- Schedule III-D: State Treasurer's Fund
- Schedule III-E: Fish, Wildlife and Parks General License Account

Schedule III-A
Investment Objectives and Guidelines
Montana State University - Bozeman

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Montana State University - Bozeman investments under the guidance of the Board.

The Montana State University - Bozeman account consists of operating funds from a variety of campus activities. A portion of the portfolio is unlikely to be needed for liquidity purposes and may seek higher returns as deemed appropriate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana State University - Bozeman account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Montana State University - Bozeman portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Montana State University - Bozeman is an operating account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana State University - Bozeman portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana State University - Bozeman may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 30% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

**Schedule III-B
Investment Objectives and Guidelines
Montana Tech**

Effective Date of Schedule: February 14, 2018

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for Montana Tech investments under the guidance of the Board.

The Montana Tech account consists of operating funds from a variety of campus activities. A portion of the portfolio is unlikely to be needed for liquidity purposes and may seek higher returns as deemed appropriate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Montana Tech account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Montana Tech portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark and the Short-Term Investment Pool benchmark**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Montana Tech is an operating account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Montana Tech portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Montana Tech may only invest in the following:

1. Trust Funds Investment Pool (TFIP)
2. Short-Term Investment Pool (STIP) or any cash vehicle at the Custodial Bank

Other Restrictions:

1. A maximum of 30% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP.)

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule III-C
Investment Objectives and Guidelines
University of Montana - Missoula

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for University of Montana - Missoula investments under the guidance of the Board.

University of Montana - Missoula account consists of operating funds from a variety of campus activities. A portion of the portfolio is unlikely to be needed for liquidity purposes and may seek higher returns as deemed appropriate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the University of Montana - Missoula account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the University of Montana - Missoula portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

University of Montana - Missoula is an operating account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the University of Montana - Missoula portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

University of Montana - Missoula may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 40% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~ (TFIP) based on annual average market value.
2. A maximum of 45% in individual U.S. Government securities based on annual average market value.
3. A maximum maturity of 5 years for individual U.S. Government securities.
4. A minimum of 15% or \$10 million in the ~~Short-Term Investment Pool~~ (STIP), whichever is greater, based on annual average market value.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule III-D
Investment Objectives and Guidelines
State Treasurer's Fund

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of this policy statement is to provide a framework for the State Treasurer's Fund investments under the guidance of the Board.

The State Treasurer's Fund consists of both assets of the general fund and all other surplus funds of the state not otherwise expressly segregated and invested separately.

Per Section MCA-17-1-111, MCA, "the state treasurer is the custodian of all money and securities of the state unless otherwise expressly provided by law." Per Section MCA-17-6-101, MCA, "Under the direction of the board of investments, the state treasurer shall deposit public money in the treasurer's possession and under the treasurer's control..."

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the State Treasurer's Fund account; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the State Treasurer's Fund portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Short-Term Investment Pool benchmark**.

Time Horizon:

The State Treasurer's Fund is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the State Treasurer's Fund portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

State Treasurer's Fund may only invest in the following:

1. ~~Short Term Investment Pool (STIP)~~ or any cash vehicle at the ~~Ceustodial B~~bank.
2. Deposits held at the state's depository bank.
3. U.S. Treasury obligations.
4. Direct obligations of the U.S. mortgage agencies Fannie Mae (Federal National Mortgage Association) and Freddie Mac (Federal Home Loan Mortgage Corporation). These obligations shall consist of only the discount notes, notes and debentures of these two agencies and does not include mortgage pass-through obligations. Coupons may be fixed or floating rate.
5. Direct obligations of the Federal Farm Credit Bank and the Federal Home Loan Bank. These obligations shall consist of discount notes, notes and debentures with either fixed or floating rate coupons.
6. Short-term tri-party repurchase obligations (repo) with an approved primary dealer, the ~~Ceustodial B~~bank, or the depository bank that are collateralized at 102% of value with U.S. Treasury and U.S. Agency securities. Approved primary dealers will be the same as those dealers approved for repo investments made in STIP.
7. Fixed income obligations of other U.S. agencies or corporate entities that are directly guaranteed as to both principal and interest by the full faith and credit of the U.S. Treasury.
8. Any obligation purchased pursuant to the bond credit enhancement program of the MBOI as authorized pursuant to Resolution 219 of the Board of Investments.
9. State general fund warrants per ~~Section MCA-17-6-212, MCA.~~

Other Restrictions:

1. Securities purchases are permitted only up to an amount that is equal to one-half the projected fiscal year-end balance of the general fund.
 - a. This component of the State Treasurer's Fund is subject to the uncertainty of state receipts and expenditures and may fluctuate significantly depending on economic conditions. Thus, in order to avoid a potential liquidity event, the purchase of securities is to be constrained based on the most current forecast of general fund balances by the budget office within the Department of Administration. In the event the amount of securities held were to exceed this threshold, sales are not required however additional purchases are prohibited until the test can again be met.
 - b. U.S. Treasuries held at the state's depository bank are not subject to the projected general fund balance restriction. These securities are held at the depository bank to provide emergency liquidity.
 - c. In addition, any obligations purchased pursuant to the bond credit enhancement program of the MBOI as authorized pursuant to Resolution 219 of the Board are not subject to the projected general fund balance restriction.
2. Securities purchased for investment are intended to enhance book income and shall normally be held until maturity unless a severe liquidity need were to arise in which case a realized loss may be incurred if necessary in the sale of securities to meet immediate liquidity needs. Realized gains may be incurred if the sale of a security prior to maturity is necessary to meet liquidity needs or otherwise is advisable in order to enhance book income by reinvesting the proceeds of such sale.
3. Securities are limited to three years to final maturity.
4. Repurchase agreements are limited to seven days to maturity.

5. Holdings of any one U.S. agency that is not directly or indirectly guaranteed by the U.S. Treasury shall be limited to a maximum \$100 million at book value.
6. Repurchase obligations shall be limited to \$20 million face amount with any one primary dealer. Repos held at the depository bank or the Custodial Bank are not constrained by this limit given the potential for extenuating market conditions that may require unusually high cash balances to be retained at either bank.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

Schedule III-E
Investment Objectives and Guidelines
Fish, Wildlife & Parks General License Account

Effective Date of Schedule: April 2, 2019

This schedule is effective upon adoption by the Board of Investments and supersedes all previous Investment Objectives and Guidelines for this specific portfolio.

Introduction:

The purpose of the investment objectives and guidelines is to provide a framework for the Fish, Wildlife & Parks General License Account ~~account~~ under the guidance of the Board.

The Fish, Wildlife & Parks General License Account was established under Section MCA: 87-1-601, MCA. This account contains revenue generated from the sale of hunting and fishing licenses.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Fish, Wildlife & Parks General License Account ~~account~~; and
2. Provide diversified investment exposure within the guidelines in a prudent and cost effective manner.

Investment Objective:

Strategic:

The objective of the Fish, Wildlife & Parks General License Account portfolio is to attain above benchmark total return within the parameters of the Investment Guidelines set forth below with an emphasis on investment income and preservation of principal.

Performance:

Success in achieving this objective will be measured by comparing the risk and return of the account to the **Trust Funds Investment Pool benchmark, the Short-Term Investment Pool benchmark and the Bloomberg/Barclays 1-5 Year Treasury Index**, each weighted proportionately to the portfolio's holdings, over a five-year moving average.

Time Horizon:

Fish, Wildlife & Parks General License Account is a permanent account. The Board expects to meet or exceed all objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board may lead to unfavorable, but expected, deviation from these objectives.

Investment Guidelines:

~~The Montana Board of Investments~~The Board will have full discretion to manage the Fish, Wildlife & Parks General License Account portfolio consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

Fish, Wildlife & Parks General License Account may only invest in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Trust Funds Investment Pool (TFIP)
3. Short-Term Investment Pool (STIP) [or any cash vehicle at the Custodial Bank](#)

Other Restrictions:

1. A maximum of 25% of the market value of the portfolio will be invested directly in U.S. Government / Agency securities; and
2. The maximum maturity of U.S. Government / Agency securities will be 6 years; and
3. A maximum of 50% of the market value of the portfolio will be invested in the ~~Trust Funds Investment Pool~~(TFIP); and
4. A minimum of 40% of the market value of the portfolio will be invested in the ~~Short-Term Investment Pool~~(STIP).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the allocations were outside the limits and either inform the Board of the actions that were taken to return the portfolio back within guidelines or a plan to do so.

MONTANA PUBLIC RETIREMENT PLANS INVESTMENT POLICY

Approved April 5, 2017

~~Revised November 19, 2019~~

~~Revised April 14, 2020~~

Last Revised June 9, 2020

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1. Introduction:

Montana Public Retirement Plan assets are commingled for investment purposes into a Consolidated Asset Pension Pool (CAPP) created by the Board. The use of a commingled pool allows for simplified investing and accounting, broader diversification and thus less risk than would otherwise be available for the smaller Plans and provides additional opportunities for fee savings. The Consolidated Asset Pension Pool invests directly in the underlying Asset Classes. Each Asset Class has an underlying set of investment objectives and investment guidelines. Each of the nine Plans, CAPP, and each of the Asset Classes are separately identified for accounting and record keeping purposes.

This policy is effective upon adoption and supersedes all previous Investment Policy Statement (IPS) related to the investment management of the Montana Public Retirement Plans.

2. Purpose:

The purpose of this policy statement is to provide a broad strategic framework for the Montana Public Retirement Plans' investments under the guidance of the Montana Board of Investments.

3. Legal and Constitutional Authority:

~~The Montana Constitution~~, Article VIII, Section 13, of the Montana Constitution requires that the Legislature provide for a Unified Investment Program for public funds. Section 17-6-201, Montana Code Annotated (MCA), established the Unified Investment Program, created the Montana Board of Investments (the "Board") and gave the Board sole authority to invest state funds, including the public retirement plans (Plans) in accordance with state law and the state constitution.

~~The Unified Investment program for public funds must be administered by the Board of Investments in accordance with the "prudent expert principle," defined as: Section 17-6-201(1), MCA, requires the Board to operate under the "prudent expert principle," define as:~~

- 1) "discharging its duties with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character with like aims;
- 2) diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so; and
- 3) discharging its duties solely in the interest of and for the beneficiaries of the funds managed."

~~MCA s~~Section 17-6-201 (2) (a), MCA states... "Retirement funds may be invested in common stocks of any corporation."

~~MCA s~~Section 17-6-201 (3) (b), MCA states... "The Board is urged under the prudent expert principle to invest up to three percent (3%) of retirement funds in Venture Capital companies. Whenever possible, preferences should be given to investments in those Venture Capital companies which demonstrate an interest in making investments in Montana."

~~MCA s~~Section 17-6-201 (3) (c), MCA states... “In discharging its duties, the board shall consider the preservation of purchasing power of capital during periods of high monetary inflation.”

The Board, as the investment fiduciary of the Plans, is responsible for establishing the investment parameters for the Plans. The Board has the authority to allocate portfolios to any previously board-approved asset class in the proportions it considers prudent, under the prudent expert rule. There are currently no statutory or constitutional restrictions on the investment of the Plans. –Asset allocation decisions made by the Board must be made in a public meeting.

4. Strategic Investment Objectives

The Board’s overall objective is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices. Because of the long-term nature of the state’s various pension liabilities, the Board maintains a long-term perspective in formulating and implementing its investment policies, and in evaluating its investment performance.

5. Time Horizon

The Board expects to meet or exceed these objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board, may lead to unfavorable, but expected, deviation from these objectives.

6. Performance Measurement

Investment performance is measured by three integrated long-term return objectives:

- a) The **actuarial target rate of return** is the key actuarial assumption affecting future funding rates and liabilities. Investment performance that exceeds or underperforms the target rate may materially impact future funding rates and liabilities. The Board seeks to generate long-term investment performance that will exceed the maximum actuarial annual target rate of return of 7.65%, as determined by the governing boards of the public retirement systems, net of all investment and administrative expenses. There may be years, or a period of years, when the Plans do not achieve this goal followed by years when the goal is exceeded. But over a long period, the Board seeks to achieve an average net rate of return of 7.65%, as determined by the governing boards of the public retirement systems, at risk levels (measured by expected volatility) broadly consistent with other public fund peers.
- b) The **investment policy benchmark** for the Retirement Plans is calculated by applying the investment performance of the benchmarks to any of the underlying asset classes to the Plans’ actual allocation to these investments during the measurement period. The investment policy benchmark represents the return that would be achieved if the Plan implemented a passively managed portfolio. Deviations from the policy benchmark measure the contribution of active management, rebalancing policy and its execution, and investment implementation generally.
- c) The Board also compares each Plan’s total performance, before all fees, to appropriate **public**

plan sponsor universes. This process permits the Board to compare its total performance to other public pension plans. While the Board seeks to rank consistently in the top half of comparable public pension plans, the Board recognizes that other plans may have investment objectives and risk tolerances that differ substantially from the Board's.

7. Roles and Responsibilities

- a) **Board of Investments** – The Board is responsible for approving the Investment Policy Statement (IPS) for the Montana Public Retirement Plans and has the authority to allocate portfolios to any asset class in the proportions it considers prudent, subject to such limitations as contained in law and the Constitution. The Board reviews this document periodically and, as needed, approves any changes to the policy.

As described in the Board of Investments Governance Manual, the Board delegates authority to the Executive Director, Chief Investment Officer (CIO), and other Staff to execute the day to day duties required to carry out the Board's mission.

- b) **Executive Director** – The Executive Director is empowered by the Board to sign all documents required to conduct Board business, unless there are specific written policies or instructions from the Board to the contrary. The Executive Director and the ~~Chief Investment Officer~~CIO are authorized jointly to contract for investment manager services and if deemed appropriate, terminate them.
- c) **Chief Investment Officer** – The ~~Chief Investment Officer (CIO)~~ is empowered by the Board to serve as the principal staff person responsible for overseeing the investment activities under the Board's jurisdiction in compliance with the Board's policies. The CIO, with the support of other staff, is responsible for recommending ~~investment policy~~IPS changes for Board approval.
- d) **Staff** – The staff is responsible for:
- I. Managing day-to-day operations and delegating work to external resources as appropriate;
 - II. Monitoring allocations and overseeing all investment manager due diligence activities and recommending changes to the CIO;
 - III. Monitoring and reporting to the Board the performance of each asset class and the individual managers' performance;
 - IV. Informing the Board of any new managers or terminations; and
 - V. Reporting any deviations from ~~this Investment~~the IPS Policy to the Board.
- e) **Investment Consultant** – The investment consultant assists the CIO and staff with policy recommendations and provides advice to the Board. The investment consultant also assists staff in monitoring all external managers and reports to the Board independently.
- f) **External Managers** – Managers are responsible for all aspects of portfolio management as set forth in the contract specific to each manager. Managers must communicate with staff as needed, regarding investment strategies and results. Managers must also cooperate fully with staff regarding administrative, accounting, and reconciliation issues as well as any

requests from the investment consultant and the master custodian.

8. Strategic Asset Allocation

The Board finds that it is in the best interest of the state's nine retirement Plans to set out investment policies for the Plans in one comprehensive document.

Nine Public Retirement Plans:

Public Employees Retirement System

Teachers Retirement System

Police Officers Retirement

Firefighters Retirement

Sheriffs Retirement

Highway Patrol Retirement

Game Wardens Retirement

Judges Retirement

Volunteer Firefighters Retirement

The current asset allocation ranges for the Plans are in **Appendix I**. The asset allocation ranges are subject to change as modifications are adopted by the Board, at which time **Appendix I** will be revised to reflect these changes. The Board will formally affirm or revise the asset allocation ranges for the Plans at least annually.

9. Rebalancing

The actual asset allocation mix may deviate from time to time from the approved asset allocation ranges due to financial market performance, cash flows, and manager performance. Material deviations from the asset allocation ranges can alter the expected return and risk of the Plans. Rebalancing the Plans' assets to remain within the Board-approved allocation ranges is delegated to the ~~Chief Investment Officer (CIO)~~, in consultation with the Executive Director. Any necessary rebalancing will be made in a timely manner and will take into consideration associated costs and current market conditions. In addition to maintaining actual allocations within the ranges, the CIO will also consider contractual investment commitments to private investments, the liquidity necessary to meet benefit payments and administrative costs for the Plans, and current market conditions. This may prompt asset rebalancing when asset allocations fall within the established ranges. The CIO shall inform the Board of rebalancing activity at the Board's next regularly scheduled quarterly meeting.

10. Risk Management

a) **Evaluation of Investment Managers**

The Investment Manager Evaluation Policy is a distinct policy that is regularly reviewed and updated separate from the Retirement Plans Investment Policy because staff utilizes the Investment Manager Evaluation Policy to oversee and manage other assets in addition to the retirement plan assets.

b) Liquidity

Based on the percentage of total plan assets necessary for ongoing benefit payments and other plan expenses, the liquidity needs for the Retirement Plans are generally low and participant capital is not expected to change dramatically on short notice. However, illiquidity risk still needs to be monitored and managed by staff on a regular basis to ensure that assets are not required to be sold too quickly, or at an unfavorable time, and potentially at a discount to fair value to meet the cash needs of the Retirement Plans.

A significant percentage of the investments in the Real Estate, Natural Resources and Private Investments Asset Classes are considered illiquid. Due to the limited liquidity of these assets, it will typically be impractical to fund plan cash needs or correct deviations from policy ranges through the purchase or sale of these assets.

The investments held in the Domestic Equity, International Equity, Core Fixed Income, and Non-Core Fixed Income Asset Classes are categorized as publicly traded securities. In “normal market” conditions many of the underlying assets from these Asset Classes can be liquidated in a relatively short period to accommodate both expected and unexpected withdrawals as well as any repositioning of the asset allocation to stay within approved ranges.

To improve liquidity and manage both the expected and unexpected Retirement Plans need for cash, this Investment Policy specifies a strategic allocation to the Cash Asset Class, which invests in approved investments including the Short-Term Investment Pool (STIP).

c) Monitoring/Reporting – Transparency

Managers shall submit periodic reports to facilitate Staff’s monitoring of the Managers’ conformance to investment restrictions and performance objectives.

Staff shall provide regular reporting to the Board regarding the asset allocation and performance of the pension plans as well as the characteristics and performance of the Asset Classes to confirm these items are known and adhere to all ~~Investment Policy~~IPS requirements and expectations.

Staff will discuss and communicate any key information discovered due to the ongoing Manager monitoring process that might assist the Board in understanding the underlying investment manager structure or risks embedded in the investment characteristics of the Retirement Plan asset allocations.

d) Leverage

Leverage is a significant risk factor. Investment managers may utilize leverage only when permitted in the manager’s investment guidelines approved by Staff. Staff shall monitor the use of leverage and its impact on risk and return.

The use of derivative securities can generate additional leverage even if the derivative is being used to reduce the risk in other investments. Investment managers may only use derivatives when permitted in the manager’s investment guidelines approved by Staff.

e) **Cash Investments**

Cash investments held at the Retirement Plan, CAPP level, or any managed account within it, entail an element of credit risk. Thus, only approved cash investment vehicles are permitted. These include ~~the custodian's STIF vehicle;~~ any cash vehicle at the Custodial Bank; STIP; or any SEC-registered money market fund approved by the CIO for internally managed funds, all of or employed by an external asset manager which specifically address credit risk in their respective investment guidelines.

11. Securities Lending

Section 17-1-113, MCA, authorizes the Board to lend securities held by the state. The Board may lend its publicly traded securities through an agent, to other market participants in return for compensation. Currently, through an explicit contract, ~~State Street Bank and Trust,~~ the state's Custodial Bank, manages the state's securities lending program. The Board seeks to assess counterparty and reinvestment risk, associated with each aspect of its securities lending program. The Board requires borrowers to maintain collateral at 102 percent for domestic securities and 105 percent for international securities. To ensure that the collateral ratio is maintained, securities on loan are marked to market daily and the borrower must provide additional collateral if the value of the collateral falls below the agreed-upon ratio of over-collateralization. In addition to the strict collateral requirements imposed by the Board, the credit quality of approved borrowers is monitored continuously by the contractor. From time to time, Staff or the investment manager may restrict a security from the loan program upon notification to ~~State Street Bank~~ the Custodial Bank. Staff will monitor the securities lending program, and ~~the CIO~~ will periodically report to the Board on the status of the program. The Board's participation in securities lending may change over time given Plan activity, market conditions and the agent agreement.

12. Exercise of Shareholder Rights

The Board recognizes that publicly traded securities and other assets of the Plans include certain ancillary rights, such as the right to vote on shareholder resolutions at companies' annual shareholders' meetings, and the right to assert claims in securities class action lawsuits or other litigation. The Board will prudently manage these assets of the Plans for the exclusive purpose of enhancing the value of the Plans for its participating systems' members and beneficiaries through such means as adopting and implementing a proxy voting policy and undertaking productive, cost-effective action to exercise its rights as shareholders or claimants in litigation.

a) **Proxy Voting**

Active voting of proxies is an important part of the Board's investment program. Under the contractual arrangements between the Board and its investment managers, the responsibility for voting proxies on the investments is delegated to the managers. Managers are contractually required to establish a proxy voting program in coordination with Board Staff and are required to vote proxies, excluding shares on loan under the Board's securities lending program, in the interest of the Plans' beneficiaries. Records of proxy votes shall be maintained by the Managers, and/or its third-party designee, and submitted to Staff and/or an external service provider annually.

Staff will monitor the proxy voting practices of the Board's external investment managers.

External service providers may be retained by either the Board or the Managers to assist in monitoring efforts. This monitoring will be coordinated with each manager to reasonably assure the Staff that Managers are fulfilling their fiduciary responsibilities with respect to proxy voting.

b) Class Action Litigation

Claims under state and federal securities laws arising out of losses on securities under the Board's management are assets subject to the Board's fiduciary duty of prudent management. The Board shall take reasonable, cost effective steps to identify, pursue and collect upon claims under securities laws for losses suffered by the Board on its investment. Accordingly, the Board maintains a detailed litigation policy, including process steps, outlined in the ~~Montana Board of Investments~~ Board's Governance Manual, Appendix F.

13. Investment Policy Statement Review

~~The Board intends to keep this Policy updated as it modifies or amends the underlying contents. As stated in the Governance Policy, "the Board shall review this Investment Policy at least annually or more frequently at the request of Board staff. Statements may only be revised in a public meeting. All Statements shall be posted on the Board's web site for review by the public." Per Board's Governance Policy, "the Board shall create, maintain, and revise as necessary Investment Policy Statements (IPS) for each separate account it manages. The IPS shall cite the law establishing the account if such law exists, the permissible investments authorized by law, and establish an investment range for each of the permissible investments. The Board shall review such policies at least annually or more frequently at the request of Board staff. IPS may only be revised in a public meeting. All IPS shall be posted on the Board's web site for review by the public."~~

Appendix I: Montana Public Retirement Plans Asset Allocation Ranges

Permitted Ranges:

Approved November 19, 2019

Asset Class Allocations		
Asset Class	Range Low	Range High
Domestic Equities	24	36
International Equities	11	21
Private Investments	11	17
Natural Resources	1	7
Real Estate	5	13
Core Fixed Income	15	25
Non-Core Fixed Income	3	7
Cash¹	0	4
Total		
<p>¹ The combined cash at the plan level and the CAPP level is subject to the range.</p> <p>² Montana Public Retirement Plans shall have no greater than 5% of the Net Asset Value managed by any one external manager using an active investment strategy.</p>		

Appendix II: Investment Objectives and Guidelines

Schedule II-A: Investment Objectives and Guidelines Domestic Equities Asset Class

Effective Date of Schedule: ~~by May 1, 2018~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Domestic Equities.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Asset Class; and
2. Provide diversified exposure to the domestic equity market in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Domestic Equities Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Domestic Equity Asset Class to the **MSCI USA Investable Market Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage this Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the Domestic Equity investments will be managed by external investment managers. The Domestic Equities Asset Class may utilize public long-only and long/short strategies.

It is expected that Domestic Equities Asset Class shall invest in public market investments that provide liquidity and meaningful transparency to portfolio characteristics and risk exposures.

Permitted Investments:

The Domestic Equities Asset Class may invest only in the following:

1. ~~Domestic equity s~~Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;
2. Exchange-Traded Funds (ETFs) based on a domestic equity index that is approved by the ~~Chief Investment Officer~~CIO and purchased and monitored by Staff; and
3. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions:

1. The Domestic Equities Asset Class percentage of Net Asset Value invested in “small-cap” equities shall not exceed +10% above the Benchmark weight in “small cap”;
2. The Domestic Equities Asset Class percentage of Net Asset Value invested in passive/index strategies shall be greater than 45%; ~~and.~~
- ~~3. Cash held at the Domestic Equities Asset Class level (not including cash held by external managers in separate accounts or commingled funds) is limited to 5% of the Domestic Equities Asset Class Net Asset Value.~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Domestic Equity Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Domestic Equities Asset Class back within guidelines or a plan to do so.

**Schedule II-B:
Investment Objectives and Guidelines
International Equities Asset Class**

Effective Date of Schedule: ~~May 1, 2018~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for International Equities.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Asset Class; and
2. Provide diversified exposure to the international and global equity markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the International Equities Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the International Equities Asset Class to the **MSCI All Country World ex-US Investable Market Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the International Equities Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the International Equities Asset Class investments will be managed by external investment managers.

The International Equities Asset Class may utilize public long-only and long/short strategies.

It is expected that the International Equities Asset Class shall invest in public market investments that provide liquidity and meaningful transparency to portfolio characteristics and risk exposures.

Permitted Investments:

The International Equities Asset Class may invest only in the following:

1. ~~International equity s~~Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;
2. Exchange-Traded Funds (ETFs) based on an international equity index that is approved by the ~~Chief Investment Officer~~CIO and purchased and monitored by Staff; and
3. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions:

1. The International Equities Asset Class percentage of Net Asset Value invested in “small-cap” equities shall not exceed +10% above the Benchmark weight in “small cap”;
2. The International Equities Asset Class percentage of Net Asset Value invested in passive/index strategies shall be greater than 42%;
3. The International Equities Asset Class percentage of Net Asset Value invested in Emerging Market securities shall not exceed + or - 10% above the Benchmark weight in Emerging Market securities; ~~and,~~
4. ~~Cash held at the International Equities Asset Class level (not including cash held by external managers in separate accounts or commingled funds) is limited to 5% of the International Equities Asset Class Net Asset Value.~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the International Equities Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the International Equities Asset Class back within guidelines or a plan to do so.

**Schedule II-C:
Investment Objectives and Guidelines
Private Investments Asset Class**

Approved Date of Schedule: ~~November 19, 2019~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Private Investments.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Asset Class; and
2. Provide diversified exposure to the Private Investment markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Private Investments Asset Class is to attain the highest possible return within the parameters of the Investment Guidelines set forth below.

Performance:

There is no generally accepted benchmark index for private investment performance comparisons. Characteristically, private partnership investments are impacted by the “J-curve” effect, in which fees and transaction costs create negative returns during the initial investment years before distributions are realized. Private investments require a long-time horizon to realize the value provided by the creation or restructuring of private companies.

The performance objective for the Private Investments Asset Class is the achievement of long-term net returns (after management fees and general partner’s carried interest) above a benchmark reflecting public equity market returns.

Success in achieving this objective will be measured by comparing the net return of the Private Investments Asset Class to the **MSCI USA Small Cap Index** (the “Benchmark”) on an annualized basis. Performance results will be monitored quarterly. However, the success in achieving the objective will be measured on a five-year and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Private Investments Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the Private Investments Asset Class investments will be managed by external investment managers via a partnership structure in which the ~~Montana Board of Investments~~MBOI will have a limited partnership interest.

Permitted Investments:

The Private Investments Asset Class may invest only in the following:

1. Private Investment partnership interests. These private partnerships may be direct limited partnerships, limited liability companies, or vehicles that primarily invest in partnerships, including Fund-of-Funds and Secondary Funds;
2. Investments held in separate accounts or commingled funds managed by external investment managers and governed by their respective investment management contracts and investment guidelines;
3. The Private Investments Asset Class may co-invest with private investment managers in transactions that are suitable for inclusion into a private investment partnership;
4. Individual public or private securities received as distributions from funds;
5. Exchange-Traded Funds (ETFs) based on a public equity index that is approved by the ~~Chief Investment Officer~~CIO and purchased and monitored by Staff; and
6. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. ~~No more than 7.5% of the aggregate of the Private Investments Asset Class net asset value plus uncalled committed capital should be~~The Montana Public Retirement Plan assets as a percentage of Net Asset Value invested in a single Direct Limited Partnership shall be no greater than 2.0%;
2. No more than 30% of the aggregate of the Private Investments Asset Class net asset value plus uncalled committed capital should be considered “Non-U.S.” exposure based on the primary objective of the Fund, Partnership, Separate Account, or Index;
3. No more than 10% of the aggregate of the Private Investments Asset Class net asset value shall be invested in direct co-investments;
4. ~~Cash held at the Private Investments Asset Class level (not including cash held in the underlying partnership interests/funds) is limited to 5% of the Private Investments Asset Class Net Asset Value; and~~
5. Individual public securities received as distributions will be liquidated over a reasonable time-period dependent on market conditions.

The following table provides a guideline range with respect to Private Investments strategy diversification. It is important to note that these ranges reference the sum of the Private Investments Asset Class net asset value and uncalled commitments.

<u>Strategy</u>	<u>Policy Range</u>
Buyout and all other private equity related strategies not related to Venture Capital or Private Credit	50% - 100%
Venture Capital	0% - 25%
Private Credit	0% - 50%

For the purpose of the ranges provided above, funds will be classified in the category that is most reflective of the underlying investments in the funds.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Private Investments Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Private Investments Asset Class back within guidelines or a plan to do so.

**Schedule II-D:
Investment Objectives and Guidelines
Natural Resources Asset Class**

Effective Date of Schedule: ~~April 14, 2020~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Natural Resources.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Natural Resources Asset Class; and
2. Provide diversified exposure to the Natural Resources markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Natural Resources Asset Class is to attain the highest possible return within the parameters of the Investment Guidelines set forth below.

Performance:

There is no generally accepted performance comparisons benchmark index for private partnership investments in Natural Resources. Characteristically, private partnership investments are impacted by the “j-curve” effect, in which fees and transaction costs create negative returns during the initial investment years before distributions are realized. Private partnership investments usually require a long-time horizon to realize the value provided by the creation or enhancement of private companies.

The long-term performance objective for the Natural Resources Asset Class is the achievement of net returns (after management fees and general partner’s carried interest) above a benchmark reflecting public equity Natural Resources market returns.

Success in achieving this objective will be measured by comparing the long-term net return of the Natural Resources Asset Class to the **MSCI ACWI Commodity Producers Index** (the “Benchmark”) on an annualized basis. Performance results will be monitored quarterly. However, the success in achieving the objective will be measured on a five-year and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Natural Resources Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the Natural Resources Asset Class investments will be managed by external investment managers via private investment partnerships in which the [Montana Board of Investments MBOI](#) will have a limited partnership interest; however, the Natural Resources Asset Class may also utilize public long-only and long/short strategies.

Permitted Investments:

The Natural Resources Asset Class (for the purpose of these guidelines, “Natural Resources” includes investments in timber, energy, agriculture, water, and other commodities) may invest only in the following:

1. Private investment partnership interests in Natural Resources. These private investment partnerships may be direct limited partnerships, limited liability companies, or vehicles that primarily invest in partnerships, including fund-of-funds and secondary funds;
2. The Natural Resources Asset Class may co-invest with private investment managers in transactions that are suitable for inclusion into a Natural Resources private investment partnership;
3. Individual public or private securities received as distributions from funds;
4. Separately managed accounts, open-ended funds, closed-ended funds, or exchange-traded funds (ETFs), managing publicly traded Natural Resources related investments, where the investments are approved by the [Chief Investment Officer CIO](#) and purchased and monitored by Staff; and
5. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. The Montana Public Retirement Plan assets as a percentage of Net Asset Value invested in a single investment within Natural Resources Asset Class shall be no greater than 2.0%;
2. No more than 30% of the aggregate of the Natural Resources Asset Class Net Asset Value plus uncalled committed capital should be considered “Non-U.S.” exposure based on the primary objective of the fund, partnership, separately managed account, or index;
3. No more than 10% of the aggregate of the Natural Resources Asset Class Net Asset Value shall be invested in direct co-investments; and
4. Individual public securities received as distributions will be liquidated over a reasonable time- period dependent on market conditions.

The following table provides a guideline range with respect to the Natural Resources Asset Class strategy diversification. It is important to note that these ranges reference the sum of the Natural Resources Asset Class Net Asset Value and uncalled commitments.

<u>Strategy</u>	<u>Policy Range</u>
Energy	30% - 75%
Timber	0% - 45%
Broad Natural Resources	0% - 50%
Public Natural Resource Securities	0% - 40%

For funds with exposure across categories, the fund will be classified in the category that is most reflective of the underlying investments in the funds.

Timber Fund Leverage

Leverage is a significant risk factor. On an individual fund basis, the leverage level can range up to 30.0%. It is important to note; however, that in aggregate, leverage consists of the combined borrowing at the property level and the fund level. On a select basis, the leverage may exceed 30.0% at the combined property and fund investment level, if it is determined to be reasonable to do so, particularly in the early stages of the fund investment cycle when a fund level credit facility is utilized to finance early fund investments on a short-term basis prior to committed capital being drawn. While Staff will monitor leverage on this combined basis, the leverage statistic Staff will focus on most for purposes of compliance with this policy is the stabilized long-term leverage at the overall fund investment level once it has completed its acquisition phase, paid down outstanding short-term credit facility balances used to fund capital calls and the investment period has ended. New investments shall be made with the intention that the total timber fund investment leverage shall not exceed 30%.

Strategy
Timber

Leverage Policy Range
0% - 30%

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases when the Natural Resources allocations were outside of the limits and either inform the Board of the actions that were taken to return the Natural Resources Asset Class back within guidelines or a plan to do so.

**Schedule II-E:
Investment Objectives and Guidelines
Real Estate Asset Class**

Effective Date of Schedule: ~~April 14~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Real Estate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Real Estate Asset Class; and
2. Provide diversified exposure to Real Estate in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Real Estate Asset Class is to attain the highest possible return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Real Estate Asset Class to the **NCREIF Fund Index – Open End Diversified Core Equity (NFI-ODCE)** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Real Estate Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the Real Estate Asset Class investments will be managed by external investment managers via private investment partnerships in which the ~~Montana Board of Investments~~ MBOI will have a limited partnership interest; however, the Real Estate Asset Class may also utilize public long-only and long/short strategies.

Permitted Investments:

The Real Estate Asset Class may invest only in the following:

1. Separate accounts, open-ended funds, closed-ended funds, exchange-traded funds (ETFs), or real Estate investment trusts (REITs) managing publicly traded real estate, where the investments are approved by the ~~Chief Investment Officer~~ CIO and purchased and monitored by Staff;

2. Private investment partnership interests. These private partnerships may be direct limited partnerships, limited liability companies, or vehicles that primarily invest in partnerships, including fund-of-funds and secondary funds;
3. The Real Estate Asset Class may co-invest with private investment managers in transactions that are suitable for inclusion into a private real estate investment partnership;
4. Separate accounts investing in private real estate direct investments;
5. Individual public or private securities received as distributions from funds are also permitted to be held in the Real Estate Asset Class; and
6. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. The Montana Public Retirement Plan assets as a percentage of Net Asset Value invested in a single investment within the Real Estate Asset Class shall be no greater than 2.0%;
2. No more than 30% of the aggregate of the Real Estate Asset Class Net Asset Value plus uncalled committed capital should be considered “Non-U.S.” exposure based on the dominant geographic exposure of the Fund, Partnership, Separate Account, or Index;
3. No more than 10% of the aggregate of the Real Estate Asset Class Net Asset Value shall be invested in direct co-investments; and
4. Individual public securities received as distributions will be liquidated over a reasonable time-period dependent on market conditions.

The following table provides a guideline range with respect to the Real Estate Asset Class strategy diversification. It is important to note that these ranges reference the sum of the Real Estate Asset Class Net Asset Value and uncalled commitments.

<u>Strategy</u>	<u>Policy Range</u>
Core Real Estate	20% - 50%
Core-plus/Non-Core Real Estate	25% - 65%
Real Estate Debt	10% - 40%
Public Real Estate Securities	0% - 40%

For funds with exposure across these categories, the fund will be classified in the category that is most reflective of the underlying investments in the funds.

Leverage

Leverage is a significant risk factor. On an individual fund basis, the leverage level can range up to 75.0%. It is important to note; however, that in aggregate, leverage consists of the combined borrowing at the property level and the fund level. On a select basis, the leverage may exceed 75.0% at the combined property and fund investment level, if it is determined to be reasonable to do so, particularly in the early stages of the fund investment cycle when a fund level credit facility is utilized to finance early fund investments on a short-term basis prior to committed capital being drawn. While Staff will monitor leverage on this combined basis at the fund investment level, the leverage statistic Staff will focus on most for purposes of compliance with this policy is the stabilized long-term leverage at the overall fund investment level once it has completed its acquisition phase,

paid down outstanding short-term credit facility balances used to fund capital calls and the investment period has ended. New investments shall be made with the intention that the total Real Estate Asset Class leverage shall not exceed 60%.

<u>Strategy</u>	<u>Leverage Policy</u>
Core Real Estate Investments	0% - 50%
Core-plus/Non-Core Real Estate	0% - 75%
Real Estate Debt	0% – 75%

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Real Estate Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Real Estate Asset Class back within guidelines or a plan to do so.

While no formal diversification ranges are set forth for property type diversification or regional diversification within the United States, it is expected that the Real Estate Asset Class shall remain diversified across these factors. These and other factors shall be monitored and reported to the Board at least annually.

**Schedule II-F:
Investment Objectives and Guidelines
Core Fixed Income**

Approved Date of Schedule: ~~November 19, 2019~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Core Fixed Income.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Core Fixed Income Asset Class; and
2. Provide diversified exposure to Core Fixed Income in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Core Fixed Income Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Core Fixed Income Asset Class to the **Bloomberg Barclays US Aggregate Bond Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Core Fixed Income Asset Class consistent with the investment guidelines stated below. Core Fixed Income is defined as strategies primarily invested in marketable, publicly traded, investment grade fixed income securities denominated in U.S. dollars. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

The Core Fixed Income Asset Class may invest only in the following:

Internally Managed Permitted Investments:

1. Dollar denominated debt obligations of the U.S. Government, including its agencies and instrumentalities;
2. Dollar denominated debt obligations of Quasi and Foreign Government entities;

3. Dollar denominated debt obligations of domestic and foreign corporations;
4. Dollar denominated securitized assets, including U.S. Agency mortgage backed and commercial mortgage backed securities (MBS/CMBS), U.S. Agency collateralized mortgage obligations (CMO's) and asset backed securities (ABS);
5. Dollar denominated Non-agency mortgage backed securities (RMBS) and Non-agency commercial mortgage backed securities (CMBS);
6. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Internally Managed Restrictions

1. The average duration of any internally managed portfolio will be maintained in a range of + or – 20% of the Benchmark duration;
2. A minimum of 20% of the Net Asset Value of any internally managed portfolio will be held in U.S. Government securities, including U.S. Treasuries, TIPS and Agency securities;
3. Securities must be rated investment grade by at least two nationally recognized statistical rating organizations (NRSRO), with the exception of securities issued or guaranteed by agencies or instrumentalities of the U.S. Government. In the case of split-rated securities, the lower rating is used;
4. Securities that drop below investment grade as defined above may be held to maturity, however any internally managed portfolio may not hold more than 10% of its Net Asset Value in securities rated below investment grade;
5. Securitized assets must be rated a minimum of the 4th highest rating by any nationally recognized statistical rating organization (NRSRO) at the time of purchase;
 - a. Securitized assets that drop below the 4th highest rating of any NRSRO may be held to maturity, however any internally managed portfolio may not hold more than 5% of its Net Asset Value in these securities;
6. A maximum of 10% of the Net Asset Value of any internally managed portfolio may be held in dollar denominated quasi and foreign government securities;
7. A maximum of two times the Benchmark weight may be held in Corporate securities in any internally managed portfolio;
8. A maximum of two times the Benchmark weight in U.S. Agency MBS may be held in U.S. Agency MBS and CMO securities in any internally managed portfolio;
 - a. A maximum of 20% of the Net Asset Value of any internally managed portfolio may be held in U.S. Agency CMO's;
9. A maximum of 5% of the Net Asset Value of any internally managed portfolio may be held in asset backed securities (ABS);
10. A maximum of 10% of the Net Asset Value of any internally managed portfolio may be held in U.S. Agency and Non-Agency commercial mortgage backed securities (CMBS);
11. A maximum of 10% of the Net Asset Value of any internally managed portfolio may be held in non-agency mortgage backed securities (RMBS);
12. A maximum of 3% of the Net Asset Value of any internally managed portfolio may be held in a single corporate parent issuer, foreign/quasi government issuer or securitized specific pool at the time of purchase;
 - a. A maximum of 4% of the Net Asset Value of any internally managed portfolio may be held in a single corporate parent issuer, foreign/quasi government issuer or securitized

- specific pool at any time;
13. A maximum of 5% of the Net Asset Value of any internally managed portfolio may be invested in Cash;
 14. The use of leverage is prohibited.

Externally Managed Permitted Investments:

1. Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;
2. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Externally Managed Restrictions

1. The average duration of any externally managed portfolio will be maintained in a range of + or – 25% of the index duration;
2. A maximum of 20% of the Net Asset Value of any externally managed portfolio will be invested in securities rated below investment grade as defined by any nationally recognized statistical rating organizations (NRSRO). In the case of split-rated securities, the lower rating is used;
3. A maximum of 10% of the Net Asset Value of any externally managed portfolio will be invested in Non-dollar debt; either hedged or unhedged;
4. A maximum of 5% of any externally managed portfolio will be invested in Cash.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Core Fixed Income Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Core Fixed Income Asset Class back within guidelines or a plan to do so.

**Schedule II-G:
Investment Objectives and Guidelines
Non-Core Fixed Income Asset Class**

Approved Date of Schedule: ~~November 19, 2019~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Non-Core Fixed Income.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Non-Core Fixed Income Asset Class; and
2. Provide diversified exposure to the Non-Core Fixed Income markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Non-Core Fixed Income Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Non-Core Fixed Income Asset Class to the **Bloomberg Barclays US High Yield - 2% Issuer Cap Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Non-Core Fixed Income Asset Class consistent with the investment guidelines stated below. Non-Core Fixed Income is defined as strategies primarily invested in High Yield Corporate Debt, Emerging Market Debt, Convertible Debt and Preferred Securities. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Non-Core Fixed Income Asset Class may invest only in the following:

1. Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;

2. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. A maximum of 10% of the Net Asset Value of the Non-Core Fixed Income Asset Class shall be held in Non-U.S. securities if they are denominated in a foreign currency;
2. The average duration of the Non-Core Fixed Income Asset Class will be maintained in a range of + or – 25% of the index duration.;
- ~~3. A maximum of 5% of the Net Asset Value of the Non-Core Fixed Income Asset Class shall be invested in Cash held at the Asset Class level (not including cash held by internal or external managers in separate accounts or commingled funds).~~

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Non-Core Fixed Income Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Non-Core Fixed Income Asset Class back within guidelines or a plan to do so.

**Schedule II-H:
Investment Objectives and Guidelines
Cash Asset Class**

Approved Date of Schedule: ~~November 19, 2019~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for the Cash Asset Class that is part of the Consolidated Asset Pension Pool.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Cash Asset Class; and
2. Provide exposure to the cash-equivalent markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Cash Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Cash Asset Class to the **Federal Reserve US Treasury Constant Maturity 1-Month Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Cash Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Cash Asset Class may invest only in the following:

1. Cash and Cash Equivalents – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Cash Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Cash Asset Class back within guidelines or a plan to do so.

TRUST FUNDS INVESTMENT POOL INVESTMENT POLICY

Approved April 3, 2018

~~Revised February 11, 2020~~

Last Revised June 9, 2020

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1. Introduction:

The Trust Funds Investment Pool (TFIP) was created by the Board on October 1, 1995. The pool is designed to provide participants exposure to a portfolio of income-producing assets. The use of a commingled pool allows for simplified investing and accounting, broader diversification and thus less risk than would otherwise be available for individual participants. The ~~Trust Funds Investment Pool~~TFIP invests directly in the underlying Asset Classes. Each Asset Class has an underlying set of investment objectives and investment guidelines. Each account participating in the ~~Trust Funds Investment Pool~~TFIP is separately identified for accounting and record keeping purposes.

This policy is effective upon adoption and supersedes all previous Investment ~~Policies~~Policy Statement (IPS) related to the investment management of the ~~Trust Funds Investment Pool~~TFIP.

2. Purpose:

The purpose of this policy statement is to provide a broad strategic framework for the ~~Trust Funds Investment Pool~~TFIP investments under the guidance of the Montana Board of Investments.

3. Legal and Constitutional Authority:

~~The Montana Constitution~~, Article VIII, Section 13, of the Montana Constitution requires that the Legislature provide for a Unified Investment Program for public funds. Section 17-6-201, Montana Code Annotated (MCA), established the Unified Investment Program, created the Montana Board of Investments (the "Board") and gave the Board sole authority to invest state funds, in accordance with state law and the state constitution.

~~The Unified Investment program for public funds must be administered by the Board of Investments in accordance with the "prudent expert principle," defined as:~~Section 17-6-201(1), MCA requires the Board to operate under the "prudent expert principle," defined as:

- 1) "discharging its duties with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character with like aims;
- 2) diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so; and
- 3) discharging its duties solely in the interest of and for the beneficiaries of the funds managed."

The Board, as the investment fiduciary, is responsible for establishing the investment parameters for the ~~Trust Funds Investment Pool~~TFIP.

4. Strategic Investment Objectives

The Board's primary objective is to provide investment income to participants. The Board's secondary objective is to achieve the highest level of investment performance. Both objectives must be compatible with the Board's risk tolerance and prudent investment practices. The Board seeks to

maintain a long-term perspective in formulating and implementing investment policies and evaluating investment performance.

5. Time Horizon

The Board expects to meet or exceed these objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board, may lead to unfavorable, but expected, deviation from the objectives.

6. Performance Measurement

Success in achieving these objectives will be measured by comparing the risk and return of the account to the **Bloomberg/Barclays U.S. Aggregate Bond Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

7. Roles and Responsibilities

- a) **Board of Investments** – The Board is responsible for approving the ~~Investment Policy Statement~~IPS for the ~~Trust Funds Investment Pool~~TFIP and has the authority to manage the ~~Trust Funds Investment Pool~~TFIP as it considers prudent, and subject to such limitations as contained in law and the Constitution. The Board reviews this document periodically and, as needed, approves any changes to the policy.
As described in the Board of Investments Governance Manual, the Board delegates authority to the Executive Director, Chief Investment Officer (CIO), and other Staff to execute the day to day duties required to carry out the Board’s mission.
- b) **Executive Director** – The Executive Director is empowered by the Board to sign any and all documents required to conduct Board business, unless there are specific written policies or instructions from the Board to the contrary. The Executive Director is responsible for the oversight of the ~~Trust Funds Investment Pool~~TFIP and the establishment of the financial reporting procedures and the collection and reporting of all income.
- c) **Chief Investment Officer** – The ~~Chief Investment Officer (CIO)~~ is empowered by the Board to serve as the principal staff person responsible for overseeing the investment activities under the Board’s jurisdiction in compliance with the Board’s policies. The CIO, with the support of other staff, is responsible for recommending investment policy changes for Board approval.
- d) **Staff** – The staff is responsible for:
 - I. Managing day-to-day operations and delegating work to external resources as appropriate;
 - II. Monitoring allocations and overseeing all investment manager due diligence activities and recommending changes to the CIO;
 - III. Monitoring and reporting to the Board the performance of each asset class and the individual managers’ performance;
 - IV. Informing the Board of any new managers or terminations; and
 - V. Reporting any deviations from ~~this Investment Policy~~the IPS to the Board.

- e) **Investment Consultant** – The investment consultant assists the CIO and Staff with policy recommendations and provides advice to the Board. The investment consultant shall provide assistance to Staff as requested in conjunction with the management of all separate accounts.
- f) **External Managers** – Managers are responsible for all aspects of portfolio management as set forth in the contract specific to each manager. Managers must communicate with staff as needed, regarding investment strategies and results. Managers must also cooperate fully with staff regarding administrative, accounting, and reconciliation issues as well as any requests from the investment consultant and the mastercustodian.

8. Strategic Asset Allocation

The current asset allocation ranges for the ~~Trust Funds Investment Pool~~TFIP are in **Appendix I**. The asset allocation ranges are subject to change as modifications are adopted by the Board, at which time **Appendix I** will be revised to reflect these changes.

9. Rebalancing

The actual asset allocation mix may deviate from time to time from the approved asset allocation ranges due to financial market performance, cash flows, and manager performance. Material deviations from the asset allocation ranges can alter the expected return and risk of the separate accounts. Rebalancing to remain within the Board-approved allocation ranges is delegated to staff in consultation with the ~~Chief Investment Officer (CIO)~~ and the Executive Director. Any necessary rebalancing will be made in a timely manner and will take into consideration associated costs and current market conditions.

10. Risk Management

a) Evaluation of Investment Managers

The Investment Manager Evaluation Policy is a distinct policy that is regularly reviewed and updated separate from the ~~Trust Funds Investment Pool Investment Policy~~IPS because staff utilizes the Investment Manager Evaluation Policy to oversee and manage other assets in addition to the ~~Trust Funds Investment Pool~~TFIP assets.

b) Liquidity

Many participants in the ~~Trust Funds Investment Pool~~TFIP spend the income generated from their holdings. However, the total liquidity needs for the ~~Trust Funds Investment Pool~~TFIP are generally low and participant capital is not expected to change dramatically on short notice. However, illiquidity risk still needs to be monitored and managed by staff on a regular basis to ensure that assets are not required to be sold too quickly, or at an unfavorable time, and potentially at a discount to fair value to meet the cash needs of pool participants.

A significant percentage of the investment in Core Real Estate is considered illiquid. Due to the limited liquidity of these assets, it will typically be impractical to fund participant cash needs or correct deviations from policy ranges through the purchase or sale of these assets.

The investments held in Investment Grade and High Yield Fixed Income are categorized as publicly traded securities. In “normal market” conditions many of the underlying assets can be liquidated in a relatively short period to accommodate both expected and unexpected withdrawals as well as any repositioning of the asset allocation to stay within approved ranges.

c) **Monitoring/Reporting – Transparency**

Managers shall submit periodic reports to facilitate Staff’s monitoring of the Managers’ conformance to investment restrictions and performance objectives.

Staff shall provide regular reporting to the Board regarding the asset allocation and performance of the ~~Trust Funds Investment Pool~~TFIP to confirm these items are known and adhere to all ~~Investment Policy~~IPS requirements and expectations.

d) **Leverage**

Leverage is a significant risk factor. Investment managers may utilize leverage only when permitted in the manager’s investment guidelines approved by Staff. Staff shall monitor the use of leverage and its impact on risk and return.

The use of derivative securities can generate additional leverage even if the derivative is being used to reduce the risk in other investments. Investment managers may only use derivatives when permitted in the manager’s investment guidelines approved by Staff.

e) **Cash Investments**

Cash investments held within the ~~Trust Funds Investment Pool~~TFIP entail an element of credit risk. Thus, only approved cash investment vehicles are permitted. These include: ~~the custodian’s STIF vehicle~~any cash vehicle at the Custodial Bank; STIP; or any SEC-registered money market fund ~~all of~~ which specifically address credit risk in their respective investment guidelines.

11. Securities Lending

Section 17-1-113, MCA, authorizes the Board to lend securities held by the state. The Board may lend its publicly traded securities through an agent, to other market participants in return for compensation. Currently, through an explicit contract, ~~State Street Bank and Trust~~, the state’s ~~C~~eustodial ~~B~~bank, manages the state's securities lending program. The Board seeks to assess counterparty and reinvestment risk, associated with each aspect of its securities lending program. The Board requires borrowers to maintain collateral at 102 percent for domestic securities and 105 percent for international securities. To ensure that the collateral ratio is maintained, securities on loan are marked to market daily and the borrower must provide additional collateral if the value of the collateral falls below the agreed-upon ratio of over-collateralization. In addition to the strict collateral requirements imposed by the Board, the credit quality of approved borrowers is monitored continuously by the contractor. From time to time, Staff or the investment manager may restrict a security from the loan program upon notification to ~~State Street Bank~~the Custodial Bank. Staff will monitor the securities lending program, and ~~the CIO~~ will periodically report to the Board on the status of the program. The Board’s participation in securities lending may change over time given account activity, market conditions and the agent agreement.

12. Exercise of Shareholder Rights

a) Proxy Voting

~~Per the Montana Constitution~~, Article VIII, Section 13 of the Montana Constitution requires that “no public funds shall be invested in private corporate capital stock” with the exception of public retirement system and state compensation insurance fund assets. Therefore, the ~~Trust Funds Investment Pool~~ TFIP does not participate in proxy voting.

b) Class Action Litigation

Claims under state and federal securities laws arising out of losses on securities under the Board’s management are assets subject to the Board’s fiduciary duty of prudent management. The Board shall take reasonable, cost effective steps to identify, pursue and collect upon claims under securities laws for losses suffered by the Board on its investment. Accordingly, the Board maintains a detailed litigation policy, including process steps, outlined in the ~~Montana Board of Investments~~ Board’s Governance Manual, Appendix F.

13. Investment Policy Statement Review

Per Board’s Governance Policy, “the Board shall create, maintain, and revise as necessary Investment Policy Statements (IPS) for each separate account it manages. The IPS shall cite the law establishing the account if such law exists, the permissible investments authorized by law, and establish an investment range for each of the permissible investments. The Board shall review such policies at least annually or more frequently at the request of Board staff. IPS may only be revised in a public meeting. All IPS shall be posted on the Board’s web site for review by the public.”
~~The Board intends to keep this Policy updated as it modifies or amends the underlying contents. As stated in the Governance Policy, “the Board shall review this Investment Policy at least annually or more frequently at the request of Board staff. Statements may only be revised in a public meeting. All Statements shall be posted on the Board’s web site for review by the public.”~~

Appendix I: Trust Funds Investment Pool Allocation Ranges

Permitted Ranges:

Approved February 11, 2020

Trust Funds Investment Pool Asset Class		
Asset Class	Range Low	Range High
Real Estate	0	30
Non-Core Fixed Income	0	10
Investment Grade Fixed Income & Cash	60	100

**Schedule II-A:
Investment Objectives and Guidelines
Real Estate Asset Class**

Effective Date of Schedule: ~~February 11~~ June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Real Estate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Real Estate Asset Class; and
2. Provide diversified exposure to Real Estate in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Real Estate Asset Class is to attain the highest possible return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Real Estate Asset Class to the **NCREIF ODCE Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Real Estate Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Most of the Real Estate Asset Class investments will be managed by external investment managers.

Permitted Investments:

The Real Estate Asset Class may invest only in the following:

1. Separate Accounts, Open-Ended Funds, Closed-Ended Funds, Exchange-Traded Funds (ETFs), Real Estate Investment Trusts (REITs), or Master Limited Partnerships (MLPs) managing publicly traded Real Estate, where the investments are approved by the ~~Chief Investment Officer~~ CIO and purchased and monitored by Staff;

2. Private Investment partnership interests. These private partnerships may be direct limited partnerships, limited liability companies, or vehicles that primarily invest in partnerships, including Fund-of-Funds and Secondary Funds.
3. The Real Estate Asset Class may co-invest with private investment managers in transactions that are suitable for inclusion into a private Real Estate investment partnership;
4. Individual public or private securities received as distributions from funds are also permitted to be held in the Real Estate Asset Class; and
5. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. No less than ~~85~~75% of the aggregate of the Real Estate Asset Class net asset value plus uncalled committed capital shall be invested in “Core” Real Estate. Real Estate is classified as “Core” if it is an investment in operating, substantially leased, and positively cash flowing institutional quality real estate across property types, geographies and markets;
2. No more than 35% of the aggregate of the Real Estate Asset Class net asset value plus uncalled committed capital should be in a single Fund, Partnership, or Separate Account;
3. Individual public securities received as distributions will be liquidated over a reasonable time period dependent on market conditions;
- ~~4. Cash held at the Real Estate Asset Class level (not including cash held in the underlying partnership interests, funds, or accounts) is limited to 5% of the Real Estate Asset class market value.~~

For funds with exposure across these categories, the fund will be classified in the category that is most reflective of the underlying investments in the funds.

Leverage

Leverage is a significant risk factor. On an individual fund basis, the leverage level can range up to 50.0 percent. Leverage consists of the combined borrowing at the property level and the fund level. On a select basis, the leverage may exceed 75.0 percent for a given investment, if it is determined to be reasonable to do so. Leverage shall be monitored on an individual fund level and new investments shall be made with the intention that the total Real Estate Asset Class leverage shall not exceed 50%.

<u>Strategy</u>	<u>Leverage Policy Range</u>
Core Real Estate Investments	0% - 50%

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Real Estate Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Real Estate Asset Class back within guidelines or a plan to do so.

While no formal diversification ranges are set forth for property type diversification or regional diversification within the United States, it is expected that the Real Estate Asset Class shall remain diversified across these factors. These and other factors shall be monitored and reported to the Board at least annually.

**Schedule II-B:
Investment Objectives and Guidelines
Non-Core Fixed Income Asset Class**

Effective Date of Schedule: ~~February 11~~June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Non-Core Fixed Income.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Non-Core Fixed Income Asset Class; and
2. Provide diversified exposure to the Non-Core Fixed Income markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Non-Core Fixed Income Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Non-Core Fixed Income Asset Class to the **Bloomberg Barclays US High Yield - 2% Issuer Cap Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Non-Core Fixed Income Asset Class consistent with the investment guidelines stated below. Non-Core Fixed Income is defined as strategies primarily invested in High Yield Corporate Debt, Emerging Market Debt, Convertible Debt and Preferred Securities. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Non-Core Fixed Income Asset Class may invest only in the following:

1. Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;

Other Restrictions

1. A maximum of 10% of the market value of the Non-Core Fixed Income Asset Class may be held in Non-U.S. securities if they are denominated in a foreign currency;
2. The average duration of the Non-Core Fixed Income Asset Class will be maintained in a range of + or – 25% of the index duration;
3. A maximum of 25% of the market value of the Non-Core Fixed Income Asset Class may be invested in dedicated Emerging Market Debt mandates;
- ~~4. A maximum of 5% of the market value of the Non-Core Fixed Income Asset Class may be invested in Cash held at the Asset Class level (not including cash held by internal or external managers in separate accounts or commingled funds); and~~
- 5.4. The Non-Core Fixed Income Asset Class market value invested in any single mandate/portfolio using an active investment strategy, other than internally managed mandates, may be no greater than 5% of the Trust Fund Investment Pool Assets

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO may inform the Board of any cases that the Non-Core Fixed Income Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Non-Core Fixed Income Asset Class back within guidelines or a plan to do so.

**Schedule II-C:
Investment Objectives and Guidelines
Investment Grade Fixed Income Asset Class**

Effective Date of Schedule: ~~February 11~~June 9, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Investment Grade Fixed Income Asset Class.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Investment Grade Fixed Income Asset Class; and
2. Provide diversified exposure to the Investment Grade Fixed Income markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Investment Grade Fixed Income Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of Investment Grade Fixed Income Asset Class to the **Bloomberg Barclays US Aggregate Bond Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Investment Grade Fixed Income Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting.

Permitted Investments:

The Investment Grade Fixed Income Asset Class may invest only in the following:

1. Dollar denominated debt obligations of the U.S. Government, including its agencies and instrumentalities
2. Dollar denominated debt obligations of Quasi and Foreign Government entities
3. Dollar denominated debt obligations of domestic and foreign corporations

4. Dollar denominated securitized assets, including U.S. Agency mortgage backed securities (MBS), U.S. Agency collateralized mortgage obligations (CMOs) and asset backed securities (ABS).
5. Dollar denominated non-agency mortgage backed securities (RMBS) and non-agency commercial mortgage backed securities (CMBS).
6. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. The average duration of the Investment Grade Fixed Income Asset Class will be maintained in a range of + or – 20% of the index duration;
2. A minimum of 20% of the Net Asset Value of the Investment Grade Fixed Income Asset Class will be held in U.S. Government securities, including U.S. Treasuries, TIPS and Agency securities;
3. Securities must be rated investment grade by at least two nationally recognized statistical rating organizations (NRSRO), with the exception of securities issued or guaranteed by agencies or instrumentalities of the U.S. Government. In the case of split-rated securities, the lower rating is used;
4. Securities that drop below investment grade as defined above may be held to maturity, however the Investment Grade Fixed Income Asset Class may not hold more than 10% of its Net Asset Value in securities rated below investment grade;
5. Securitized assets must be rated a minimum of the 4th highest rating by any nationally recognized statistical rating organization (NRSRO) at the time of purchase;
 - a. Securitized assets that drop below the 4th highest rating of any NRSRO may be held to maturity, however the Investment Grade Fixed Income Asset Class may not hold more than 5% of its Net Asset Value in these securities;
6. A maximum of 10% of the market value of the Investment Grade Fixed Income Asset Class may be held in dollar denominated quasi and foreign government securities.
7. A maximum of two times the Benchmark weight may be held in Corporate securities in the Investment Grade Fixed Income Asset Class;
8. A maximum of two times the Benchmark weight in U.S. Agency MBS may be held in U.S. Agency MBS and CMO securities in the Investment Grade Fixed Income Asset Class;
 - a. A maximum of 20% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in U.S. Agency CMOs;
9. A maximum of 10% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in dollar denominated non-agency MBS (RMBS).
10. A maximum of 5% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in asset backed securities (ABS).
11. A maximum of 10% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in commercial mortgage backed securities (CMBS).

12. A maximum of 3% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in a single corporate parent issuer, foreign/quasi government issuer or securitized specific pool at the time of purchase;
 - a. A maximum of 4% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be held in a single corporate parent issuer, foreign/quasi government issuer or securitized specific pool at any time;
13. A maximum of 5% of the Net Asset Value of the Investment Grade Fixed Income Asset Class may be invested in Cash;
14. The use of leverage is prohibited.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO may inform the Board of any cases that the Investment Grade Fixed Income Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Investment Grade Fixed Income Asset Class back within guidelines or a plan to do so.

**MONTANA STATE FUND
STATE FUND INVESTMENT POOL
INVESTMENT POLICY**

Approved April 14, 2020

Last Revised June 9, 2020

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1. Introduction:

Montana State Fund (MSF or State Fund) provides Montana employers with an option for workers' compensation and occupational disease insurance coverage and guarantees available coverage for all employers in Montana. The State Fund Investment Pool (SFIP) seeks to attain investment returns that assist ~~State Fund~~ in meeting liabilities as well as maintaining stable, cost effective rates for workers' compensation insurance. Workers' compensation benefit payments typically require immediate medical payments and then ongoing medical and indemnity benefits that can span four decades. Therefore, it is important to have a well-diversified, high quality portfolio that is positioned for the long term. The ~~State Fund Investment Pool~~SFIP invests directly in the underlying Asset Classes. Each Asset Class has an underlying set of investment objectives and investment guidelines.

This policy is effective upon adoption and supersedes all previous Investment ~~Policies~~Policy Statement (IPS) related to the investment management of the State Fund Investment Pool (SFIP).

2. Purpose:

The purpose of this policy statement is to provide a broad strategic framework for the ~~State Fund Investment Pool~~SFIP investments under the guidance of the Montana Board of Investments.

3. Legal and Constitutional Authority:

~~The Montana Constitution~~, Article VIII, Section 13, of the Montana Constitution requires that the Legislature provide for a Unified Investment Program for public funds and State Fund assets. Section 17-6-201, Montana Code Annotated (MCA), established the Unified Investment Program, created the Montana Board of Investments (the "Board") and gave the Board sole authority to invest state funds, in accordance with state law and the state constitution.

~~The Unified Investment program for public funds must be administered by the Board in accordance with the "prudent expert principle," defined as:~~Section 17-6-201(1), MCA requires the Board to operate under the "prudent expert principle," defined as:

- 1) "discharging its duties with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of like character with like aims;
- 2) diversifying the holdings of each fund to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so; and
- 3) discharging its duties solely in the interest of and for the beneficiaries of the funds managed."

~~The Montana Constitution~~, Article VIII, Section 13 (4), of the Montana Constitution requires:

"Investment of state compensation insurance fund assets shall be managed in a fiduciary capacity in the same manner that a prudent expert acting in a fiduciary capacity and familiar with the circumstances would use in the conduct of a private insurance organization. State compensation insurance fund assets may be invested in private corporate capital stock. However,

the stock investments shall not exceed 25 percent of the book value of the state compensation insurance fund's total invested assets.”

State Fund investments are subject to Title 33, Chapter 12 of the Montana Code. The purpose of Chapter 12 (Insurer Investments) *“is to protect the interests of insureds by promoting insurer solvency and financial strength.”*

The Board, as the investment fiduciary, is responsible for establishing the investment parameters for the ~~State Fund Investment Pool~~SFIP.

4. Strategic Investment Objectives

The Board’s primary objective is to provide investment income that assists the State Fund in meeting claim benefit liabilities as well as maintaining stable, cost effective rates for workers’ compensation insurance. The Board’s secondary objective is to achieve long term capital appreciation in excess of inflation. Both objectives must be compatible with the Board’s risk tolerance and prudent investment practices. The Board seeks to maintain a long-term perspective in formulating and implementing investment policies and evaluating investment performance.

5. Time Horizon

The Board expects to meet or exceed these objectives over a long-term investment horizon. Over shorter periods, the anticipated market volatility and specific actions, including risk mitigation efforts of the Board, may lead to unfavorable, but expected, deviation from the objectives.

6. Performance Measurement

Success in achieving these objectives will be measured by comparing the risk and return of the SFIP account to the return on the **Bloomberg Barclays Intermediate Aggregate Index** (fixed income), the return on the **S&P 500 index** (domestic equity), the return on the **MSCI ACWI Ex U.S. Index** (international equity), and the return of the **NCREIF ODCE index** (real estate), each weighted proportionately to the portfolio’s holdings. Performance results will be monitored and evaluated quarterly. However, success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

7. Roles and Responsibilities

- a) **Board of Investments** – The Board is responsible for approving the ~~State Fund Investment Pool Investment Policy~~IPS and has the authority to manage the SFIP as it considers prudent, and subject to such limitations as contained in this Policy, the law and the state Constitution. The Board reviews this document periodically and, as needed, approves any changes to the policy.

As described in the Board of Investments Governance Manual, the Board delegates authority to the Executive Director, Chief Investment Officer (CIO), and other Staff to execute the day to day duties required to carry out the Board’s mission.

- b) **Executive Director** – The Executive Director is empowered by the Board to sign any and all

documents required to conduct Board business, unless there are specific written policies or instructions from the Board to the contrary. The Executive Director is responsible for the oversight of the ~~State Fund Investment Pool~~SFIP and the establishment of the financial reporting procedures and the collection and reporting of all income.

- c) **Chief Investment Officer** – The ~~Chief Investment Officer (CIO)~~ is empowered by the Board to serve as the principal Staff person responsible for overseeing the investment activities under the Board’s jurisdiction in compliance with the Board’s policies. The CIO, with the support of other Staff, is responsible for recommending ~~investment policy~~IPS changes for Board approval.
- d) **Staff** – The Staff is responsible for:
 - I. Managing day-to-day operations and delegating work to external resources as appropriate;
 - II. Monitoring allocations and overseeing all investment manager due diligence activities and recommending changes to the CIO;
 - III. Monitoring and reporting to the Board the performance of each asset class and the individual managers’ performance;
 - IV. Informing the Board of any new managers or terminations; and
 - V. Reporting any deviations from ~~this Investment Policy~~the IPS to the Board and the State Fund;
 - VI. Coordinating with the State Fund to provide financial data necessary for their quarterly reporting and calendar year closing cycle.
- e) **Investment Consultant** – The investment consultant assists the CIO and Staff with policy recommendations and provides advice to the Board. The investment consultant shall provide assistance to Staff as requested in conjunction with the management of the ~~State Fund Investment Pool~~SFIP.
- f) **External Managers** – Managers are responsible for all aspects of portfolio management as set forth in the contract specific to each manager. Managers must communicate with Staff as needed, regarding investment strategies and results. Managers must also cooperate fully with Staff regarding administrative, accounting, and reconciliation issues as well as any requests from the investment consultant and the master custodian.

8. Strategic Asset Allocation

The current asset allocation ranges for the ~~State Fund Investment Pool~~SFIP are in **Appendix I**. The asset allocation ranges are subject to change as modifications are adopted by the Board, at which time **Appendix I** will be revised to reflect these changes.

9. Rebalancing

The actual asset allocation mix may deviate from time to time from the approved asset allocation ranges due to financial market performance, cash flows, and manager performance. Material deviations from the asset allocation ranges can alter the expected return and risk of the separate accounts. Rebalancing to remain within the Board-approved allocation ranges is delegated to Staff in consultation with the CIO and the Executive Director. Any necessary rebalancing will be made in a

timely manner and will take into consideration associated costs and current market conditions.

10. Risk Management

a) Evaluation of Investment Managers

The Investment Manager Evaluation Policy is a distinct policy that is regularly reviewed and updated separate from the ~~SFIP Investment Policy~~IPS because Staff utilizes the Investment Manager Evaluation Policy to oversee and manage other assets in addition to the ~~State Fund Investment Pool~~SFIP assets.

b) Liquidity

The total liquidity needs for the ~~State Fund Investment Pool~~SFIP are generally low in relation to total invested assets and State Fund capital is not expected to change dramatically on short notice. However, illiquidity risk still needs to be monitored and managed by Staff on a regular basis to ensure that assets are not required to be sold too quickly, or at an unfavorable time, and potentially at a discount to fair value to meet the cash needs of State Fund.

A significant percentage of the investment in Core Real Estate and High Yield Asset Classes is considered illiquid. Due to the limited liquidity of these assets, it will typically be impractical to fund cash needs or correct deviations from policy ranges through the purchase or sale of these assets.

The investments held in Equities and Investment Grade Asset Classes are categorized as publicly traded securities. In “normal market” conditions, many of the underlying assets can be liquidated in a relatively short period to accommodate both expected and unexpected withdrawals as well as any repositioning of the asset allocation to stay within approved ranges.

c) Monitoring/Reporting – Transparency

Managers shall submit periodic reports to facilitate Staff’s monitoring of the Managers’ conformance to investment restrictions and performance objectives.

Staff shall provide regular reporting to the Board regarding the asset allocation and performance of the ~~State Fund Investment Pool~~SFIP to confirm these items are known and adhere to all ~~Investment Policy~~IPS requirements and expectations.

d) Leverage

Leverage is a significant risk factor. Investment managers may utilize leverage only when permitted in the manager’s investment guidelines approved by Staff. Staff shall monitor the use of leverage and its impact on risk and return.

The use of derivative securities can generate additional leverage even if the derivative is being used to reduce the risk in other investments. Investment managers may only use derivatives when permitted in the manager’s investment guidelines approved by Staff.

e) Cash Investments

Cash investments held within the ~~State Fund Investment Pool~~ SFIP entail an element of credit risk. Thus, only approved cash investment vehicles are permitted. These include: ~~the custodian's STIF vehicle, STIP;~~ any cash vehicle at the Custodial Bank; or any SEC-registered money market fund employed by an external asset manager all of which specifically address credit risk in their respective investment guidelines.

11. Securities Lending

Section 17-1-113, MCA, authorizes the Board to lend securities held by the state. The Board may lend its publicly traded securities through an agent, to other market participants in return for compensation. Currently, through an explicit contract, ~~State Street Bank and Trust,~~ the state's ~~C~~ustodial ~~B~~ank, manages the state's securities lending program. The Board seeks to assess counterparty and reinvestment risk, associated with each aspect of its securities lending program. The Board requires borrowers to maintain collateral at 102 percent for domestic securities and 105 percent for international securities. To ensure that the collateral ratio is maintained, securities on loan are marked to market daily and the borrower must provide additional collateral if the value of the collateral falls below the agreed-upon ratio of over-collateralization. In addition to the strict collateral requirements imposed by the Board, the credit quality of approved borrowers is monitored continuously by the contractor. From time to time, Staff may restrict a security or borrowing counterparty from the lending program upon notification to ~~State Street Bank~~ the Custodial Bank. Staff will monitor the securities lending program, and ~~the CIO~~ will periodically report to the Board on the status of the program. The Board's participation in securities lending may change over time given account activity, market conditions and the agent agreement.

12. Exercise of Shareholder Rights

The Board recognizes that publicly traded securities and other assets of the ~~State Fund Investment Pool~~ SFIP include certain ancillary rights, such as the right to vote on shareholder resolutions at companies' annual shareholders' meetings, and the right to assert claims in securities class action lawsuits or other litigation. The Board will prudently manage these assets for the exclusive purpose of enhancing the value of the ~~State Fund Investment Pool~~ SFIP through such means as adopting and implementing a proxy voting policy and undertaking productive, cost-effective action to exercise its rights as shareholders or claimants in litigation.

a) Proxy Voting

Active voting of proxies is an important part of the Board's investment program. Under the contractual arrangements between the Board and its investment managers, the responsibility for voting proxies on the investments is delegated to the managers. Managers are contractually required to establish a proxy voting program in coordination with Board Staff and are required to vote proxies, excluding shares on loan on record date unless recalled under the Board's securities lending program, in the interest of the Plans' beneficiaries. Records of proxy votes shall be maintained by the Managers, and/or its third-party designee, and submitted to Staff and/or an external service provider annually.

Staff will monitor the proxy voting practices of the Board's external investment managers. External service providers may be retained by either the Board or the Managers to assist in monitoring efforts. This monitoring will be coordinated with each manager to reasonably

assure the Staff that Managers are fulfilling their fiduciary responsibilities with respect to proxy voting.

b) **Class Action Litigation**

Claims arising out of losses on securities under the Board's management under U.S. state and federal securities laws are assets subject to the Board's fiduciary duty of prudent management. The Board shall take reasonable, cost effective steps to identify, pursue and collect upon claims under securities laws for losses suffered by the Board on its investment. Accordingly, the Board maintains a detailed litigation policy, including process steps, outlined in the ~~Montana Board of Investments~~Board's Governance Manual, Appendix F.

13. Investment Policy Statement Review

Per Board's Governance Policy, "the Board shall create, maintain, and revise as necessary Investment Policy Statements (IPS) for each separate account it manages. The IPS shall cite the law establishing the account if such law exists, the permissible investments authorized by law, and establish an investment range for each of the permissible investments. The Board shall review such policies at least annually or more frequently at the request of Board staff. IPS may only be revised in a public meeting. All IPS shall be posted on the Board's web site for review by the public."

~~The Board intends to keep this Policy updated as it modifies or amends the underlying contents. As stated in the Governance Policy, "the Board shall review this Investment Policy at least annually or more frequently at the request of Board Staff. Statements may only be revised in a public meeting. All Statements shall be posted on the Board's web site for review by the public."~~

Appendix I: State Fund Investment Pool Allocation Ranges

Permitted Ranges:

Proposed April 14, 2020

State Fund Investment Pool Asset Class		
Asset Class	Range Low	Range High
Public Equity	0	15
Real Estate	0	8
High Yield	0	7
Investment Grade Fixed Income	70	100

Appendix II: Investment Objectives and Guidelines

Schedule II-A: Investment Objectives and Guidelines Public Equity Asset Class

Proposed Date of Schedule: April 14, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Equities.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Public Equity Asset Class; and
2. Provide diversified exposure to the equity market in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Public Equity Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Equity Asset Class to the **S&P 500 Index and ACWI ex. U.S. Index** (the “Benchmark”) each proportionately weighted to the portfolio’s domestic and international equity holdings. Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage this Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting. State Fund will be notified of any exceptions or compliance violations within five days.

Most of the Public Equity Asset Class investments will be managed by external investment managers.

It is expected that the Public Equity Asset Class shall invest in public market investments that provide liquidity and meaningful transparency to portfolio characteristics and risk exposures.

Permitted Investments:

The Public Equity Asset Class may invest only in the following:

1. ~~Public equity s~~Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines;
2. Exchange-Traded Funds (ETFs) based on an equity index that is approved by the ~~Chief Investment Officer~~CIO and purchased and monitored by Staff.

Other Restrictions:

1. A maximum of 15% of the market value of the ~~State Fund Investment Pool~~SFIP will be invested in public equities;
2. A maximum of 4% of the market value of the ~~State Fund Investment Pool~~SFIP will be invested in international equities.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Public Equity Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Public Equity Asset Class back within guidelines or a plan to do so. State Fund will be notified of any exceptions or compliance violations within five days.

**Schedule II-B:
Investment Objectives and Guidelines
Real Estate Asset Class**

Proposed Date of Schedule: April 14, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Core Real Estate.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Real Estate Asset Class;
and
2. Provide diversified exposure to Real Estate in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Real Estate Asset Class is to attain the highest possible return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the Real Estate Asset Class to the **NCREIF ODCE Index** (the “Benchmark”). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Real Estate Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting. State Fund will be notified of any exceptions or compliance violations within five days.

Most of the Real Estate Asset Class investments will be managed by external investment managers.

Real Estate is classified as “Core” if it is an investment in operating, substantially leased, and positively cash flowing institutional quality real estate across property types, geographies and markets.

Permitted Investments:

The Real Estate Asset Class may invest only in the following:

1. Separate Accounts, Open-Ended Funds, Closed-Ended Funds, Exchange-Traded Funds (ETFs), Real Estate Investment Trusts (REITs), or Master Limited Partnerships (MLPs) managing publicly traded Real Estate, where the investments are approved by the ~~Chief Investment Officer~~CIO and purchased and monitored by Staff;
2. Private Investment partnership interests. These private partnerships may be direct limited partnerships, limited liability companies, or vehicles that primarily invest in partnerships, including Fund-of-Funds and Secondary Funds;
3. Individual public or private securities received as distributions from funds are also permitted to be held in the Real Estate Asset Class.

Other Restrictions

The following restrictions are preferred structures and limitations, recognizing precision relative to current market value or net asset value may not be feasible due to their illiquid nature.

1. No less than 75% of the aggregate of the Core Real Estate Asset Class net asset value plus capital shall be invested in “Core” Real Estate;
2. Separate Accounts, Open-Ended Funds, Closed-Ended Funds, Exchange-Traded Funds (ETFs), or Master Limited Partnerships (MLPs) managing publicly traded Real Estate may not exceed 25% of the aggregate of the Real Estate Asset Class net asset value plus uncalled committed capital;
3. The Core Real Estate Asset Class market value invested in any single mandate/portfolio shall be no greater than 5% of the ~~State Fund Investment Pool~~SFIP Assets;
4. Individual public securities received as distributions will be liquidated over a reasonable time period dependent on market conditions.
5. Leverage will be monitored on an individual fund level. Total Real Estate Asset Class leverage shall not exceed 50%.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Core Real Estate Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Core Real Estate Asset Class back within guidelines or a plan to do so. State Fund will be notified of any exceptions or compliance violations within five days.

While no formal diversification ranges are set forth for property type diversification or regional diversification within the United States, it is expected that the Core Real Estate Asset Class shall remain diversified across these factors. These and other factors shall be monitored and reported to the Board at least annually.

**Schedule II-C:
Investment Objectives and Guidelines
High Yield Asset Class**

Proposed Date of Schedule: April 14, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for High Yield.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the High Yield Asset Class; and
2. Provide diversified exposure to the High Yield markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the High Yield Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of the High Yield Asset Class to the **Bloomberg Barclays US High Yield - 2% Issuer Cap Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the High Yield Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting. State Fund will be notified of any exceptions or compliance violations within five days.

Permitted Investments:

The High Yield Asset Class may invest only in the following:

1. Securities and derivatives held in separate accounts, commingled funds, limited partnerships, or limited liability companies managed by external investment managers and governed by their respective investment management contracts and investment guidelines.

Other Restrictions

1. A maximum of 10% of the market value of the High Yield Asset Class shall be held in Non-U.S. securities if they are denominated in a foreign currency;
2. The average duration of the High Yield Asset Class will be maintained in a range of + or – 25% of the index duration;
3. A maximum of 25% of the market value of the High Yield Asset Class shall be in securities rated more than 6 notches below investment grade as defined by the average rating of the nationally recognized statistical rating organizations (NRSRO).

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board's next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the High Yield Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the High Yield Asset Class back within guidelines or a plan to do so. State Fund will be notified of any exceptions or compliance violations within five days.

**Schedule II-D:
Investment Objectives and Guidelines
Investment Grade Fixed Income Asset Class**

Proposed Date of Schedule: April 14, 2020

This Schedule is effective upon adoption by the Board ~~of Investments~~ and supersedes all previous Investment Objectives and Guidelines for Investment Grade Fixed Income Asset Class.

Statement of Purpose:

The purpose of these objectives and guidelines is to:

1. Establish the investment objectives and performance standards of the Investment Grade Fixed Income Asset Class; and
2. Provide diversified exposure to the Investment Grade Fixed Income markets in a prudent and cost-effective manner.

Investment Objective:

Strategic:

The objective of the Investment Grade Fixed Income Asset Class is to attain the highest possible total return within the parameters of the Investment Guidelines set forth below.

Performance:

Success in achieving this objective will be measured by comparing the risk and after-fee return of Investment Grade Fixed Income Asset Class to the **Bloomberg Barclays Intermediate US Aggregate Bond Index** (the "Benchmark"). Performance results will be monitored and evaluated quarterly. However, the success in achieving the objective will be measured on a three-year, five-year, and ten-year annualized basis.

Investment Guidelines:

Staff will have full discretion to manage the Investment Grade Fixed Income Asset Class consistent with the investment guidelines stated below. Compliance with the following guidelines for permitted investments and other restrictions is the sole responsibility of the Staff. Any exceptions or compliance violations are to be reported to the Board ~~of Investments~~ at the next scheduled quarterly Board meeting. State Fund will be notified of any exceptions or compliance violations within five days.

Permitted Investments:

The Investment Grade Fixed Income Asset Class may invest only in the following:

1. Debt obligations of the U.S. Government, including its agencies and instrumentalities;
2. Dollar denominated debt obligations of Quasi and Foreign Government entities;
3. Dollar denominated debt obligations of domestic and foreign corporations;

4. Dollar denominated securitized assets, including U.S. Agency mortgage backed securities (MBS), U.S. Agency collateralized mortgage obligations (CMOs), commercial mortgage backed securities (CMBS), and asset backed securities (ABS);
5. Cash – either an investment in the Short-Term Investment Pool (STIP), a vehicle available through the Custodian, or an SEC registered money market fund that is considered a “US Treasury” or “US Government” money market fund per the SEC regulations.

Other Restrictions

1. A minimum of 20% of the market value must be held in U.S. Treasury/Agency securities;
2. A maximum of 10% of the market value may be held in dollar denominated quasi and foreign government securities;
 - a. Quasi and foreign government securities must be rated a minimum of the 7th highest rating by any nationally recognized statistical rating organization (NRSRO) at the time of purchase;
3. A maximum of 50% of the market value may be held in corporate bonds;
4. A maximum of 50% of the market value may be held in U.S. Agency mortgage backed securities (MBS & CMO);
5. A maximum of 5% of the market value may be held in asset backed securities (ABS);
6. A maximum of 10% of the market value may be held in commercial mortgage backed securities (CMBS);
7. The average duration will be maintained in a range of + or – 20% of the index duration;
8. The average life for individual fixed income securities will be less than 12 years;
9. A maximum of 3% of the market value may be held in a single parent company issuer, foreign/quasi government issuer or ABS specific pool at the time of purchase; there is no limit on U.S. Government/Agency securities;
 - a. Exposure to a single parent company issuer, foreign/quasi government issuer or ABS specific pool will be limited to 4% of the market value regardless of when securities were purchased;
10. Securities must be rated investment grade by at least two nationally recognized statistical rating organizations (NRSRO), with the exception of securities issued or guaranteed by agencies or instrumentalities of the U.S. Government. In the case of split-rated securities, the lower rating is used;
11. Securities that drop below investment grade as defined above may be held to maturity. However, the Investment Grade Fixed Income Asset Class may not hold more than 5% below investment grade;
12. Fixed income securities rated lower than the 7th highest rating by any nationally recognized statistical rating organization (NRSRO) are limited to ~~30~~25% of the market value of the SFIP Investment Grade Fixed Income Asset Class;
 - a. In the case of split rated securities, the lowest rating will apply;
13. Securitized assets must be rated a minimum of the 4th highest rating by any nationally recognized statistical rating organization (NRSRO) at the time of purchase;
 - a. Securities that drop below the 4th highest rating by any NRSRO may be held to maturity. However, the Investment Grade Fixed Income Asset Class may not hold more than 4% in these securities;
14. A minimum of 1% of the Investment Grade Fixed Income Asset Class will be held in cash investments;
15. The use of derivatives is prohibited;
16. The use of leverage is prohibited.

If at any time, due to market fluctuations or any other circumstances, any of the guidelines are not maintained, Staff will use its best efforts to conform to these limits in a timely manner, while considering current market conditions and the associated costs of rebalancing. At the Board’s next regularly scheduled quarterly meeting, the CIO shall inform the Board of any cases that the Investment Grade Fixed Income Asset Class allocations were outside of the limits and either inform the Board of the actions that were taken to return the Investment Grade Fixed Income Asset Class back within guidelines or a plan to do so. State Fund will be notified of any exceptions or compliance violations within five days.

May 27, 2020



Emerging Market Debt Education

Montana Board of Investments



What are Emerging Markets?

Emerging markets are a subset of countries that exhibit economic and capital market characteristics which are similar to developed markets, but lag in several areas related to size and liquidity of company securities, as well as overall market accessibility. Notable examples of emerging markets, include China, India, Brazil, and South Africa.¹

Map of Emerging Markets by Primary Debt Issuance²



Key Facts about Emerging Markets³

- ❑ Constitute 70% of the World's land mass.
- ❑ Represent more than 80% of the World's population.
- ❑ Generate more than 40% of global GDP.
- ❑ Produce 60% of the world's commodities.
- ❑ Elevated, long-term economic growth prospects relative to developed markets.

Sources: ¹Morgan Stanley Capital International (2020), ²J.P. Morgan Monitor, ³NN Investment Partners

Why Invest in Emerging Markets Generally?

Portfolio Diversification

Both emerging markets equity and fixed income provide diversification benefits via lower correlations to US equity and fixed income.

Elevated Long-Term Return Expectations

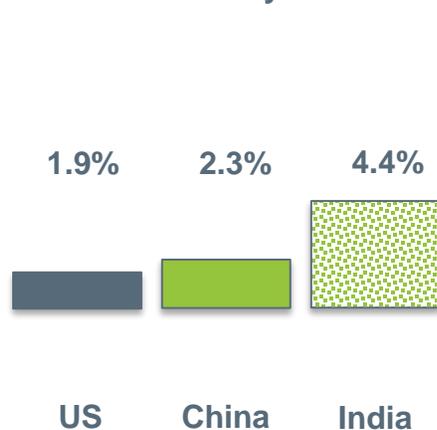
Relative to developed markets, many emerging markets economies offer investors the prospect of return enhancement resulting from higher growth prospects coupled with higher risk premiums used to compensate greater risk in these markets. Key drivers of enhanced growth include:

- Growth of the middle class
- Favorable rates of savings and investment
- Steady improvement in regulatory frameworks that are conducive to growth

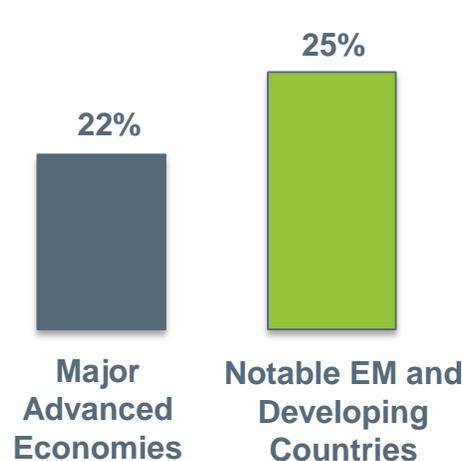
Currency Diversification

Emerging markets equity and debt (if denominated in local currencies) provide exposure to currencies outside of US dollars, which can provide benefits in market environments characterized by US dollar depreciation.

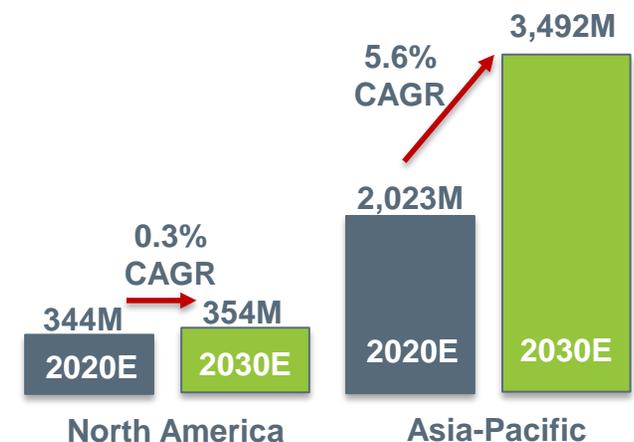
Long-Term Real GDP Growth by Country¹



Gross Savings as a % of GDP by Market²



Middle Class Growth by Region³



Sources: ¹Organisation for Economic Co-operation and Development. 2020.

²World Bank: percentages shown represents equal weighted average of G7 and notable EM and Developing Countries. 2018.

³Statista: Forecast of the global middle class population from 2015 to 2030 by region. February 2017.

Why Invest in Emerging Markets Debt Specifically?

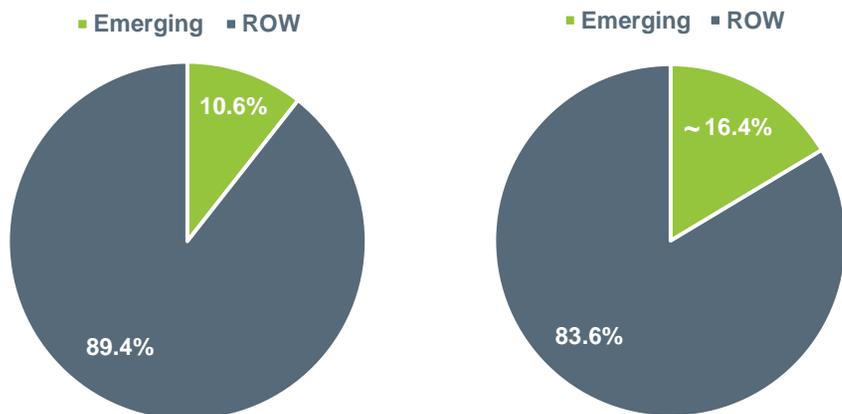
Portfolio Diversification

Similar to equities, emerging markets debt constitutes a meaningful percentage of the investable fixed income market. In addition, emerging markets debt return patterns provide diversification benefits.

Higher Yield and Return Expectations

In order to attract capital and provide adequate compensation for greater risk, emerging markets debt offers higher yield and total return expectations.

Emerging Markets Debt and Equity as % of Global Markets



Emerging Markets Return and Yield Attributes²

	Yield to Worst	Compound Return
US Intermediate Fixed Income	1.59%	2.38%
EMD Local	5.36%	5.13%
EMD Hard	7.00%	6.54%

Emerging Markets Equity

(as a % of MSCI ACW IM Index)¹

Emerging Markets Debt³

(as a % of Global Debt)

Sources: ¹RVK Calculation as of 12/31/19.
²RVK Q1 2020 Assumptions.
³Bank for International Settlements (Q3 2019)

Key Risks of Emerging Markets Debt Investments

	Hard Currency	Local Currency
Description	Debt that is denominated in a currency other than the domestic currency of the issuer.	Debt that is denominated in the local currency of the government or corporate issuer.
Example	Mexico issues government debt denominated in US Dollars.	Argentinian company issues debt denominated in Argentine Pesos.
Key Source of Risk	<ul style="list-style-type: none"> • Limitations of Monetary Policy Support – Central banks are limited in their use of monetary tools, such as quantitative easing, in order to support debt markets in a crisis. 	<ul style="list-style-type: none"> • Exposure to Local Inflation – Central Banks have greater flexibility to use monetary tools, such as quantitative easing, in order to support debt markets in a crisis. However, excessive and/or undisciplined monetary support can produce high rates of inflation, which erode the value of the debt.
Potential Impact	Debt Default	Inflation/Currency Depreciation
Bearer of FX Risk	Issuer	Investor
Key Drivers of Return	<ul style="list-style-type: none"> ▪ Coupon Income ▪ US Interest Rate Changes ▪ Credit Spread Changes 	<ul style="list-style-type: none"> ▪ Coupon Income ▪ Local Country Interest Rate Changes ▪ Currency Exchange Rates

EMD Performance Drivers and Risks

Favorable Conditions for EMD

- ❑ Positive Global Economic Growth (Broadly)
- ❑ Stable Macro Economic Growth Outlook – Especially for Developed Markets
- ❑ Stable Inflation
- ❑ Valuations Driven by “Fundamentals”
- ❑ Environments Categorized by Economic Independence and Fiscal Discipline
- ❑ Well Functioning, Stable, and More Transparent Financial Markets

Unfavorable Conditions for EMD

- ❑ “Risk-Off” Capital Markets
- ❑ Geopolitical and/or Economic Disruptions that Impact a Country’s ability/willingness to pay back debt
- ❑ “Protectionist” Policies by Sovereign Entities
- ❑ Commodity Price Volatility

Current Market Conditions

Market conditions currently appear less favorable for EMD over the short term; however, these conditions can also be viewed as a reasonable entry point for long-term investors with an appropriate tolerance for risk. Conditions that are generally viewed as unfavorable include.

- ❑ Disruptive trade policies
- ❑ Increased uncertainty with respect to the Chinese growth story
- ❑ Impact of COVID-19 on global growth expectations and commodity prices
- ❑ Uncertainty with respect to central bank and government willingness and capacity to support debt markets

Investment Update

Board Meeting: June 8-9, 2020

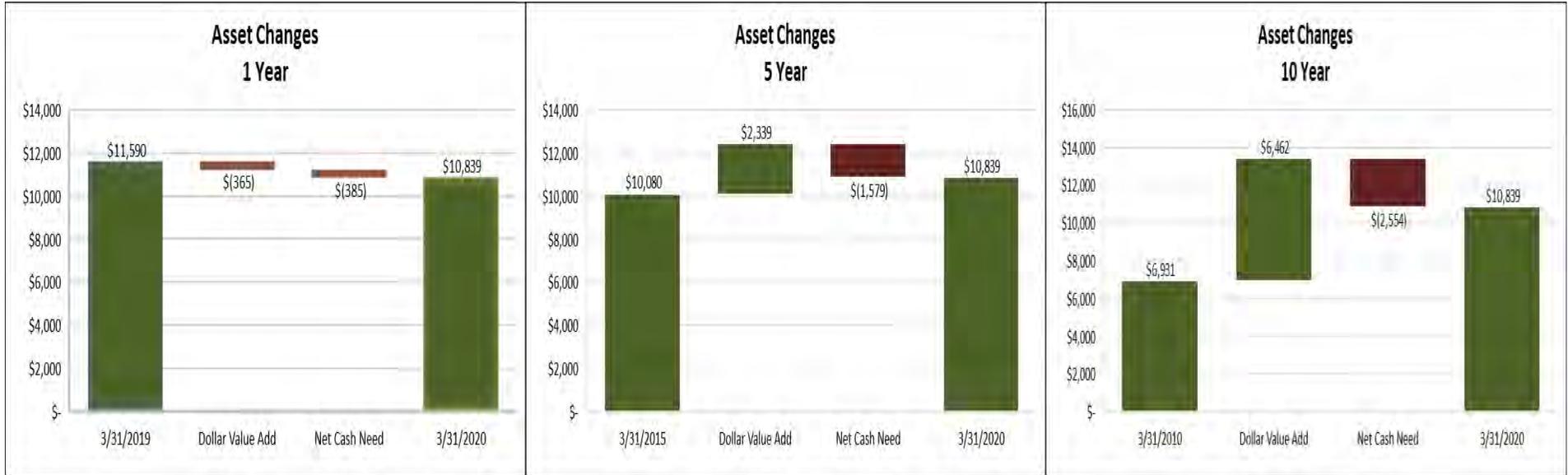
Information as of March 31, 2020



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CIO Update - Retirement Plans Performance



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

- Dollar Value Added – The total dollar return of the portfolio including income and capital gains.
- Net Cash Need - The total dollar amount distributed from portfolio assets to meet the deficit of contributions minus distributions.
 - A red 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.

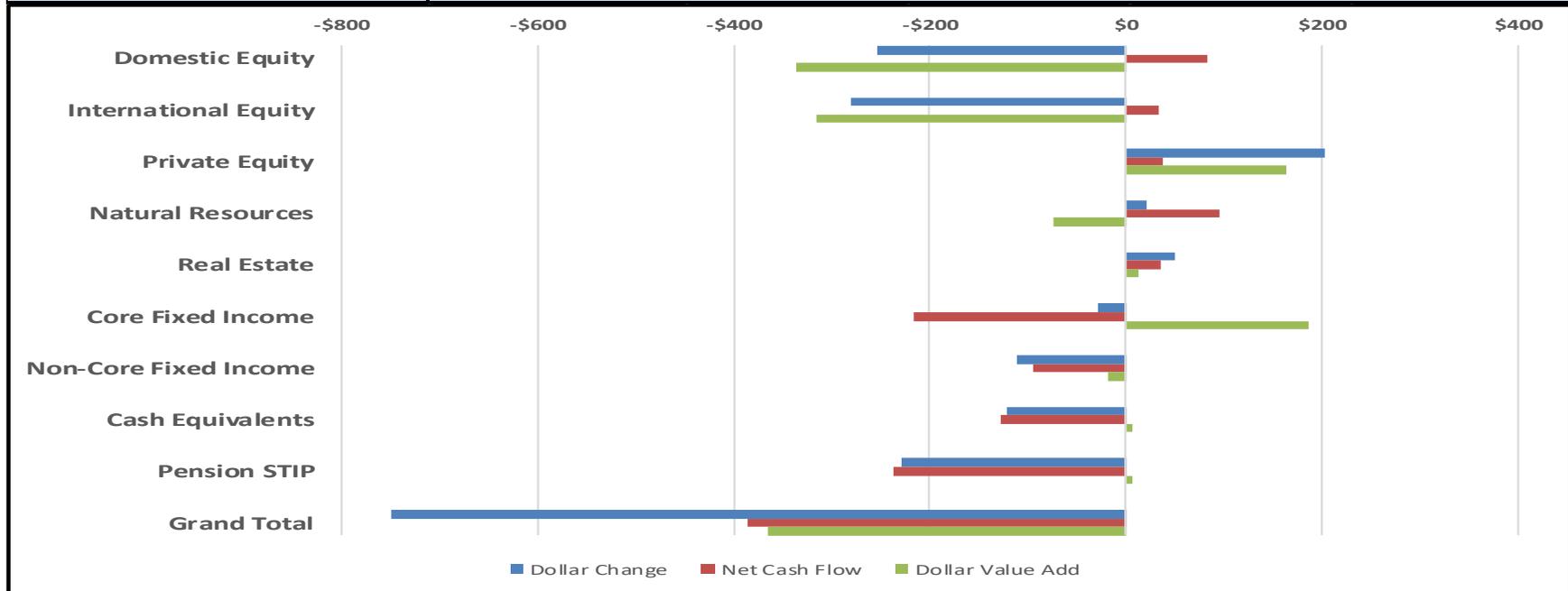
CIO Update – Retirement Plans Performance

	3/31/2020 (NAV)	3/31/2019 (NAV)	Dollar Change	Net Cash Need	Dollar Value Add
PUBLIC EMPLOYEES RETIREMENT	\$ 5,385.68	\$ 5,778.89	\$ (393.21)	\$ (212.08)	\$ (181.13)
TEACHERS RETIREMENT	\$ 3,813.62	\$ 4,106.09	\$ (292.47)	\$ (165.50)	\$ (126.97)
FIREFIGHTERS RETIREMENT	\$ 423.27	\$ 434.60	\$ (11.33)	\$ 3.64	\$ (14.97)
POLICE OFFICERS RETIREMENT	\$ 400.43	\$ 415.72	\$ (15.29)	\$ (1.31)	\$ (13.98)
SHERIFFS RETIREMENT	\$ 351.33	\$ 366.39	\$ (15.05)	\$ (2.80)	\$ (12.25)
GAME WARDENS RETIREMENT	\$ 193.93	\$ 199.58	\$ (5.65)	\$ 1.22	\$ (6.87)
HIGHWAY PATROL RETIREMENT	\$ 139.12	\$ 148.89	\$ (9.76)	\$ (5.08)	\$ (4.68)
JUDGES RETIREMENT	\$ 96.97	\$ 102.42	\$ (5.46)	\$ (2.12)	\$ (3.34)
VOL FIREFIGHTERS RETIREMENT	\$ 34.96	\$ 37.07	\$ (2.11)	\$ (0.95)	\$ (1.16)
Grand Total	\$ 10,839.31	\$ 11,589.65	\$ (750.34)	\$ (384.98)	\$ (365.36)

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

CIO Update – Retirement Plans Allocation Changes

Asset Class	3/31/2020 (NAV)	3/31/2019 (NAV)	Dollar Change	Net Cash Need	Dollar Value Add
Domestic Equity	\$ 3,126.72	\$ 3,380.62	\$ (253.90)	\$ 82.68	\$ (336.58)
International Equity	\$ 1,693.03	\$ 1,973.81	\$ (280.78)	\$ 33.75	\$ (314.53)
Private Equity	\$ 1,585.86	\$ 1,383.27	\$ 202.59	\$ 38.90	\$ 163.69
Natural Resources	\$ 359.50	\$ 337.67	\$ 21.83	\$ 95.95	\$ (74.12)
Real Estate	\$ 952.94	\$ 902.85	\$ 50.08	\$ 36.45	\$ 13.63
Core Fixed Income	\$ 2,407.51	\$ 2,435.91	\$ (28.40)	\$ (216.07)	\$ 187.67
Non-Core Fixed Income	\$ 404.51	\$ 516.27	\$ (111.76)	\$ (94.34)	\$ (17.41)
Cash Equivalents	\$ 203.96	\$ 324.36	\$ (120.40)	\$ (126.44)	\$ 6.04
Pension STIP	\$ 105.28	\$ 334.89	\$ (229.61)	\$ (235.87)	\$ 6.26
Grand Total	\$ 10,839.31	\$ 11,589.65	\$ (750.34)	\$ (384.98)	\$ (365.36)



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

March 31, 2020



CIO Update – Retirement Plans Performance

Name	1 Year	3 Year	5 Year	10 Year	20 Year	Since Inception
PUBLIC EMPLOYEES RETIREMENT	-3.37%	3.64%	4.41%	7.32%	5.06%	7.17%
TEACHERS RETIREMENT	-3.36%	3.63%	4.41%	7.33%	5.06%	7.18%
FIREFIGHTERS RETIREMENT	-3.37%	3.64%	4.41%	7.31%	5.04%	7.03%
POLICE OFFICERS RETIREMENT	-3.36%	3.64%	4.41%	7.31%	5.04%	7.04%
SHERIFFS RETIREMENT	-3.38%	3.63%	4.41%	7.31%	5.06%	7.06%
GAME WARDENS RETIREMENT	-3.39%	3.63%	4.41%	7.31%	5.04%	7.07%
HIGHWAY PATROL RETIREMENT	-3.36%	3.65%	4.41%	7.33%	5.07%	7.06%
JUDGES RETIREMENT	-3.38%	3.64%	4.41%	7.31%	5.06%	7.07%
VOL FIREFIGHTERS RETIREMENT	-3.38%	3.64%	4.39%	7.32%	5.52%	6.87%

Inception 7/1/1994

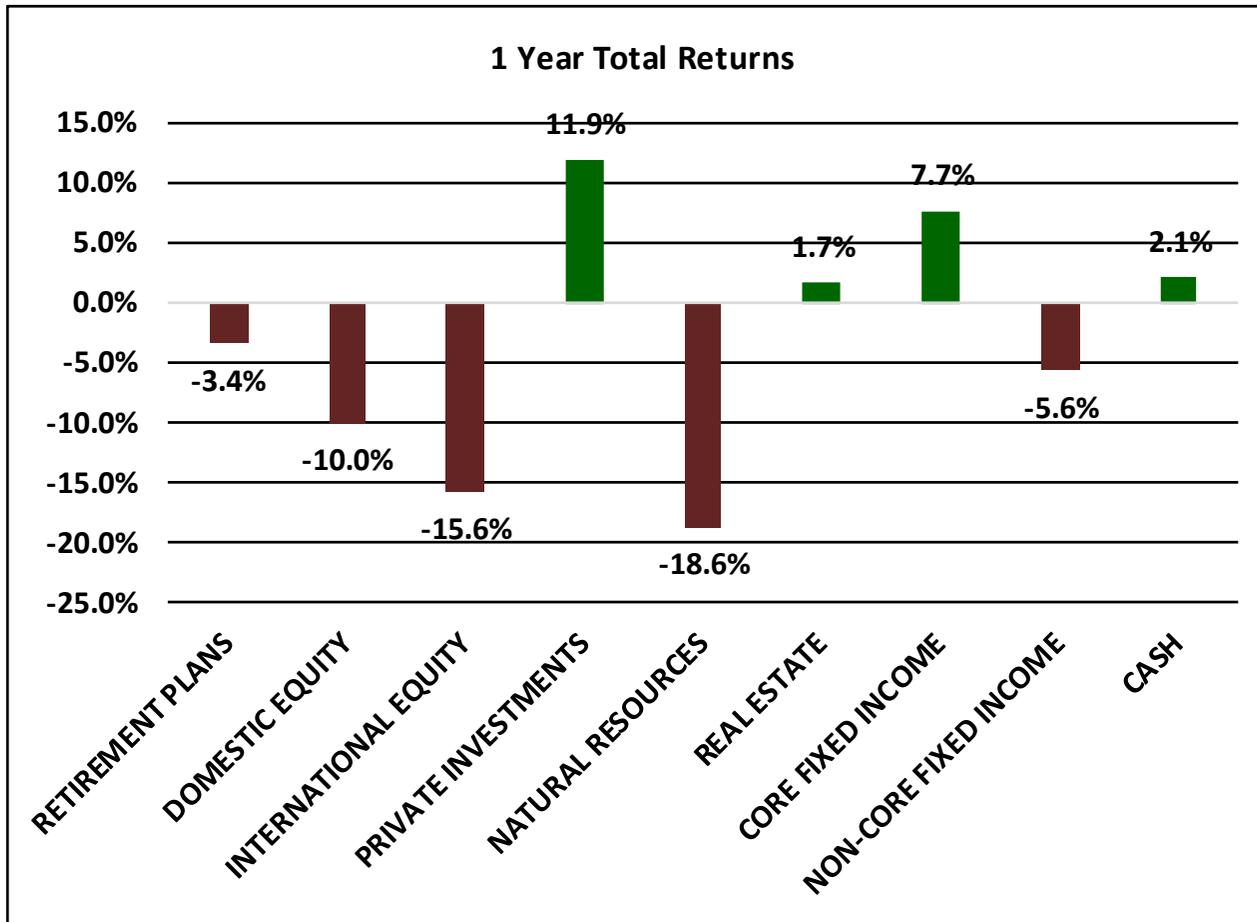
March 31, 2020

CIO Update – Asset Class Benchmark Returns

1 YR	5 YR	10 YR	15 YR	20 YR	25 YR											
BARC US Agg 8.93%	NCREIF ODCE 1 QTR LAG (NET) 7.98%	NCREIF ODCE 1 QTR LAG (NET) 10.39%	MSCI US IMI 7.65%	NCREIF ODCE 1 QTR LAG (NET) 7.17%	MSCI US IMI 8.87%	<table border="1"> <thead> <tr> <th colspan="2">Legend</th> </tr> </thead> <tbody> <tr> <td>Domestic Equity</td> <td>Natural Resources</td> </tr> <tr> <td>International Equity</td> <td>High Yield</td> </tr> <tr> <td>Private Equity</td> <td>Broad Fixed Income</td> </tr> <tr> <td>Real Estate</td> <td>Cash Equivalents</td> </tr> </tbody> </table>	Legend		Domestic Equity	Natural Resources	International Equity	High Yield	Private Equity	Broad Fixed Income	Real Estate	Cash Equivalents
Legend																
Domestic Equity	Natural Resources															
International Equity	High Yield															
Private Equity	Broad Fixed Income															
Real Estate	Cash Equivalents															
NCREIF ODCE 1 QTR LAG (NET) 4.39%	MSCI US IMI 5.82%	MSCI US IMI 10.21%	NCREIF ODCE 1 QTR LAG (NET) 6.73%	BARC US HY 6.61%	NCREIF ODCE 1 QTR LAG (NET) 8.02%											
FedRes US Tsy 1M Constant Maturity Index 1.82%	PERS 4.41%	PERS 7.32%	BARC US HY 6.35%	BARC US Agg 5.08%	PERS 7.06%											
PERS -3.37%	BARC US Agg 3.36%	BARC US HY 5.64%	PERS 5.96%	PERS 5.06%	BARC US HY 6.80%											
BARC US HY -6.94%	BARC US HY 2.78%	BARC US Agg 3.88%	BARC US Agg 4.40%	MSCI US IMI 4.92%	BARC US Agg 5.49%											
MSCI US IMI -9.18%	FedRes US Tsy 1M Constant Maturity Index 1.08%	MSCI ACWI ex USA IMI 2.14%	MSCI ACWI ex USA IMI 3.52%	MSCI ACWI ex USA IMI 2.51%	MSCI ACWI ex USA IMI 4.18%											
MSCI ACWI ex USA IMI -16.32%	MSCI USA SMALL CAP 0.36%	FedRes US Tsy 1M Constant Maturity Index 0.57%	MSCI AC World Commodity 0.05%													
MSCI USA SMALL CAP -24.51%	MSCI ACWI ex USA IMI -0.66%	MSCI AC World Commodity -4.81%														
MSCI AC World Commodity -38.91%	MSCI AC World Commodity -6.54%	MSCI USA SMALL CAP 7.84%														

March 31, 2020

CIO Update – Retirement Plans Asset Class Returns



CIO Update – Retirement Plan Asset Allocation

Asset Class	3/31/2020 (NAV)	% of Total	Mid Point	Deviation from Mid Point	Board Approved Ranges
DOMESTIC EQUITY	\$ 3,126,716,210.11	28.85%	30%	-1.15%	24% - 36%
CORE FIXED INCOME	\$ 2,407,513,346.88	22.21%	20%	2.21%	15% - 25%
INTERNATIONAL EQUITY	\$ 1,693,029,315.22	15.62%	16%	-0.38%	11% - 21%
PRIVATE INVESTMENTS	\$ 1,585,863,501.84	14.63%	14%	0.63%	11% - 17%
REAL ESTATE	\$ 952,935,230.94	8.79%	9%	-0.21%	5% - 13%
NON-CORE FIXED INCOME	\$ 404,509,057.90	3.73%	5%	-1.27%	3% - 7%
NATURAL RESOURCES	\$ 359,497,550.04	3.32%	4%	-0.68%	1% - 7%
CASH EQUIVALENTS	\$ 309,246,637.22	2.85%	2%	0.85%	0% - 4%
Total	\$ 10,839,310,850.15	100.00%			

March 31, 2020

CIO Update – Quarterly Macro Attribution

Key Takeaways - Q1 2020

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

- * All equity asset class benchmarks and the Non-Core Fixed Income asset class benchmark added negative contributions to the pension policy-neutral -18.66% return.
- * The Domestic Equities asset class benchmark, the MSCI USA IMI, was the largest negative contributor.

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

- * The volatile markets required a higher than normal amount of rebalances throughout the quarter
- * On average, we were slightly overweight International Equities and Core Fixed Income and slightly underweight or at the midpoint weight for the remaining asset classes.
- * About \$278M of equity asset classes were purchased and \$398M of fixed income/cash asset classes were sold during the quarter (The difference of \$-120M being the pension net cash need)
- * In aggregate, the overweighted asset classes performed better than the under weighted asset classes and increased the pension portfolio's return by 57bps

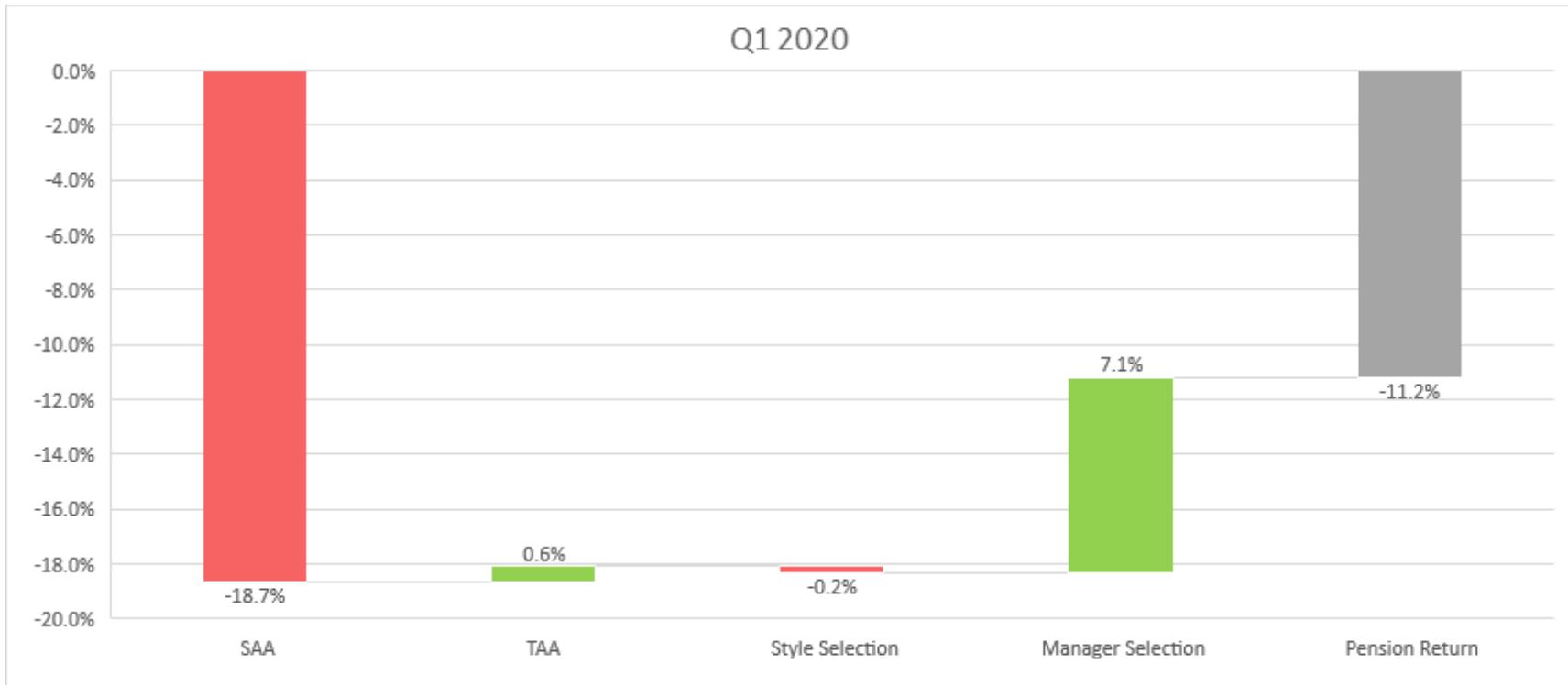
Style Selection -> *Did the portfolio benchmarks add additional return over their asset class benchmarks?*

- * The small cap bias in Domestic Equity was a contributor to style underperformance (about -20bps)
- * The exposure to the Alerian MLP Index, which is strongly related to energy, was also a large contributor to underperformance. (about -19bps)
- * Exposure to International growth indices was a strong positive contributor to style selection effects (about 20bps)

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

- * Domestic Equity managers added about 7bps to manager selection outperformance.
- * International Equity managers added about -10bps to manager selection underperformance.
- * Private Assets, Natural Resources, and Real Estate added about 700 bps to manager selection outperformance. The publicly traded benchmarks for these asset classes are an imperfect proxy for actual holdings. In addition, the pricing of private assets lags the publicly traded benchmarks. Thus, short term performance differentials may not reflect the actual value of assets at quarter end.

CIO Update – 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

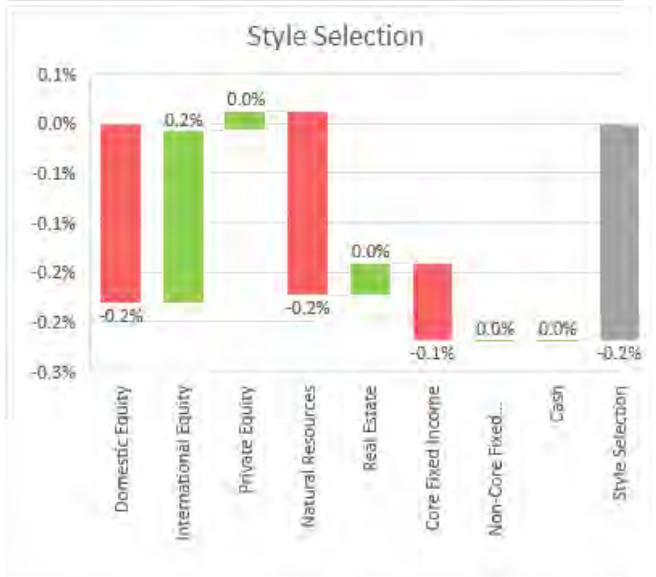
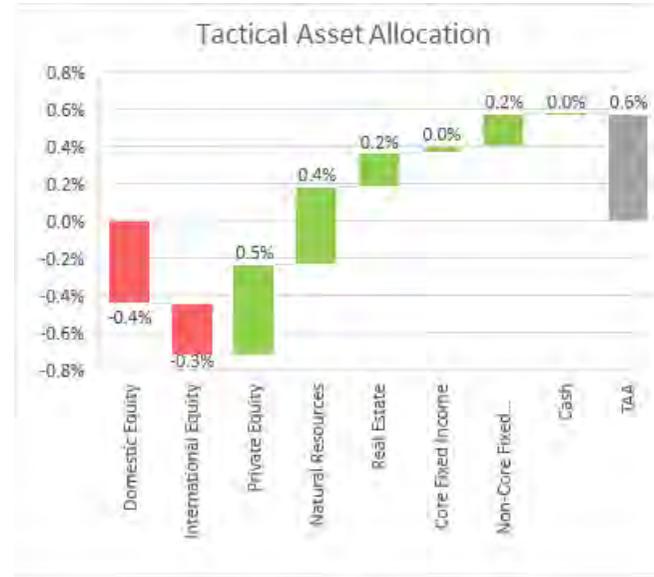
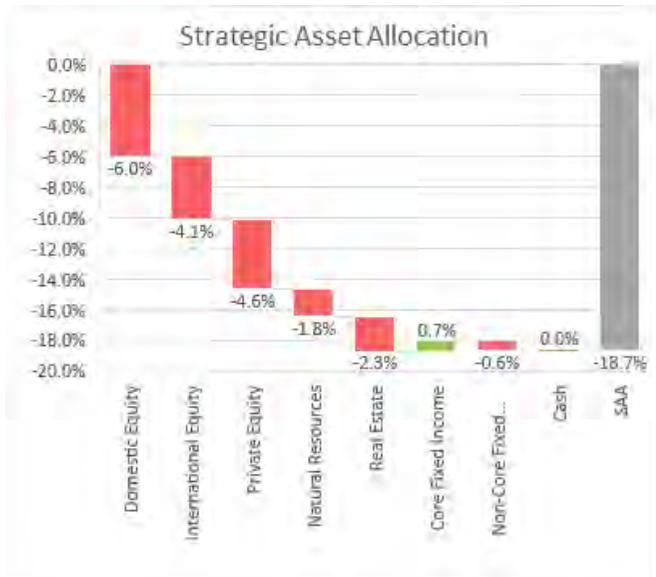
Tactical Asset Allocation (TAA) - The *additional* return earned by investing in the asset class benchmarks at our actual rather than midpoint weights.

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

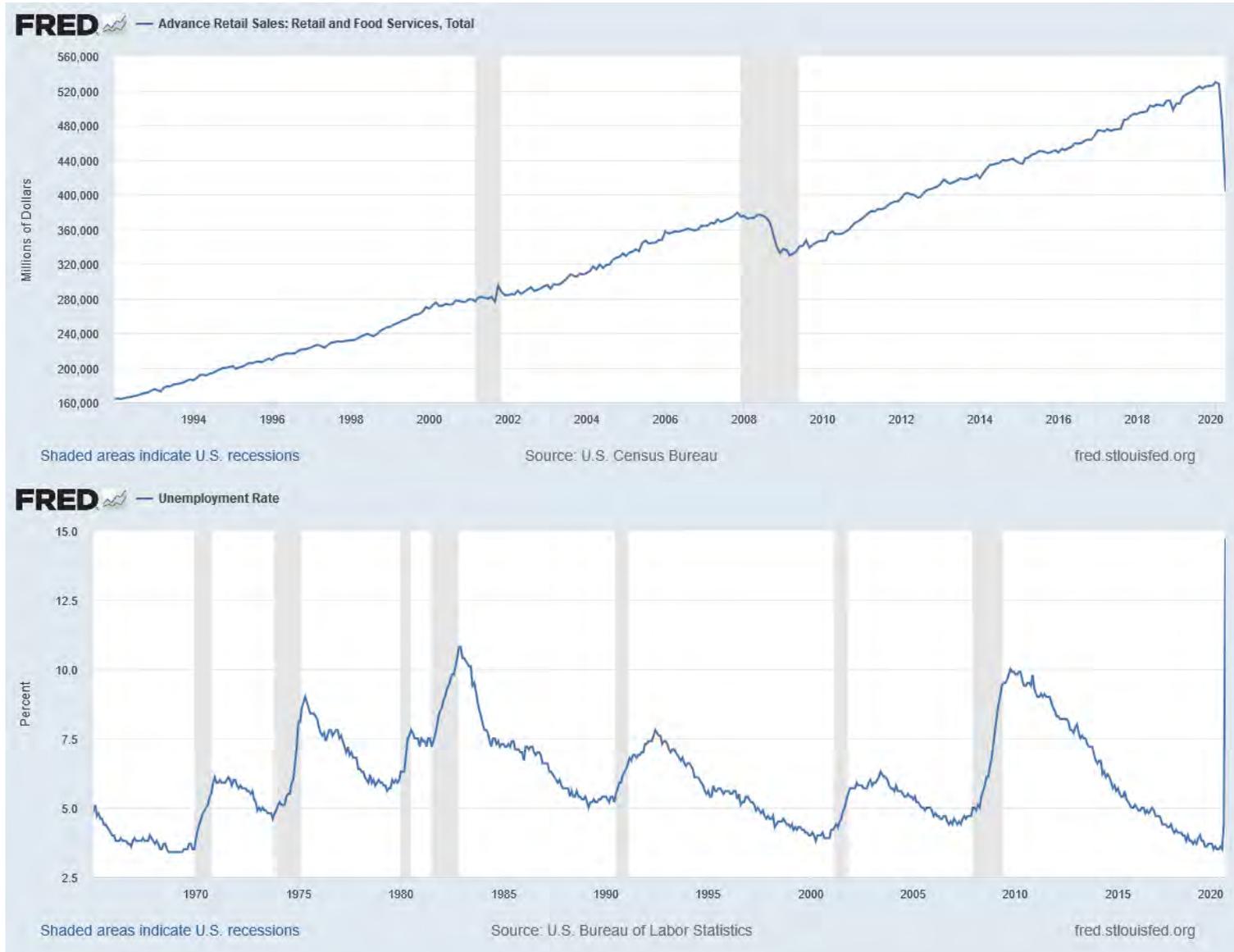
Manager Selection - The *additional* return earned by investing in the underlying managers rather than the underlying manager benchmarks.

* 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.

CIO Update – Macro Attribution

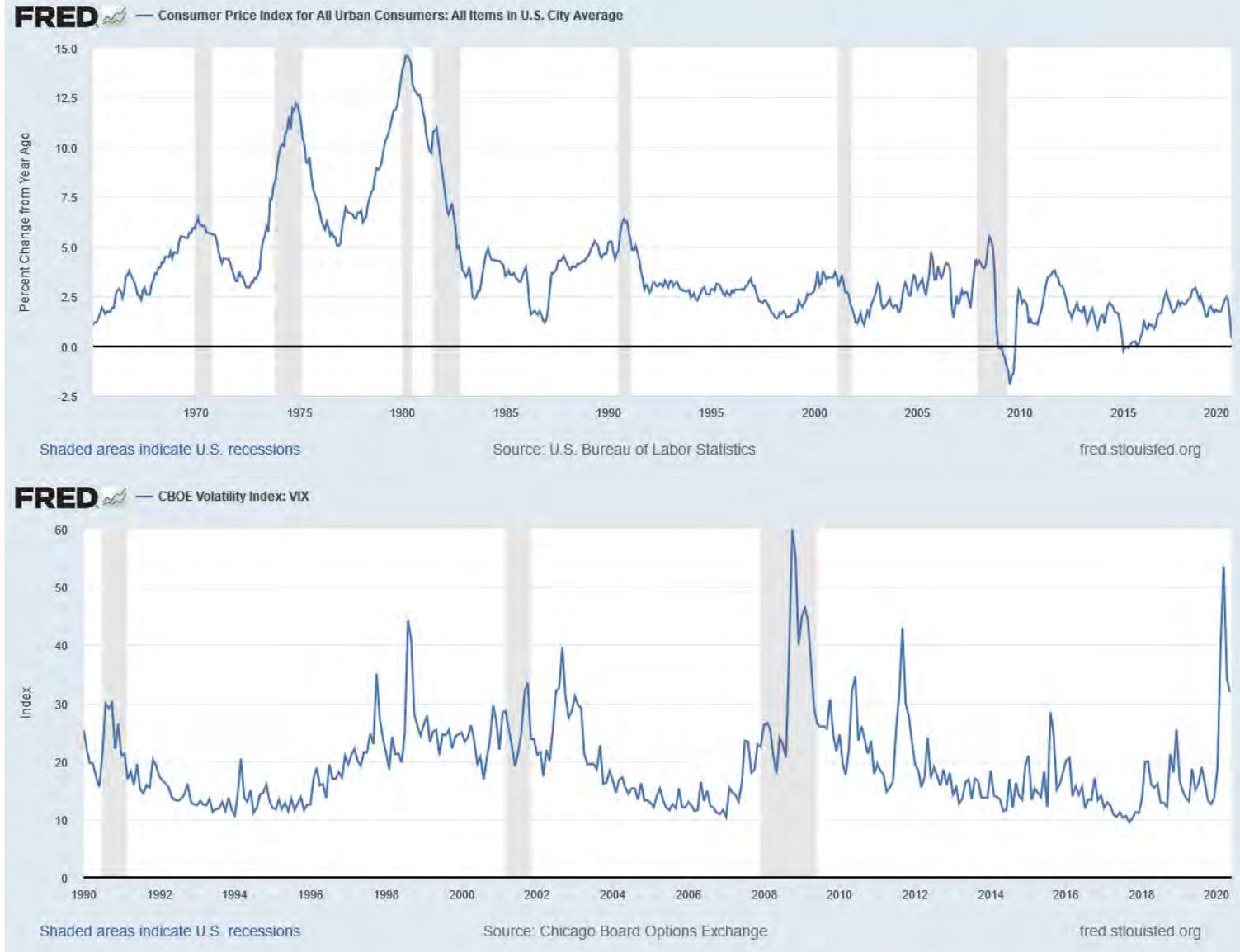


- Consolidated cash management
- Fixed income analyst search / Analyst professional growth matrix
- Continuing rebalance of TFIP and SFIP portfolios
- Management of CARES Act funds
- Increased use of Bloomberg for compliance and risk management
- Search for attractive investments in dislocated markets
 - Debt related strategies
- Diversification of Natural Resources portfolio

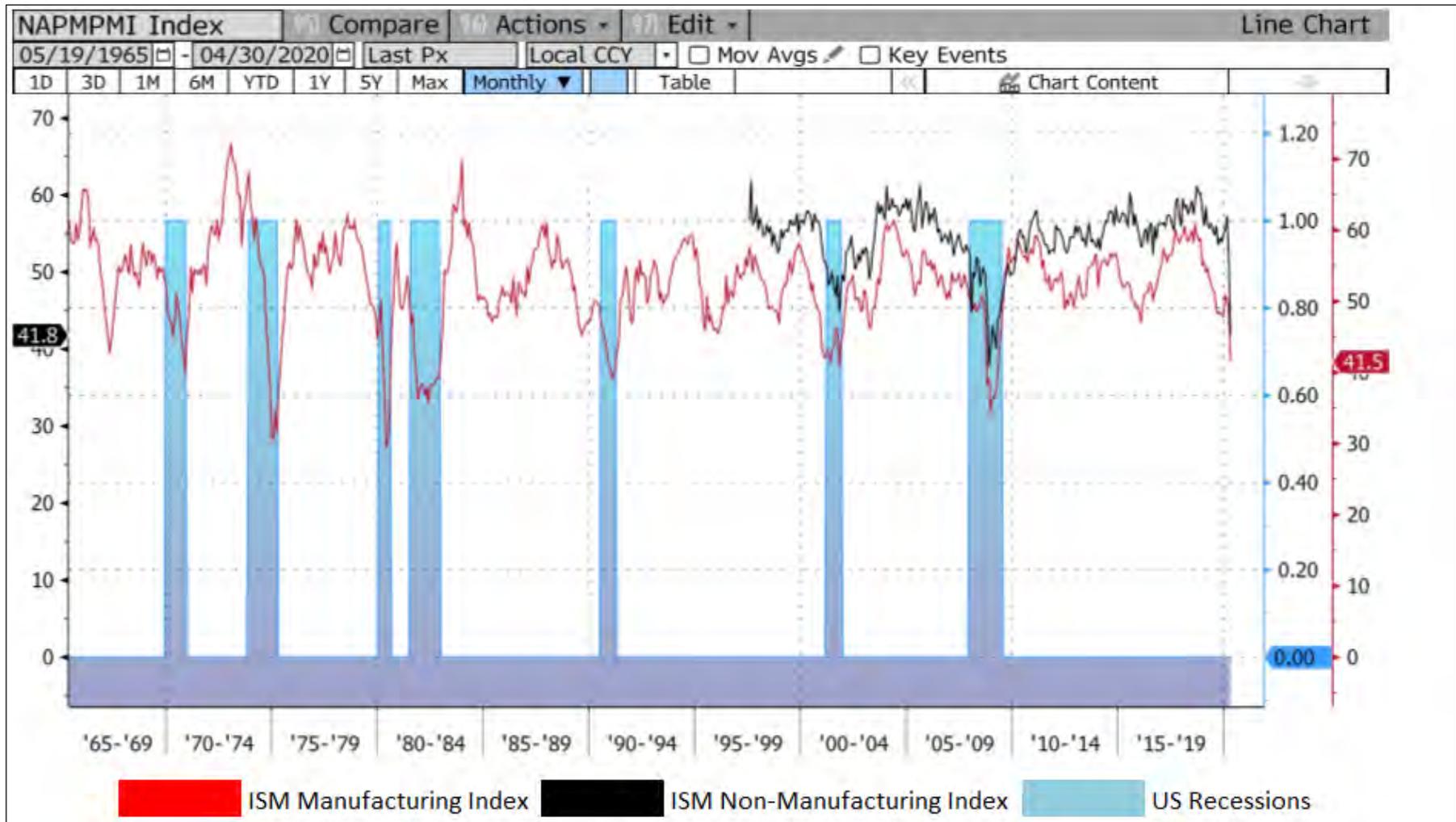


*FRED is a data service providing Federal Reserve Economic Data

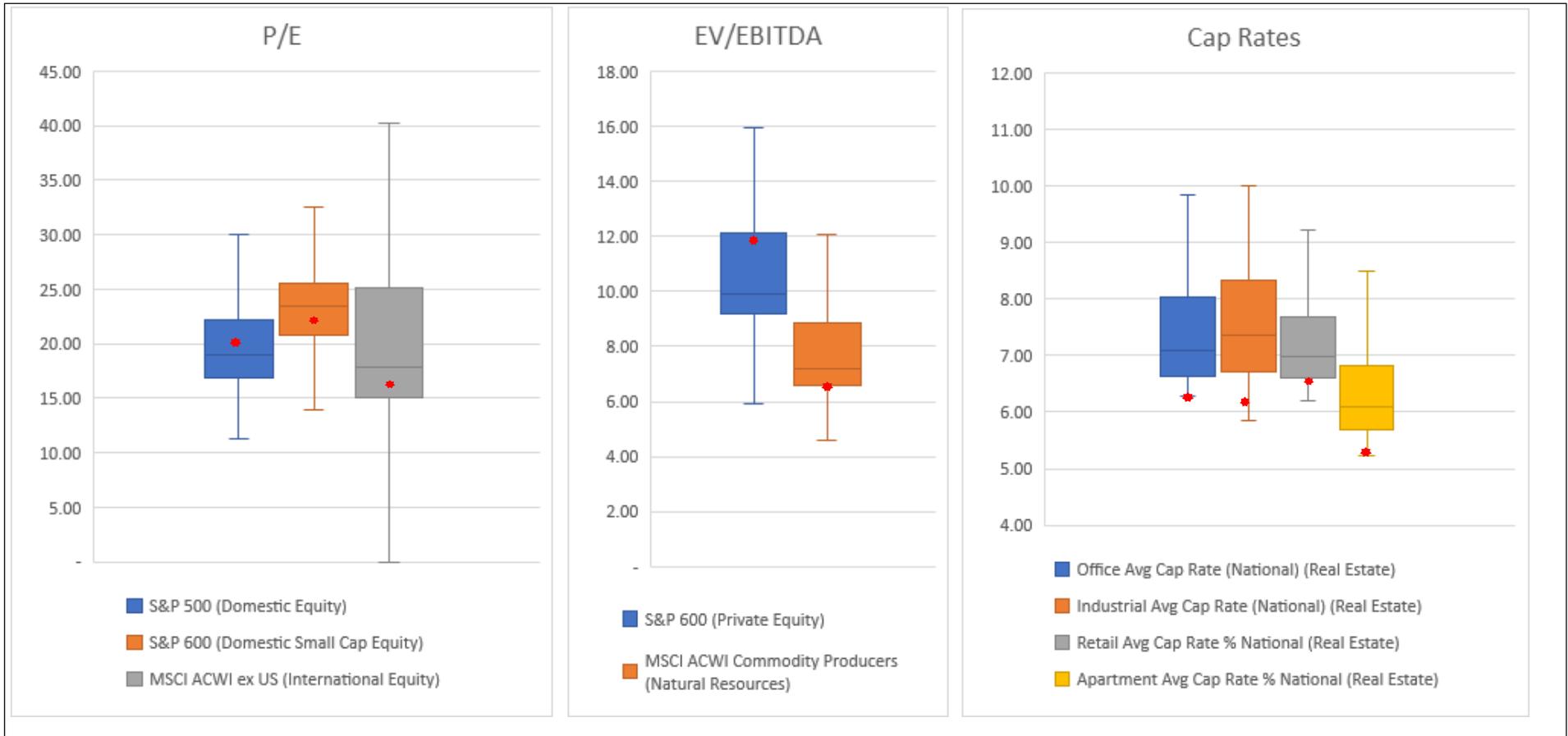
March 31, 2020

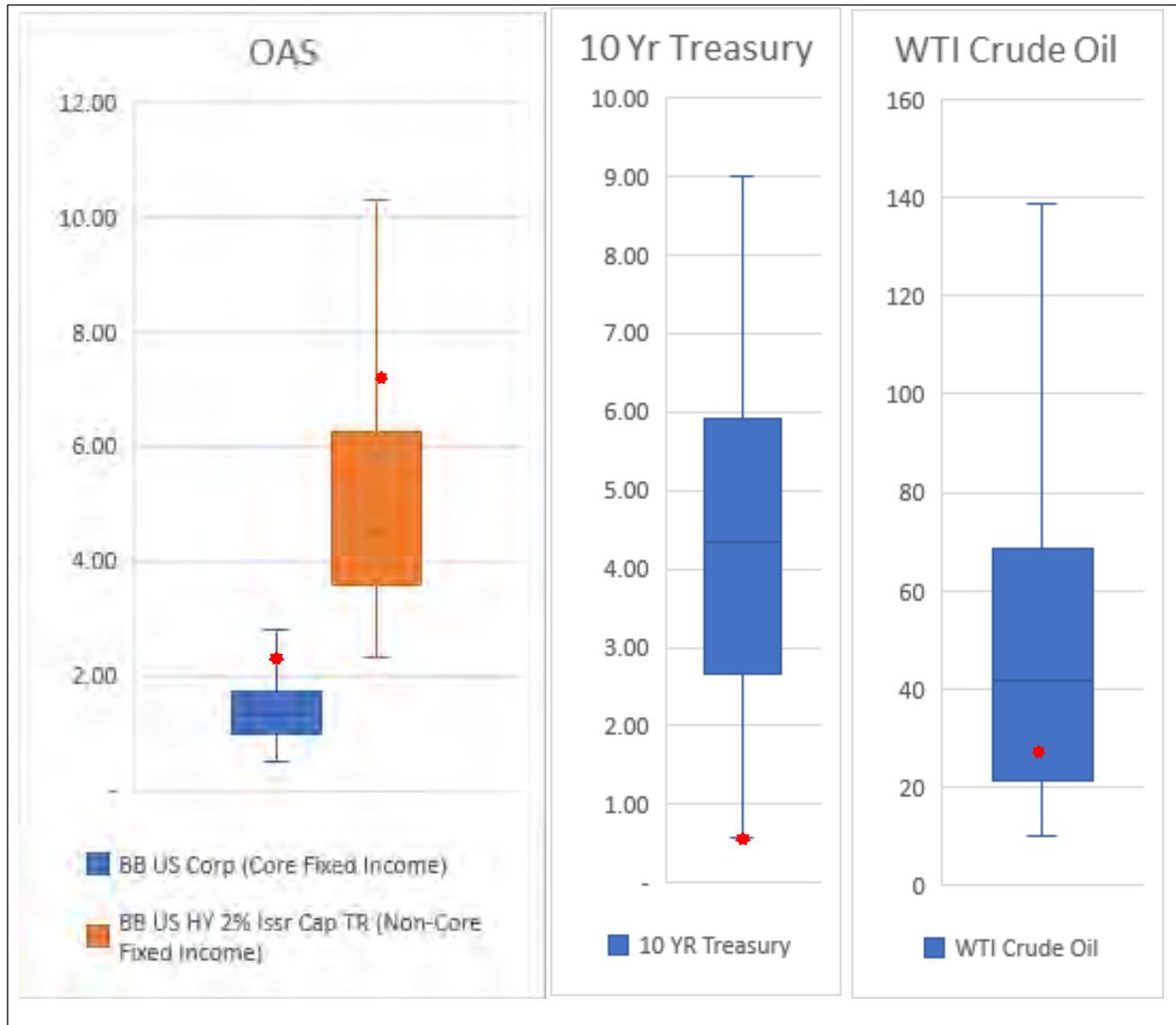


*FRED is a data service providing Federal Reserve Economic Data



Source: Bloomberg

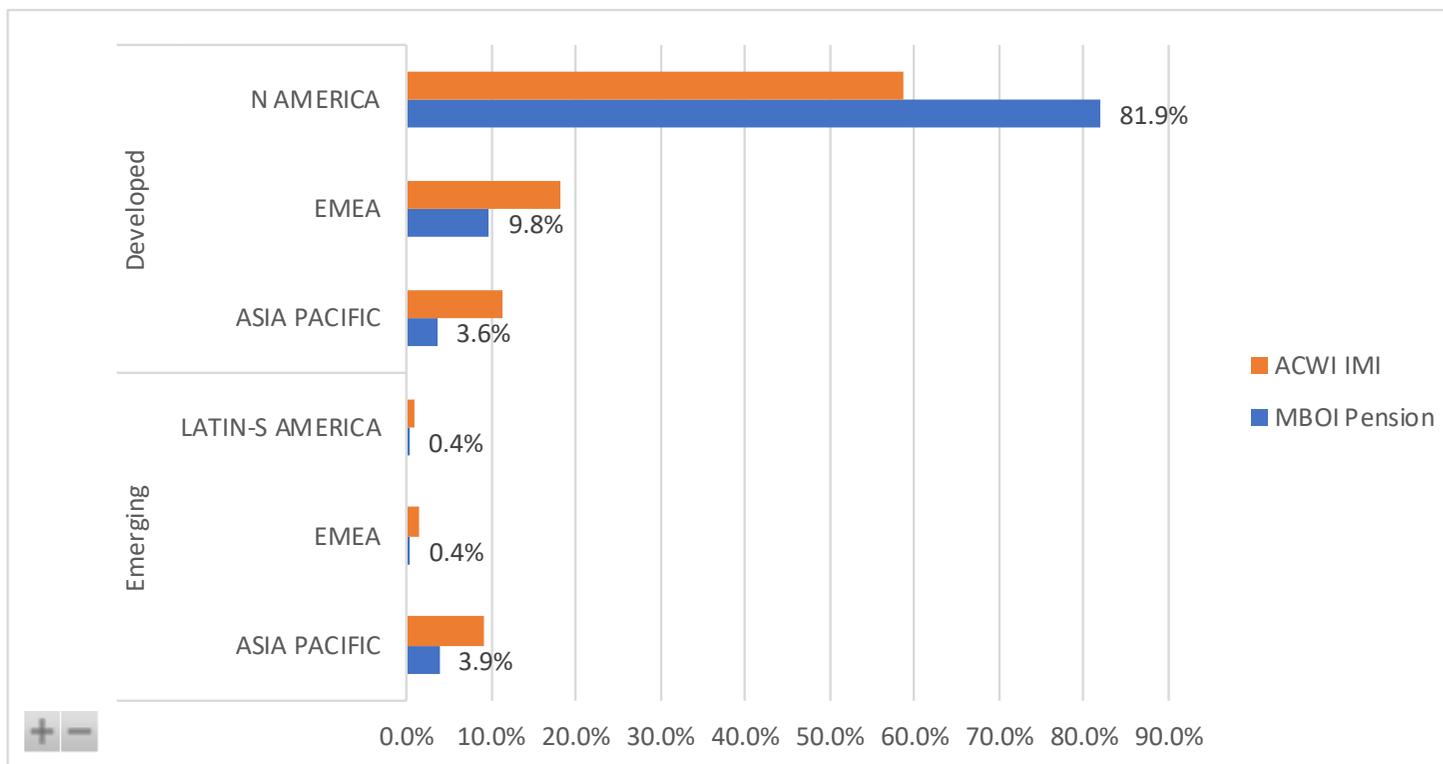
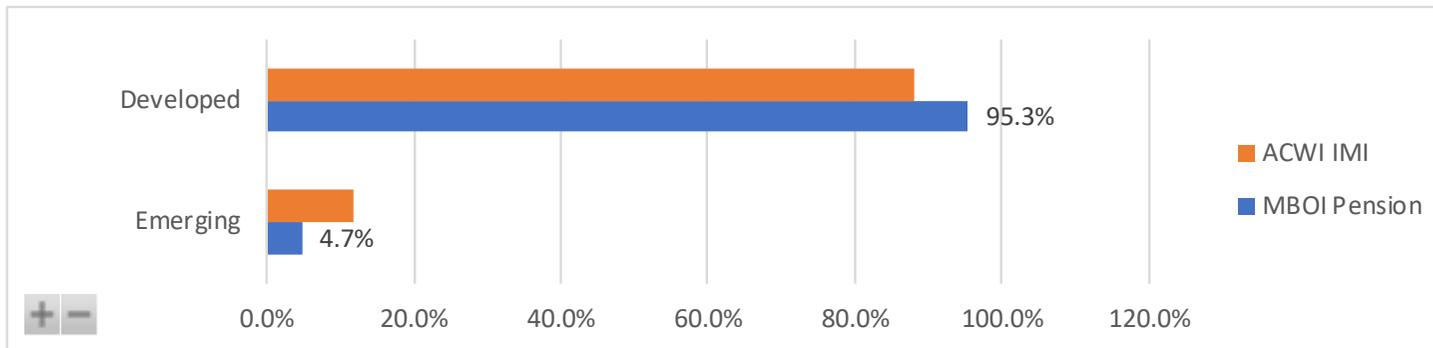




- Liquidity analysis estimates 17 months of liquidity based on expected uses of cash

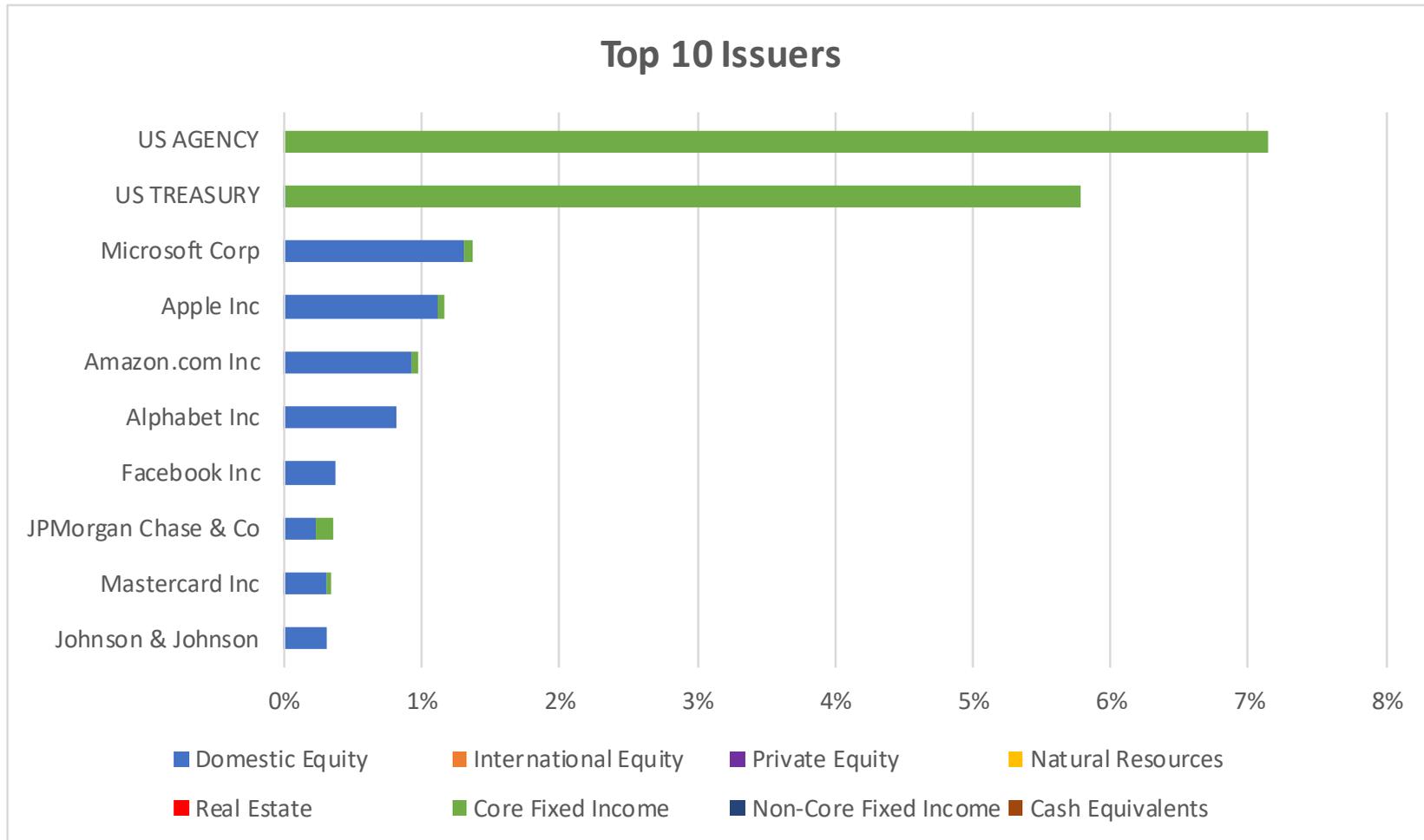
Use of Cash - Next 12 Months	Input	Assumption	Annual Amount - Potential Capital Calls	Source of Liquidity	Current Amount	Ratio Source/Use
		No Distributions		Cash Equivalents	\$157,842,114	
Private Investments	25%	25% unfunded called per year	\$244,328,807	Pension Fund Cash	\$146,426,109	
Private Real Estate	25%	25% unfunded called per year	\$135,370,327	Treasury	\$631,719,831	
Private Natural Resources	25%	25% unfunded called per year	\$60,245,265	Agency	\$151,890,800	
Private Capital Calls - Totals			\$439,944,399	TIPS	\$241,721,495	
Net Pension Benefit Estimate	42,500,000	monthly net benefits	\$510,000,000	Maturities < 1 year Corp	\$25,145,056	
Totals			\$949,944,399	Totals	\$1,354,745,404	1.43
				Estimated Number of Months of Liquidity		17

* Data as of 4/23/2020





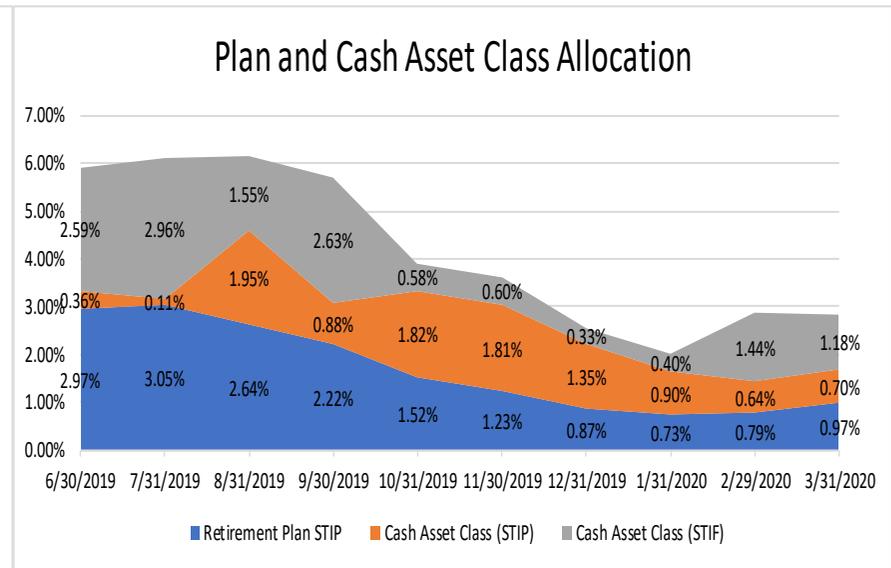
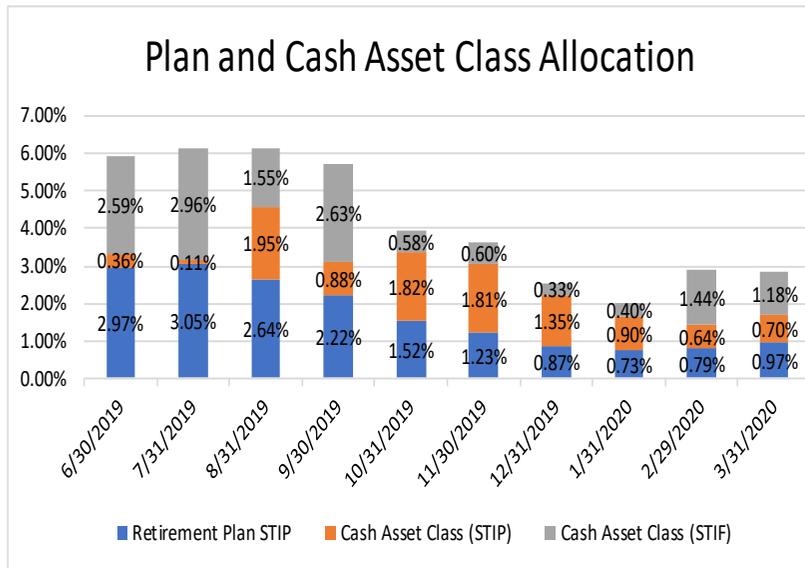
*Montana Public Retirement Plans shall have no greater than 5% of its Net Asset Value managed by any one external manager using an active investment strategy



Cash Management

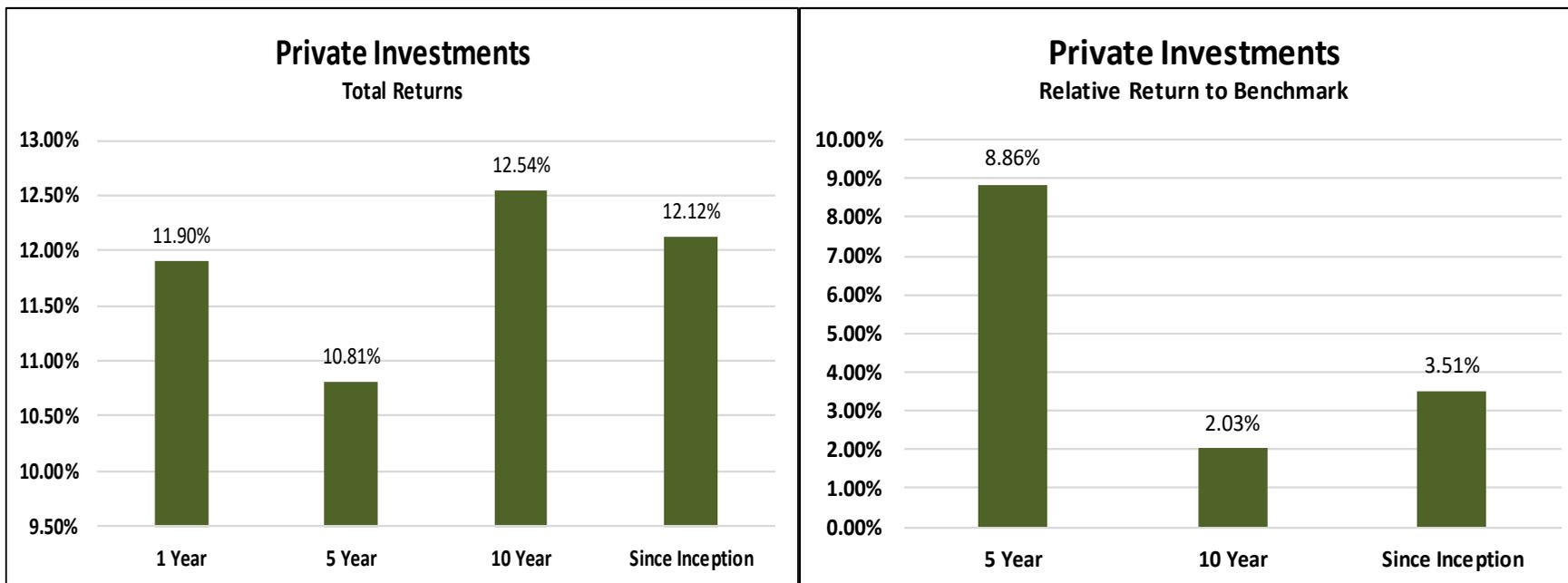
Plan and Asset Class Cash Balances

Cash	6/30/2019	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020
Retirement Plan STIP	2.97%	3.05%	2.64%	2.22%	1.52%	1.23%	0.87%	0.73%	0.79%	0.97%
Cash Asset Class (STIP)	0.36%	0.11%	1.95%	0.88%	1.82%	1.81%	1.35%	0.90%	0.64%	0.70%
Cash Asset Class (STIF)	2.59%	2.96%	1.55%	2.63%	0.58%	0.60%	0.33%	0.40%	1.44%	1.18%
Total Plan and Asset Class Cash	5.92%	6.11%	6.14%	5.72%	3.92%	3.63%	2.55%	2.03%	2.87%	2.85%



- Retirement Plan Cash – In February, the Retirement Plans’ allocation to STIP was raised to 1% to maintain 3 months liquidity for benefits.

- The impact on private equity deal making caused by the COVID-19 pandemic at the start of 2020 was relatively minimal. 1,211 private equity-backed buyout deals were completed in Q1 2020 with an aggregate deal value of \$94 billion, representing 10% by count, and 7% by deal value from 2019 quarterly averages.
- Valuations for buyouts in the first quarter of 2020 continued to remain elevated at a purchase price multiple of 11.2x EBITDA, well above the 20 year average of 8.7x EBITDA.
- Leverage or debt usage for buyouts cooled off coming in at 5.3x EBITDA, compared to 5.9x EBITDA at the start of 2019.
- Private equity dry powder continues to remain abundant with a record high \$1.5 trillion held in private equity funds.
- The pace of fundraising seems to have cooled off. More than half of GPs surveyed by Preqin say that fundraising activity has slightly or significantly slowed down.
- Key takeaways – Private equity activity continues to remain resilient. Valuations, debt usage, access to cheap credit and dry powder all remain at elevated levels compared to longer term historical levels. The fundraising environment continues to remain active despite a slow down in the first quarter.



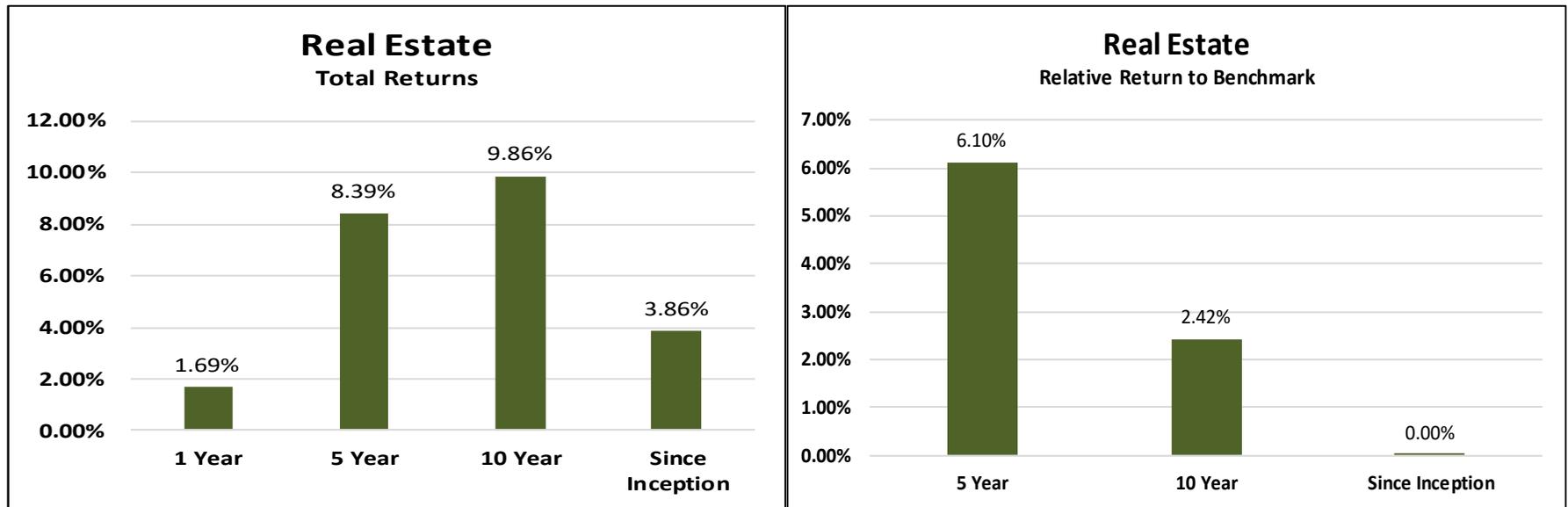
Relevant Benchmark: Private Equity – PAC Custom Blend

- From inception to 4/30/2017: S&P 1500 + 4% Qtr Lag
- 5/1/2017 to present: MSCI USA Small Cap Gross
- Inception – 5/1/2002

March 31, 2020

- Total Market Value of \$1.59 billion as of 03/31/20
- North American-centric at ~76%, ~16% non-US developed, and ~8% emerging markets
- Direct/primary fund exposure focus at ~82% vs. Fund-of-Funds at ~18%
- Selectively focused on buyout and venture capital strategies
- Increasing allocation to credit strategies and sector specialists
- Cash Flow Profile
 - Negative \$41.83 million for quarter ending 3/31/20
- Two new commitments during the recent quarter
 - Tenex Capital Partners Fund III - \$50 million
 - McCarthy Capital Fund VII - \$50 million
- Activation of Centerbridge Special Credit Partners III-Flex - \$24.5 million
 - Part of \$35 million commitment to Centerbridge Special Credit Partners III in 2014

-
- With the emergence of the COVID-19 pandemic, the impact on real estate fundamentals going forward will vary significantly by property type
 - Against the backdrop of broader market volatility and uncertainty, direct investment in global commercial real estate dropped by 5% year-on-year in 1Q20, falling to \$200B
 - Real estate debt is limited while most traditional lenders take a wait-and-see approach
 - The Green Street Commercial Property Price Index declined by 9.4% in April, the index is down 10.4% from its peak reached at the end of last year
 - REITs were down approximately 24% YTD through 5/11/20
 - CMBS credit spreads widened significantly during March as the initial impact of the COVID-19 pandemic pressured risk-assets broadly, the new issue CMBS market is temporarily closed
 - Fundraising by real estate funds fell to its lowest Q1 level since 2013 with \$22.3B raised
 - Real estate dry powder remains elevated at \$337B through May 2020
 - Key takeaways – Go-forward fundamentals are uncertain and will vary by property type, transaction volumes are down, waiting for further price discovery, debt markets are open, but cautious, prices have begun to fall, REITs have sold off in 2020, CMBS is dislocated, fundraising is down while levels of dry powder remain high



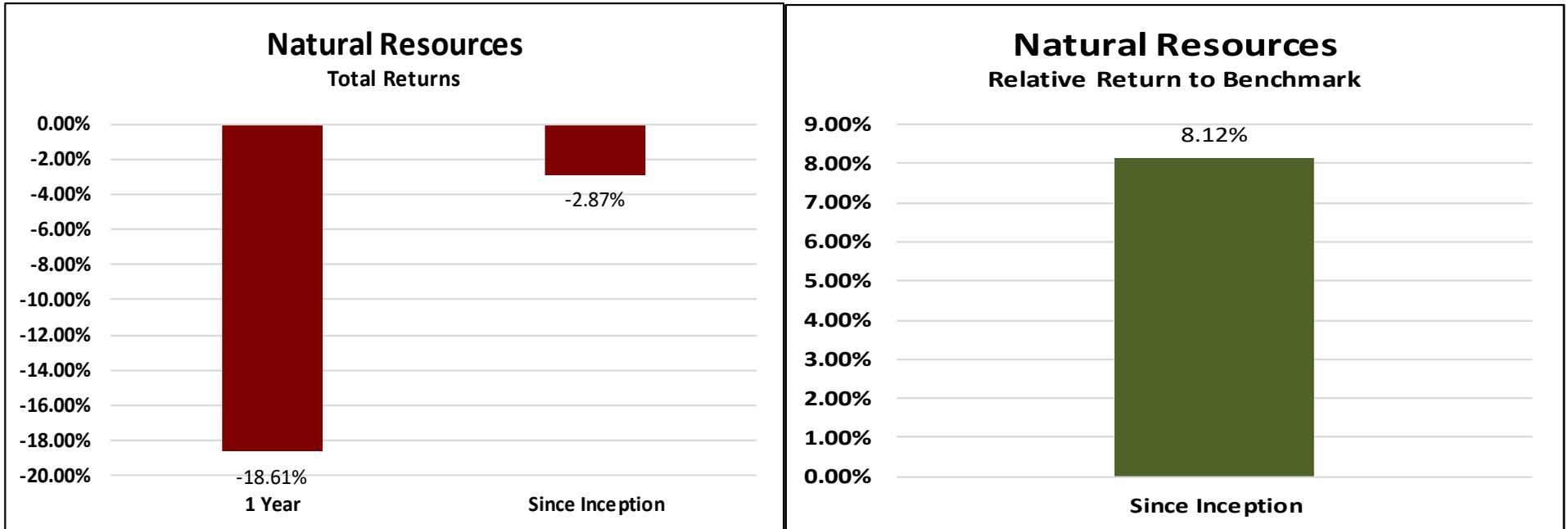
Relevant Benchmark: Real Estate - PAC Custom Blend

- From inception to 3/31/2017: NCREIF ODCE 1 Qtr Lag (Net)
- 4/1/2017 to present: MSCI US REIT Index Gross
- Inception – 6/1/2006

March 31, 2020

- Total Net Asset Value of approx. \$953M as of 3/31/20
- North American-centric, broadly diversified, less than 2% non-US
- Broadly diversified across property types
- Increased focus on property type specific operators
- Beginning to look at separate accounts for longer duration holds, cash flow
- Focusing on existing, high conviction managers, adding more real estate debt strategies, reducing core equity exposure on the margin, may opportunistically add to existing public REIT exposure
- Cash Flow Profile
 - Positive cash flow of approx. \$1.7M for quarter ending 3/31/20
- New investment commitments/additions
 - \$100M commitment to Angelo Gordon Commercial Real Estate Debt Opportunities III, LP
 - \$20M additional commitment to Oak Street Real Estate Fund V, LP
 - \$25M additional investment to Fidelity Real Estate High Income Fund
- Total Leverage – 49.1% as of 12/31/19
 - Core – 24.3%
 - Non-Core – 62.8%
 - Value Add – 64.7%
 - Opportunistic – 53.7%

- Brent crude prices fell 65.6% in 1Q20
- OPEC announced it reached a 23-nation agreement to cut a combined 9.7M barrels per day of crude oil production through June 2020, indications of maintaining this even longer
- Global oil demand has slumped by about 30% as COVID-19 curtailed travel and economic activity, oil inventories building globally, forecasting a slow return to normalcy
- US production forecast to fall below 11M barrels per day with 30% average reductions in capital expenditure budgets and well shut-ins industry-wide
- Oil rig count stands at 325, having fallen 52% in the past 7 weeks as of 5/11/20
- Global energy M&A activity remains depressed with bankruptcies and defaults in the domestic oil patch expected to continue
- Energy/MLP stocks down, but bounced strongly off the March lows, following the broader market and improving oil prices
- Sawtimber prices expected to decline over 2020 for US PNW and US South, pulpwood prices in some regional wood markets could see sustained gains over the next several quarters
- US home-building activity collapsed in March as COVID-19 spread, with housing starts tumbling 22.3% from a month ago to 1.2M starts
- Natural resource funds dry powder remained steady at \$53B through May 2020
- Key takeaways – Oil prices down sharply, OPEC playing ball, global and US demand and production down sharply, energy stocks bounced back but remain depressed, log prices expected to decline, housing market off dramatically, dry powder remains healthy



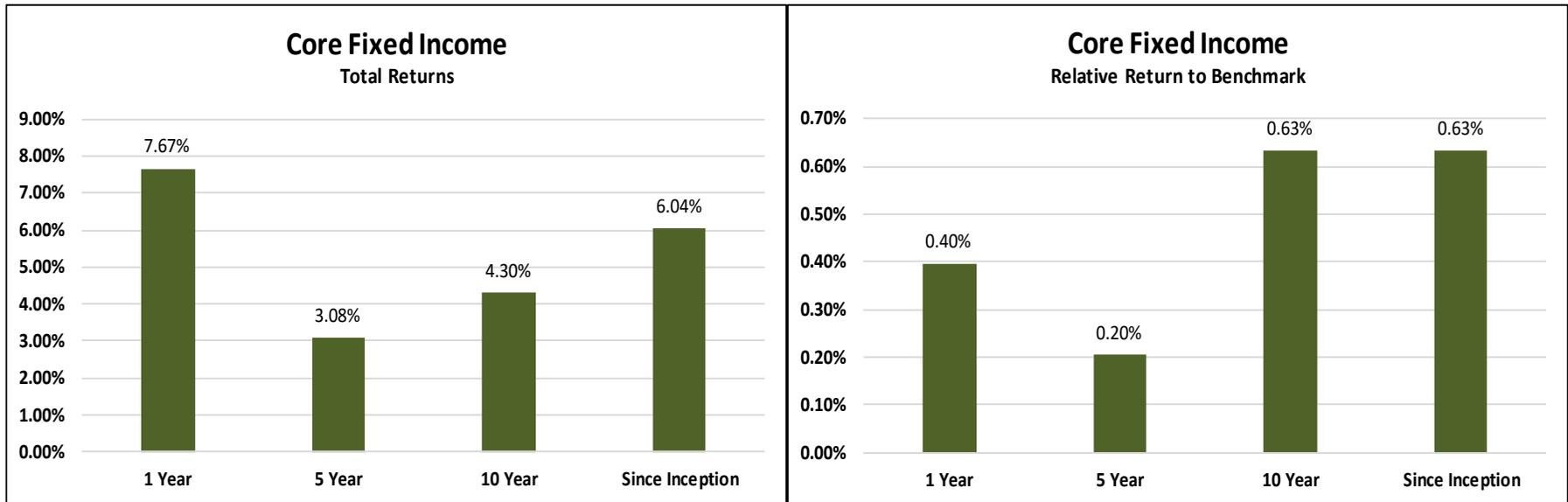
Relevant Benchmark: Natural Resources – MSCI AC World Commodity Producers Net Index

- Inception – 4/1/2017

- Total Net Asset Value of approx. \$360M as of 3/31/20
 - Energy Portfolio - \$246M as of 3/31/20
 - Timberland Portfolio - \$105M as of 3/31/20
 - Broad Natural Resources Portfolio - \$8.7M as of 3/31/20
- All portfolios are North American-centric, broadly diversified regionally
- Energy is broadly diversified across the energy value chain; timber broadly diversified across species and age class
- Continuing to explore other types of strategies to further diversify and gain new exposures
- Cash Flow Profile
 - Negative cash flow of approx. \$43M for quarter ending 3/31/20
- New investment commitments/additions
 - \$25M additional investment to Chickasaw Capital Management
 - \$20M additional commitment to Mountain Capital Partners II, LP
- Timber Portfolio Total Leverage – 6.1% as of 12/31/19

- The U.S. Treasury curve steepened over the last year as rates fell to near zero on the front end and to 67 bps on the 10 year
- The Federal Reserve cut interest rates six times over the past year to 5 bps
- Headline inflation was 0.3% year over year in March. Core CPI was 2.3% year over year
- Money market yields continued to fall as the Federal Reserve cut interest rates while spreads on commercial paper were volatile.
- Spreads on corporate bonds increased over 150 bps to 272 bps at the end of March
- Spreads on mortgage backed securities (MBS) ended March at 60 bps on erratic trading

- The Barclays Aggregate returned 8.93% on the year ended March 31, driven by lower interest rates partially offset by increased risk premium
- TIPS lagged nominal Treasuries in the 1st quarter as 10 year break evens declined 86 bps
- Bond market liquidity had been strong through January of 2020 but fell dramatically later in the 1st quarter. Bid/Ask spreads increased to record levels while new issuance ceased



Benchmark:

- Inception to 3/31/2017 - Bloomberg Barclays US Aggregate Bond Index
- 4/1/1997 to 11/30/2019 - Internally Managed and Broad Fixed Income PAC Custom Blend
- 12/1/2019 to present – Bloomberg Barclays US Aggregate Bond Index
- Inception Date: 4/1/1995

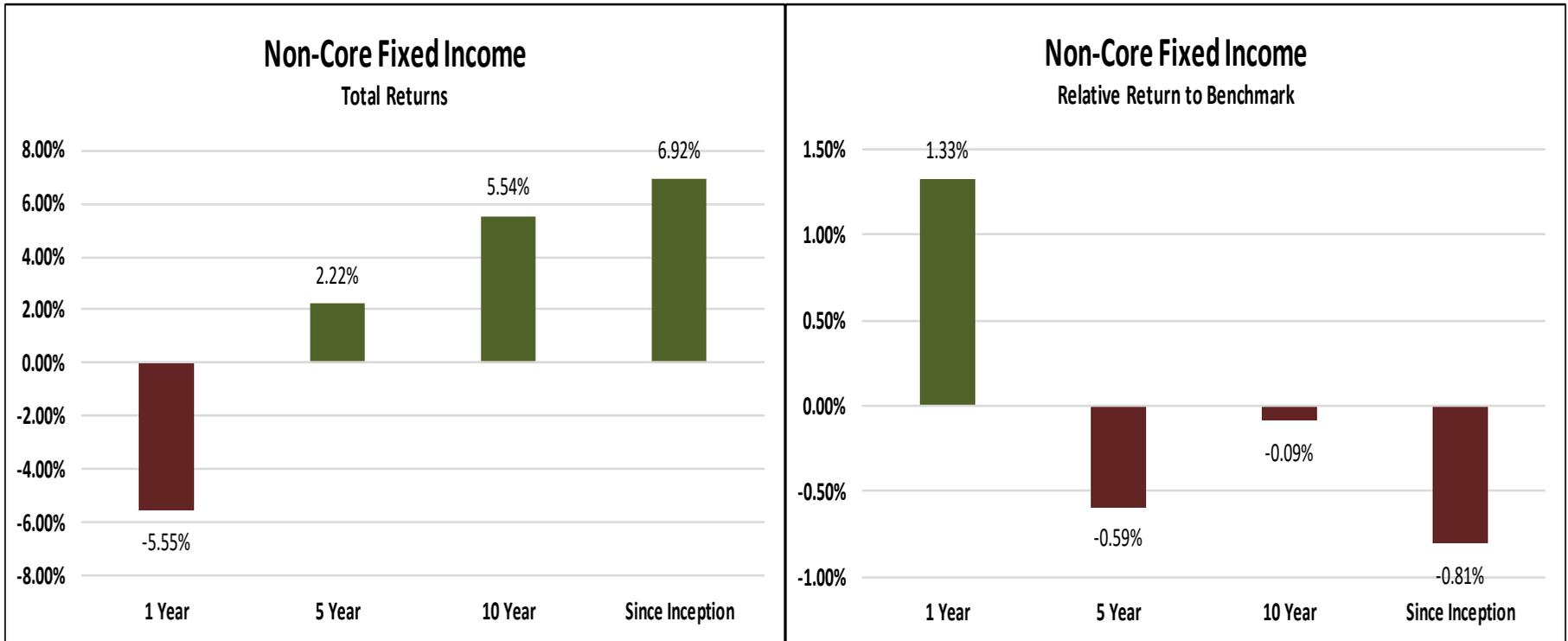
March 31, 2020

Performance

- Positive total return of 3.10% in the 1st quarter led by Reams 4.35% and the internal portfolio at 3.32%. While TIPs modestly outperformed the TIPs index, the .35% quarterly return was a drag on performance.
- Underperformed the benchmark by 5 bps in 1st quarter.
- Reams and the internal portfolios outperformed as they entered the quarter underweight spread product.

Characteristics and Activity

- Total market value of approx. \$2.41 billion at quarter end.
- Duration was approx. 96% of the benchmark at quarter end. Significantly underweight the long end of the curve.
- Portfolio was underweight Treasuries/Agencies and overweight spread product at the end of the quarter.

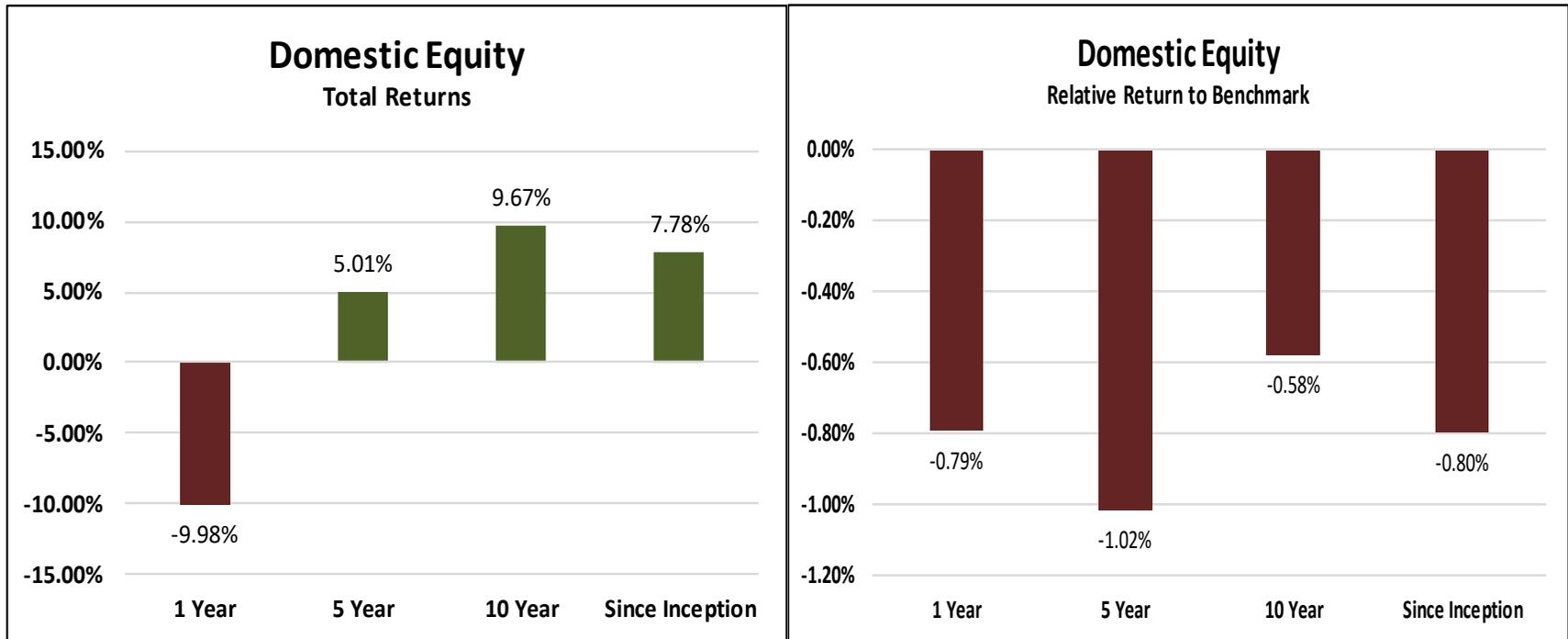


Benchmark: Bloomberg Barclays US High Yield – 2% Issuer Cap

- Inception Date: 6/1/2009
- High Yield Asset Class name change to Non-Core Fixed Income 11/30/19

- High yield spreads blew out to over 1000 basis points during the quarter as the economic stresses of the pandemic reached epic proportions. Spreads like these had not been seen since the recession of 2008.
- High Yield default rates are now expected to rise dramatically in the coming quarters. Current estimates are for a range of 6%-12% defaults within high yield credits. Recall that default rates had hovered between 2%-3% prior to this crisis. Energy credits are expected to be hardest hit.
- High yield spreads remain elevated at around 700+ basis points to treasuries. Recall that high yield spreads had been at historical lows for several quarters.

- The defensive positioning within the non-core asset class payed off during the high yield sell off as the asset class posted losses less than the high yield market in general.
- Overall, the non-core fixed income asset class outperformed by 106 basis points for the quarter.
- For the last twelve months ended March 31, the asset class outperformed by 133 basis points.
- There were no changes to the manager lineup.
- There were several new investments into the high yield portfolios during the quarter. These investments included additions to the Oaktree and Neuberger portfolios within CAPP as well as initial investments into the Oaktree and Neuberger portfolios within TFIP and State Fund.



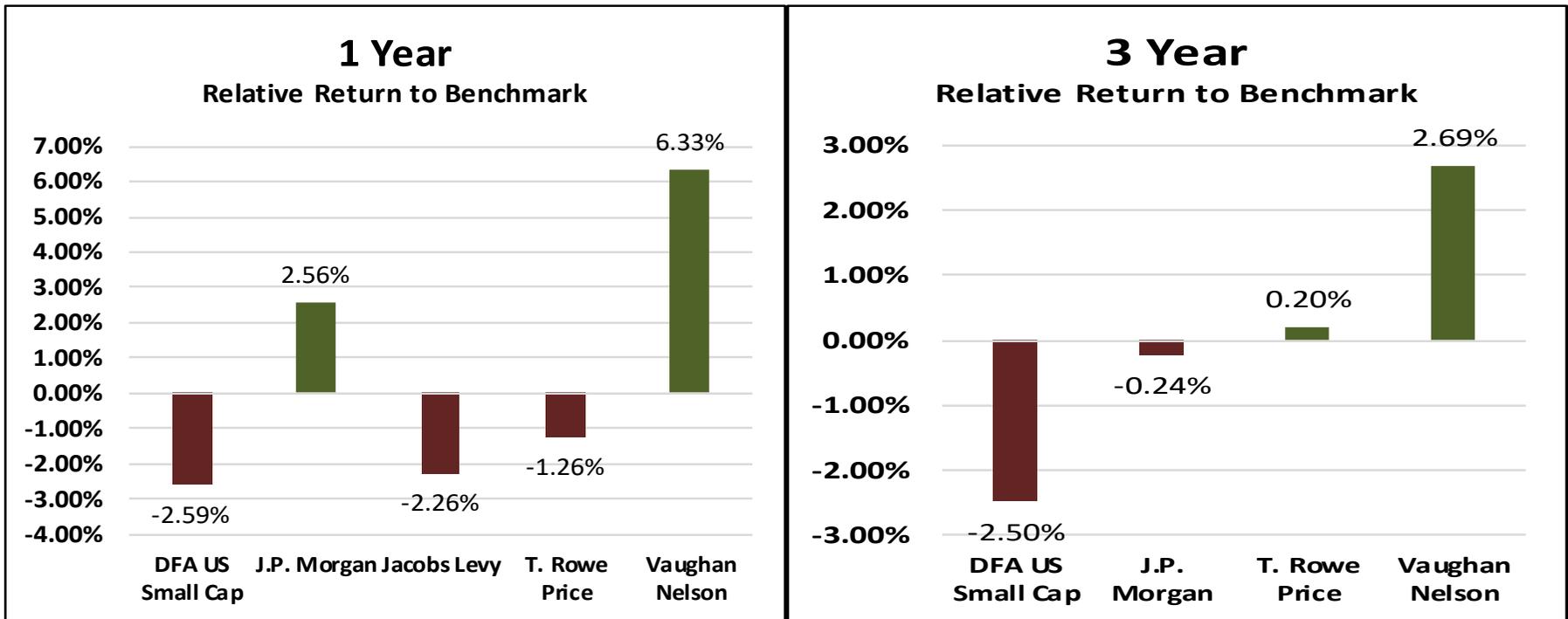
Benchmark: Domestic Equity – PAC Custom Blend

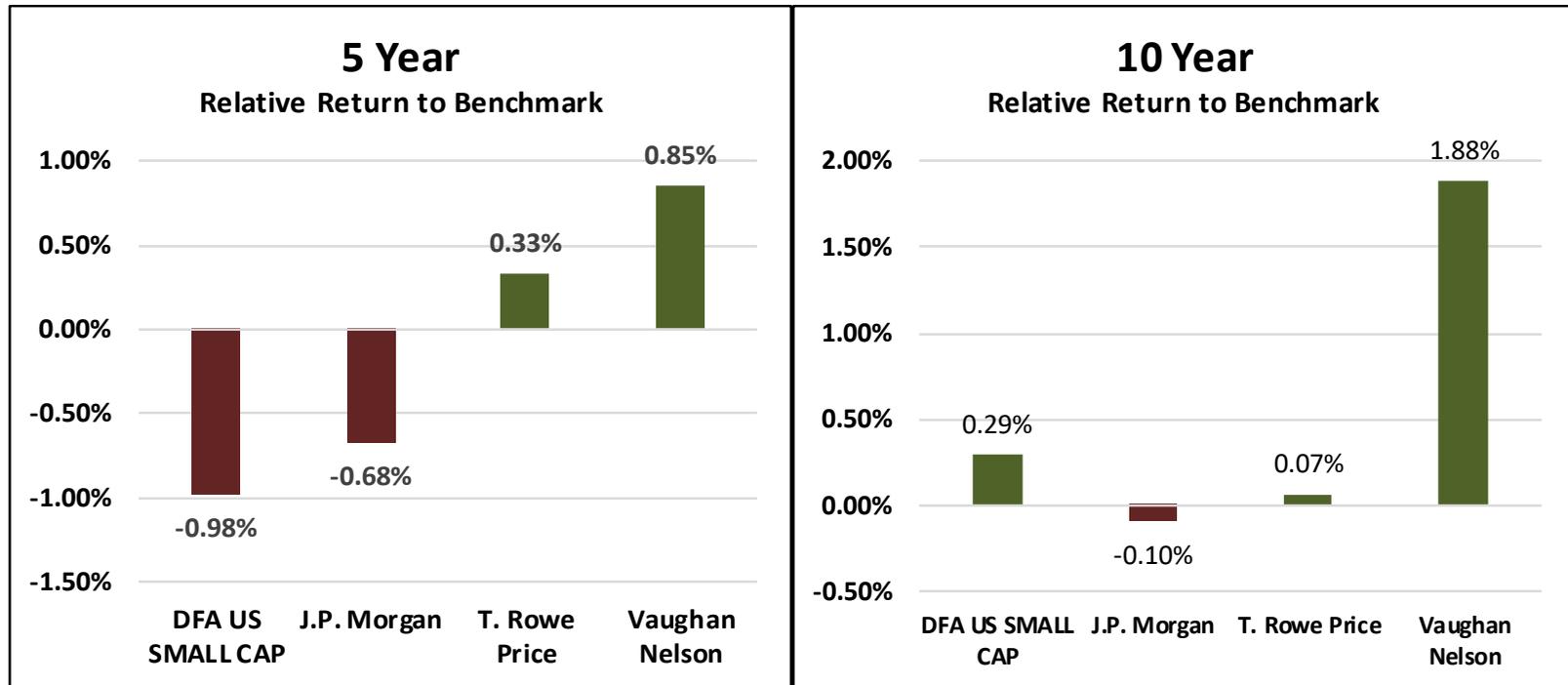
- From inception to 4/30/2017: S&P 1500 Super Composite
- 5/1/2017 to present: MSCI USA IMI, Gross
- Inception Date: 5/1/2003

March 31, 2020

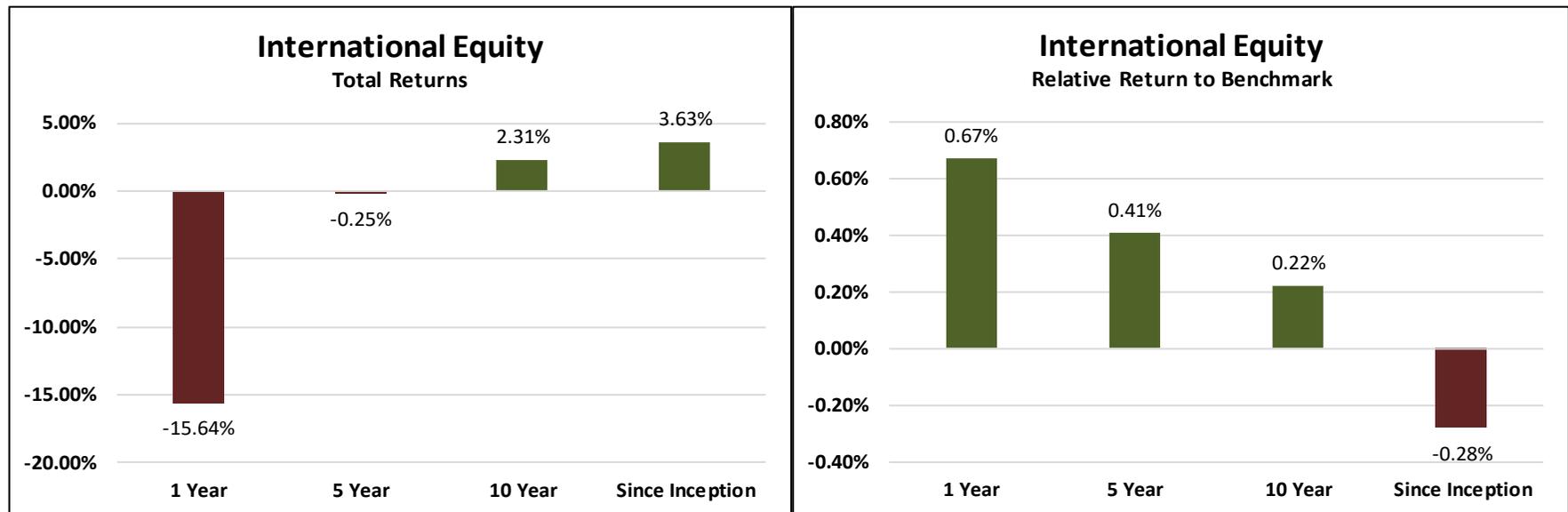
- US equities experienced a major sell off as the economic stresses of the pandemic brought the long expansion to an abrupt halt. Large-cap stocks generated negative returns of -19.6% (S&P 500), while small-cap stocks returned -30.6% (Russell 2000). The stock market declines were the quickest of that size since the Great Depression.
- At the end of March, the S&P 500 Index was valued at 17x even the most optimistic next 12-month earnings estimates. However, there isn't much confidence in any earnings estimates at this point given these unprecedented circumstances. So far about half of US companies have refused to give earnings guidance of any kind.

- The domestic equities asset class underperformed its benchmark during the quarter by -25 basis points, and lagged for the last twelve months by -80 basis points.
- Attribution showed that during the quarter the overweight to small-caps detracted the most from relative performance.
- The asset class has lagged its benchmark for the 5 year and 10 year periods ended March 31.





- Index funds account for the majority of allocation to large-cap stocks.
- Small-cap stocks are slightly overweight to the benchmark at 11.9%.
- Cash at the asset class level is 0.1% as cash was reduced during the quarter as well.
- There were contributions made into domestic equities during the quarter with the money being invested into the SPY ETF, the large-cap index funds, and the T Rowe Price portfolio.
- There were no changes to the manager lineup during the quarter.



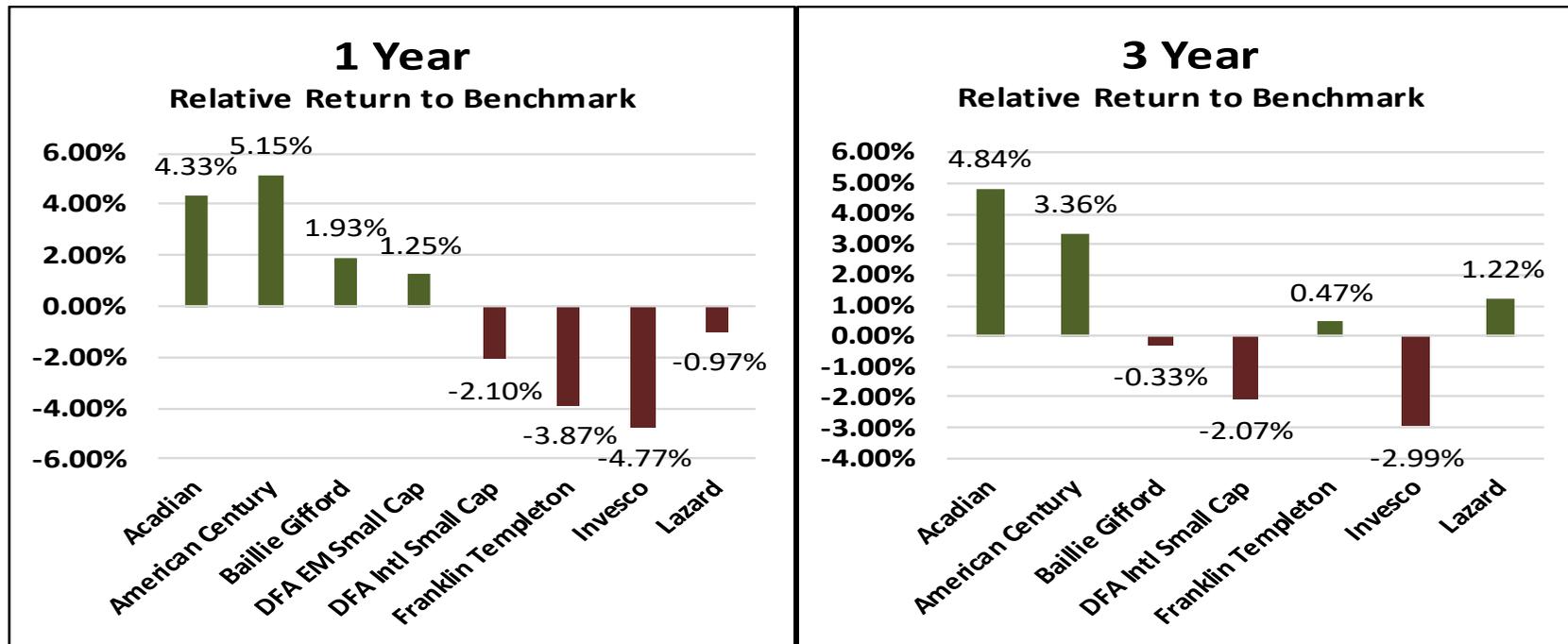
Benchmark: International Equity – PAC Custom Blend

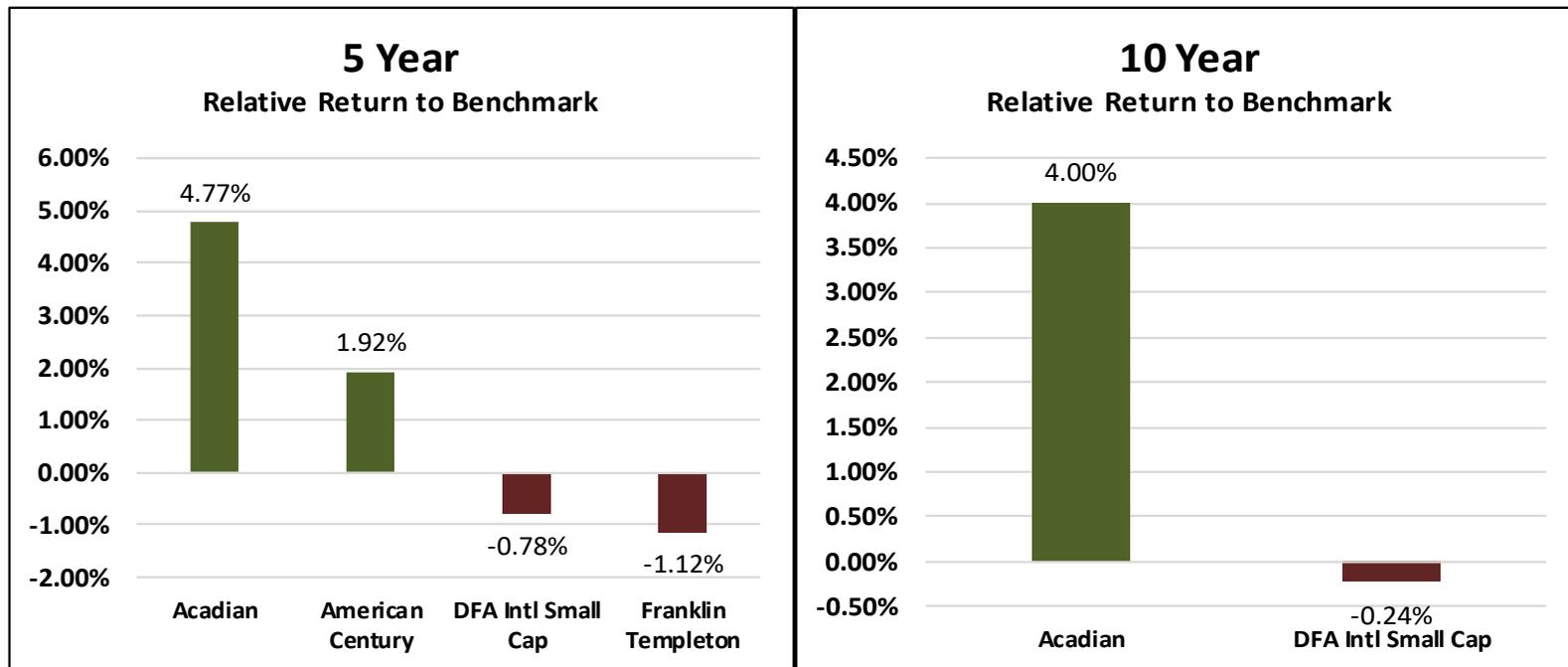
- From inception to 10/31/2006: MSCI EAFE, Net
- 11/1/2006 to 6/30/2007: MSCI ACWI ex-US, Net
- 7/1/2007 to 2/28/2014: 92.5% ACWI ex-US + 7.5% ACWI ex-US Small Cap
- 3/1/2014 to present: MSCI ACWI ex-US IMI, Net
- Inception Date: 4/1/1997

March 31, 2020

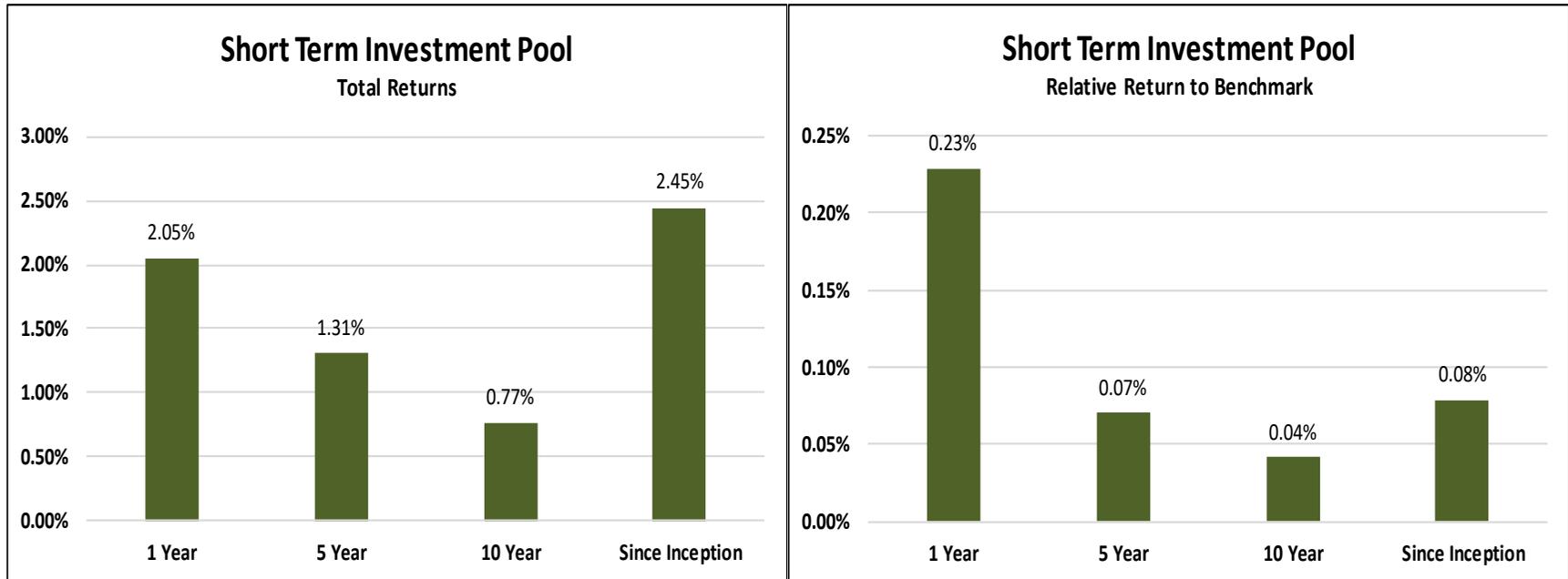
- International stocks experienced a major sell off in the first quarter with developed market stocks returning -23.3% (MSCI World ex-US) and emerging market stocks returning -23.6% (MSCI EM). Small-caps underperformed large-caps within developed markets by returning -28.4% (MSCI World ex-US SC).
- Similar to the US equity markets the declines reflected the negative economic effects of country lockdowns, with the declines being substantial and swift.
- The dollar experienced a wild ride during the quarter as it traded in a range of almost 10% in February and March. It closed the quarter roughly 2% higher than where it started which eroded international returns for US investors.

- At quarter end, the MSCI World ex-US Index (developed markets) was valued at 14.1x estimated next 12-month earnings, while the MSCI Emerging Markets Index was valued at 12.1x estimated next 12-month earnings. Yet as with the US valuations based upon estimates, the level of confidence in the accuracy of these levels is low.
- The international equities asset class outperformed its benchmark during the quarter by 30 basis points and outperformed for the last twelve months by 68 basis points.
- Manager selection was the major contributor to the outperformance during the quarter.
- The asset class has outperformed its benchmark for the 5 year and 10 year periods ended March 31.





- The large-cap allocation retains a significant weight to index funds.
- Small-capitalization stocks are slightly overweight relative to the benchmark at 11.7%.
- There is a slight overweight to emerging markets of 0.4%.
- Cash at the asset class level is 0.1% as cash levels were reduced.
- There were new contributions into the asset class during the quarter which were invested in the ETFs.
- There were no changes to the manager lineup during the quarter.



Relevant Benchmark:

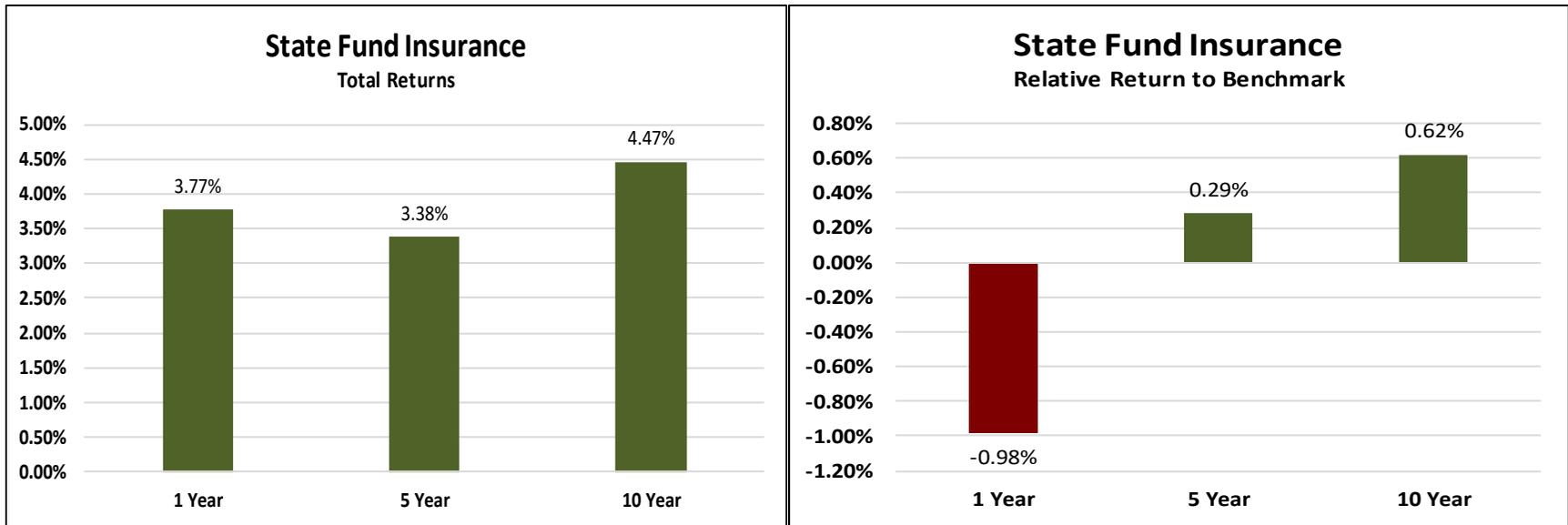
- Inception to 4/30/2018 - LIBOR 1 Month
- 5/1/2018 to present: Federal Reserve US Treasury 1M Constant Maturity Index
- Inception – 4/1/1997

Performance

- The yield on STIP was 1.33% at the end of March.
- Out performed the index by 23 bps over the year, net of fees.
- Good performance versus the index over 3, 5 & 10 years.

Characteristics & Activity

- Treasuries, Agencies and Government money market funds made up just over 36% of the Pool on 3/31/20, up from approximately 30% on 3/31/19.
- Local Government participants' percentage was 35.7% on 3/31/20, down slightly compared to the prior year.
- The STIP assets were \$4.275 billion on 3/31/20 up over \$600 million from 3/31/19.
- The STIP reserve was \$51.89 million on 3/31/20.



Relevant Benchmark:

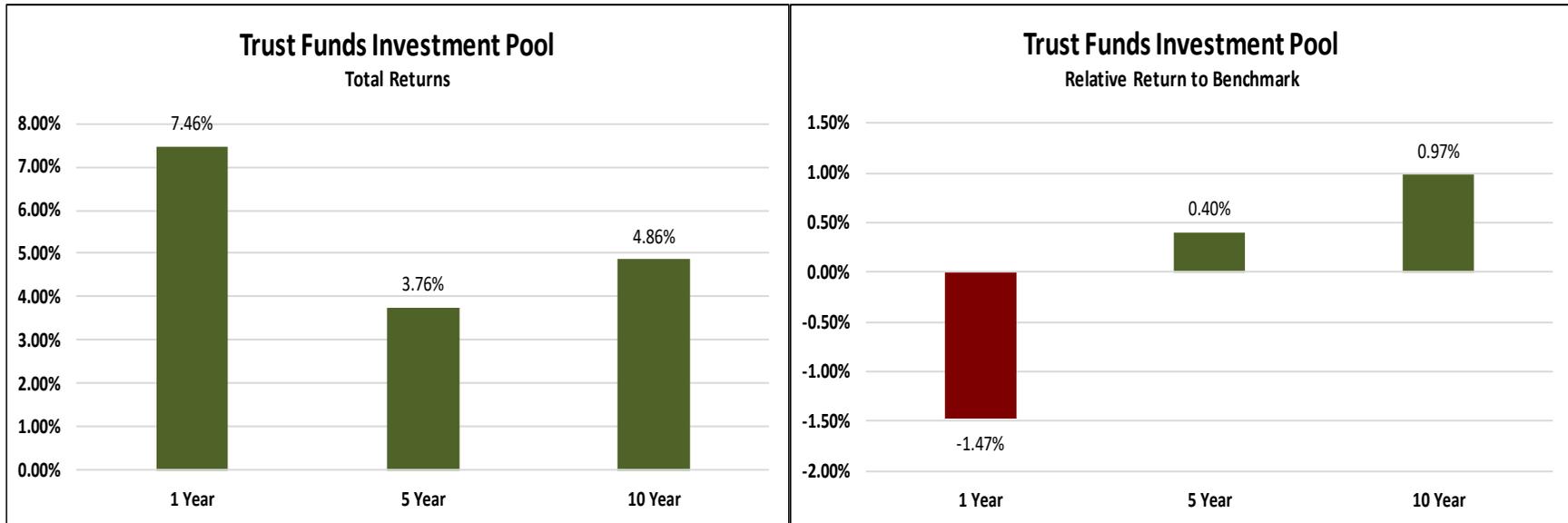
- State Fund Custom Benchmark: Proportionately weighted Bloomberg Barclays Int. U.S. Govt. Credit Bond Index, S&P 500 Index, MSCI ACWI ex U.S. Index, NCREIF ODCCE Index

Performance

- Total portfolio return was 3.77% over the last year. Fixed income returns led the way followed by real estate and then equities.
- Underperformance last year driven by 1st quarter 2020.
- Total portfolio underperformed the benchmark by 98 bps and bond portfolio underperformed the benchmark by 126 bps over the year.

Characteristics & Activity

- Total market value of approx. \$1.49B at quarter end.
- Duration was slightly below the benchmark at quarter end.
- Overweight to spread product and underweight to Treasuries was a drag on the portfolio in 1Q20.
- Added \$20M to S&P 500 during March.



Relevant Benchmark: Bloomberg Barclays U.S. Aggregate Bond Index

March 31, 2020

Performance

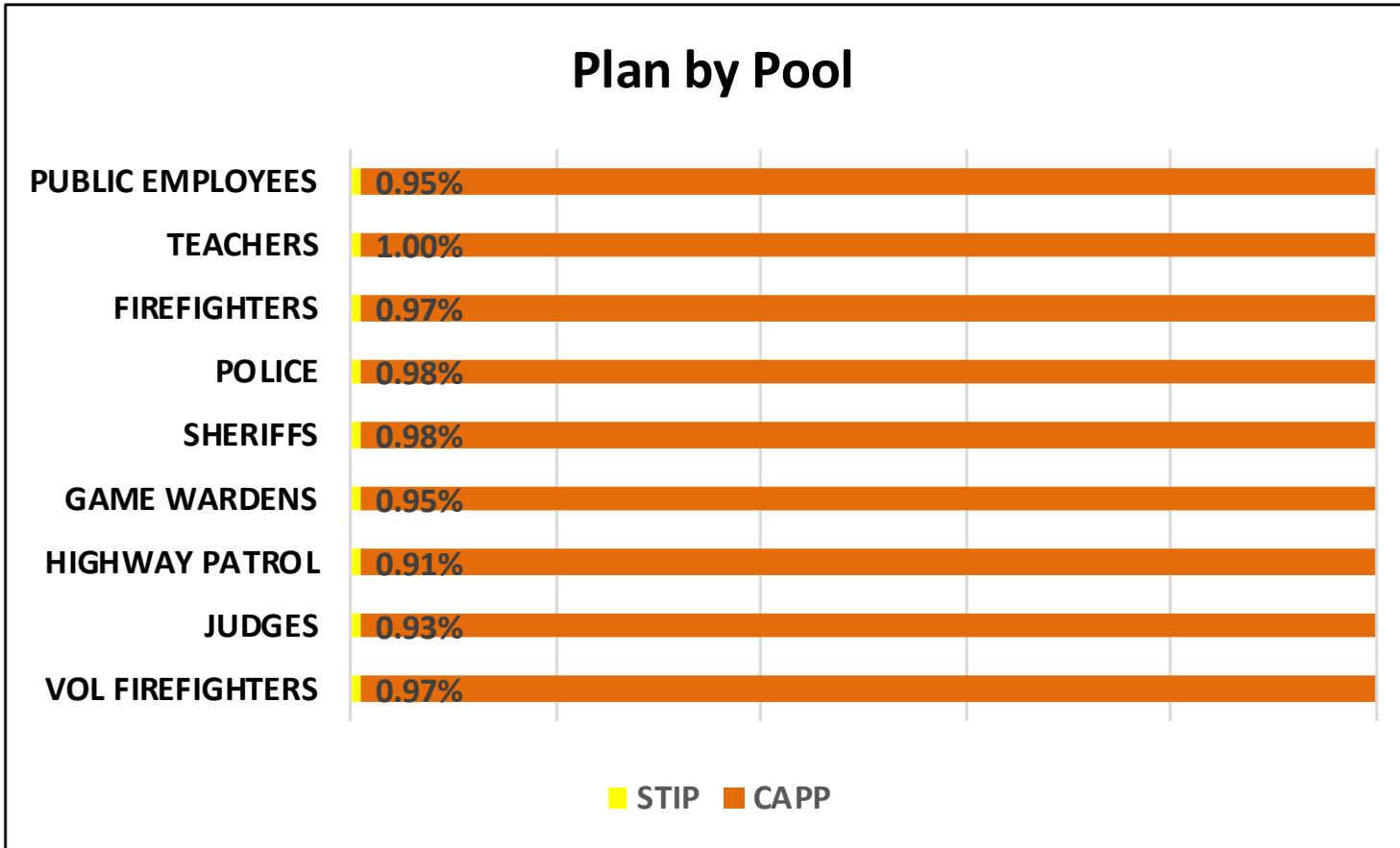
- Weak performance over the last twelve months was due to a relative overweight to risk products along with a modest short duration.
- High Yield underperformed dramatically. Real Estate had positive returns but significantly below the benchmark. The internal portfolio underperformed on an overweight to corporate bonds, although the corporates we had generally outperformed
- Total portfolio underperformed the benchmark by 147 bps and the internal bond portfolio underperformed the benchmark by 67 bps.

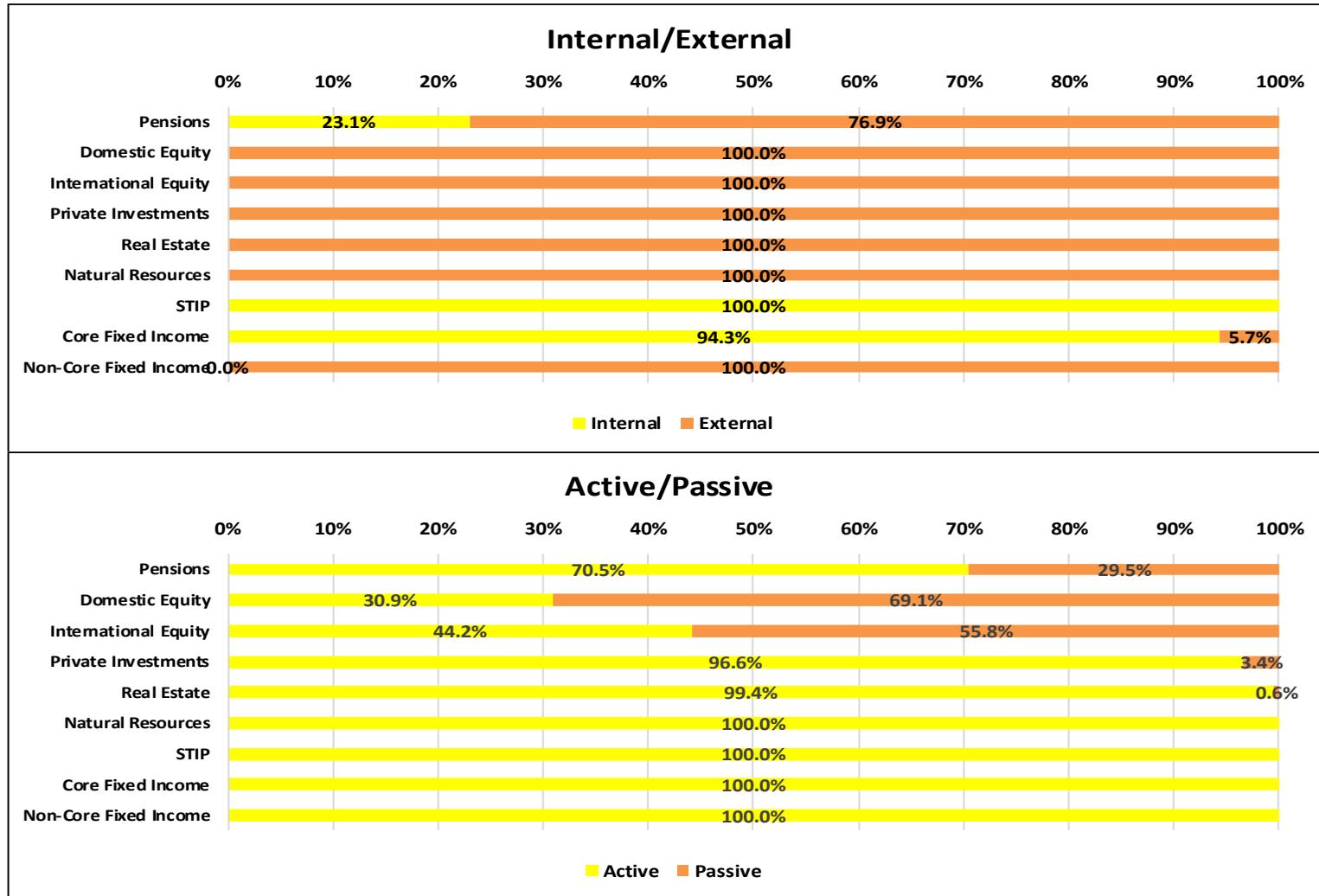
Characteristics & Activity

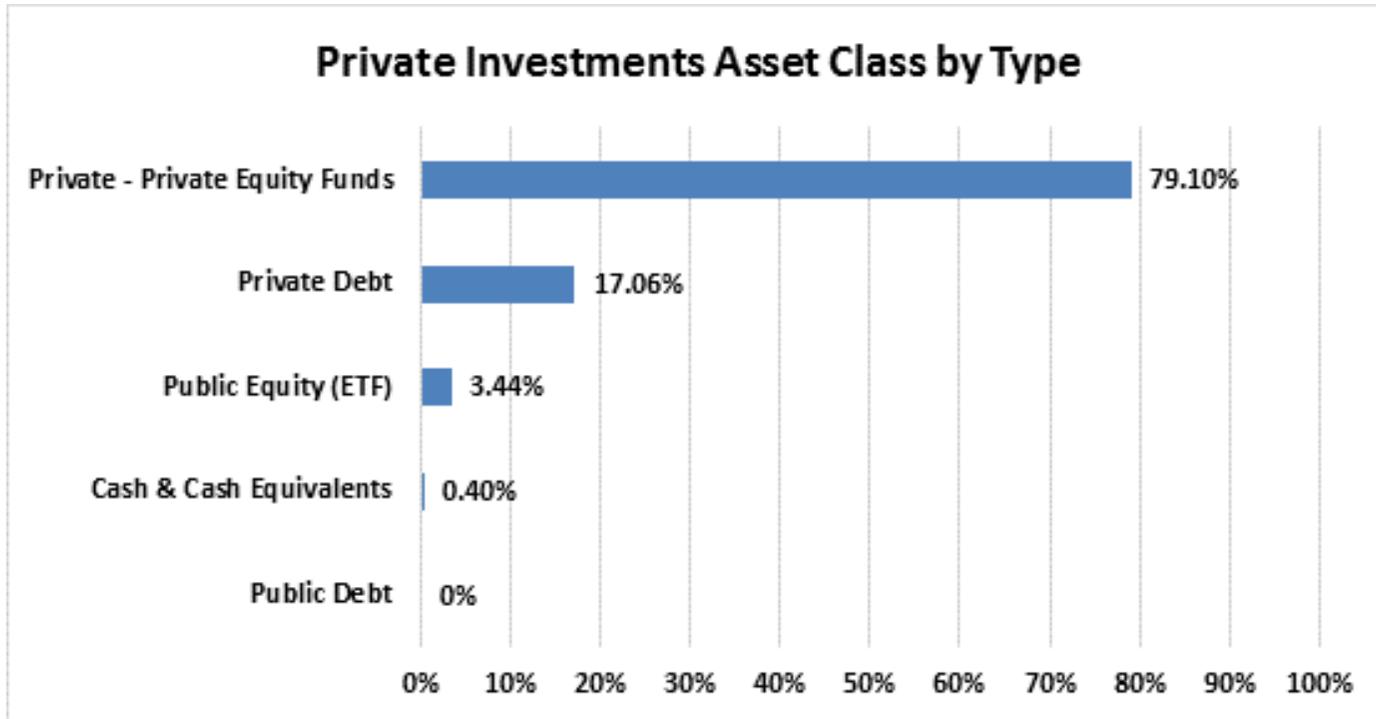
- Total market value of approx. \$2.56B at quarter end.
- TFBP duration was below below the benchmark at quarter end on an increase in cash. Significantly underweight the long end of the curve.
- TFBP maintained overweight to Corporates, CMBS and ABS and underweight to Treasuries and MBS.

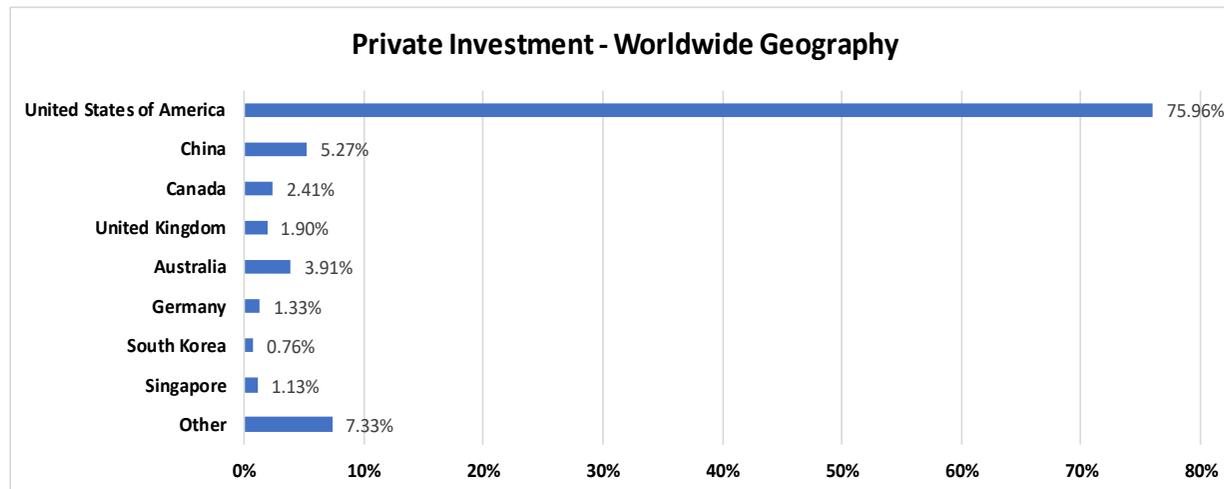
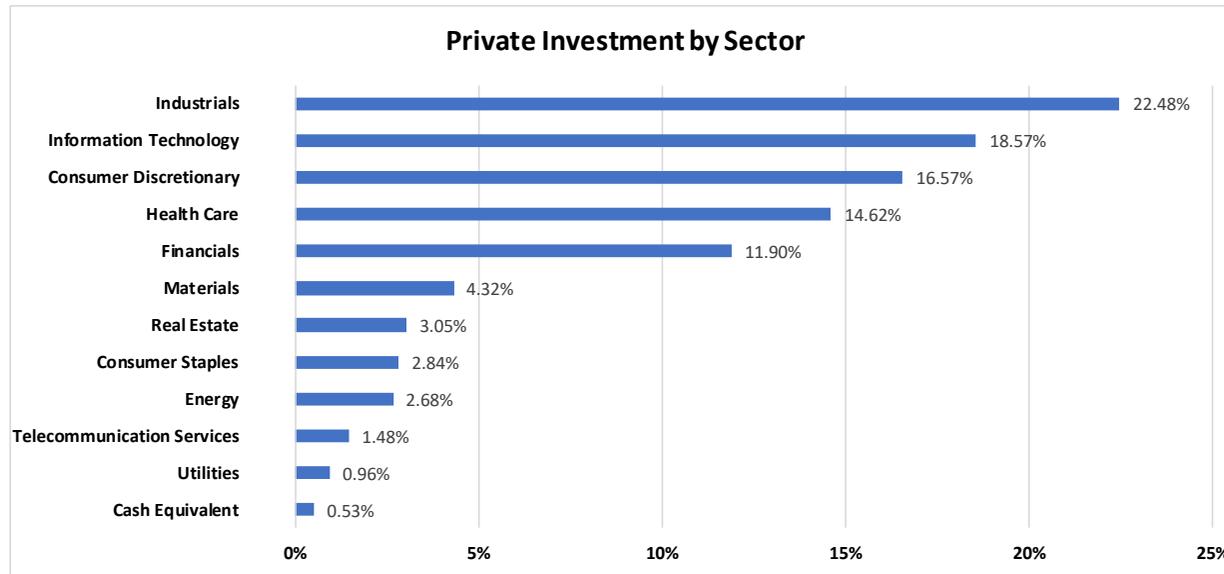
APPENDIX

CIO Update – Pension Plans Allocations by Pool

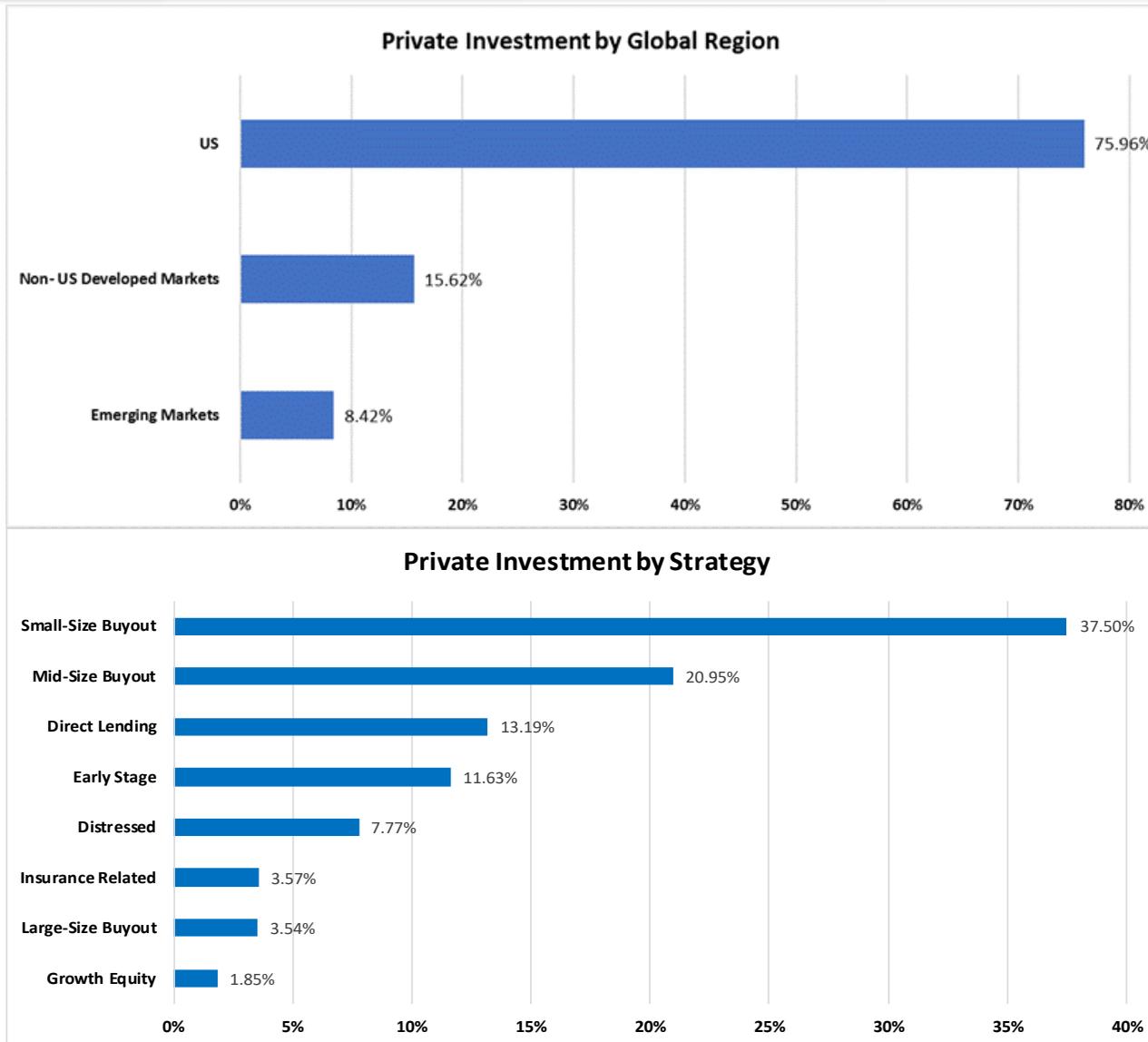




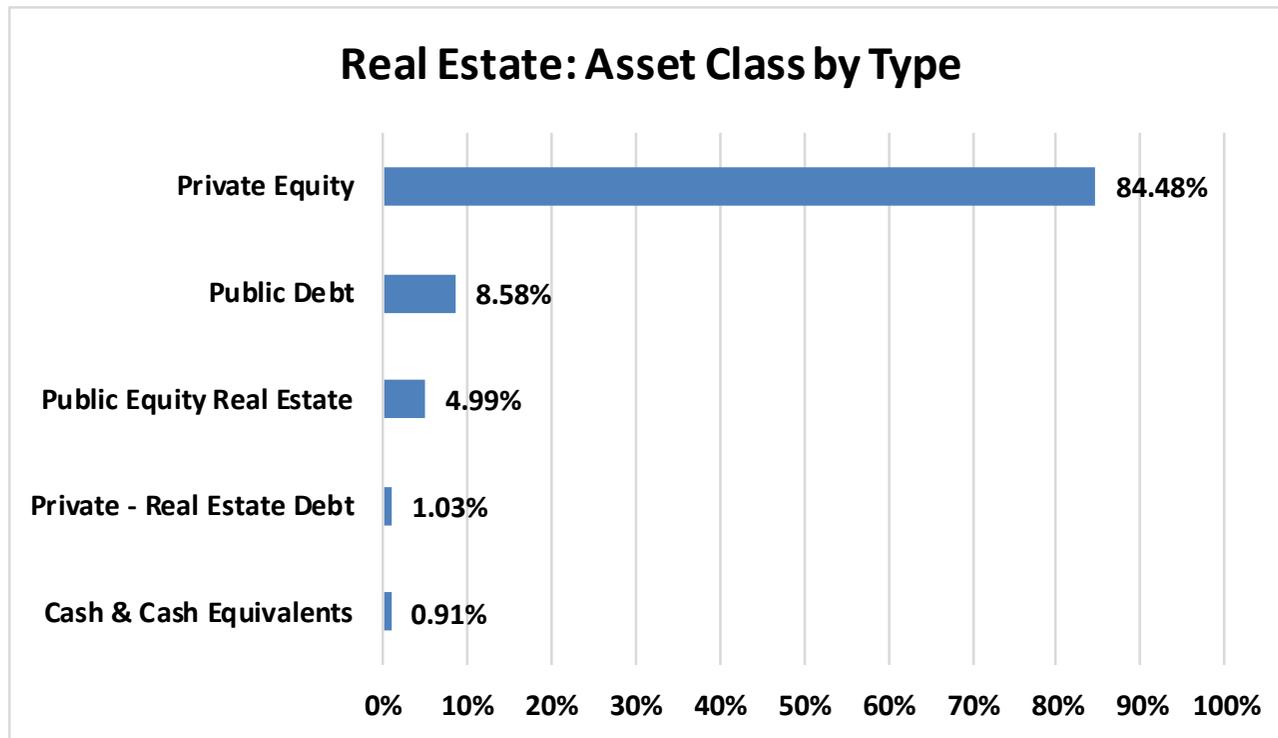


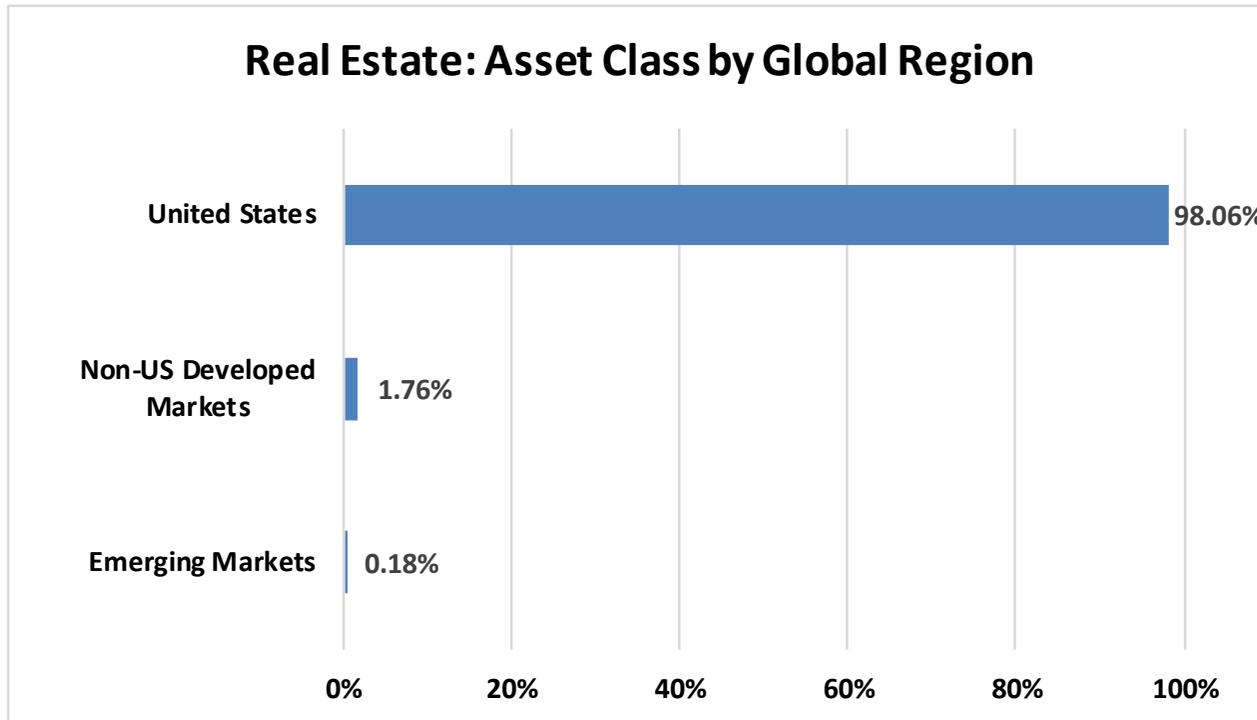


Note: Data reflects most recent GP-reported holdings as of 12/31/19
March 31, 2020

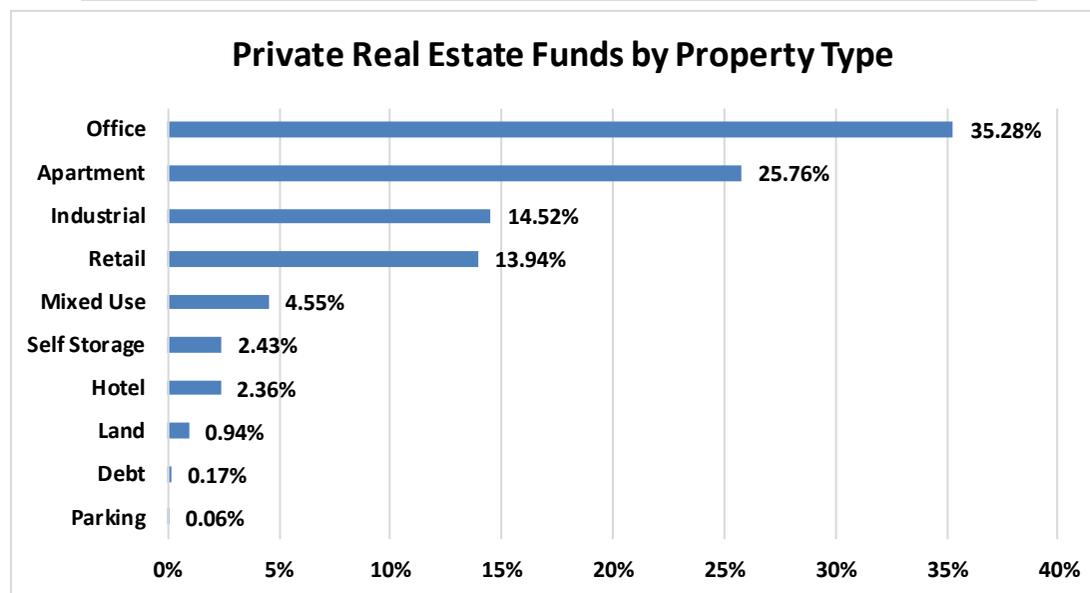
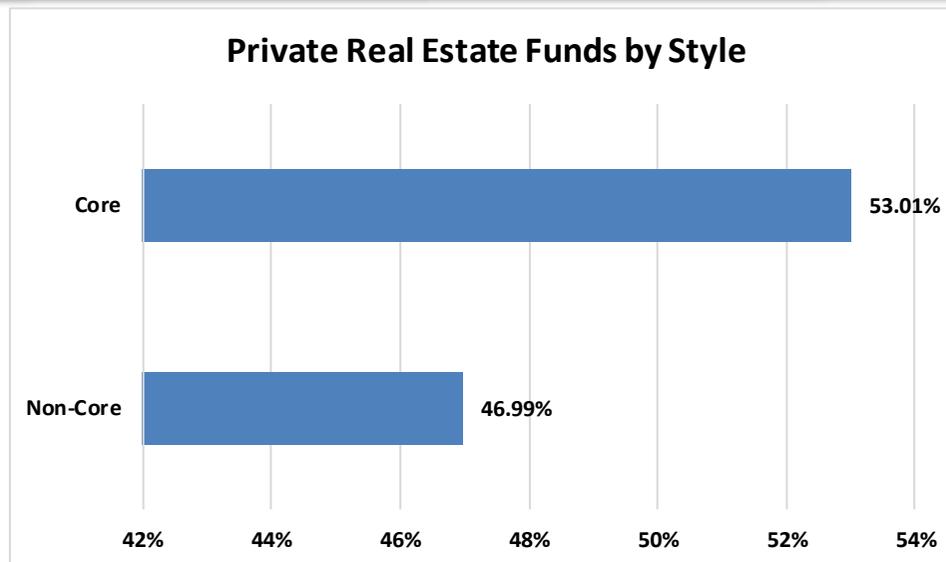


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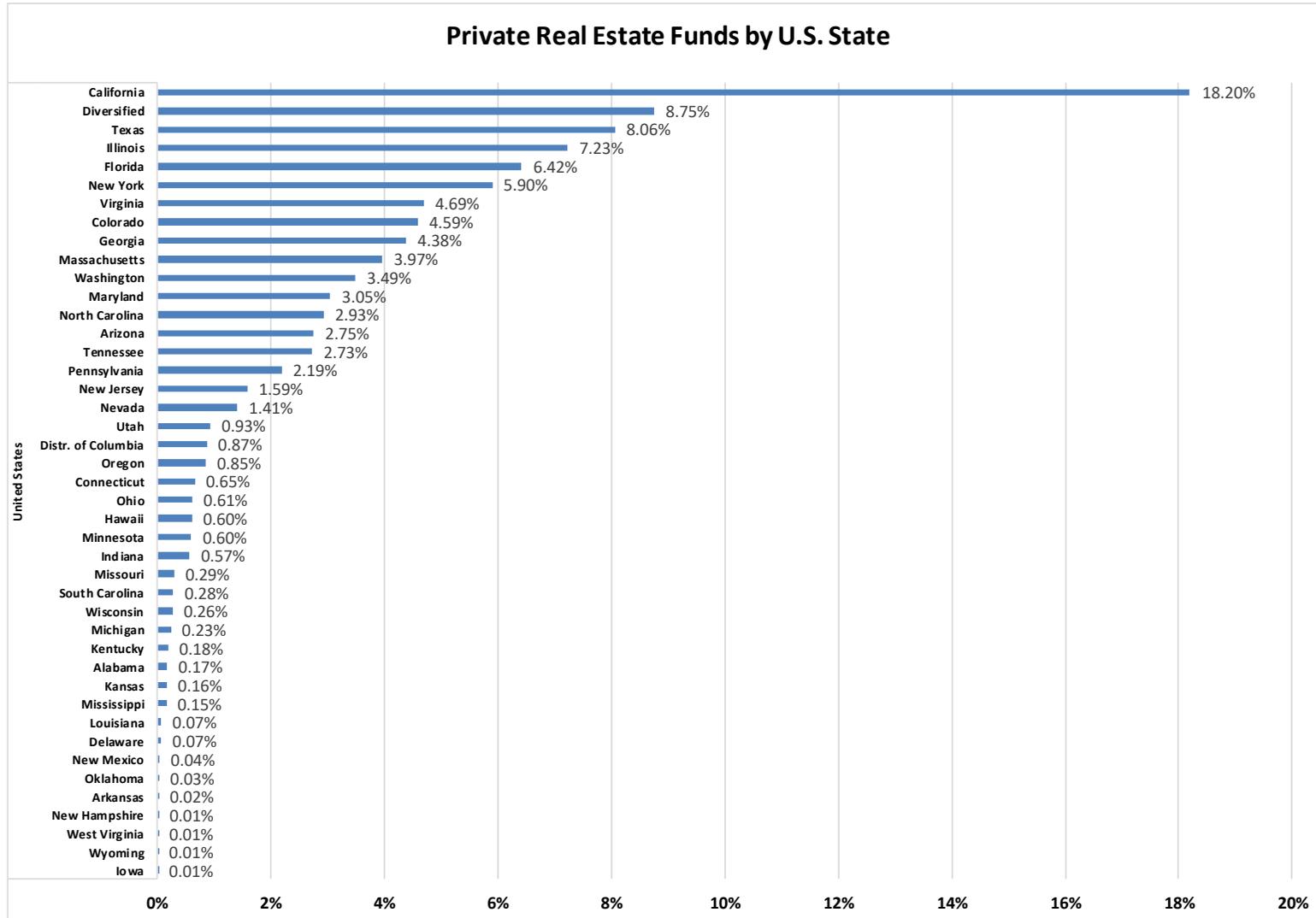


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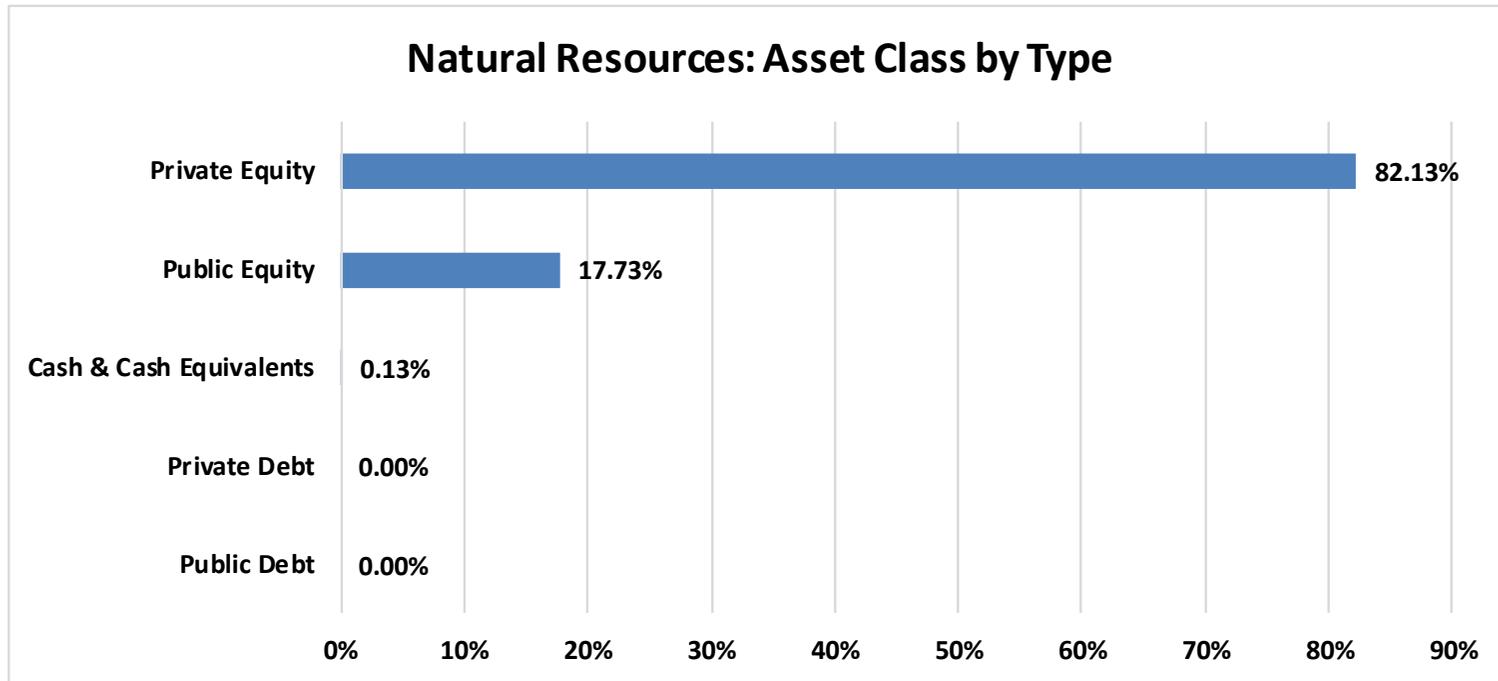
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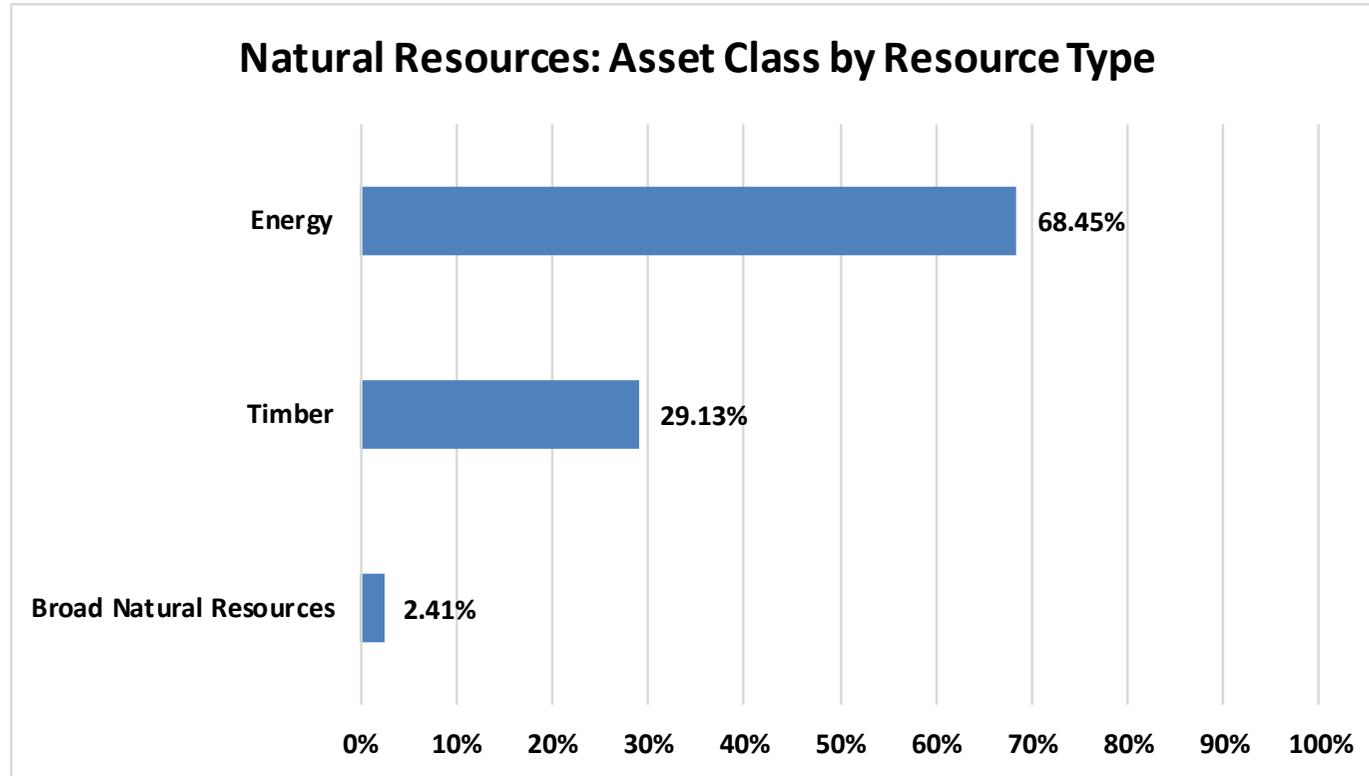
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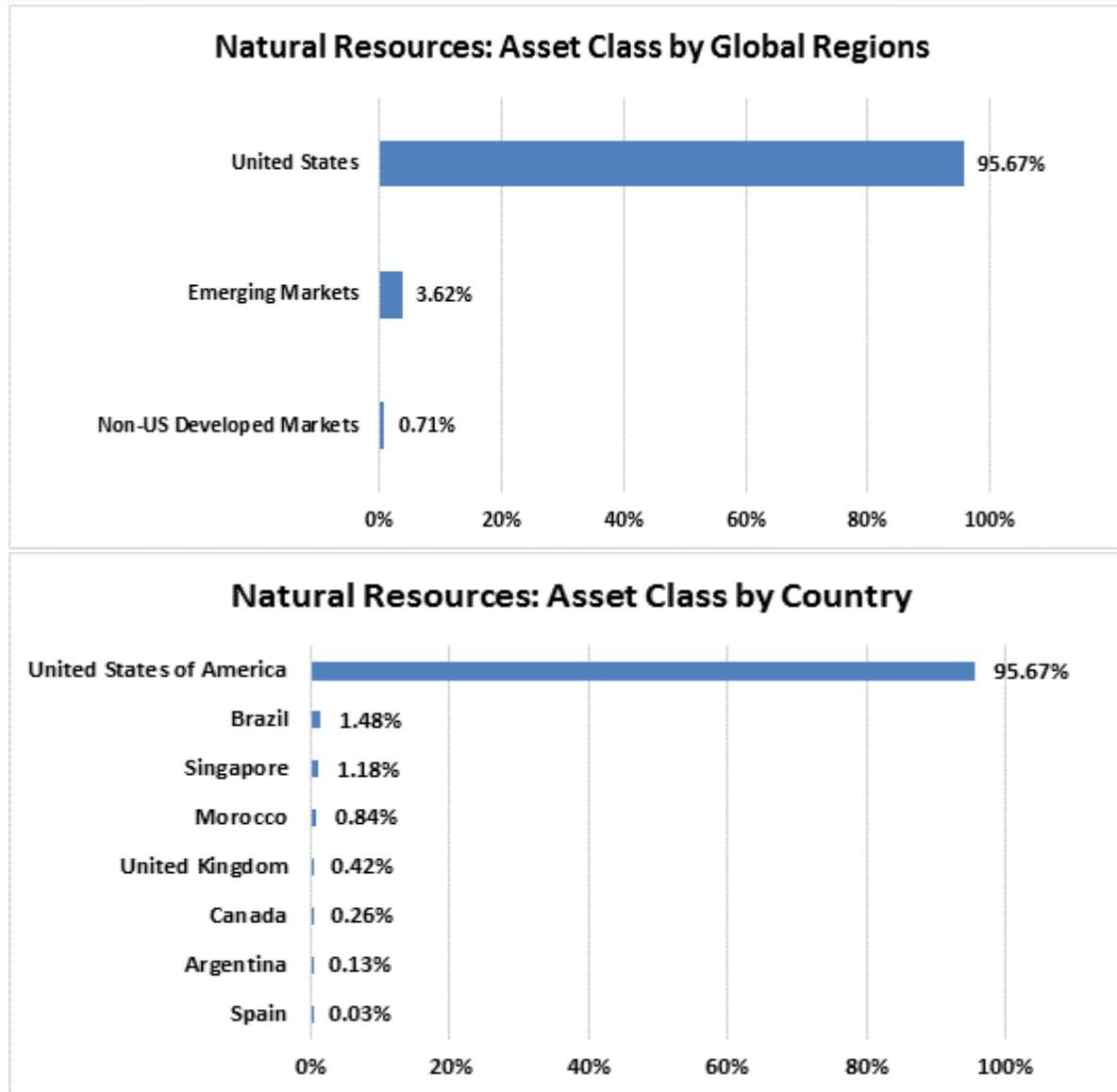


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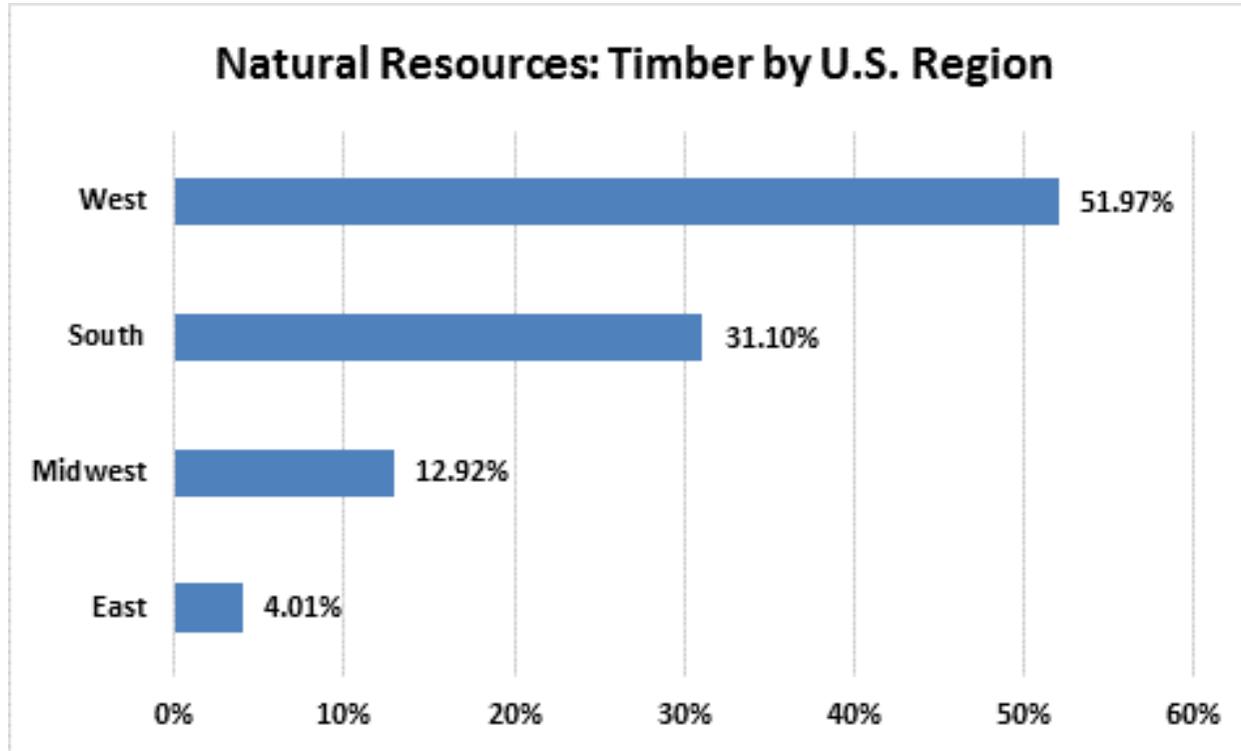
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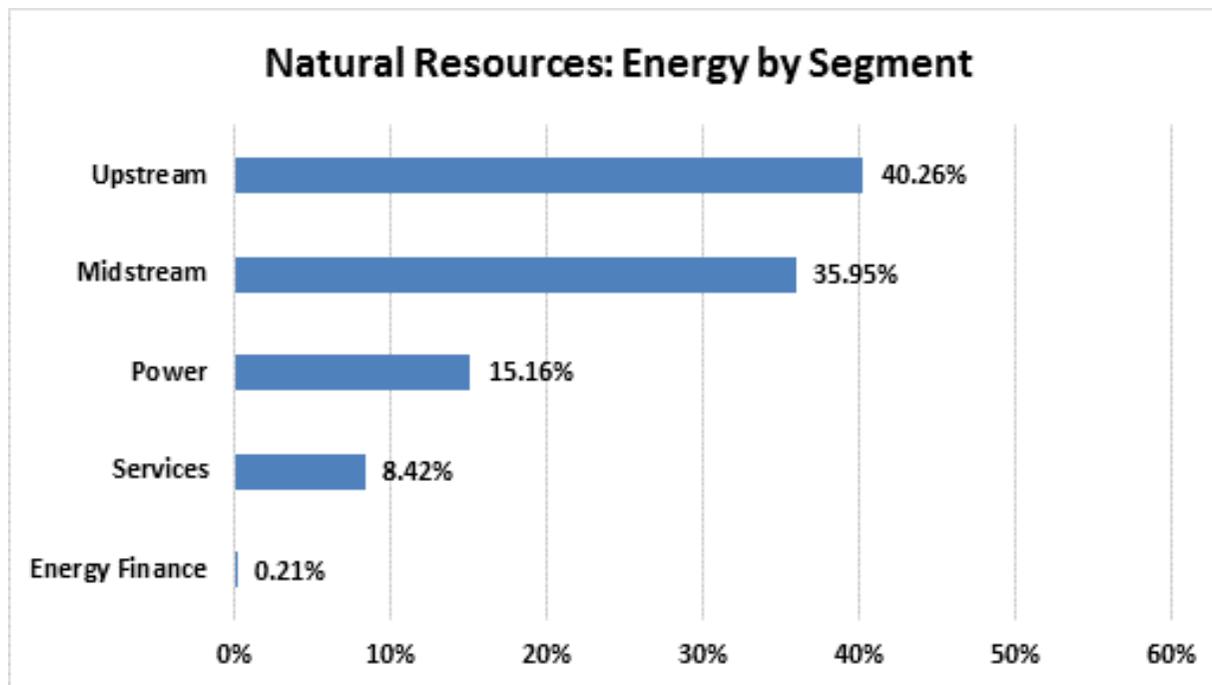


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March 31, 2020



Note: Data reflects most recent GP-reported holdings as of 12/31/19

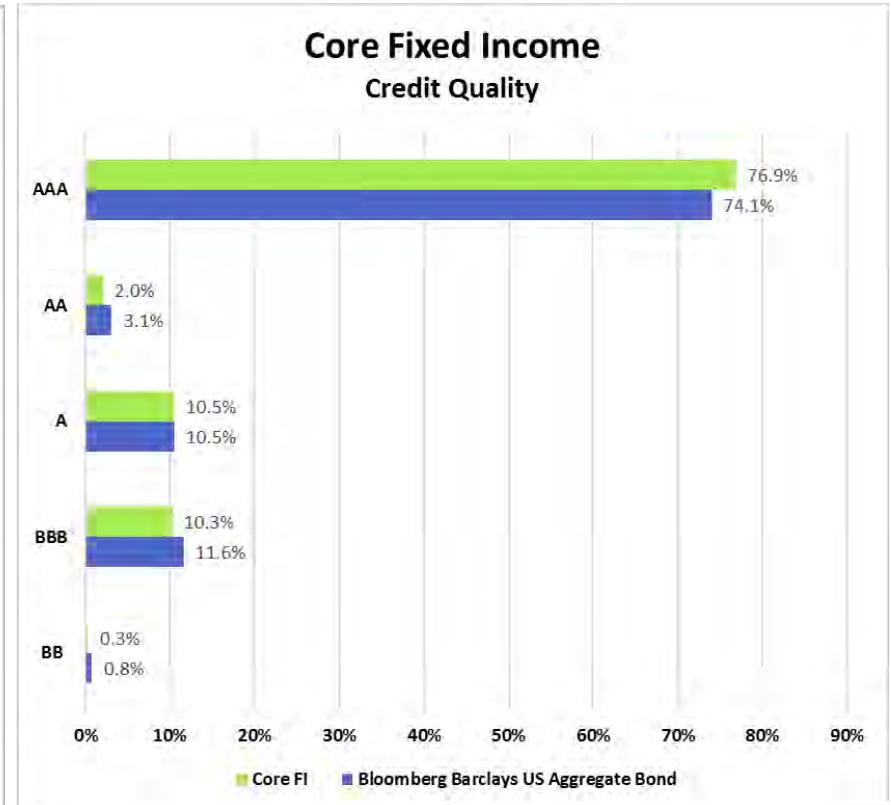
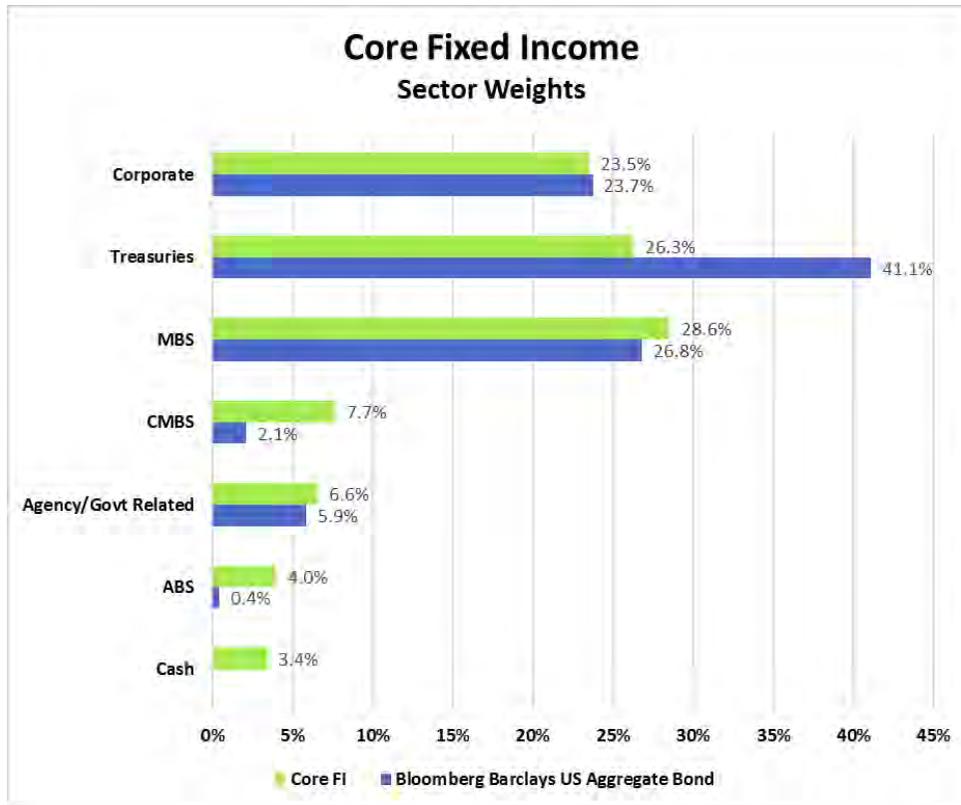
March 31, 2020



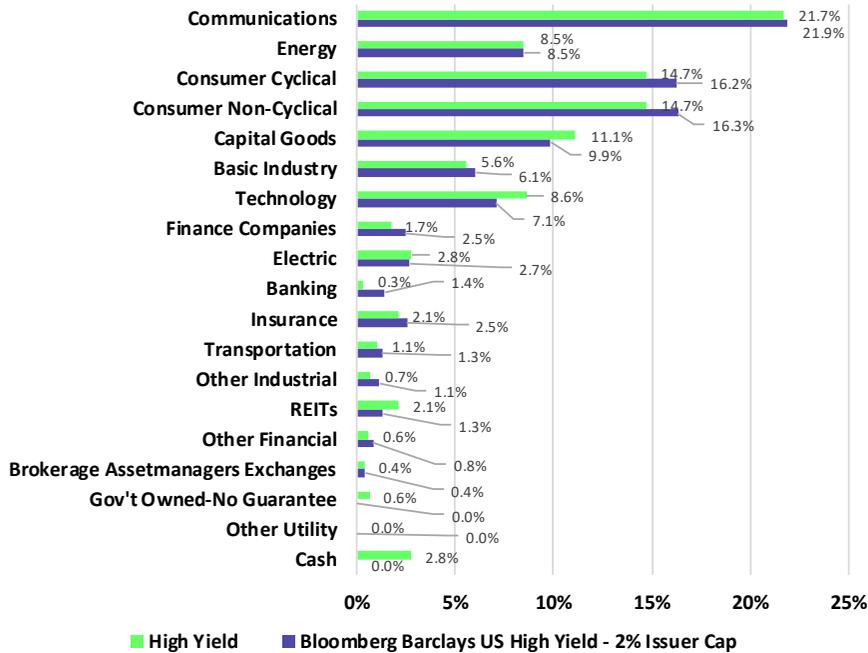
Upstream	Exploration and production
Services	Businesses that provide ancillary services and equipment required to explore for, produce and transport oil and gas
Power	Generation plants that create power
Midstream	Pipelines, terminals and storage of oil and gas and involves the transportation of oil and gas
Energy Finance	Investments in a portfolio of liquid or yield-orientated securities

Note: Data reflects most recent GP-reported holdings as of 12/31/19

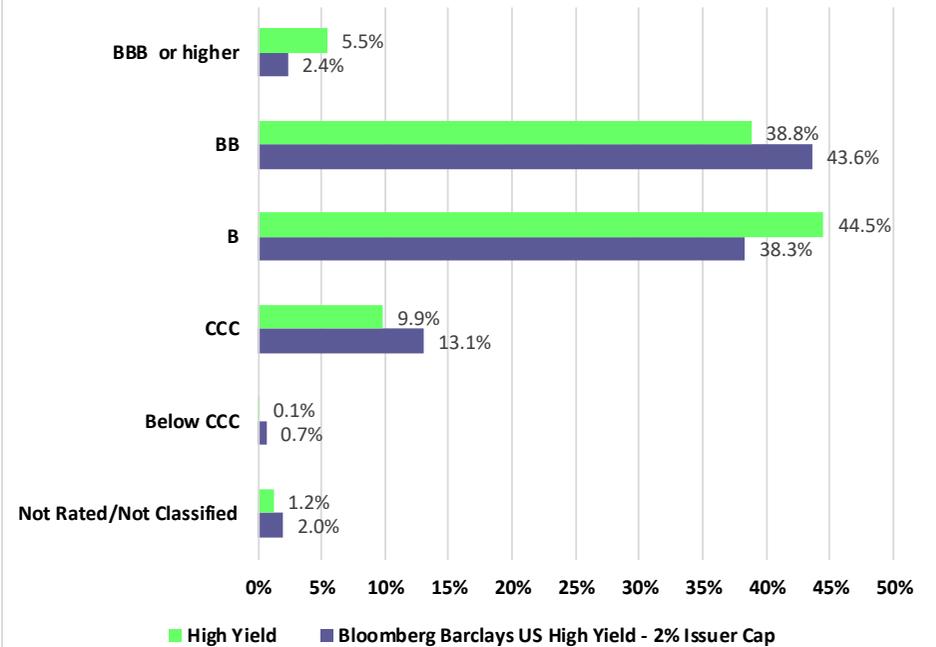
March 31, 2020

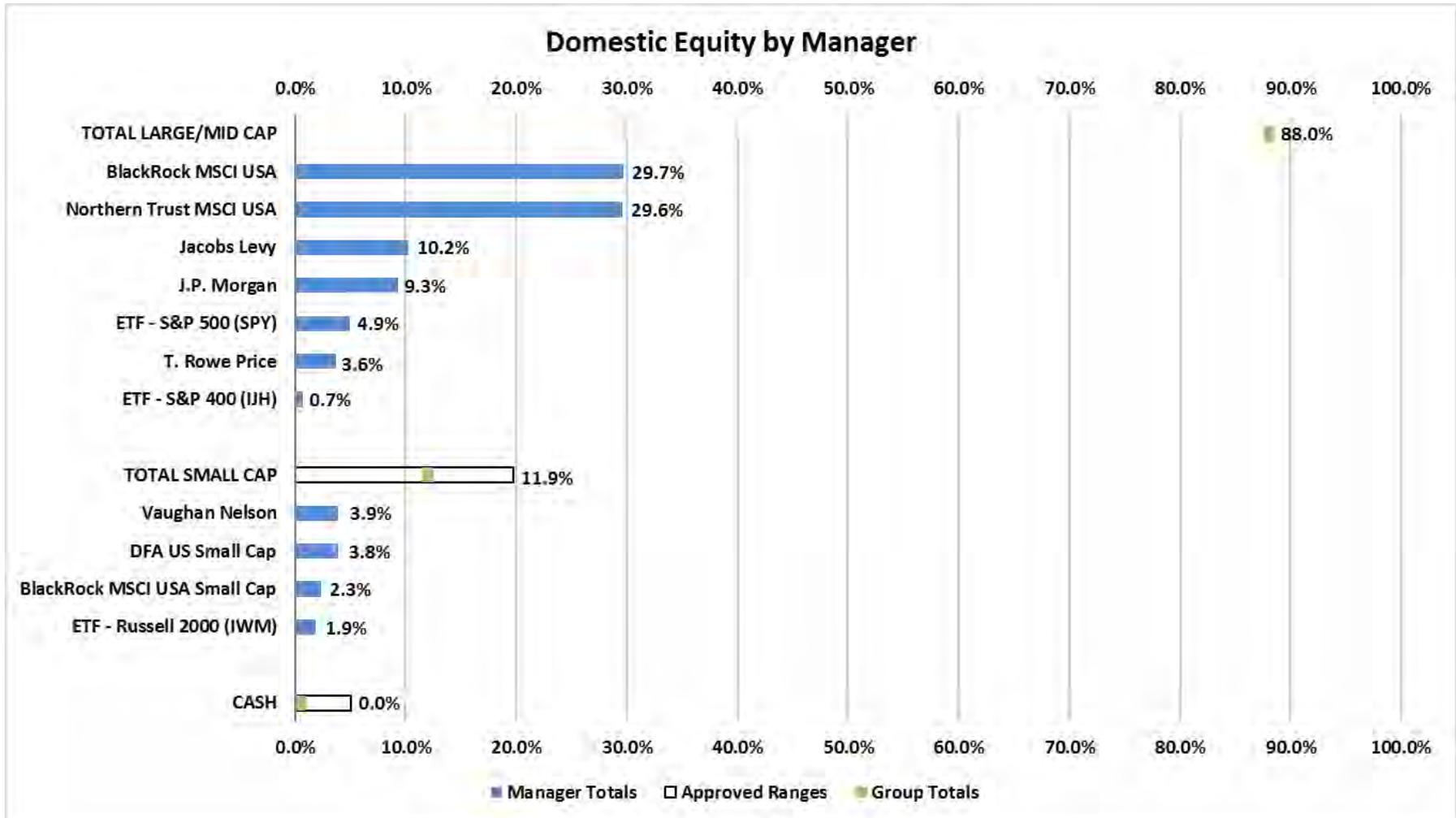


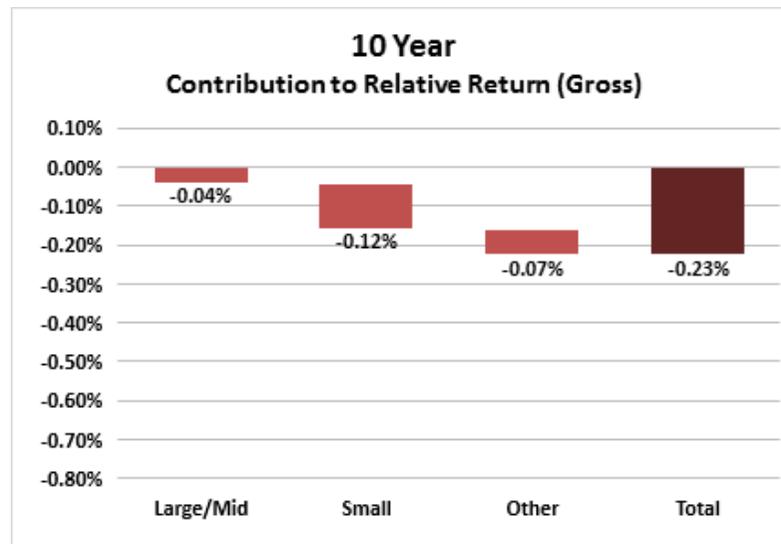
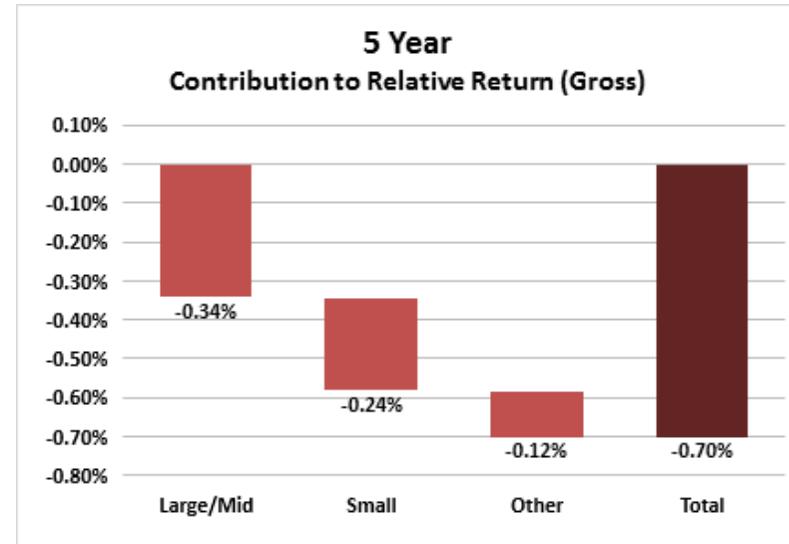
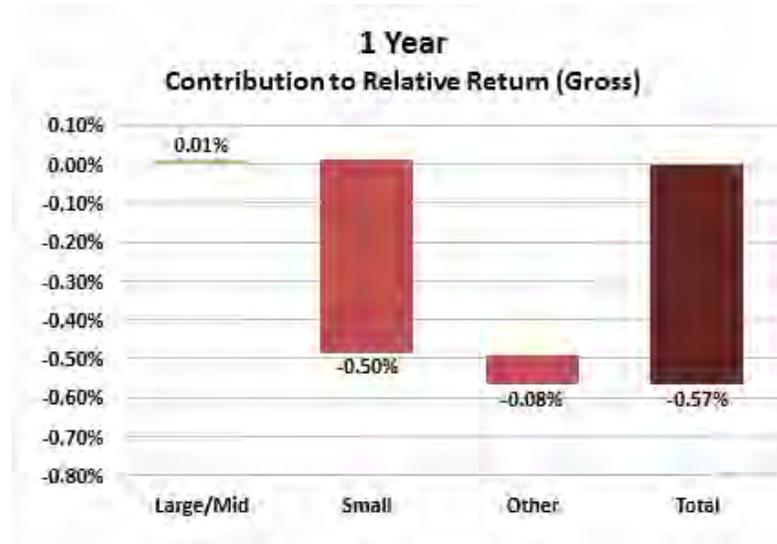
Non-Core Fixed Income Sector Weights



Non-Core Fixed Income Credit Quality

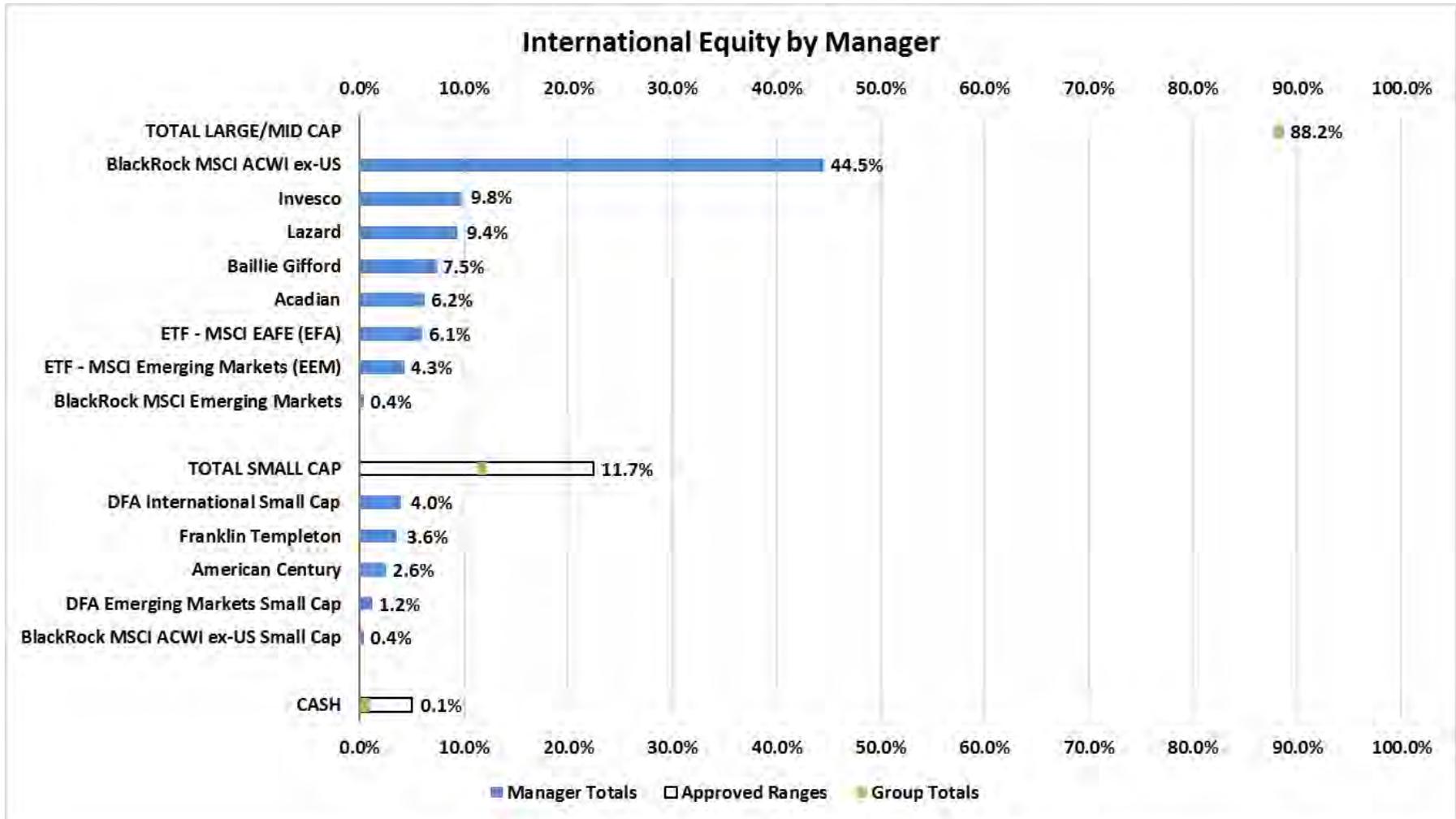


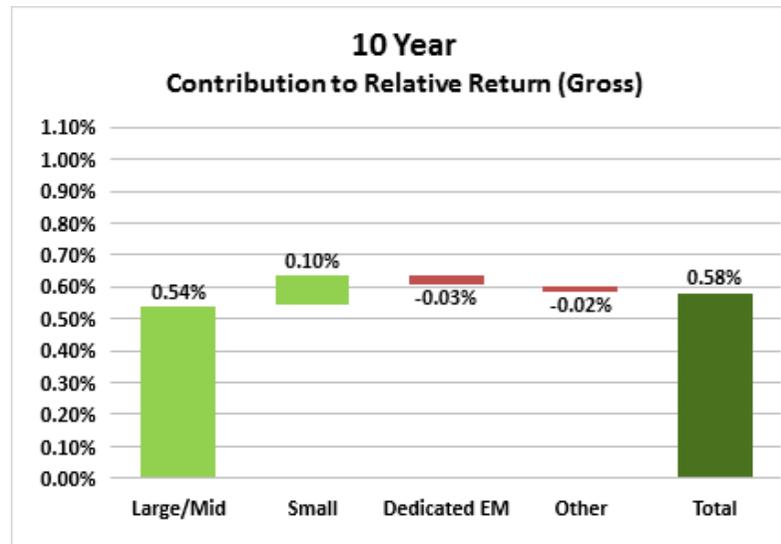
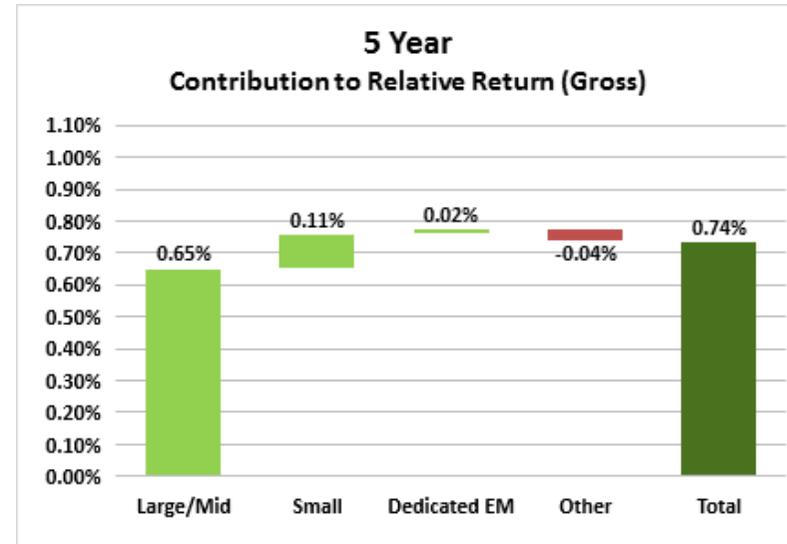
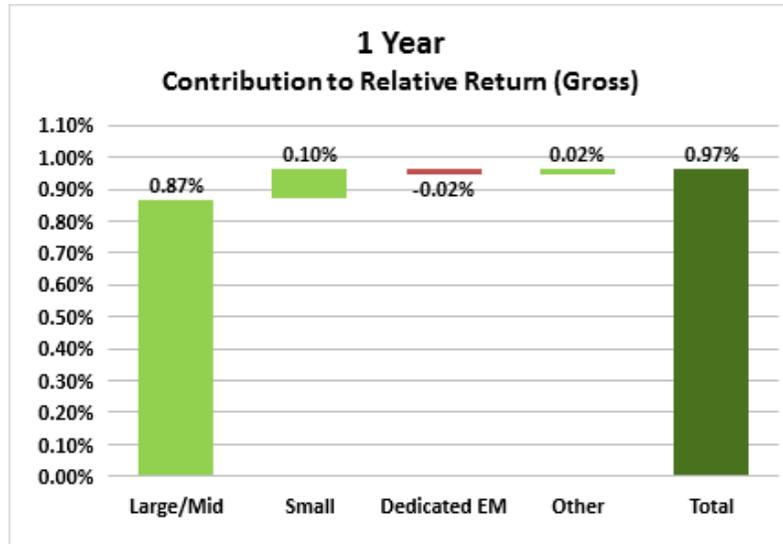




Benchmark: Domestic Equity – PAC Custom Blend

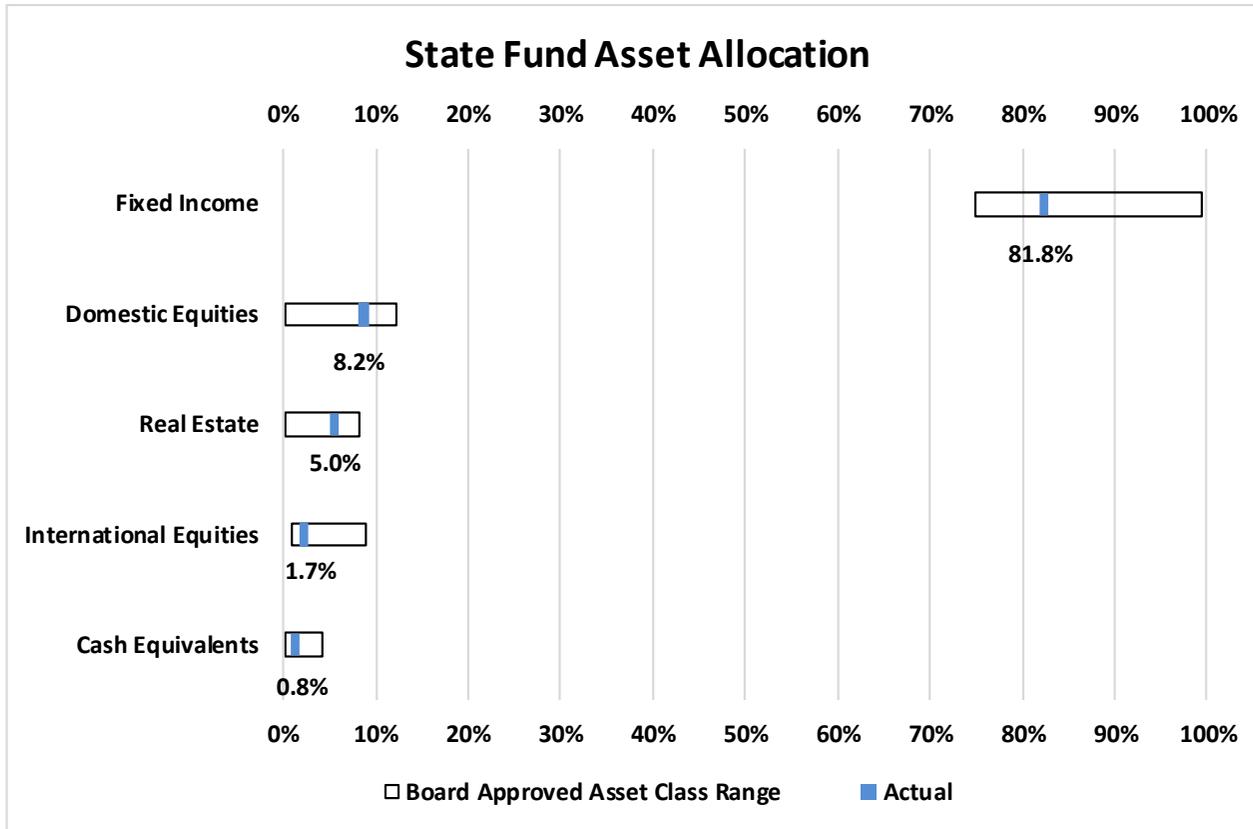
March 31, 2020

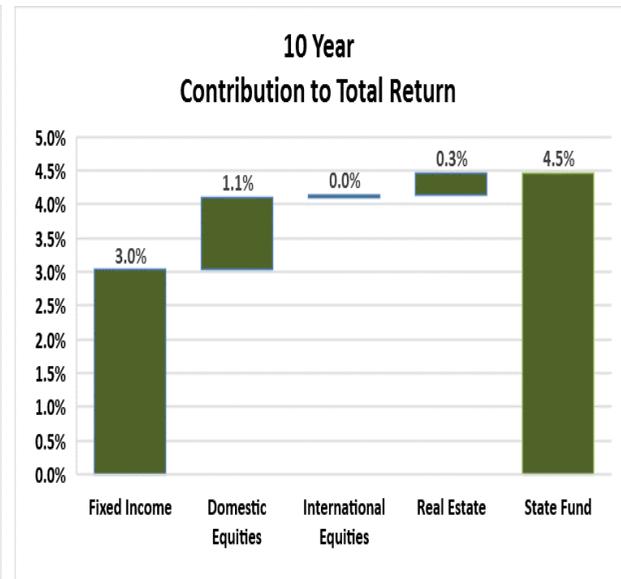
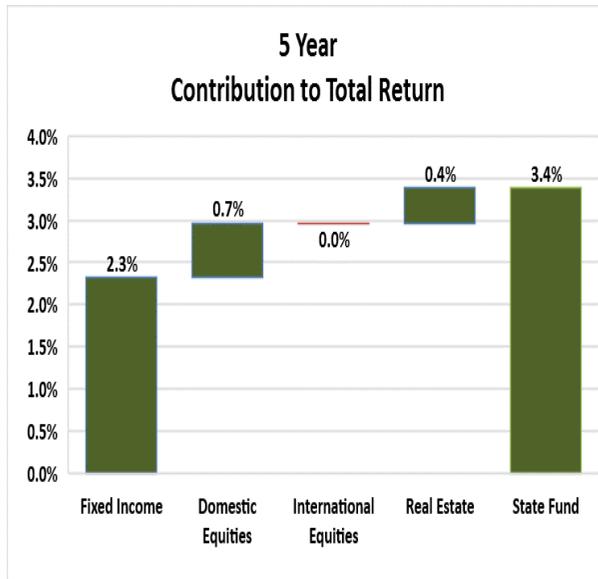
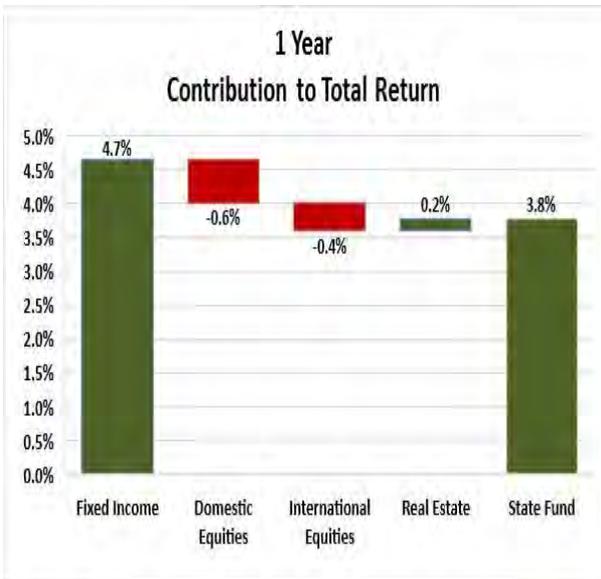


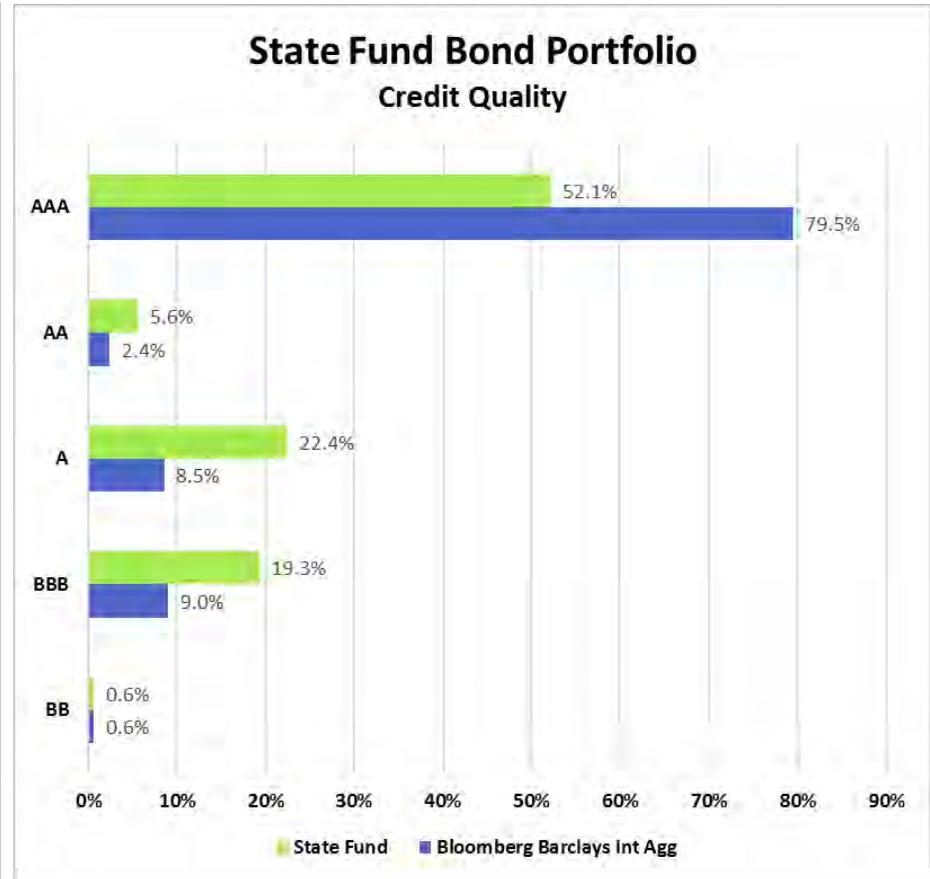
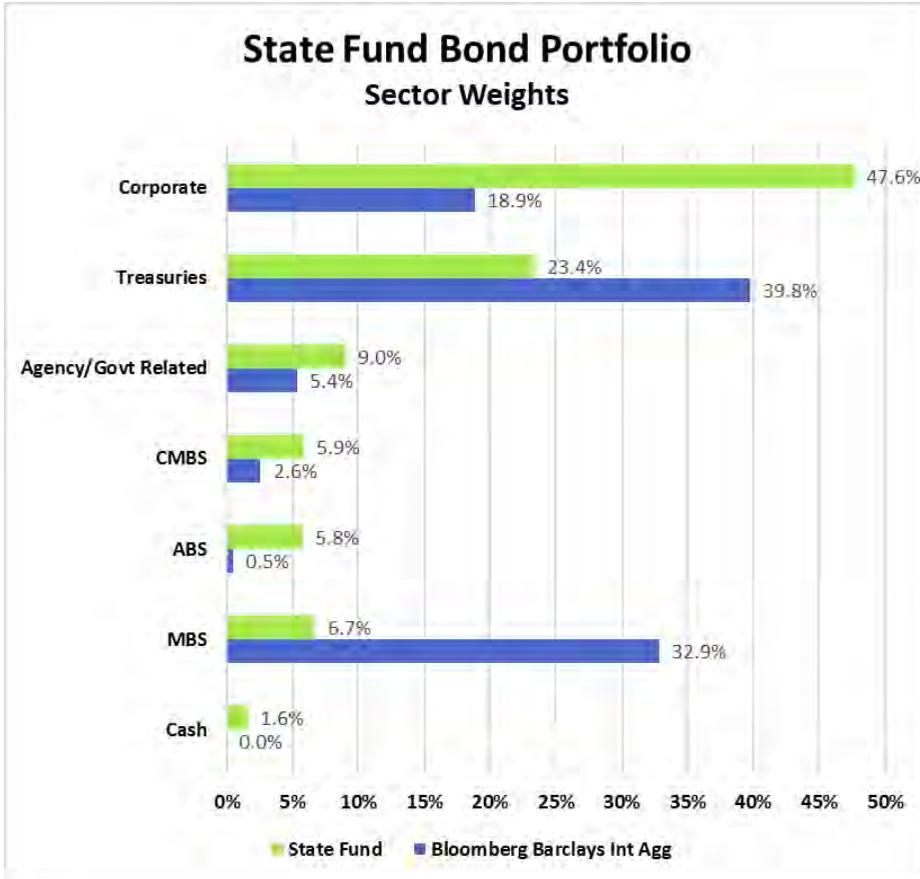


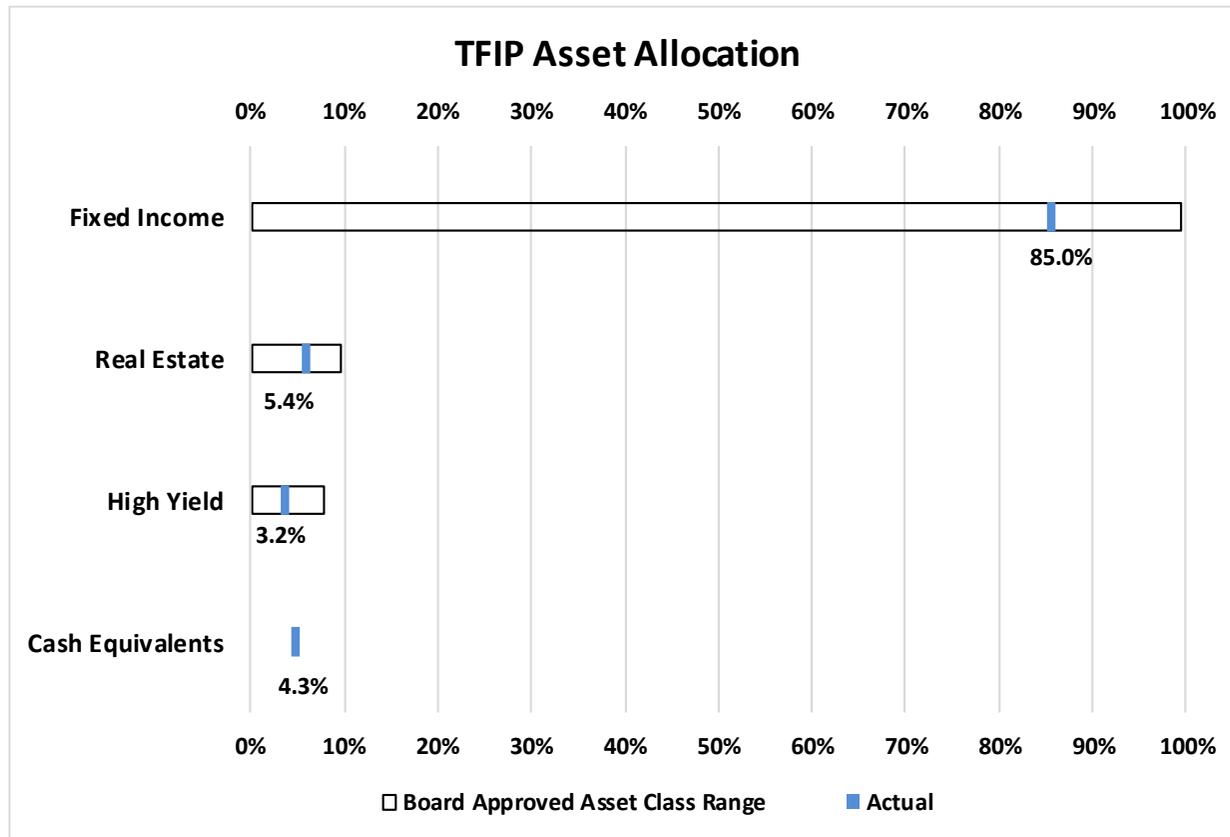
Benchmark: International Equity – PAC Custom Blend

March 31, 2020

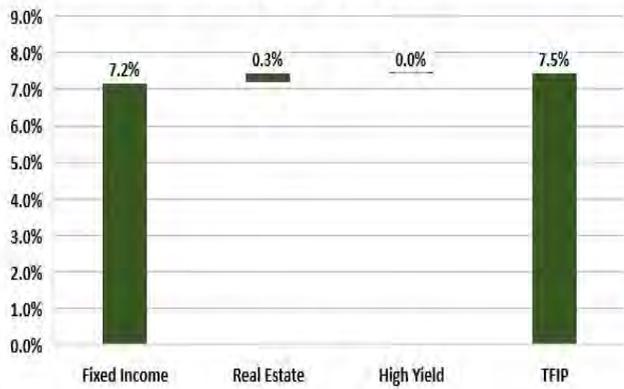




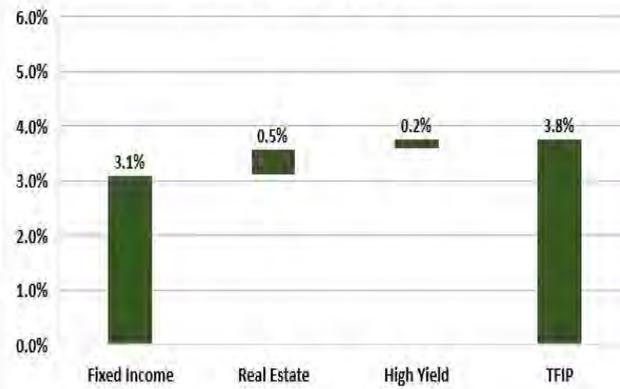




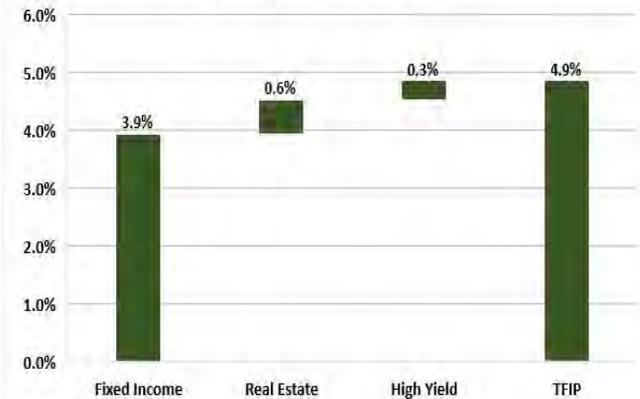
1 Year Contribution to Total Return

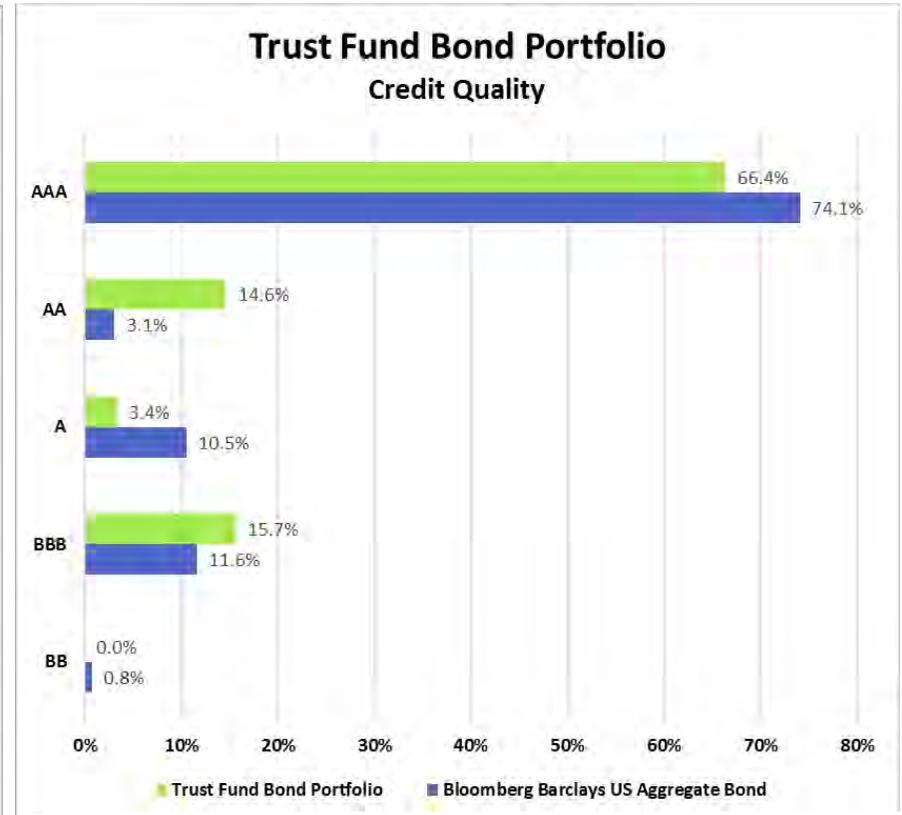
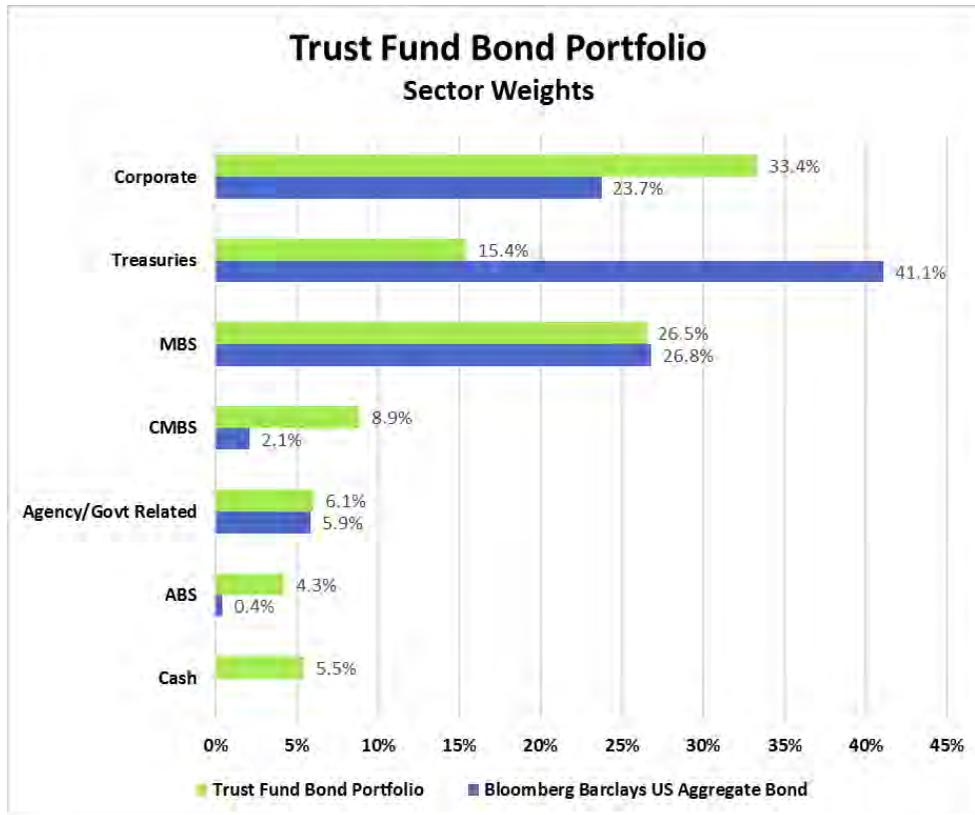


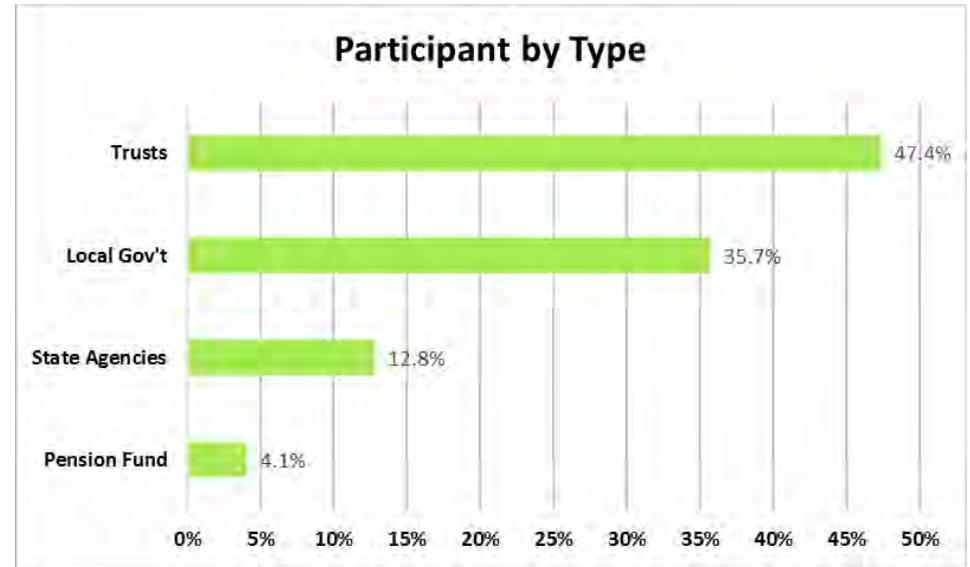
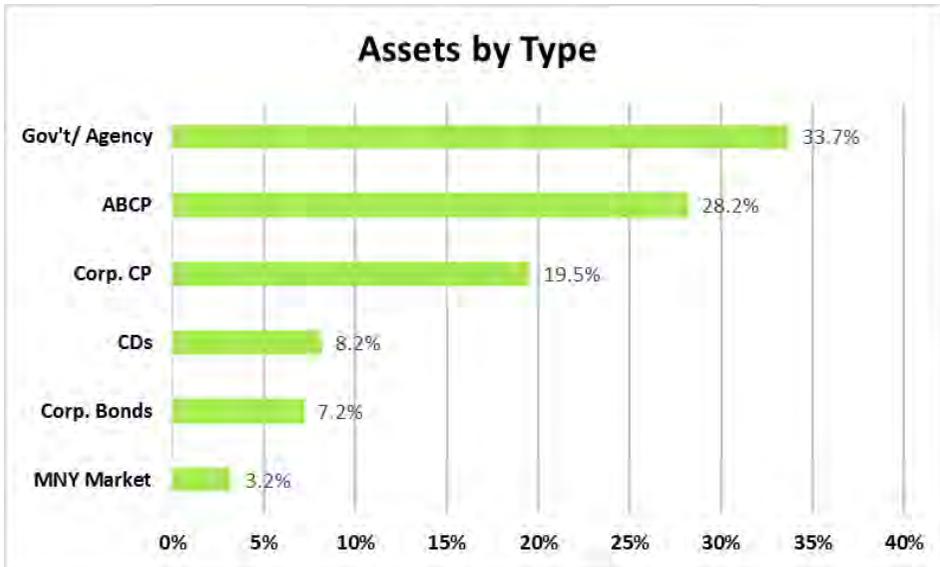
5 Year Contribution to Total Return



10 Year Contribution to Total Return







2020 CALENDAR *REVISED*

Board Dates Board Packet Mailing Holiday

1 New Year's Day
20 M.L. King Day

JANUARY						
S	M	T	W	Th	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	

17 Presidents Day

FEBRUARY						
S	M	T	W	Th	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	Th	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	Th	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		

25 Memorial Day

MAY						
S	M	T	W	Th	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	Th	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				

3/4 Independence Day

JULY						
S	M	T	W	Th	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	Th	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					

7 Labor Day

SEPTEMBER						
S	M	T	W	Th	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			

12 Columbus Day

OCTOBER						
S	M	T	W	Th	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

3 Election Day
11 Veterans Day
26 Thanksgiving Day

NOVEMBER						
S	M	T	W	Th	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					

25 Christmas Day

DECEMBER						
S	M	T	W	Th	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		

BOI WORK & EDUCATION PLAN

2020

FEBRUARY 11-12

Ethics Policy
Disaster Recovery and Emergency Preparedness
Outreach Efforts for Board - Loan and Municipal Programs
STIP Review
Quarterly Reports
Committee Meetings:
 Audit: Financial Audit

APRIL 14

Benchmarks used by Board
Domestic Equities Asset Class Review
Capital Market/Asset Allocation - Consultant
Consultant Board Member Education

MAY 27-28

Budget Status FYTD
MT Buildings (Board as Landlord/Tenant Holdings)
Policy Statements Review
Quarterly Reports
Committee Meetings:
 Audit: Accounting Review
 HR: Staffing Level Review
 HR: Exempt Staff Compensation Review

AUGUST 18-19

Budget Proposed FY '22-'23
Budget Status Prior FY
High Yield Asset Class Review (Non Core Fixed Income)
Quarterly Reports
Committee Meetings:
 Audit: SOC Report

OCTOBER 13

Proxy Voting Public Equities Review
Consultant Board Member Education
First Reading - Asset Allocation Range Recommendation

NOVEMBER 18-19

2021 Legislative Session
Resolution 217 Authorization of Investment Vendors
PERS and TRS Relationship
Adoption - Asset Allocation Range Approval
Quarterly Reports
Committee Meetings:
 Audit: SOC Report
 Audit: Annual Report and Financial Statements
 HR: Exempt Staff Performance Review

2021

FEBRUARY TBD (2 Day)

Ethics Policy
Disaster Recovery and Emergency Preparedness
Cash Management of State Monies
Treasurers Fund Review
Quarterly Reports
In-State Loan Program
INTERCAP / Board Rated Credit, Bond Issuer, Credit Enhancer
Committee Meetings:
 Audit: Financial Audit

APRIL TBD (1 Day)

Custodial Bank Relationship, Performance, Continuity
International Equities Asset Class Review
Capital Market/Asset Allocation - Consultant
Consultant Board Member Education

MAY TBD (2 Day)

Budget Status FYTD
Fixed Income Asset Classes Review (Core Fixed Income)
State Government Customer Relationships
Separate Accounts Review
Real Estate Asset Class Review
Policy Statements Review
Quarterly Reports
Committee Meetings:
 Audit: Accounting Review
 HR: Staffing Level Review
 HR: Exempt Staff Compensation Review

AUGUST TBD (2 Day)

Cost Reporting including CEM, Inc. Analysis
Budget Status Prior FY
Coal Severance Tax Trust Review
Natural Resources Asset Class Review
Quarterly Reports
Committee Meetings:
 Audit: SOC Report

OCTOBER TBD (1 Day)

Securities Lending Review
Private Equity Asset Class Review
Consultant Board Member Education
First Reading - Asset Allocation Range Recommendation

NOVEMBER TBD (2 Day)

Resolution 217 Authorization of Investment Vendors
PERS and TRS Relationship
Adoption - Asset Allocation Range Approval
Quarterly Reports
Committee Meetings:
 Audit: Securities Litigation Status
 Audit: Annual Report and Financial Statements
 HR: Exempt Staff Performance Review

				WORK & EDUCATION PLAN
Completed	Completed	Completed	In Progress	
2017	2018	2019	2020	
X		X		Accounting Review
X	X	X	X	Annual Report and Financial Statements
X	X	X	X	Asset Allocation Range Approval (Board Must Review/Approve Annually as per Policy)
X	X	X	X	Audit (Financial)
X		X		Benchmarks used by Board
X		X		Board as a Rated Investment Credit, a Bond Issuer and a Credit Enhancer
X	X	X	X	Board Member Education
X	X	X	X	Board's Budget
X	X	X	X	Capital Market/Asset Allocation - Consultant
	X		X	Cash Management of State Monies
X	X		X	Cost Reporting including CEM, Inc. Analysis
	X		X	Custodial Bank Relationship, Performance, Continuity
X	X	X	X	Disaster Recovery and Emergency Preparedness
X	X	X	X	Domestic Equities Asset Class Review
X	X	X	X	Exempt Staff Performance and Compensation Review (HR Policy Requires Annual Consideration)
X	X	X	X	Ethics Policy – (Board Policy Requires Annual Affirmations)
X	X	X	X	Fixed Income Asset Classes Review
X		X		In-State Loan Program
X		X		INTERCAP Program
X	X	X	X	Internal Controls
	X	X		International Equities Asset Class Review
X	X	X	X	Investment Consultant Independent Presentations (Board Requires at Least Two Annually)
X	X	X	X	Legislative Session and Interim Matters
X		X		MT Buildings (Board as Landlord/Tenant Holdings)
X	X	X	X	Outreach Efforts for Board - Loan and Municipal Programs
X	X	X	X	PERS and TRS Relationship
X	X	X	X	Policy Statements Review (Governance Policy Requires Annual Investment Policy Review)
	X	X	X	Private Equity Asset Class Review
	X		X	Proxy Voting Public Equities
	X	X	X	Real Estate Asset Class Review
X	X	X	X	Resolution 217 Authorization of Investment Vendors (Board Policy Requires Annual Update)
X		X		Securities Lending
X	X	X	X	Securities Litigation
X	X	X	X	Staffing Level Review (Required Biannually in Board Policy)
X		X		State Fund as Principal Investment Client
X		X		State Government Customer Relationships
X		X		Website
	X	X	X	STIP Review
	X	X		Trust Fund Investment Pool Review
		X		Coal Severance Tax Trust Review
		X		Treasurers Fund Review
	X			Separate Accounts Review
	X			Natural Resources Asset Class Review
	X	X		High Yield Asset Class Review

Board of Investment's Commonly Used Acronyms

ABCP.....	Asset Backed Commercial Paper
ABS.....	Asset Backed Securities
ACH.....	Automated Clearing House
ADR.....	American Depository Receipts
AUM.....	Assets Under Management
BOI.....	Board of Investments
CAFR.....	Comprehensive Annual Financial Report
CAIA.....	Chartered Alternative Investment Analyst
CAPP.....	Consolidated Asset Pension Pool
CFA.....	Chartered Financial Analyst
CGT.....	Capital Gains Tax
CIPM.....	Certified in Investment Performance Measurement
CMBS.....	Commercial Mortgage-Backed Securities
CP.....	Commercial Paper
CPA.....	Certified Public Accountant
CPI.....	Consumer Price Index
CRP Loan.....	Conservation Reserve Enhancement Program Loan
DOA.....	Department of Administration
DPI.....	Distributions to Paid-In
EBITDA.....	Earnings Before Interest, Taxes, Depreciation, and Amortization
EM.....	Emerging Markets
EMEA.....	Europe, Middle East, Africa
ESG.....	Environmental, Social, Governance
ETF.....	Exchange Traded Funds
FCA.....	Financial Conduct Authority
FMV.....	Fair Market Value
FOIA.....	Freedom of Information Act
FRM.....	Financial Risk Manager

FTE..... Full Time Equivalent position (State personnel)
FX Foreign Exchange
GAAP Generally Accepted Accounting Principles
GASB Governmental Accounting Standards Board
GP..... General Partner
GTAA Global Tactical Asset Allocation
IG Investment Grade
IPS..... Investment Policy Statement
IRP Intermediary Relending Program
IRR Internal Rate of Return
LAD..... Legislative Audit Division
LBO..... Leverage Buyout
LP..... Limited Partner/Partnership
LPAC..... Limited Partner Advisory Committee
LTV Loan to Value
MBOH Montana Board of Housing
MBOI Montana Board of Investments
MBS..... Mortgage Backed Securities
MFFA..... Montana Facility Finance Authority
MLP Master Limited Partnership
MMbbl/D One Million Barrels per Day (Oil)
MOIC Multiple of Invested Capital
MOM..... Montana Operations Manual
MPERA Montana Public Employee Retirement Administration
MPT Modern Portfolio Theory
MSCI..... Morgan Stanley Capital International
MSCI ACWI..... MSCI All Country World Index
MSCI EAFE..... MCSI Europe, Australasia, and Far East
MSCI EM MSCI Emerging Markets
MSTA..... Montana Science and Technology Alliance
MTSBA Montana School Boards Association

MVO	Mean-Variance Optimization
NAV	Net Asset Value
NCREIF	National Council of Real Estate Investment Fiduciaries
NOI	Net Operating Income (Real Estate)
ODCE	Open-End Diversified Core Equity (Core Real Estate Funds)
PE	Price-to-Earnings Ratio
PERS	Public Employees' Retirement System
QSCB	Qualified School Construction Bonds
QZAB	Qualified Zone Academy Bonds
REIT	Real Estate Investment Trust
RFP	Request for Proposal
Russell	Russell Indices
RVPI	Residual Value to Paid-in
SABHRS	Statewide Accounting Budgeting and Human Resource System
SFBP	State Fund Bond Portfolio
SFIP	State Fund Investment Portfolio
SITSD	State Information Technology Services Division
SMA's	Separately Managed Accounts
SOC	Service Organization Controls (Audit Report)
SPX	Standard & Poor's 500 Total Market Index
SSBCI	State Small Business Credit Initiative
STIP	Short Term Investment Pool
TFBP	Trust Funds Bond Portfolio
TFIP	Trust Funds Investment Pool
TIF	Tax Increment Financing
TIFD	Tax Increment Financing District
TIPS	Treasury Inflation Protected Securities
TRS	Teachers' Retirement System
TVPI	Total Value to Paid-in
TWR	Time-Weighted Return
VC	Venture Capital

Board of Investment's Terminology List

Revised August 2019

130/30 Market Strategy

A form of Long-Shorting where the long exposure is 130% and the short exposure is 30%. See Partial Long/Short

Public Markets

Active Management

An investment method which involves hiring a manager to research securities and actively invest and trade securities to outperform an assigned index. Compare to Passive Management.

Actuarial Assumed Rate of Return

The investment rate of return used by actuaries that enables them to project the investment growth of retirement system assets into the future. An individual rate is determined and adopted by each Pension System.

Accounting

Actuarial Funding Status

A measurement made by actuaries to measure a pension system's financial soundness. Shows the actuarial assets available to fund liabilities.

Accounting

Agency Bonds

Agency bonds are issued by official US Government bodies. Compare to GSE Bonds

Fixed Income

All Other Funds (AOF)

Holds all uncategorized accounts and funds.

Alpha

The measure of active return on an investment compared to the market. A measure of 1 means that an investment returned 1% in excess of the benchmark over a specified time period.

Alternative Investments

An all-encompassing range of investments, other than traditional assets such as publicly traded stocks and bonds. The most common alternative investments are private equity, real estate, commodities, and hedge funds.

Annualize

To annualize is to convert a short-term calculation or rate into an annual rate.

Appreciation

An increase in the value of an asset over time. The increase can occur for several reasons, including changes in supply or demand, or because of changes in inflation or interest rates. Compare to Depreciation.

Asset Backed Securities (ABS)

A security whose income payments and overall value are collateralized by a specific pool of underlying assets (i.e. mortgage backed loans, auto loans, credit card loans). Pooling together a group of similar assets into financial instruments allows investors to mitigate the risk of individual default.

Fixed Income

Average Credit Quality

The average credit rating for each bond in the portfolio adjusted for its relative weight in the portfolio. See Credit Rating.

Fixed Income

Basis Points (bps)

A basis point is 1/100th of a percentage and is regularly used when discussing the market (100 bps = 1.00%)

Beta

The measure of volatility or systematic risk of a security or portfolio compared to the market.

Example: If a company has a beta of 1.5, it implies that its more volatile than the overall index because it is greater than 1. Because of this, if the market moves 1% the company is expected to move 1.5% in the same direction.

< 1 = less risk than market

1 = same risk as market

> 1 = more risk than market

Bid-Ask Spread

The difference between the highest price the buyer is willing to pay and the lowest price that a seller is willing to accept.

Blind Pool

A fund or portfolio where the investors are not aware of what the specific investments will be at the time of the initial commitment.

Private Investments

Bloomberg Barclay's US Aggregate Index

A broad bond index covering most U.S. traded bonds and some dollar denominated foreign bonds traded in the U.S.

Fixed Income

Broad Fixed Income

A broad investment class including Investment Grade, structured bonds, Government and Agency bonds, international bonds, and High Yield.

Fixed Income**Buyout**

A fund strategy that acquires a controlling interest in a company. Under a buyout, the previous ownership loses control over the company in exchange for compensation. If borrowed funds are used to acquire the company, the deal is called a 'leveraged buyout'.

Private Investments

- Large-Size buyout
 - Target companies have revenues >\$1B, EBITDA of >\$50M
 - *Typically, private equity fund sizes of \$2B and up*
- Mid-Size buyout
 - Target companies have revenues <\$1B, EBITDA of \$25M - \$50M
 - *Typically, private equity fund sizes of \$750M to \$2B*
- Small-Size buyout
 - Target companies have revenues of \$10M - \$300M, EBITDA of \$3M - \$25M
 - *Typically, private equity fund sizes of <\$750M*

Capital Call (Drawdown)

When the GP's investment team is ready to purchase an asset, they will issue a capital call or drawdown for a portion of the capital committed by the LPs.

Private Investments**Capital Commitment**

The amount of capital an LP is contractually obligated to pay into a blind pool fund or portfolio to finance underlying investments and their associated fees and expenses.

Private Investments**Cap Rate**

The ratio of NOI compared to the current market value. The cap rate is often used to value and compare real estate investments.

Real Estate**Carried Interest**

A share of the profits of an investment fund that is paid to the GP.

Private Investments**Cash Equivalents**

Assets that retain value and have a high degree of liquidity and are generally short-term commitments with minimal risk of loss.

China A-Share

The equity shares of mainland China that are quoted in the Chinese renminbi with restriction on foreign investment.

China B-share

The equity shares of Chinese companies that trade in foreign currencies. Used as a target investment for foreign investors.

Clawback

A payment from the GP to the LPs as the result of the GP receiving excess distributions above what was contractually agreed upon.

Private Investments**Commingled Fund**

Represents a pool of assets for multiple clients and are managed in a similar fashion by the same entity. Each client has a pro-rata share of the overall portfolio. Custody of the underlying securities are at the investment manager's custodian.

Consolidated Asset Pension Pool (CAPP)

The Consolidated Asset Pension Pool invests directly in the 13 Asset Classes.

Correlation

A measure of how investments or asset classes move relative to each other during the same period. To increase diversity, managers look for assets with lower correlations with other assets.

-1.0 = perfectly negative correlation

0.0 = no correlation

+1.0 perfectly positive correlation

Coupon

The interest rate paid on a bond. This can either be a fixed or floating rate. A floating interest rate is typically tied to a benchmark such as U.S. Treasury Bills. Payments can be monthly, semi-annual, or annual.

Fixed Income

Covenant

A legally binding term of agreement between a bond issuer and a bond holder which are designed to protect both parties. Can potentially restrict an issuer from undertaking certain activities or ensure they meet certain requirements.

Fixed Income**Credit Rating**

An assessment of creditworthiness of a borrower. A credit rating (between AAA and BBB) given by one of the three main credit rating agencies indicates a relatively low risk of default and hence an Investment Grade security.

Fixed Income

	Moody's	S&P	Fitch
Investment Grade	Aaa	AAA	AAA
	Aa	AA	AA
	A	A	A
	Baa	BBB	BBB
High-Yield	Ba	BB	BB
	B	B	B
	Caa	CCC	CCC
In Default	D	C	CC
		D	DDD

Currency Risk

A risk variable that comes from investments in currencies, currency futures contracts, forward currency exchanges, etc. These investments are subject to the risk that the value of a currency will change at a fundamental level.

Risk Management**Custodian**

A financial institution responsible for safeguarding BOI's financial assets by holding assets on behalf of BOI, thus forming a fiduciary relationship.

BOI/Gov't Specific**Debt Multiple**

A company's debt divided by EBITDA

Private Investments**Debt Related**

A fund strategy that provides debt financing in the form of a secured or unsecured loan for working capital or capital expenditures. Also called term loans, which often requires the borrower to adhere to certain rules regarding financial performance called covenants.

Private Investments**Depreciation**

A decrease in the value of an asset over time. The decrease can occur for several reasons, including changes in demand or supply, or because of changes in inflation or interest rates. Compare to Appreciation.

Discount

Describes the discrepancies in the paid amount against its par value. A discount means the purchasers bought the security for less than the asset's par value. Compare to Premium

Fixed Income**Distressed**

An investment strategy whereby the private investment manager purchases a distressed asset at a significant discount with the intention of turning around or improving the asset prior to selling.

Private Investments**Distributions**

Either cash or equity returned to investors after a fund or portfolio exits an investment.

Private Investments**Diversification**

Investing in different asset classes, industries, securities, and/or countries to protect against extreme losses and to expand the possibilities of gains from multiple asset types.

Risk Management**Domestic Equity**

Equity from the United State including stocks, or other public equity-related investments.

Downside Capture Ratio

During a down market, the downside capture ratio shows how a portfolio compared to its benchmark. It is shown as a ratio with a value below 1 being preferred as it indicates that the portfolio had good downside protection and didn't lose as much as its benchmark. Compare to Upside Capture Ratio.

Downside Risk

Downside risk describes the potential downfall and unintended negative consequences of an investment.

Risk Management

Dry Powder

Refers to fund's uninvested capital available to fund future investments.

Duration

A measure of a bond or portfolio's sensitivity to changes in interest rates. As duration increases, the bond or portfolio's sensitivity to interest rates increases.

Fixed Income

Example: if current interest rates increase by 1% and a bond has a duration of 4, the bond price will decrease by about 4%. However, if interest rates decrease by 1% the bond price will increase by about 4%

EBITDA

Stands for: Earnings Before Interest, Taxes, Depreciation, and Amortization. It is a non-GAAP measurement that shows as an organization's earnings before interest, taxes, depreciation, and amortization can be subtracted out. This allows for a greater understanding of a company's current operating profitability

EBITDAX

Stands for: Earnings Before Interest, Taxes, Depreciation, Depletion, Amortization, and Exploration Expenses. This is a valuation metric used for oil and gas companies which shows their ability to produce income from operations in a given year.

Private Investments

Enterprise Fund Financial Statements

Used to account for the recovery of costs for goods or services primarily provided to users outside of the primary government. Used by BOI to report the programs created under the Municipal Finance Consolidation Act and the Economic Development Bond Act.

Accounting

Equity Styles

Categorization of investment approaches or objectives that a fund manager uses

Public Markets

Core: Core holdings are a central investment of a long-term portfolio that exhibit common traits such as strong market share and promising growth prospects. Considered a blend of growth and value investing.

Growth: An investment style that focuses on earnings that are expected to grow at a desirable and above average rate.

Value: An investment strategy where assets are chosen because they are trading below their intrinsic value or fundamentals making them undervalued.

Exchange Traded Fund (ETF)

An investment fund traded on stock exchanges, much like stocks. Most ETFs track an index, such as a stock index or bond index.

Public Markets

Face (Par) Value

The stated value of an investment at maturity.

Fixed Income

Fixed Income

An investment, generally in bonds and loans, that returns payments on a regular schedule (coupon) as well as the original investment (principal) at the end of investment period.

Fixed Income

Foreign Markets Risk

Risks that are not typically associated with domestic markets including changes in currency exchange rates, less government supervision of exchanges, brokers, and issuer; increased social economic, political uncertainty, and greater for price volatility. These risks may be greater in emerging and frontier markets.

Risk Management

Forms of Economic Markets

Economic markets are divided based on several measurements including economic development, size and liquidity requirements, and market accessibility criteria.

Public Markets

Developed Market: A country that is developed in terms of its economy and capital markets like the US, Japan, Germany, or Canada.

Emerging Market: A country that has built an adequate infrastructure to facilitate a developed economy and capital market but is still working towards other characteristics of a developed market.

Frontier Market: A market from a developing country that does not have a developed stock market or infrastructure and generally has higher returns to compensate investors.

Forward Contract

A contract between parties to buy or sell an asset at a future date and predetermined price regardless of future market conditions. Can be used for hedging or speculation.

Public Markets

Forward Rate

An interest rate that will be applicable to a future financial transaction.

Public Markets

Free Cash Flows

Net cash a company produces through its operations excluding non-cash expenditures.

Fund-of-Funds

A fund that invests in multiple managers/funds, who then invest that capital directly.

Private Investments

GAAP/GASB

The Governmental Accounting Standards Board (GASB) is the author of the generally accepted accounting principles (GAAP) used by state and local governments in the US along with various corporations.

Accounting

General Partner (GP)

The team/firm that oversees the investment of a specific private fund.

Private Investments

Global Industry Classification Standard (GICS)

A common global classification standard used by thousands of market participants including MSCI (the BOI's preferred index provider). Through GICS there are 11 sectors, 24 industry groups, and 68 industries.

GSE Bonds

Stands for Government Sponsored Entity (GSE) bonds which are offered by lenders created by an act of congress to assist groups of borrowers. GSE bonds are backed but not guaranteed by the U.S. government. Compare to Agency Bonds

Fixed Income

Hedge Funds

Like mutual funds, hedge funds pool investors' money and invest that money to make a positive return. Hedge funds typically have more flexible investment strategies than mutual funds.

Public Markets

Hedging

An investment position taken to offset potential losses that may be incurred by another investment. Compare to Speculation.

Public Markets

High-Yield Bond

A non-investment grade bond that is at a higher risk of default or some other adverse event. However, these pay higher yields than better quality bonds to make them attractive to investors.

Public Markets

Indenture

A contract that explains the various terms, options, and intricacies of a bond.

Fixed Income

Index

A hypothetical portfolio of securities representing a market segment and are commonly used as a benchmark for the stock and bond markets (S&P 500, Barclay's Aggregate, or the MSCI USA IMI).

Inflation

The rate at which the general level of prices for goods and services is increasing. As inflation increases, the purchasing power of money falls.

In-State Loan Program

Statutory authorized program that directs the Board to provide financial lending using Coal Tax Trust fund money to borrowers who meet program requirements set in law.

BOI/Gov't Specific

Interest

The amount that must be paid to compensate the lender/investor for the use of the funds.

Fixed Income

Intermediary Relending Program (IRP)

A loan to an Economic Development organization that has three years to loan the money to local businesses that need equity capital to obtain a bank loan. Funds are matched through a program with the United States Department of Agriculture (USDA).

Internal Controls

The plan of an organization that has the methods and measures used to monitor assets, prevent fraud, minimize errors, verify the accuracy and reliability of accounting data, promote operational efficiency, and ensure that established managerial policies and procedures are complied with.

Internal Rate of Return (IRR)

The dollar-weighted return earned by investors.

Internal Service Fund

Used to account for the recovery for costs of goods or services primarily provided by one department or agency to another department or agency. Used to report to the investment operations of the Board.

Accounting**International Equity**

Equity outside of the United States. Examples include stocks or equity investments in China, Germany, or Canada.

Investment Grade Bond

Bonds rated BBB/Baa and above. These bonds have lower yields than high-yield bonds because of the lower risk of default.

Fixed Income**Investment Period**

The prespecified timeframe during the beginning of a fund's life when the investments of the fund will be made.

Private Investments**Key Man Provision**

A clause that prevents the GP from making new investments after a key executive(s) departs.

Private Investments**Leverage (Financial leverage)**

The use of debt to acquire additional assets.

Example: If we were to purchase a \$1,000 asset using \$750 of debt and \$250 of cash to fund the purchase, the purchased would 75% leveraged.

LIBOR

Benchmark interest rate at which major global banks borrow from one another. The rate is calculated based on survey results from a panel of banks.

Fixed Income**Limited Partnership**

The common legal structure used for private equity funds.

Private Investments**Liquidity**

The ability of an asset to be converted into cash quickly and without a meaningful price discount.

LPAC Membership

The Limited Partnership Agreement Committee (LPAC) membership is occasionally available as a term of agreement. Being on the LPAC gives BOI a chance to voice concerns more directly and make decisions in conjuncture with other LPAC members during unexpected events including the loss of key investment team members, extending the investing or exiting time frame, etc.

Private Investments**Mark-to-Market**

Recording the price of an asset on a regular basis to reflect its current market value. Can also be referred as fair value accounting.

Market Capitalization

Measured by the total dollar market value of a company's outstanding shares and is generally used to compare companies in investment universes or sectors. The following classification are according to the MSCI and are variable between investors and indexes. (all below ranges come from MSCI World)

Public Markets

Large (Big) Cap: Defined as companies with market caps that are \$20 billion or larger. Less volatile than other, smaller firms

Mid Cap: Defined as a company with a market cap between \$2 - \$20 billion. These tend to have more risk than larger companies but with room to grow their market cap.

Small Cap: Defined as companies with market caps less than \$2 billion. Generally younger companies with growing potential and added risk.

Market Impact

The effect a market participant has when it buys or sells an asset, on the price of that asset.

Maturity

The agreed date that the full amount of the bond or investment must be paid back to the lender plus interest if applicable.

Fixed Income**Mean**

The average of a data set. All data points are added together and then divided by the number of data points.

Median

The center or middle number in a range of data when data points are organized by value.

Montana Operations Manual (MOM)

Contains guidance for all state agencies. Among the topics included are accounting, travel, procurement, information technology, budget, and human resources.

Accounting**MSCI**

The provider of investment decision support tools including indexes.

ACWI – All Country World Index

EM – Emerging Markets

ACWI ex US – All Country World Index

IMI – Investible (all-cap) Market Index

excluding US

US – the United States

EAFE – Europe, Australasia, and Far East

Multi-Asset Class

A combination of asset classes (i.e. cash, equity or bonds) used in an investment creating a group or portfolio of assets.

Multiple of Invested Capital (MOIC)

Performance metric which shows how much more or less an investment is worth compared to the total invested capital over time. A multiple greater than one indicates a gain, and a multiple less than one indicates a loss.

Private Investments

$$\text{Total Value} / \text{Invested Capital}$$

Natural Resources

Natural Resource investments are investments managed by external advisors who invest in timber, gas and oil related companies, as well as other natural resources.

Private Investments**Net Asset Value (NAV)**

The 'true' value of a fund's investments based on the quoted prices of its components.

Accounting

$$\text{NAV} = \text{Value of Assets} - \text{Value of Liabilities}$$

NCREIF

Stands for National Council of Real Estate Investment Fiduciaries. A property Index that is compiled quarterly and shows the composite total rate of return measure of investment performance of a pool of individual commercial real estate properties acquired in the private market for investment purposes.

Real Estate**NFI-ODCE**

Short for NCREIF Fund Index – Open End Core Equity; an index of investment returns reporting on both a historical and current basis. This information comes from 33 open-end commingled funds pursuing a core investment strategy.

Real Estate**NOI (Net Operating Income)**

A calculation used to analyze real estate investments. NOI equals the revenue from the property minus necessary operating expenses.

Opportunity Cost

The loss of potential gain from other alternatives when one alternative is chosen.

Overweight

A security position that is in excess, or overweight when compared to the security's weight in the underlying benchmark or sector. Actively managed portfolios will overweight securities that have the potential to earn excess returns above the benchmark returns. Portfolios can also be overweight sectors, countries, or some other characteristic. Compare to alternative weighting schemes such as equal weight or underweight.

Public Markets**Partial Long/Short**

An investing strategy that takes long positions in stocks that are expected to appreciate and short positions in stocks that are expected to decline.

Public Markets

Passive Management

An investment strategy where a manager purchases a portfolio of securities that they hope to replicate market index returns, (this strategy generally involves lower management fees).

Placement Agent

A third-party group that assists the GP in fundraising for a new or existing fund.

Private Investments**Policy Portfolio**

A fixed baseline or target mix of asset classes (stocks, bonds, cash, etc.) for a portfolio.

Preferred Return

The threshold return that the LPs of a private equity fund must receive, prior to the GP receiving its carried interest.

Private Investments**Premium**

Describes the discrepancies in the paid amount against its par value. A premium means the purchasers bought the security for more than its par value. Compare to Discount.

Fixed Income**Present Value**

The value of a stream of future cashflows discounted at a specified interest rate to the present date. Shows what a dollar in the future is worth to an investor today.

Accounting**Price to Book (P/B) Ratio**

Price of an Asset divided by its Book Value.

Price to Earnings (P/E) Ratio

Price of an Asset divided by its Earnings.

Principal

The initial size of a bond or investment.

Fixed Income**Principal Repayment**

The payment of the face value or principal of a security by the issuer, generally due on the maturity date unless the issuer redeems the security before it matures.

Fixed Income**Private Investments**

Asset classes comprised primarily of equity and debt securities in private operating companies, real property and other types of investments that are not publicly traded on a stock exchange. At BOI it is an umbrella term that covers the private equity, real estate, and natural resources asset classes.

Private Investments**Prudent Expert Principle**

A measure that requires the fiduciary (BOI) to properly discharge their duties by doing the following:

- a) discharge the duties with the care, skill, prudence, and diligence, under the circumstances then prevailing, that a prudent person acting in a like capacity with the same resources and familiar with like matters exercises in the conduct of an enterprise of a like character 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.

Purchase Price Multiple

The enterprise value of a company divided by the company's EBITDA

Private Investments**Ratings**

An assessment of the creditworthiness of a borrower. Bond ratings from Moody's, S&P and Fitch between AAA and BBB- are investment grade. BB and below are below investment grade/high yield.

Fixed Income**Real Estate Classes**

Core: Lower risk; considered the best quality holdings such as prime commercial property in major metropolitan cities that have low leverage and low levels of vacancy.

Value-Add: Moderate risk, non-core; property that generally already has some form of in-place cash flow which investors are seeking to increase by making improvements or repositioning the property.

Opportunistic: Higher risk, non-core; these properties tend to need more significant alterations and rehabilitation to realize their full earning potential. These properties generally have a higher vacancy rate, include higher levels of leverage, and can include ground-up development.

Real Estate

Rebalancing

The action of buying or selling assets to realign the asset weights to meet the target portfolio.

Risk Management

Resolution

A formal and written action by an organizational body that has long-term significance and requires a vote from the governing body. BOI uses resolutions mainly for its most significant and long-term actions and/or policies.

BOI/Gov't Specific

Risk Tolerance

An investor's ability to handle declines in the value of their portfolio.

Risk Management

Russell US Indexes

A family of global equity indices from FTSE Russell that allow investors to track performance of market segments.

Public Equity

S&P 500 Index

The Standard & Poor's market index based on the market capitalizations of the 500 largest companies which have common stock listed on the NYSE or NASDAQ. The weightings are determined by S&P Dow Jones Indices.

SABHRS

Stands for the State Accounting, Budgeting and Human Resource System. By statute, BOI investment and other financial data must be reported through this system, which is the State's official accounting book of record.

Accounting

Sector

An area of the economy in which businesses share the same or related product or services, e.g. an economic sector. This can also refer to a group of securities that exhibit similar characteristics. See Global Industry Classification for examples.

Separately Managed Account (SMA)

Represents a portfolio of assets specifically constructed according to the client's investment policy.

Short Position

A negative share or market value indicates a short position or sale of a borrowed security.

Short Term Investment Pool (STIP)

Used by state and local agencies and the retirement systems as an alternative to idle cash. STIP investments are short, highly liquid and among the safest obtainable as it is structured like a money market fund.

Shortfall

A situation where the level of funds required to meet an obligation is not available.

SOFR

Influential interest rate based on daily transactions in the Treasury repurchase market.

Fixed Income

Speculation

Involves investors making bets on future market conditions or events and is used when an investor hopes to increase profits. Compare to Hedging.

Public Markets

Spread

A measurement of the difference in yield between a non-Treasury bond and a U.S. Treasury bond. The U.S. Treasury is considered the risk-free alternative. A higher spread represents greater uncertainty of repayment.

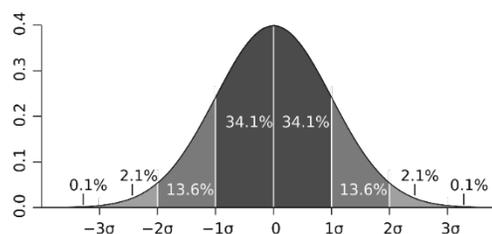
Fixed Income

Spread duration

Measures the price sensitivity of a bond to changes in spread.

Standard Deviation

Measures the dispersion or spread of a dataset compared to its historic mean. In finance it can be applied to the annual rate of return of an investment. It sheds light on the historical volatility of that investment. The greater the standard deviation of a security, the greater the variance between each price and the mean.



Tail Risk

Describes portfolio risk when the return is (generally) more than two standard deviations from the mean. The tail risk probability is towards the far left or far right of the normal distribution curve pictured above and has a small chance of occurring (the returns during the Great Recession was considered a five standard deviation event). Left-tail risk is associated with negative returns while right-tail risks are associated with positive returns.

Risk Management**Target-Risk**

A mix of stocks, bonds, and other investments holdings to create a desired risk profile.

TED Spread

The difference between the interest rates on interbank loans and on short-term U.S. government debt ("T-bills"). TED is an acronym formed from T-Bill and ED, the ticker symbol for the Eurodollar futures contract.

Fixed Income**TIPS**

Treasury Inflation Protected Securities (TIPS) are Treasury bonds that are indexed to the Consumer Price Index to protect investors from the negative effects of inflation.

Fixed Income**Total Return**

The return on an investment including appreciation or depreciation, interest, dividends, and fees in the price of a security over a given period.

Tracking Error

The divergence between the price change of a position or a portfolio and the price change of a benchmark.

Trust Fund Investment Pool (TFIP)

TFIP is managed with the primary focus of generating income.

Underweight

A security's portfolio weight that is less than or underweight the security's weight in the underlying benchmark. Can also be used to describe the relative composition of a portfolio such as underweight a sector or industry. Compare to equal weight or overweight.

Public Markets**Underwriter**

The agent who buys investments to be resold to the public. At BOI this would generally be the investment firm that buys the Board's bonds to be resold to the public.

Fixed Income**Unified Investment Program Financial Statements**

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

Accounting**Upside Capture Ratio**

During an up market, the upside capture ratio shows how well a portfolio performed compared to its benchmark. It is shown as a ratio with a value above 1 being preferred as it indicates the portfolio "beat the market" by outperforming. Compare to Downside Capture Ratio

Venture Capital

Money that is provided to seed early-stage, emerging growth companies. Venture capital funds invest in companies in exchange for equity in the companies they invest in.

Private Investments**Vintage Year**

The first year in which capital is drawn to fund an investment.

Private Investments**Volatility**

The degree of variation of a price series over time as measured by the standard deviation of returns. Historic volatility is derived from time series of past market prices. An implied volatility is derived from the market price of a market traded derivative (in particular an option).

Waterfall Type

The waterfall type describes how a private equity fund will make distributions to its LPs and GP.

Private Investments

European Waterfall: Payment schedule where distributions are based off of how well the fund as a whole has performed.

Deal-by-Deal Waterfall: Payment schedule where distributions are made on a deal-by-deal basis instead of on performance of the whole fund.

Weighted Average Maturity (Life)

Measures of how quickly the outstanding principal will be repaid. The higher the number the longer it is expected to take for the debt to be paid.

Fixed Income

Yield Curve

A curve that plots the prevailing yield for bonds at different maturities. Curves generally slope upward because longer maturities require a higher interest rates to compensate for the added risk of holding an asset for an extended period. The graph below is a representation and not up to date.

Fixed Income

Yield Curve Inversion

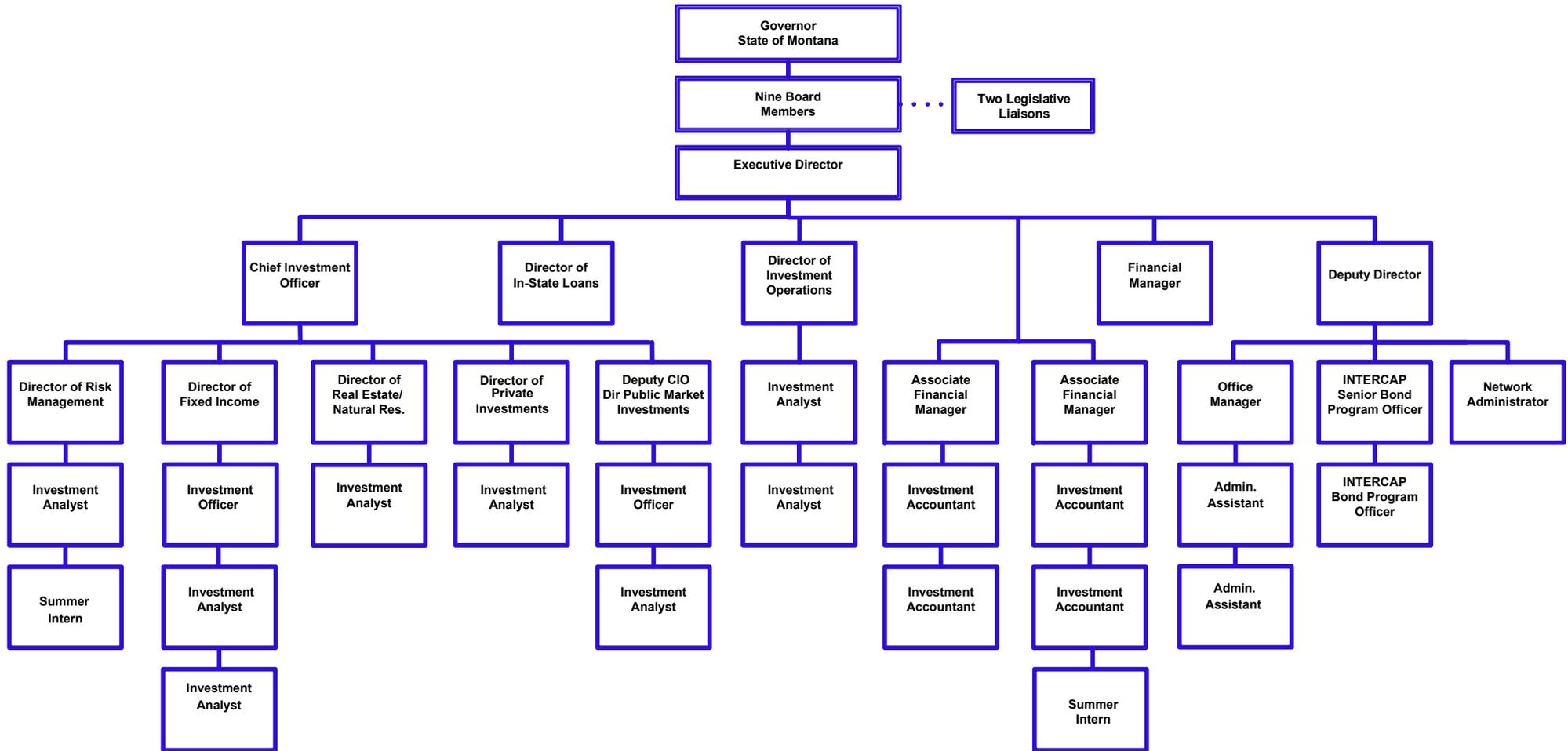
Rare type of curve in which long-term debt has a lower yield than short term debt of the same credit quality. Normally seen as a recession indicator.

Yield to Maturity

The yield anticipated on a bond or portfolio if it is held until maturity and all coupon payments are reinvested at the YTM.



Montana Board of Investments Functional Organization Chart



As of May 18, 2020