MONTANA BOARD OF INVESTMENTS

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TO: Members of the Board

FROM: Jon Putnam, Chief Investment Officer

DATE: October 13, 2020

RE: Proposed Asset Allocation for November vote

After discussion with staff and RVK, I am proposing changes to MBOI's asset allocation as shown in the table below. The redline of the proposed Montana Public Retirement Plans Investment Policy follows this memo.

Asset Class	Current Range	Proposed Range	Current Midpoint	Proposed Midpoint	Midpoint Difference
Domestic Equity	24 - 36%	24 - 36%	30%	30%	0
International Equity	11 - 21%	12 - 22%	16%	17%	+1
Private Investments *	11 - 17%	11 - 19%	14%	15%	+1
~~Natural Resources~~ Real Assets **	1 - 7%	2 - 8%	4%	5%	+1
Real Estate	5 - 13%	5 - 13%	9%	9%	0
Core Fixed Income	15 – 25%	10 - 20%	20%	15%	-5
Non-Core Fixed Income	3 –7%	4 - 8%	5%	6%	+1
Cash Equivalents	0 - 4%	0 - 6%	2%	3%	+1

Benchmark Changes

* MSCI USA Small Cap Index and S&P Leveraged Loan Index weighted to MBOI's Private Equity and Private Credit allocation

** 1/3 TIPS Index, 1/3 MSCI ACWI Commodity Producers Index, 1/3 MSCI ACWI Infrastructure Index

Asset Allocation Changes

The rationale for each of the asset allocation changes are discussed below.

1. Reduce the midpoint of Core Fixed Income from 20% to 15%

We have enjoyed a multi-decade decline in interest rates which has been a tail wind to bond returns. However, an investment in the Bloomberg Barclays Aggregate Bond Index currently indicates an annual return of approximately 1%, assuming no change in interest rates or credit spreads.

In addition, the diversification benefit of bonds may be more limited going forward. The prospect for price appreciation to offset equity declines appears limited with interest rates approaching 0%. Rising interest rates could cause both equities and bonds to suffer.

2. Change the Natural Resources Asset Class to the Real Assets Asset Class

The Real Assets Asset Class is commonly used by peers to categorize a group of investments that offer inflation protection or a "real return".

There are three main categories of Real Assets:

- *Commodities – Basic goods such as energy, timber, minerals and agricultural products*
- *Inflation Linked Bonds – Government bonds that pay a coupon and the principal fluctuates with inflation*
- *Infrastructure – Assets used to transport, store, and distribute goods, energy, people and information*

MBOI already owns the first two types of Real Assets (Natural Resources and TIPS).

Infrastructure would be an addition to staff's allowable investments under current policy. Infrastructure investments typically generate steady cash flows (similar to bonds) in addition to potential capital appreciation. Staff believes that there are attractive opportunities in this sub-asset class which would be additive to the return of the pension portfolio.

3. Increase the midpoint of Real Assets from 4% to 5%

The TIPS portfolio is currently held in Core Fixed Income and would be moved to Real Assets. This would add approximately 1.3% to the Real Assets allocation. The move would provide the added benefit of increased clarity for Core Fixed Income performance because TIPS are not in the Bloomberg Barclays Aggregate Bond Index.

In addition, we would expect to add infrastructure investments to the portfolio over time. As mentioned, these investments typically offer steady cash flows and would be expected to generate a higher rate of return than Core Fixed Income.

4. Increase the midpoint of International Equity from 16% to 17%

International Equity is expected to have a higher return than Core Fixed Income over the long term. In addition, International Equity is expected to have a slightly higher return than Domestic Equity over the long term. Finally, we have been over-weight the current midpoint for International Equity over the last year given valuations.

5. **Increase the midpoint of Private Investments from 14% to 15%**

Private Investments is expected to have a higher return than Core Fixed Income over the long term. MBOI staff continues to find attractive opportunities in both Private Equity and Private Credit that are additive to the performance of the portfolio.

Given our increasing weight in Private Investments, I am also proposing to expand the size of the range. The illiquid nature of the asset class makes it difficult to quickly adjust our position within the range. In the short term, our weight in the portfolio is driven by movement in public markets. This will give us a bit more room and is consistent with our strategy of continuing to add to the asset class.

6. **Increase the midpoint of Non-Core Fixed Income from 5% to 6%**

Non-Core Fixed Income is expected to have a higher return than Core Fixed Income over the long term. The planned addition of Preferred and Emerging Market Debt strategies will move our allocation to approximately 6%.

7. **Increase the midpoint of Cash from 2% to 3%**

Currently, there is minimal sacrifice of return for holding Cash versus Core Fixed Income. Increasing the range of Cash from 0 -4% to 0-6% will provide increased flexibility during volatile periods.

Remember that significant cash is no longer held within the individual Asset Classes.

<u>Additional Investment Policy Changes</u>

1. **Change the Private Investments benchmark from the MSCI USA Small Cap Index to a blend of the MSCI USA Small Cap Index and the S&P Leveraged Loan Index**

The blended benchmark would be the weighted average of our allocation to Private Equity (MSCI USA Small Cap) and Private Credit (S&P Leveraged Loan). This would align the benchmark with the appropriate risk/return profile of the underlying investments.

The current benchmark may misrepresent the performance or risk/return characteristics of the Private Investments portfolio. An equity only benchmark may encourage an underweight to Private Credit strategies despite attractive returns that are additive to our actuarial hurdle.

2. **Benchmark for Real Assets would be a blend of 1/3 TIPS Index, 1/3 MSCI ACWI Commodity Producers Index, 1/3 MSCI ACWI Infrastructure Index**

There is no perfect benchmark for the Real Assets Asset Class given the variety of potential investments.

However, the proposed blended benchmark encompasses each of the three main categories of Real Assets. In addition, the three index components of the proposed benchmark are public and readily observable.

MBOI would also track a secondary benchmark of the Consumer Price Index (CPI) +2.0% which would offer a view of inflation plus an illiquidity/risk premium.

Additional Questions

1. Why not reduce Core Fixed Income more?

We don't know the future and we could be wrong about the direction of interest rates. In addition, Core Fixed Income provides significant liquidity to the portfolio. Finally, the diversification benefit could be greater than anticipated in some environments.

2. Why isn't Real Estate included in Real Assets?

Real Estate is a Real Asset and could be included. However, there are several good reasons for keeping it separate:

- *The size of the Real Estate Asset Class is much greater than other investment opportunities in Real Assets*
- *Real Estate investments are more homogenous than other types of Real Asset investments*
- *There are well defined benchmarks for Real Estate investing that allow the board, staff and external parties to evaluate the performance of the Real Estate portfolio*

3. What are the return expectations for Infrastructure?

Returns can vary significantly between different types of infrastructure assets. However, broad expectations are 5-12% for core infrastructure assets. Most assets would generate steady cash flows in addition to price appreciation of the asset commensurate with GDP growth.

4. Does the proposed asset allocation have sufficient liquidity?

We believe that we have more than enough liquidity built into the portfolio. The portfolio is designed to have plenty of cash and liquid securities in addition to steady cash flow from owned assets. These sources of liquidity will allow us to meet all our obligations.

5. Are we increasing the risk of the portfolio?

Yes. We are adding to asset classes that have a higher risk profile than Core Fixed Income. We believe that is offset by greater opportunity for return which will help us achieve our actuarial goals over the long term. We believe the total increase in risk to the portfolio is modest and a reasonable response to the current environment.

In addition, we are also increasing our potential allocation to cash which would act as a stabilizer and source of liquidity during a market decline.

6. What is the impact on fees?

Fees will be slightly higher as we shift away from our lowest cost asset class, Core Fixed Income. However, we believe the proposed changes will result in higher returns net of fees.

7. When would these changes take effect?

The board will vote on the proposal at the November board meeting.

If the board approves the proposal at the November meeting, the asset allocation changes would take effect at that time. Changes to the benchmarks would be implemented as of January 1, 2021.

MONTANA PUBLIC RETIREMENT PLANS INVESTMENT POLICY

Approved April 5, 2017

~~Last Revised June 9~~Proposed November 18, 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:

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.

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."

Section 17-6-201 (2) (a), MCA states… "Retirement funds may be invested in common stocks of any corporation."

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."

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 CIO are authorized jointly to contract for investment manager services and if deemed appropriate, terminate them.

c) **Chief Investment Officer –** The 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 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 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 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~~Real Assets 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 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: any cash vehicle at the Custodial Bank; STIP; or any SEC-registered money market fund approved by the CIO for internally managed funds 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, 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 the Custodial Bank. Staff will monitor the securities lending program, and 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 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."

Appendix I: Montana Public Retirement Plans Asset Allocation Ranges

Permitted Ranges:

Approved November 18,2020~~19, 2019~~

Asset Class Allocations		
Asset Class	**Range Low**	**Range High**
Domestic Equities	**24**	**36**
International Equities	**12~~11~~**	**22~~21~~**
Private Investments	**11**	**19~~17~~**
~~Natural Resources~~Real Assets	**2~~1~~**	**8~~7~~**
Real Estate	**5**	**13**
Core Fixed Income	**10~~15~~**	**20~~25~~**
Non-Core Fixed Income	**4~~3~~**	**8~~7~~**
Cash[1]	**0**	**6~~4~~**
Total		

[1] The combined cash at the plan level and the CAPP level is subject to the range.

[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.