These minutes are Approved and Final. Full Board review and decision took place at the May 29, 2013 Regular Meeting of the Board.

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

**MINUTES OF THE MEETING**
**April 2, 2013**

**BOARD MEMBERS PRESENT:**

Mark Noennig, Chairman (via conference call)
Kathy Bessette
Gary Buchanan
Sheena Wilson
Karl Englund
Quinton Nyman
Jack Prothero
Marilyn Ryan
Jon Satre

**LEGISLATIVE LIAISONS:**

Senator Ed Buttrey – Absent
Representative Franke Wilmer – Absent

**STAFF PRESENT:**

Polly Boutin, Accountant
Jason Brent, CFA, Alternative Investments Analyst
Geri Burton, Deputy Director
Dana Chapman, Board Secretary
Richard Cooley, CFA, Portfolio Manager, Fixed Income/STIP
Frank Cornwell, CPA, Deputy Financial Manager
Roberta Diaz, Accountant
David Ewer, Executive Director
Julie Flynn, Bond Program Officer
Tim House, Investment Operations Chief
Ed Kelly, Alternative Investments Analyst
Herb Kulow, MCMB, Portfolio Manager, In-State Loan Program
April Madden, Accountant
Gayle Moon, CPA, Financial Manager
Rande Muffick, CFA, Portfolio Manager, Public Equities
Chris Phillips, CFA, Investment Staff
Jon Putnam, CFA, FRM, Fixed Income Investment Analyst
Nancy Rivera, Credit Analyst
John Romasko, CFA, CPA, Fixed Income Investment Analyst
Nathan Sax, CFA, Portfolio Manager, Fixed Income
Clifford A. Sheets, CFA, Chief Investment Officer
Steve Strong, Equity Investment Analyst
Louise Welsh, Senior Bond Program Officer
Dan Zarling, CFA, Director of Research

GUESTS:

Jim Voytko, R.V. Kuhns and Associates
Mark Higgins, R.V. Kuhns and Associates
John Harrington, Legislative Audit Division
Michelle Barstad, Executive Director, Montana Finance Facility Authority
John Marchi, Board Chairman, Montana Finance Facility Authority
Larry Putnam, Board Member, Montana Finance Facility Authority

## CALL TO ORDER

Board Chairman Mark Noennig called the regular meeting of the Board of Investments (Board) to order at 10:00 AM in the Board Room on the third floor at 2401 Colonial Drive, Helena, Montana. As noted above, a quorum of Board Members was present. Senator Ed Buttrey and Representative Franke Wilmer were absent.

Chairman Noennig introduced newly appointed Board member Sheena Wilson. Sheena is the Public Employees' Retirement System (PERS) representative to the Board. The Chairman then asked Board and staff members to introduce themselves.

Chairman Noennig called for any corrections or revisions to the Board minutes from the February 26-27, 2013 meeting. Member Gary Buchanan asked that the paragraph on page 17 of the minutes referencing the positive return of 11 basis points for the annualized ten year period be struck from the minutes.

> *"Executive Director Ewer noted performance for annualized ten year returns shows a positive relative return of 11 basis points. The Board has implemented important asset allocation changes focusing on the long term which is vital."*
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> After a brief discussion Member Buchanan made a motion to delete the noted paragraph from the February 26-27, 2013 Board minutes. Member Karl Englund seconded. The Motion was carried 9-0.
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> Board Member Buchanan made a Motion to approve the Minutes of the Board meeting on February 26-27, 2013, as amended. Member Englund seconded the Motion. The Motion was carried 9-0.

Chairman Noennig asked for public comment. There was no public comment.

## EXECUTIVE DIRECTOR'S REPORT

Overall Comments

Executive Director Ewer presented his executive director's memo. There were no questions or comments on member requests from prior meetings, emergency preparedness or CEM Benchmarking. He noted the BOI budget is our biggest legislative issue and remains intact; it is currently in the Senate Finance and Claims Committee with House Bill 2. The two bills which would have directly affected the Board with respect to creation of a state bank have been tabled. The pension issue is still percolating, no new news at this time.

Member Jack Prothero asked for input from one of the Board's pension representatives, Teachers' Retirement System (TRS) or PERS, to comment on how they see the pension legislation proceeding.

Member Marilyn Ryan, the TRS representative, commented the legislation that has moved on is positive. It doesn't include everything the TRS Board had hoped for but it does a good job. There are still competing bills moving along, including the Governor's bill. She noted that at this point, they are waiting for both houses to cooperate, but there is nothing dire right now.

Member Sheena Wilson advised as the newly appointed representative she will miss her first PERS meeting as it is scheduled for this afternoon, but will attend the meeting next week.

Member Quinton Nyman added that the Montana Public Employees Association has changed course and is now in support of HB 454. There is a referendum sponsored by Representative Dee Brown which would require new hires to become members of a defined contribution plan, but there are lots of unresolved issues with it.

Executive Director Ewer continued with his report. Regarding Board education, he reminded the Board that the Institute for Financial Education (IFE) will again be holding the Market Makers conference. Last year, Member Jon Satre and past Member Jim Turcotte, as well as Executive Director Ewer, attended and it proved beneficial. The Board can send up to three attendees to the conference this year.

Member Buchanan requested that staff alert members as soon as possible regarding available upcoming conferences and dates and conference topics along with links to the conference information. The information could prove helpful, especially when there is short notice for an upcoming conference. Executive Director Ewer said this would be done.

Executive Director Ewer stated he requested that Board members take a look at the BOI website and provide staff with any feedback on improvements or changes. The site is a continual work in progress and will be updated and expanded with relevant information as necessary. Some recent changes include posting the Board's Administrative Rules and adding more of the Board's policies.

## ASSET ALLOCATION

Chief Investment Officer Mr. Cliff Sheets and R.V. Kuhns associates, Mr. Jim Voytko and Mr. Mark Higgins presented a discussion on asset allocation.

Mr. Voytko started off and offered that it is a discussion, an opportunity to step back and do a deep dive into what it is for and what are the multiple hurdles that you have to consider when structuring a fund that has multiple billions of dollars in it. When exploring the nature of asset allocation, it's important to differentiate between an asset allocation study and an asset liability study. They are not the same thing, even though an asset allocation study is one that focuses on the investments in the context of balancing the risks and returns. The sole focus is on the investments; it is aware of the liabilities, the objectives, but does not formally integrate them into the analysis. It is where pragmatism gets reflected. While it works in theory to have asset allocation, it does not consider fees, for example, or managers or products that could be integrated but are not available.

An asset allocation liability study embeds within it multiple asset allocation studies but in a different context. It is very useful as it steps back and widens the context of the view; what's going on with the investments. Asset liability considers the three parts which must be considered in a pension fund, investments, contributions and liabilities (distributions). Different objectives and a world view in scope are looked at. Financial folks love models, and while models have been central to financial analysis, they have to be handled with care as a bad model can take you to a bad place. Models can be very helpful when they structure the evaluation to give you a context to make tradeoffs, but they don't make the decision for you.

Risk is the first factor to address, although investors all love to jump to return, risk is equally important. It's important to understand there are many different kinds of risk. We will address volatility risk, but also liquidity risk. Many risks have to be balanced, volatility is most commonly used, determining how much the value of a total fund will fluctuate up and down, and how damaging will it be to long term returns. Equity beta is a derivative of volatility, and equities are the most volatile major asset class contributing 75 to 85 percent of volatility. Liquidity risk is also very important as evidenced in the 2008-2009 financial crisis when values were so low that it was very painful to sell assets. Long term investments as long term vehicles were lacking liquidity.

Valuation risk is another factor, whether things are over or under valued, but this can be difficult to determine. Goal risk must be considered; what kind of risks are you taking that increase the risk you may not reach your ultimate goal, called actuarial risk. A lot of boards faced with a low return outlook have had to look at other risks such as volatility or liquidity when considering actuarial goals. Concentration risk occurs with a lack of diversification in your portfolio, diversification over time provides the safest portfolios.

And finally, headline risk, such as an article in the papers that makes everyone look bad, which can lead to restrictions to your portfolio. Extreme cases can threaten the structure of pension plans.

Mean Variance Optimization (MVO) is an important tool we use to determine asset allocation. The analytic tool dates back to the 1950's and its originator won a Nobel Prize. It is important because it is a mathematical technique; it can only measure things that can be measured and measured well. It reveals an incomplete picture, but a very structured picture, and serves institutional investors as a starting point to begin structuring very large institutional portfolios.

Member Satre noted that after the financial crisis of 2008-2009, MVO received a lot of bad press and he asked if there were discussions of alternatives to MVO at that time.

Mr. Voytko advised that during 2008-2009 one of most unusual things about the downturn was not how big the downturn was but how but how broad it was through all asset classes, with the single exception of U.S. Treasuries. That contrasted with the 2001-2002 downturn where bonds did better than stocks, and so diversification played an important role. Diversification played much less of a role in 2008-2009. That led investors to question whether diversification had failed. This resulted in a push to improve the way we do MVO, and incorporating liquidity metrics is one aspect. For all the talk about finding a better replacement, no one has come up with one as structured and disciplined as MVO. We have come up with something that is useful and descriptive which is thematic diversification. This looks at not just how diversified you are, but which investments do you have whose primary purpose is return, which investments act in a stabilizing role in the value of the portfolio by providing low volatility and which investments produce alpha, or excess return. Starting with the basic MVO and then looking at the thematic view, diversification as to what assets provide which primary purpose is a significant change. But it is an additive, not replacement for MVO.

Volatility matters for many reasons, primarily because it actually reduces long term return. Looking at up and down annual returns, your ending value will decrease as volatile assets grow slower over multiple periods of time. For example you have $100 dollars and then lose 50% of your value, you now need to gain back 100% of the value just to get back to where you started. Volatility is the enemy of long term returns. When looking at the relationship between annual standard deviation, volatility and expected compound return, as volatility increases, compound return falls off, even when expected return remains the same.

Another disturbing factor about volatility is that it also increases your downside risk because it's symmetrical, volatile up and down, so you have to be mindful about downside leg. The highest median expected value has the biggest downside leg. We don't automatically look at a high risk portfolio and expect the median, there is some probability you will end up in the downside leg over the long term. While not likely, it exists as a distinct possibility. As a home run hitter swings for home runs but will strike out more, when swinging hard you miss more often. This is where fiduciary oversight is important.

Member Englund observed that with increased volatility it appears that the chance of winding up at the extreme downside of returns outweighs the chance of landing on the extreme upside of returns with excess volatility. Mr. Voytko confirmed yes, over time the downside leg is actually more likely than the upside leg. The return odds are not truly symmetrical and the left hand tails are in fact fatter than the upside, meaning downside risk is more likely than extreme upside return.

When structuring your fund for asset allocation, the ultimate question becomes how do you get the most amount of return with the least amount of risk. With diversification, the question is do your investments fluctuate in synch with one another, or not. If they fluctuate the same then when one goes up or down, so do the others, causing the total fund to move up or down at the same time. If investments do not fluctuate at the same times in the same way, when one goes up, one goes down, which charts a middle course for lower volatility, lower risk and the same return. Less volatility therefore, over time improves performance. Correlation and diversification function as the antidote for volatility, and while not perfect, it is the best we have.

MVO does have blind spots. Number one, risk is not all about volatility; while the model assumes all investments have the same liquidity, this is not true in the real world, i.e. private equity and private real estate have severe penalties when pulling out liquidity. There is also no headline risk consideration, and the assumption is that all classes have same environment. Second, real investors don't value upside as much as they fear downsides, but MVO treats fluctuation equally, in the model view fluctuation is fluctuation. Third, nonsymmetrical fluctuation must have adjustments to MVO. Fourth, correlations are always in the future, but when planning stability for the future it is based on past events, and in the short term conditions can contract and expand. MVO does not tell you the true short term downside as it doesn't account for correlations moving together over the short term. And finally, most models are driven by assumptions and rules you put in the mix. If a model says an action is beneficial, it may suggest doing more to achieve greater benefit, but it does not reflect real life situations. We know it is not wise because of our assumptions. We like the model structure to give us input, but it cannot predict the future to that level of accuracy. Bounds are placed around the model; we know for example 70% equity carries a lot of risk, so we may cap them at 65%. The model also doesn't account for the rebalancing effect, so is not perfect. It's always helpful to know what the model shortcomings are and to use common sense.

Member Satre stated that during the 2008-2009 crisis, with the highly improbable market conditions, R.V. Kuhns developed some bolt-ons to aid through the rough market conditions and asked what those were.

Mr. Voytko stated an MVO will be used with non-normal situations and liquidity measured, but other helpful additional bolt-ons tools will be considered. More data was incorporated on the liability study which looked at how fast the portfolio would have to grow in order to make up for the shortfall in contribution policy. It was a pretty high number. We look at possible fixes, for instance we have to always look at the yield curve which the central banks have forced us to work with. That's not going to be permanent, but is an adaption to the current situation.

Responding to a question from Member Buchanan, Mr. Voytko stated Fed policy is always a factor, particularly at the short end of the curve. The current Fed policy has influence over the entire yield curve and the magnitude is 10 to 15 times that of past Fed policies.

We look at asset allocation versus the other decisions that boards are asked to make, such as how influential risk and return are in one class versus another. Since the late 1980's, the asset allocation decisions, how you structure your portfolio, is by far the most important decision a board makes regarding risk and return. Exposure to asset classes, which ones and how much of each is your first consideration, followed by manager selection at a distant second. A number of clients ask us to regularly perform a disaggregation of returns of portfolios, to tear apart the portfolio and determine where the real source of return was, exactly where it came from.

The magnitude of all other decisions pales in comparison to the fundamental decision of which asset classes you're invested in and how much. Whether passive or active, this sets the stage for 90% of your return, the rest of the decisions are an effort to enhance those returns. It helps to keep in mind when constituents come asking, that in cases where all capital markets are down and negative, it is unreasonable to ask why no money was made. In those cases there is no money to be made. Much of return is driven by what capital markets present to you.

In summary, risk is fluctuation, but in particular it is difficult if not impossible to recover from. Asset allocation is the most important decision that sets the stage. MVO has limitations but can help structure, valuation risk when you have to raise money to pay benefits, contributions, liquidity risk which is why we do pacing studies, you don't want to lock up too much money relative to your needs; and manager risk, which affects all areas where you have them, not just monitoring but the initial hiring. When thinking about a portfolio of multiple assets, you must look at multiple factors, there is no one single metric that drives everything, there are several factors and they have to be in balance. What asset classes will you use, do you need to adjust your exposure by eliminating some you have or by adding those you don't have. The asset classes are the building blocks to a portfolio, you want to weigh the pros and cons and see if there are recommended changes. The model may push you to a corner solution recommending an overweight on a slightly more advantageous asset, which judgment dictates is not favorable. Another option is to review whether you want to utilize asset class ranges or change to a target allocation, a point estimate with a range around it. We have discussed target allocations at past Board meeting and can revisit if desired.

Member Englund inquired how to separate out your target allocation from your manager selection since your target allocation is invested with managers.

Mr. Higgins stated your target allocation is if you essentially take all of your indexes that you are benchmarked against and instead you just invest passively in those indexes, that is the return you would've gotten, if not invested with managers. Mr. Voytko added the manager's performance determines whether they do better than the assigned benchmark or not, so you do not give credit to the manager because the market itself went up 10%, that return belongs to the Board, because they made that determination to invest in that particular asset class. What you pin down is what effect did having a manager managing those assets have.

Mr. Sheets added it is important to understand that target allocation is driven by a fixed weight so it goes to the decision of setting a fixed weight as your target. To calculate the target you have to know what percent you have in domestic stocks, etc. It also gets into what is the correct benchmark to represent each asset class. Liquidity is not a constant either, and can vary; it's a static measure and yet we know it can change dramatically as in 2008 and 2009, when U.S. Treasuries were the only assets trading freely, whereas in the current market liquidity in high risk assets is good.

Mr. Voytko commented a number of unusual things occurred in 2008-2009 which he had never seen before, such as traditional standard fixed income being as illiquid as it was.

Mr. Mark Higgins referred to the asset allocation study prepared by R.V. Kuhns. It's important to note asset allocation analysis is only as good as the data input into it. All asset classes are looked at on an annual and historical basis, valuation attributes and other extenuating circumstances such as Federal Reserve policy are taken into account, then long term forecast expectations are determined for the different asset classes. We have seen some declines in long term return expectations, especially equities, given the strains for an extended period of time, although 2012 and 2013 have been stable. The big message in 2012 to 2013 is that fixed income has substantially declined; the basic math of the low interest rates, even over the long term, makes it impossible to get a good return. Expectations have also been lowered on intermediate term; however, high yield still has relatively attractive returns, although 100 basis points lower than 2012. Clients are very concerned and our expectations may actually be higher than the average; a lot of folks are less optimistic. Cash is basically zero now, but if you look forward 15 or 20 years, rates are going to go up over the long term.

Mr. Voytko added cash equivalents are expected to be much higher in the future. The assumption, although debatable, is that the Fed will not sit on cash returns forever. If the Fed sits on cash long enough, real returns structurally are hard to predict. The forward looking assumption takes a reasonable approach to predicting the forecast for all asset classes. Responding to a question from Member Prothero, the forecast for domestic equity is 7.75%, the same as for 2012, although volatility has ticked up.

Mr. Higgins noted that when calculating the standard deviation, S&P historical returns for each asset class are analyzed, putting more weight on the last 10 years rather than the 100 year history. He added the benefit of diversification by asset classes which do not move in synchronized correlation has weakened over time. Core real estate for example provides more diversification; small and midcap U.S. equities move together, therefore do not provide as much diversification benefit.

Mr. Voytko stated large and midcaps make up the single largest allocation for institutional investors and as all equities are similar in correlation, fixed income improves the compound return even as returns have remained low, by diversifying correlation. Responding to a question from Member Satre, Mr. Higgins noted that while hedge funds would offer different kinds of variables, it would all depend on which funds you select and your specific strategy. Mr. Higgins reviewed an MVO analysis which was run on 12 varying scenarios using the current allocation ranges and using wider ranges. The return compound within the current ranges using the top versus the bottom of the ranges did not vary substantially due to the narrow ranges in effect.

Mr. Sheets explained that staff looked at the MVO display using the current ranges to determine what changes could be made quickly if needed. If staff chose to lean more conservative while staying within the 60% equity floor, core real estate could be increased and small cap, emerging markets and fixed income high yield could be decreased. For a more aggressive approach small cap and fixed income high yield would be ramped up. Following either approach, the changes could be made over the course of a quarter.

Mr. Higgins noted the portfolio is currently fairly aggressive. Mr. Voytko added that when looking at capital appreciation strategies of asset allocation, a conservative approach shows less capital appreciation but raises your chance of capital preservation.

Mr. Higgins stated when looking at expanding the current ranges to get a view without the narrow constraints, the overall return goes up broadly; however, the sacrifice of going more aggressive is reduction in liquidity which will be more of an issue five or ten years in the future. The increase in return may not be an acceptable risk, considering the decrease in liquidity.

Member Buchanan asked if policy changes are being considered. Mr. Higgins indicated expanding to other asset classes not currently held, or adjusting the current ranges for each class, or switching to a target allocation, are all options which can be considered.

Executive Director Ewer noted asset allocation discussions are scheduled twice on the 2013 work plan, April and November, and that the Board's investment policy requires that the Board annually either reaffirm or change the asset allocation ranges for asset classes. Staff will have recommendations for the Board at the November meeting. Demands on liquidity, options for more or less risk or adjusting strategy to get closer to the actuarial assumed return will be considered. Mr. Sheets added that approximately $46 million in cash gross average per month is going out, with an estimate of $5 to $8 million net of contributions and income. Perhaps a liability study would be beneficial. Any aggressive change would mean a commitment of many years ('a generation'). The outcome of the Montana legislature could be a key factor as well.

Mr. Voytko added the assumed actuarial rate sets the contribution level determined by the legislature, and actuarial risk can affect the contribution level. Certain types of risk such as liquidity risk become vital. Contributions are the best source to pay benefits with.

<u>Meg O'Leary, Director, Department of Commerce</u>
Member Karl Englund introduced the new director for the Department of Commerce, Ms. Meg O'Leary. Ms. O'Leary noted this was week 13 on the job as the new director, although she met with MBOI staff shortly after coming on board. Ms. O'Leary expressed her interest in getting to

know the functions of the Board and remarked that Executive Director Ewer, Deputy Director Geri Burton, Chief Investment Officer Sheets, Financial Manager Gayle Moon and Portfolio Manager Herb Kulow have all been very helpful.

## ASSET ALLOCATION, continued

Mr. Jim Voytko reviewed the Monte Carlo Simulation results chart. Using the current established asset class ranges there is a 40% chance of meeting the actuarial expected return of 7.75% over a ten year period. By increasing both contributions and risk you could near a 50% probability of meeting the 7.75% goal, but it would likely cost liquidity. All costs and risks must be considered. If the actuarial rate is higher than 7.75% the costs to the current members would be a burden to contributors. By taking on more risk the downside risk also increases. Reducing the expected return to 7.50% or 7.25% would make a difference, but contributions would have to be increased, which has not happened in Montana.

Mr. Sheets noted that return expectations must be tied to contributions, otherwise confidence in the system is hard to maintain. By failing to fund the current system, the main focus is on return only. Without a hardwired connection between returns and contributions and by failing to look at all the ingredients, the plan is less stable.

Mr. Voytko explained the volatility risk can be lowered but liquidity risk and goal risk, the ability to reach your desired return, would be the tradeoffs. Mr. Higgins added broad ranges would add more options and increase your probability of reaching your 7.75%. Mr. Voytko stated if you chose a conservative approach, although you would have increased stability, there is very little chance of achieving the 7.75%. If liquidity risk increases over the long term, such as if your contributor group decreases, you would have to reduce risk to stabilize the portfolio.

Mr. Higgins reviewed asset allocation options available. Asset class coverage is already very well diversified; only two classes, commodities and hedge funds are not included, although fixed income does contain "other real assets." Asset class ranges are somewhat narrow and could be expanded, or conversion to a fixed weight benchmark could be implemented, which would enable measurement of effective deviation from the target. Some of the drawbacks of using a target allocation include consideration of factors beyond your control, such as having to rebalance as the market moves, and it can take five to ten years to realize the positive effects. Additionally, you have transition costs when rebalancing to the target.

Mr. Voytko added that concerns are shared with staff which has looked in depth at the target allocation option. Responding to the Board's request to find areas of improvement to analyze the breakdown determining where returns specifically are realized, a target allocation would allow that analysis.

Member Satre asked what liability driven investing consists of, and do we do it?

Mr. Voytko explained with liability driven investing you literally manage to finance liabilities by managing the funding ratio of a defined benefit plan. You are restricted to a very conservative approach dictated by input and offset.

After a brief discussion, Board members agreed to add as an agenda item for the May Board meeting, a review of the timing and appropriateness of conducting an asset liability study. Results of legislative action and any determination by the actuary will help clarify if a study would be beneficial.

## INVESTMENT MANAGER ADDITIONS

Real Estate Manager Additions – Mr. Cliff Sheets, CFA, Mr. Ethan Hurley, Portfolio Manager
Mr. Ethan Hurley presented the addition of one fund commitment since the last Board meeting. A commitment of $20 million was made to GEM Realty Fund V, following a Fund IV commitment made in June of 2010 of $15 million. Fund V will invest in all major property types, mostly in North America, in the form of distressed debt and equity investments. They have performed well with the existing relationship. The partners have invested a substantial amount of their own money and they utilize a multitude of strategies. They have been flexible and consistent performers through various market cycles. The fee structure is favorable at 1.5% of 90% of the commitment, as they rarely commit the full 100% amount. Mr. Hurley added they have a 9% hurdle which requires the original invested amount, along with 9% compounded interest, management fees and organization expenses to be returned before the general partner receive any profits.

Executive Director Ewer noted that because of the unique characteristics of private equity, they return our costs plus a 9% return, to compensate for the associated risks and high costs of private equity, or in this case private real estate.

Mr. Sheets added for both real estate and private equity the structures are set up to align the general partners with the limited partners.

| Fund Name | Vintage | Subclass | Property Type | Amount | Date |
|---|---|---|---|---|---|
| GEM Realty Fund V, LP | 2013 | Opportunistic | Diverse | $20M | 2/28/13 |

Domestic Equity Manager Additions – Rande R. Muffick, CFA
Mr. Rande Muffick reported that the first step in the domestic small cap manager search is complete and two managers have been hired. Both have long term performance and stable management teams and pick stocks differently from our current managers which will serve to diversify and make for a lower correlation.

Metropolitan West Capital Management, LLC is a small cap value company and tends to have returns with stronger upside capture in an up market, the opposite of current manager Vaughn Nelson. ING Investment Management Co. LLC is a small cap growth manager and tend to do better in down markets so should offset current manager Alliance Bernstein. The contacts have been signed and each new manager will start with an initial funding of $20 to $25 million in April. The new contracts represent a lot of time and effort by staff. Steve Strong performed the initial analysis after starting with the Factset Data Base and R.V. Kuhns and Associates offered input and provided a list of other potential managers and actually recommended Metropolitan West. Fees for the two managers are on the high side but are in line with current manager fees.

The search for domestic midcap managers is about three quarters completed and we are close to hiring one manager.

## POLICY REVIEW

Board Policy and Rule Review – Mr. David Ewer, Executive Director
Executive Director David Ewer outlined staff recommendations for policy changes which have been reviewed in accordance with the 24 month work plan. The four general policy groups for the Board are Governance, Investments, Operational and Lending Programs. Board rules, which have not changed since 2000, are currently being reviewed by staff. Many rules still in effect apply to programs that are no longer in existence. Staff may present proposed rule changes at a future date before the Board. Staff is recommending changes to the Governance Policy and the

Education Policy, as well as revisions to investment policies which will be presented later in the meeting by Mr. Cliff Sheets.

Mr. Ewer reviewed the proposed changes to the Governance Policy. The recommended changes include several housekeeping items and the addition of the new Appendix K which lists all of the Administrative Rules relative to the Board and a list of all the policy statements which are available on the BOI webpage.

Responding to a question from Member Buchanan, Mr. Ewer clarified that while the executive branch budget process is completed on a biennial basis, staff will present a BOI budget update to the Board at the August meeting.

> Board Member Karl Englund made a Motion to approve the staff recommended revisions to the Governance Policy. Member Jon Satre seconded the Motion. The Motion was carried 9-0.

Investment Policy Statements – Mr. Cliff Sheets, CFA, Chief Investment Officer
Mr. Sheets presented staff recommendations for changes to investment policies. Minor housekeeping changes were made to several policies which did not materially change the policies and those are not being presented for Board approval.

Three pollution mitigation fund policies were revised increasing the STIP range to allow for increased liquidity needs:

1. Streamside Tailings Operable Settlement Fund (MU19);
2. Upper Clark Fork River Basin (UCFRB) Restoration Fund (MU21); and
3. Butte Area One Restoration Fund (MU3F).

> Board Member Gary Buchanan made a Motion to approve the three revised pollution mitigation policies as presented. Member Kathy Bessette seconded the Motion. The Motion was carried 9-0.

Mr. Sheets presented two new investment policy statements:

1. Montana State University Operating Fund (MU81); and
2. Montana Tech Operating Fund (MU80).

Both new operating funds will utilize only STIP and TFIP as eligible investments.

> Board Member Englund made a Motion to approve the Montana State University Operating Fund and Montana Tech Operating Fund policies as presented. Member Sheena Wilson seconded the Motion. The Motion was carried 9-0.

Mr. Sheets presented the proposed revised changes to the two bond pool policy statements:

1. Core Internal Bond Pool (CIBP)(MU40)
2. Trust Funds Investment Pool (TFIP)(MU41)

The changes to the policy statements for the two funds clarify that purchases shall be rated at investment grade at time of purchase. Additionally, if a holding is downgraded, automatic sale will not be required but may, at the manager's discretion, be held. Any security which may have been downgraded to below investment grade will be assigned an internal rating by staff. Policy ranges have been changed to reflect changes in the benchmark and cash has been removed since the amount of cash held is a by-product of duration.

Responding to a question from Member Buchanan, Mr. Sheets detailed the changes to the index, which has changed substantially over the last four years. Corporate credit has increased as corporations have issued bonds seeking to increase liquidity and mortgage backed securities decreased from 36% to 29%. The sector ranges have been adjusted to accommodate index drift and portfolio manager preferences.

> Board Member Jack Prothero made a Motion to approve the Core Internal Bond Pool and Trust Funds Investment Pool investment policies as presented. Member Kathy Bessette seconded the Motion. The Motion was carried 9-0.

Mr. Sheets presented the proposed revisions to the Montana Private Equity Pool (MPEP)(MU47). Several language clarifications and simplifications were made. Policy ranges were tightened for debt related and venture capital. The individual limit on fund-of-funds managers has been removed as it is no longer relevant given current portfolio composition and the relative weight in funds managed by Adams Street Partners. The language referencing due diligence was removed as staff uses a comprehensive process, including a checklist, which is part of the normal underwriting process conducted prior to each commitment decision.

> Board Member Jack Prothero made a Motion to approve the Montana Private Equity Pool investment policy as presented. Member Kathy Bessette seconded the Motion. The Motion was carried 9-0.

Member Englund asked if the Board had ever seen the checklist for managers used by staff and Mr. Sheets stated that the checklist was presented to the Board about two years ago. Mr. Rande Muffick added that public equity managers also have a review process that includes a checklist now that a Request for Proposal (RFP) is no longer required to hire external managers.

After a brief discussion regarding due diligence procedures followed by staff, it was agreed by consensus to add an agenda item for presentation to the Board of the due diligence process at the May Board meeting.

Mr. Sheets presented the proposed revisions to the Montana Real Estate Pool (MTRP)(MUIA). The allocation section was removed as the allocation is controlled by the Public Retirement Plans policy; minor language/grammar changes were made; policy constraint language was modified to reflect the current practices regarding disclosure to the Board; portfolio exposures with respect to property type, geography and leverage will be presented quarterly to the Board; a restriction in reference to diversification within the Timberland portfolio was removed; and a change in the language clarifying the benchmark NCREIF Open End Diversified Equity Index (NFI-ODCE) better reflects the risk differences between the funds held in the pool and the index.

> Board Member Karl Englund made a Motion to approve the Montana Real Estate Pool investment policy as presented. Member Jack Prothero seconded the Motion. The Motion was carried 9-0.

Mr. Sheets presented the proposed revisions to the Public Markets Manager Evaluation Policy. Policy language was removed referencing manager contract terms and the required issuance of RFP's, as the requirement of the procurement process was removed by the Board in February of 2012. Executive Director Ewer added it was determined BOI had the right to choose managers without going through the RFP process. It is the responsibility of the staff to choose and evaluate managers.

> Board Member Jack Prothero made a Motion to approve the Public Markets Evaluation Policy as presented. Member Kathy Bessette seconded the Motion. The Motion was carried 9-0.

Board Education Policy – Mr. David Ewer, Executive Director

Executive Director David Ewer presented staff proposed revisions to the Board Education Policy. The proposed policy revises rigid language mandating Board members to attend training and education opportunities. All Board members are encouraged to seek out and take advantage of appropriate educational tools, such as conferences, seminars, workshops, relevant reading materials and in-house presentations.

> Board Member Jack Prothero made a Motion to approve the Board Education Policy as presented. Member Karl Englund seconded the Motion. The Motion was carried 9-0.

## CREDIT ENHANCEMENT – MONTANA FACILITY FINANCE AUTHORITY

Montana Facility Finance Authority – Mr. David Ewer, BOI Executive Director, Ms. Michelle Barstad, MFFA Executive Director, Mr. John Marchi, MFFA Board Chairman, Mr. Larry Putnam, MFFA Board Member

Executive Director David Ewer presented a brief history of the Board's relationship with the Montana Facility Finance Authority (MFFA or Authority). The Board's role under law provides for loaning money to the Authority for deposit in the capital reserve account; and purchase bonds and notes issued by the Authority. The Board credit enhances some of the MFFA's bonds and the Board's AA rating with Moody's and Fitch allows substantial savings to Montana hospitals which would otherwise not have access to the bond market without the Board's credit enhancement. The Board uses its expertise to balance credit risk with legislative direction when providing credit enhancement, which is not automatic. Staff reviews the credit which is brought to the Board's Loan Committee for approval. The full Board has final approval. The Board has provided over $100 million in credit enhancement and has collected several million in fees. There have been no defaults.

Ms. Michelle Barstad, MFFA Executive Director, introduced Mr. Jon Marchi, MFFA Board Chairman and MFFA Board Member Mr. Larry Putnam. Ms. Barstad provided an overview of the MFFA which was formed in 1983 to issue tax exempt bonds primarily to hospitals and primarily for construction. The last BOI credit enhancement provided to MFFA was in 2010. Since inception, the MFFA has structured $2.3 billion in financings. The current outstanding balance is $1.1 billion.

In 1990 the Authority co-located with the BOI and contracted for services, such as sharing of the front office staff. The MFFA bonds enhanced by the BOI currently has 15 borrowers in 14 different cities providing better rates to midsize Montana hospitals than would otherwise be available to the facilities. The program enhancement was suspended in 2010 due to the oversaturation of the medical sector in the BOI portfolio, even though hospitals are among the top five employers in all Montana counties. Before the program was suspended, the outstanding loan balance had increased to about $133 million. At that time senior management met and decided to suspend the program for approximately three years due to the heavy concentration of health care related loans in the portfolio. Mr. Herb Kulow added that he had $30 to $50 million in outstanding commitments at that time so there was a potential ceiling of close to $180 million, a high overall exposure to health care. Suspending the program allowed for a gradual reduction in the heavy concentration of health care related loans.

Ms. Barstad stated the outstanding loan balance is now at about $101 million and the hope is to open the program up again at this time.

Member Buchanan agreed that given the growing health care industry, which is insurance driven, the timing may be right to consider new loans, as long as the Board performs the required due diligence.

Executive Director Ewer noted that with any new loans brought before the Board, the issue of concentration will need to be addressed.

MFFA Board Chair Jon Marchi noted there is one loan currently in the pipeline. Board Chairman Mark Noennig advised to bring the proposal to the Board; members agreed by consensus to consider any new proposals by MFFA brought before the Board.

## MONTANA LOAN PROGRAMS

In-State Loan Program

Mr. Herb Kulow presented a history of the In-State Loan Program. The Loan Program is made up of nine loan programs funded by the Coal Tax Trust and the Residential Mortgage Program which is funded with pension funds. Legislatively set in 1983 as part of the Build Montana program, to help diversify, strengthen and stabilize the Montana economy, the In-State Loan Program was limited to using up to 25% of the Coal Tax Trust. Operating under the prudent expert principle, all loans up to a MBOI participated amount of $1 million are approved by an internal loan staff committee. Loans with a MBOI participated amount of $1 million up to $5 million are reviewed by the Board Loan Committee, which makes a decision and reports that decision to the full Board. All loans with a MBOI participated amount of $5 million or more are reviewed by the Board Loan Committee for a decision and the Committee then presents that decision to the full Board for their approval.

The 2007 legislature lifted the 25% cap when the percentage of the In-State Loan program reached 24.60% of the Coal Tax Trust. As of December 31, 2012, the percentage of loans to the Coal Tax Trust was 12.43%. Any one loan cannot exceed 10% of the Coal Tax Trust, currently $86 million. The average loan size is $970,000 for the 129 loans in the portfolio. In 2000 the average loan size was $280,000.

The residential mortgage program which is funded by pension funds has a balance of $17 million as of 12/31/12. Interest rates remain at historically low rates. MBOI is currently not investing in residential loans as the pension funds have an actuarial rate of return expectation of 7.75%. The program has not been discontinued, so at such time as residential mortgage rates increase to investable levels, the program will again become active.

Since the melt-down of 2008 and the tightening of credit standards by regulators and lenders, loan demand for participation in the In-State Loan program has decreased as lender liquidity has increased. Montana lenders have no desire in the present economy to participate in MBOI loan programs; however, over time as lender liquidity levels diminish, lenders will again turn to MBOI for participation in commercial loans.

## ADJOURNMENT

There being no further business, the meeting was adjourned at 4:05 PM.

Next Meeting
The next regular meeting of the Board is a one day meeting and will be Wednesday May 29, 2013 in Billings Montana at the Northern Hotel.

*Complete copies of all reports presented to the Board are on file with the Board of Investments.*

**BOARD OF INVESTMENTS**

APPROVE: Mark E. Noennig
Mark Noennig, Chairman

ATTEST: David Ewer
David Ewer, Executive Director

DATE: May 29, 2013

MBOI:drc 5/6/13