

MINUTES
INVESTMENT COMMITTEE MEETING
MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)

One McInnis Parkway, 1st Floor
Retirement Board Conference Room
San Rafael, CA

March 10, 2016 – 9:00 a.m.

CALL TO ORDER

Chair Brenk called the meeting to order at 9:01a.m.

ROLL CALL

PRESENT: Bolger, Brenk, Given, Gladstern, Haim (alternate retired), Murphy, Piombo, Shaw (ex officio alternate), Shore, Stevens, Thomas

ABSENT: Cooper

A. OPEN TIME FOR PUBLIC EXPRESSION

Note: The public may also address the Committee regarding any agenda item when the Committee considers the item.

No public comment.

B. NEW BUSINESS

1. **Real Assets Manager Selection (Action)**

Consider and take possible action to select active managers for Commodity portfolios

Retirement Administrator Jeff Wickman stated that Trustee Shore needs to recuse himself from any discussion or consideration of Dimensional Fund Advisors (DFA) as the potential active commodity manager because of his financial interest in DFA. He indicated that Trustee Shore would need to step out of the room and could return for the other manager interviews. At the end of the interviews Trustee Shore can only participate in deliberations if DFA is not part of the discussion. If DFA is part of the deliberation Trustee Shore will need to leave the room.

Trustee Shore recused himself and left the Board chambers for Callan Associates' overview of the potential commodity managers.

Jim Callahan, Executive Vice President of Callan Associates, introduced Brett Cornwell, Senior Vice President and head of the fixed income manager research team, to give an overview of the potential active commodity managers. Mr. Cornwell stated that MCERA's current commodity exposure is through a passive index. The first group of candidates,

represented by BlackRock and DFA, uses enhanced commodities strategies and the second group, represented by Invesco and Cohen & Steers, takes a more traditional active approach by making decisions based on an evaluation of market conditions.

Chair Brenk noted that the R-Squared metric (measuring the effect of market action on the variability of portfolio returns) for the enhanced candidates is identical to the index. Trustee Stevens questioned the wide range of assets-under-management values. In response Mr. Cornwell emphasized the importance of the strategy and the resources behind each organization, which are deeper than may be initially apparent when looking at only one aspect of an organization's commodities strategies. In response to Trustee Thomas' inquiry Mr. Cornwell stated that Callan Associates is comfortable with BlackRock's relatively active acquisition profile over the past few years. Mr. Callahan emphasized that the evaluation of the organization is an important part of the manager review process.

Trustee Shore returned to the meeting at 9:20 a.m.

a. Enhanced Strategies

1. BlackRock, Commodities Smart Beta – *Patricia Hunter, Timothy Murray* – 9:10 a.m.

Trish Hunter, Director and Client Service Representative with BlackRock, introduced Colin Ross, a senior member of the team who heads up product strategy and replaces Mr. Murray for today's presentation. Ms. Hunter stated that the Commodities Smart Beta strategy for the BlackRock Commodity Index Plus Fund is pure long-only and the potential transition from MCERA's current passive strategy would be smooth. BlackRock's Commodities Smart Beta strategy has outperformed the benchmark Bloomberg Commodity Index by 0.80% annualized since inception.

Mr. Ross explained that the Smart Beta strategy uses futures contracts to gain exposure to commodities. The contracts are rolled forward so that there is never delivery of the commodities. The contract roll is managed on either a monthly basis or based on a more distant view to save transaction costs and therefore be more efficient. 'Smart' refers to the relative inefficiency of the commodities index due to the monthly contract roll that erodes returns. It is a relatively low-risk strategy with no swaps, no short positions, and index weightings. Alpha (the return over the benchmark) comes from management of the futures contract yield curve and investing collateral in cash equivalents. Returns show consistent modest outperformance in a risk-controlled framework, he said.

In response to Chair Brenk's inquiry Mr. Ross explained that 20 to 30% of the margin is invested in futures contracts and the remainder is invested in low-risk 3 month Treasury bills, as with the index. Mr. Ross acknowledged Trustee Shore's observation that last year was a tough year for commodities, which he attributed in part to political unrest in the Middle East and weakness in the global economy.

In conclusion Mr. Ross stated that the Bloomberg Commodity Index manages valuations well, provides good diversification, and is the leading commodities index to

consider as the benchmark for a commodities portfolio. He pointed to the firm's London office as a key resource where commodities are traded.

Trustee Shore recused himself and left the Board chambers at 9:45 a.m.

2. Dimensional Fund Advisors, Commodity Strategy Portfolio – *Alan Hutchinson, Ted Simpson* – 9:45 a.m.

Ted Simpson, Vice President with Dimensional Fund Advisors (DFA), stated that the commodity strategy portfolio is based on evidence-based empirical research. Portfolio Manager Alan Hutchinson stated that the DFA commodities strategy is driven by broad exposure to commodities using the Bloomberg Commodity Index as the foundation for optimal broad exposure to commodities that are equally weighted to the index. The strategy uses index swaps to gain exposure to commodities, employing safeguards for counterparty agreements. Swaps are marked to market daily to manage risk and monitor credit quality. In response to Chair Brenk's inquiry, Mr. Hutchinson explained that a third party monitors valuations on a daily basis looking for any variances. Swaps are employed due to legal restrictions (on the mutual fund structure) that prevent the use of an exchange-based commodities index.

Without adding volatility, Mr. Hutchinson said, value is added by investing collateral in a short-term, investment-grade fixed income portfolio instead of 3 month Treasury bills. The fixed income portfolio is managed on a day-to-day basis to shift term exposure depending on the steepness of the yield curve. Based on empirical evidence resulting from simulations, the portfolio is positioned according to current spreads and expected returns.

Value is also added by repositioning commodities exposure along the forward rate curve to longer-dated contracts which have lower volatility than the front month contract. Finally, efficiencies are gained through implementation by assuming there is congestion when the benchmark index rebalances and therefore rebalancing later to attain better pricing.

The DFA Commodity Strategy Portfolio strategy outperformed the Bloomberg Commodity Index as of December 31, 2015, by 1.8% annualized over the past five years. Trustee Haim observed that returns since 2011 are negative and Mr. Hutchinson referenced the cyclical nature of commodities and the negative effect of global political events.

b. Active Strategies

1. Cohen & Steers Capital Management, Active Commodities – *Nick Koutsoftas, Chris Henderson* – 10:30 a.m.

Chris Henderson, Senior Vice President for Institutional Sales at Cohen & Steers Capital Management, stated that the firm has managed the active commodities strategy for 13 years. Responding to Chair Brenk's inquiry, Mr. Henderson said that no California pension funds are invested in the active commodities product. The Cohen &

Steers Active Commodities Strategy outperformed the benchmark by 1.6% annualized over the past 7 years as of December 31, 2015.

Co-Portfolio Manager Nick Koutsoftas has managed the active commodities portfolio for ten years, moving with the entire team from General Electric to Cohen & Steers for its additional resources. Mr. Koutsoftas stated that the strategy provides beta and alpha to the index through under or over weights and a long/short component. It is a dynamic strategy with constant rebalancing to adjust to the changing fundamentals of the market for each commodity. Swaps are not employed so there is no counterparty risk and the portfolio is well diversified.

Mr. Koutsoftas stated that the portfolio's benchmark is the Bloomberg Commodity Index expanded to include up to 20% in liquid commodities such as platinum and palladium. Factors considered for the strategy include fundamental research on supply, demand and inventory levels. The valuation framework analyzes price versus the cost of production, which he indicated is very important right now as oversupply is driving commodities prices to historical lows. Mr. Koutsoftas views this as an inflection point for commodities, with prices trading below cost, and expects a 25 to 30% return in the next few years. To support this view he pointed to a dramatic reduction in capital expenditures in rigs and labor in the oil industry.

The investment team performs due diligence through onsite examination of commodities producers. Responding to inquiries from Trustees Stevens and Shore, Mr. Koutsoftas explained that supply/demand fundamentals differ across commodities and discussed price-to-marginal cost analysis. In response to Trustee Haim's inquiry he said that returns net of fees are slightly negative since commodities have been in a five-year bear market.

Active management of positioning on the futures curve avoids negative roll on the short-term futures contracts. Depending on expectations for the shape and angle of the yield curve, positioning can be long or short in different parts of the curve. Over the last 10 years 60% of alpha generated is due to setting weights relative to the benchmark and the remaining alpha comes from spread trades and timing of roll yield.

The portfolio manager characterized the strategy as a non-systematic, fundamental approach that employs out-of-index positions to diversify the portfolio. Limits on individual and sector commodity positions ensure diversification and cash collateral investments are conservatively invested in short-term U.S. Treasury vehicles. The portfolio is 100% invested and risk is closely managed to match the volatility of the index. Various conviction levels determine allocations and keep the portfolio within the risk guidelines. The goal is 200 to 250 basis points (2 to 2.5%) of alpha.

The Cohen & Steers Active Commodities Composite outperformed the benchmark by 2.6% annualized over the past 7 years as of December 31, 2015. In response to Trustee Stevens' inquiry, Mr. Koutsoftas attributed underperformance to the benchmark in 2015 to non-fundamental factors such as the implosion of the Chinese stock market and correlations coming together. In response to Trustee Thomas' inquiry Mr. Cornwell

said each commodities manager manages contract roll according to his or her interpretation of the forward curve.

2. Invesco, Balanced Risk Commodities – *Mark Ahnrud, Delia Roges* – 11:05 a.m.

Delia Roges, Managing Director for Public Sales and Service with Invesco, introduced Mark Ahnrud, Portfolio Manager and Senior Manager on the Global Asset Allocation team. Mr. Ahnrud stated that the Balanced-Risk Commodity Strategy is a smart beta approach that provides commodity exposure with a focus on risk and return. Because different commodities behave in different patterns, those in favor are overweight to the benchmark Bloomberg Commodity Index and those not in favor are underweight to the benchmark. The strategy is benchmark-agnostic, targeting 5% outperformance annualized over 5-year periods.

Investment vehicles are commodity futures or swaps on those futures. Collateral is invested in U.S. Treasury bills or high-quality money market funds with a focus on daily access and liquidity. The investable universe consists of four complexes of commodities: Agriculture/Livestock, Energy, Industrial Metals, and Precious Metals, limited by minimum liquidity standards and maximum volatility levels.

Mr. Ahnrud stated that over time 80% of returns come from the structural weightings and equal risk contribution. Commodities are strategically allocated based on the term structure of the forward curve and emphasizes commodities in the top 30% that are scarce or difficult to store. Overall risk exposure is managed by taking advantage of low correlations among assets and setting equal-risk contributions for the four major commodities asset classes mentioned above. One result of this process is that the Energy sector represents 21% of the portfolio as compared with 32% for the Bloomberg Commodity Index. Term structure and equal-risk contribution have resulted in a beta of 0.91 and 6% excess return over the Bloomberg Commodity Index since 1991.

The next step in constructing the strategy is optimal roll yield which results in a higher return and lower volatility by looking out on the curve to a less volatile point. Finally tactical allocation is determined according to each commodity's supply/demand equation, economic cycle, and investor positioning to capture price trends. Trustee Gladstern asked whether climate change is a factor and Mr. Ahnrud explained that the term structure for the asset itself would pick that up by factoring in the supply/demand balance.

Mr. Ahnrud stated that the tactical allocation process results in net notional exposure that can range from 75% to 120% invested in a positive environment. Today the portfolio is 85% invested and has been underweight since 2011. Changing the level of risk is important to add value over time, according to the portfolio manager.

In conclusion Mr. Ahnrud reviewed the performance of the strategy relative to the Bloomberg Commodity Index since inception in September 30, 2008. Results show that the strategy resulted in significant outperformance to the benchmark by both protecting on the downside during the 2008-2009 credit crisis and generating excess returns on the upside in the ensuing recovery. Total excess return is 8.82% annualized

over the 7 years ending December 31, 2015, and currently the strategy is outperforming in a commodities bear market.

In summary Mr. Ahnrud stated that there are a number of potential return sources and commodities offer attractive opportunities for active management. Responding to Mr. Cornwell's inquiry, Mr. Ahnrud stated the commodities exposure is comprised of 80% futures and 20% swaps on futures. He stated that counterparties are diversified to minimize risk exposure in response to Chair Brenk's inquiry, and no clients asked for a separate account because of administrative complexity. Mr. Cornwell asked whether the strategy's beta is significantly less than the benchmark. Mr. Ahnrud replied that it is which is desirable to generate more returns by protecting on the downside and more than fully participating on the upside.

Chair Brenk recessed the meeting for a break at 11:48 a.m., reconvening at 12:19 p.m.

Chair Brenk asked Mr. Callahan for his advice on considering the strategies presented. In response Mr. Callahan stated that the four managers have different approaches that vary from the benchmark to different degrees. BlackRock differs by enhancing the roll yield. DFA accepts the index spot price, enhances roll yield, and is more aggressive in management of collateral. Cohen & Steers has an opinion on the spot price and enhances roll yield. The Invesco approach manages away from the index and employs more strategies within the space. Fees for the active managers are higher than the enhanced group.

Responding to Chair Brenk's inquiry, the investment consultant acknowledged that the use of swaps introduces potential additional risk (counterparty risk) that is an unknown, adding that Invesco's counterparty risk is very low. Mr. Cornwell noted that Cohen & Steers does fundamental on-site research whereas Invesco's strategy is more quantitatively oriented. In Mr. Callahan's view the quantitative approach is the value add for Invesco.

In conclusion Mr. Callahan stated that the appeal of the active strategy is the opportunity for added return. Comparing performance among the four candidates, the investment consultant noted that calendar year returns show the volatility in the space. He indicated that the idea is to buy low and take a long-term view.

Trustee Piombo expressed a preference for the Invesco commodities strategy and the Chair asked for everyone's opinion on the active versus enhanced approaches. With the exception of Trustee Bolger, the trustees expressed a preference for the active commodities strategy, and in particular for most, Invesco. Trustee Bolger voiced concern about commodities in general, questioning Invesco's ability to keep up its performance target. This concern was supported by Trustee Gladstern. Ms. Stevens pointed out that the Investment Committee already decided to invest in commodities and current low price levels are likely to recover over time and the Chair agreed with her view. Trustee Piombo also agreed and considers commodities to be a modest diversifier for the portfolio. Trustee Given concurred with the diversification feature and indicated there is potential upside over time. His view was supported by Trustee Haim. Trustee Shaw believes Invesco understands global interactions in the cyclical commodities market.

It was M/S Given/Gladstern to consider only commodities managers with active strategies.

AYES: Brenk, Given, Gladstern, Murphy, Piombo, Shore, Stevens, Thomas
NOES: None
ABSTAIN: Bolger
ABSENT: None

Trustee Shore returned to the meeting at 12:49 p.m. as DFA is no longer under consideration.

Trustee Shore stated that Invesco is his choice because the performance of their strategy demonstrates that their methodology allows them to get out of harm's way in negative market cycles.

It was M/S Piombo/Given to select Invesco as manager of the commodities portfolio subject to successful contract negotiations.

Mr. Wickman requested that those who had not expressed an opinion on a specific manager share their reason for their vote for Invesco. Trustee Gladstern pointed to the opportunity for alpha. Trustee Stevens was impressed by Invesco's term structure feature, collateral management, and performance history that validates their process and differentiates them from the other presenters. Trustee Piombo listed downside protection, less correlation with the benchmark, and additional levels of active management as positives for Invesco. Trustee Thomas agreed and noted outperformance, as did Trustee Murphy. Trustee Given agreed with Trustee Stevens' comments, pointing to evidence of downside protection over the past 7 years for the Invesco strategy. In addition Trustee Given and Trustee Shaw appreciated the straightforward manner in which the strategy was presented and explained. Trustee Haim agreed and believes the commodities space invites active management and the Invesco product offers the opportunity for alpha. Chair Brenk pointed to Invesco's downside protection and good performance.

Mr. Wickman thanked the Committee for sharing their reasoning for the manager selection.

AYES: Bolger, Brenk, Given, Gladstern, Murphy, Piombo, Shore, Stevens, Thomas
NOES: None
ABSTAIN: None
ABSENT: None

Trustee Shaw was excused from the meeting.

C. OLD BUSINESS

1. Investment Manager Reporting for 2016 (Action)

Consider and take possible action to update schedule for annual portfolio reviews by investment managers

Mr. Wickman presented a revised schedule for annual portfolio reviews that makes adjustments to allow for time needed to interview real asset managers.

It was MS Bolger/Piombo to approve updates to the 2016 Investment Manager Reporting Schedule for 2016.

AYES: Bolger, Brenk, Given, Gladstern, Murphy, Piombo, Shore, Stevens,
Thomas
NOES: None
ABSTAIN: None
ABSENT: None

**D. INVESTMENT CONSULTANT QUARTERLY REPORT AND PERFORMANCE
UPDATE**

For period ending December 31, 2015

Anne Heaphy, Vice President with Callan Associates, reported that the ending market value of the Fund was just over \$2 billion as of December 31, 2015, an increase of \$113.6 million from the prior quarter. Ms. Heaphy stated that sector allocations are within target ranges. Executive Vice President Jim Callahan attributed the remarkable stability of the portfolio to the disciplined and process-oriented allocation of assets that drives risk and return over time. Major adjustments to asset allocations over the past 17 years include the introduction of private equity and more recently commodities.

Long-term total Fund returns rank in the top quartile of peers, according to Ms. Heaphy. Slight underperformance to the benchmark for the quarter was attributed to the Fund's overweight to domestic small cap equities as both small cap managers underperformed their benchmarks and large cap outperformed small cap equities. In the fixed income portfolio the allocation to global bonds impacted annual performance due to the negative effect of international currency values. International equities outperformed the benchmark over the past year as did real estate.

Reviewing the macroeconomic environment Ms. Heaphy stated that in the past year slow growth in China and falling commodity prices led to volatility in the capital markets. In addition with the Federal Reserve Bank (the Fed) raising its key interest rate in December 2015, U.S. interest-rate policy is diverging from the rest of the world. As a result of a recovery in equities in the last quarter of 2015, equity losses were modest for the calendar year.

Ms. Heaphy attributed underperformance in the Columbus Circle small cap portfolio to a rally in lower quality small cap stocks fueled by easy access to cash and low interest rates resulting from quantitative easing by the Federal Reserve. Over the five years ending December 31, 2015, the Columbus Circle portfolio returned an annualized 7.87% net of fees versus 10.67% for the index. Since inception of the portfolio at the beginning of the second quarter of 2010 the portfolio has returned 12.5% net of fees compounded versus 13.5% for the index stated and ranks in the 67th percentile of its peer group. Chair Brenk asked for opinions on Columbus Circle's underperformance and Watchlist status. Mr. Callahan advised patience as small cap growth is a volatile area of the market. The high tracking error of the Columbus Circle Small Cap Growth portfolio relative to the index shows they are more aggressive than peers. Therefore, he said, it would be best to extend the time horizon to evaluate their performance rather than making a short-term decision.

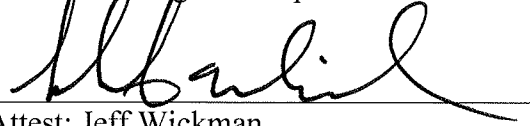
The actively managed international equity portfolio continues to protect on the downside, outperforming the benchmark by 3% for the year ending December 31, 2015. Ms. Heaphy reported that the international space was characterized by diverging performance across developed, developed small cap, and emerging markets during the year. In fixed income

portfolios Western Asset outperformed for the year due to an underweight to the energy sector. The private real estate portfolio was up significantly due to mark-to-market valuations for Woodmont properties that were sold. In the first few months of 2016 the Colchester global bond portfolio and Parametric emerging markets portfolios are showing signs of recovery relative to their indices.

There being no further business, Chair Brenk adjourned the meeting at 1:37 p.m.



Greg Brenk, Chair



Attest: Jeff Wickman
Retirement Administrator