

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM
BOARD OF RETIREMENT
2223 E. WELLINGTON AVENUE, SUITE 100
SANTA ANA, CALIFORNIA**

**INVESTMENT MANAGER MONITORING
SUBCOMMITTEE MEETING**

**April 6, 2017
9:00 A.M.**

MINUTES

The Chair called the meeting to order at 9:01 a.m. and read the opening statement into the record. Attendance was as follows:

Present: Frank Eley, Chair; Charles Packard, Vice Chair; Russell Baldwin; and Shawn Dewane

Also present: Steve Delaney, Chief Executive Officer; Shanta Chary, Director of Investment Operations; David Beeson, Investment Officer; Adam Cheng, CFA, Investment Officer; Stina Walander-Sarkin, Investment Analyst; Anthony Beltran, Visual Technician; and Julius Cuaresma, Recording Secretary

A. INDIVIDUAL MANAGER PRESENTATIONS

Mr. Beeson introduced Bridgewater Associates, who has managed their Pure Alpha strategy on OCERS' behalf since May 2005. OCERS' AUM is approximately \$278.4 million as of February 28, 2017. OCERS' portfolio was originally run with a target volatility level of 7%; in 2013, due to this strategy's absolute return nature and the consistency of returns, OCERS' shifted to a higher target volatility level of 12%. He noted that OCERS has invested in the Pure Alpha strategy for its uncorrelated return stream, as it historically has diversified against the risk-return profile of both stocks and bonds. He briefly described that this return stream is derived from a portfolio of approximately 125 unique bets, where the manager's target hit ratio is 60%; over the last 12 months, Pure Alpha's strategy has generated a hit ratio of 56%.

Mr. Beeson discussed recent senior personnel turnover, including the departure of Jon Rubenstein (co-CEO focused on technology). He noted, however, that at the co-CIO level, the team remains intact: Ray Dalio (founder), Bob Prince (co-CIO), and Greg Jensen (co-CIO) continue to lead the investment team. Notably, Dalio is ending his interim co-CEO role, enabling him to focus on investments. David McCormick, President, has been promoted to co-CEO to run the firm alongside current co-CEO Eileen Murray.

Mr. Packard arrived at 9:04 a.m.

Mr. Packard, Ms. Chary, and Ms. Walander-Sarkin discussed the manager's fees and OCERS' target volatility levels.

Mr. Baldwin discussed Bridgewater's uncorrelated and consistent return stream, as well as the diversification benefits Pure Alpha has contributed to OCERS' portfolio. However, he also questioned if the strategy's returns were sufficient for OCERS' return objectives.

Ms. Chary responded that the Pure Alpha strategy would have to be evaluated under Meketa's new Risk Mitigation categorization, including its suitability relative to Meketa's overall new asset

allocation categorization. She agreed that the manager's returns are consistent, which equips OCERS to more easily dial up (or down) the target volatility levels based upon OCERS' return objectives.

Mr. Eley observed that the manager has historically performed well when market volatility is high, and not as well during low volatility periods. Given the manager's risk-return profile, as well as its ability to trade and profit from market volatility, he opined that the manager is ideal for OCERS' risk mitigation portfolio.

Ms. Chary stated that, for Bridgewater, as with any other investment manager, needs to be reviewed over a market cycle to appreciate when a manager's strategy may be in (out of) favor. She noted Pure Alpha's absolute and relative outperformance of 7% in 2008 during the global financial crisis.

BRIDGEWATER ASSOCIATES

Presentation by Patrick Dimick & Joel Whidden

The key highlights of the presentation were:

Firm update: The manager reported that there has been no change to Bridgewater's senior investment team; Dalio, Prince, and Jensen have worked together for 21 years (Dalio launched Bridgewater 42 years ago, with Prince joining 31 years ago and Jensen 21 years ago). The manager explained that their goal seven years ago, is the same today: relieve Dalio and Jensen from their day-to-day operational involvement, enabling them to focus on investments. The manager stated there has been no change to their ownership base; their stated goals include: transition Dalio's majority equity ownership down (to the level of 10-20%) to Bridgewater employees; and to remain 100% employee-controlled.

The manager commented on OCERS' 11-year investment, relationship, and partnership with Bridgewater. Further, the manager remarked that Bridgewater's average LP relationship is similarly 11 years, with a similar sizeable investment asset base as OCERS. The manager reported that their client base has been stable, with turnover less than 1%; Pure Alpha had positive inflows in 2016.

Market Overview/Outlook for 2017: Bridgewater discussed the recent surge in positive sentiment, from the consumer to businesses to active investment managers. The manager noted that one in isolation is not particularly interesting, but each one together in unison is. Further, this unified positive sentiment, in conjunction with fiscal stimulation and ample global liquidity has led Bridgewater to believe in the global short-term reflation story.

The manager balanced this reflationary backdrop, explaining a number of deflationary measures, particularly pointing out that the U.S. is tightening, while also tapering its quantitative easing measures. Historically, the Federal Reserve has never simultaneously tightened and deleveraged their balance sheet. The manager reported that perhaps the only analog to this situation is 1937, where the economy contracted by 10% and the stock market collapsed by 40-50%. The manager tempered this, explaining that they do not expect a 1937 type of market to

occur, nor are they positioned for one. The risk is that the Federal Reserve overreacts to inflationary environment by tightening too much, too fast.

The manager also presented global populism and possible risks associated with protectionism, including tight labor markets and fragmented immigration laws. While the populism apparent in the U.S. and in England is not altogether a concern, the mounting populism efforts in the rest of Europe is, primarily a consequence of each member country's reliance on the European Central Bank. A departure from the Eurozone and the potential redenomination of trillions of cross border liabilities could spur a massive default or another 2008-like event for the global financial system.

Portfolio Strategy: The manager applies their analysis of market pricing, and if their understanding varies from market pricing, then their divergent view is expressed as a directionally long or short position, or as a relative value (i.e., spread widening or tightening) position in the portfolio. The manager stated that each portfolio position (approximately 125 in total) is qualitatively and quantitatively stress tested, to precisely understand each position's role relative to other positions and to the entire portfolio. The manager noted that though they trade in a number of global markets and instruments, approximately 1/3 of their risk budget is currency related.

In an effort to better understand Bridgewater's own role in the context of OCERS' portfolio, the manager stated that they loaded all available public information on OCERS' portfolio into their systems. They also incorporated OCERS' recent asset allocation changes. The manager discussed the Pure Alpha strategy's current role in OCERS' portfolio, noting how and why it added return while also dampening risk.

Performance: The manager discussed the historical and recent performance for the Pure Alpha strategy. Since inception, the manager reported that the Pure Alpha strategy has generated positive net returns and behaved in-line with their expectations. To illustrate Pure Alpha's leverage optionality, the manager also presented theoretical risk and return measures had OCERS implemented a 12% volatility level from OCERS' investment inception.

Mr. Eley asked if there was a positive correlation between Bridgewater's investment performance and Dalio's involvement in Bridgewater's daily operations.

Mr. Whidden responded that he would not correlate performance with Dalio's role in day-to-day operations. That said, Bridgewater strives to systemize lessons learned in all aspects of Bridgewater's businesses.

Mr. Dimick described the significance of the accumulated logic derived from 40+ years of systematizing all of Bridgewater's wrongs and rights, and its accumulated role in developing future processes.

Mr. Baldwin and Mr. Dimick discussed inflation and deflation, its impact on various assets and how the portfolio is positioned to benefit.

Mr. Eley opined that it has been three decades or so since inflation and deflation was a concern.

Mr. Dimick observed that many portfolios are not prepared for this issue, nor do many market participants have experience in this type of market.

Mr. Packard and Mr. Dimick discussed the timing of the reflation theme. Mr. Dimick suggested that many themes are already in play, i.e., wage inflation is already surging due to the increasingly tight labor markets.

Mr. Eley asked if the Federal Reserve may have waited too long to raise rates.

Mr. Dimick responded that Bridgewater believes that the Federal Reserve has a better appreciation of the financial markets' fragility, given the amount of debt and printed paper. He offered a golf analogy to the Federal Reserve's tenuous situation: akin to a golfer, the Federal Reserve assumes they are not going to make the shot, so they aim for a good place to miss. The Federal Reserve has little left in their tool kit, with historically low rates and assets trading at or near all-time valuations. The Federal Reserve's tactic thus is a preference to miss and err on the side where there is unexpected or more reflation, versus tightening too much and too fast, such that the market over corrects to the downside.

Mr. Dimick and Mr. Whidden discussed, in this politically charged environment, their goal is not necessarily to predict politics, but rather understand the linkages and flow between outcomes. Bridgewater's goal is to be clear where they may (not) have an edge, such that when a surprise occurs, they are already equipped for action. They described their ongoing analysis of political and economic history, particularly tariffs and currencies (and how they work in various post-breakup scenarios). The manager explained that there are number of fat tails in the market, so Bridgewater's focus is on diversification, particularly country diversification, such that there are a collection of bets that are not overly sensitive to any specific country's populism.

Mr. Baldwin asked for the manager's thoughts on the possible timing of a market correction.

Mr. Dimick responded that Bridgewater does not know, adding that it does not always happen, but the tendency is for a correction to occur over the long-term. He explained a number of measures that showed the market as being stable and comfortable, if not complacent, specifically, historically low implied volatility levels. He observed that the difference between the most bullish and bearish economist is marginal, as nearly everyone seems to be in agreement.

Mr. Dewane asked if Bridgewater could be long and short in every market they trade in. He also asked for the manager's maximum leverage levels.

Mr. Dimick responded that Bridgewater seeks uncorrelated trades and discussed that if Bridgewater cannot position a short with the same size and frequency as a long in a market, then an uncorrelated trade to that market is impossible. He noted that maximum leverage level is 8x.

Mr. Eley, Mr. Dimick, and Mr. Whidden discussed Bridgewater's investable asset universe.

Mr. Whidden noted that though they trade derivatives, these derivatives are plain vanilla and directly correlated to cash markets. This allows the manager to save on transaction costs, while also minimizing counterparty risk.

Mr. Eley, Mr. Packard, Mr. Dimick, and Mr. Whidden discussed Bridgewater's counterparty risk.

Mr. Dimick described Bridgewater's team that manages counterparty risks, particularly through internal systems that track the health of their counterparties, both quantitatively (i.e., stock prices, credit spreads) and qualitatively (i.e., back office reliability). He also commented that Bridgewater's paranoia translates into an ongoing assumption that their counterparty agreements are not always going to work – thus, they are heavily negotiated such that they will not do business with a counterparty unless Bridgewater is able to sweep profits every day. He remarked that their theoretical max loss is therefore 1 day's profit & loss.

Mr. Whidden stated that Bridgewater has over 25 counterparties.

Mr. Stephen Weintroski, Mission Viejo, addressed the Committee about the manager's historical performance, as well as the role of commodities, including gold, in a long-term strategic asset allocation.

The Committee recessed at 10:26 a.m.

The Committee reconvened at 10:41 a.m.

PIMCO

Presentation by Marc Seidner, CFA, Robert Arnott, John Cavalieri, Taylor Alan-Lee, CFA & Michael Chandra, CFA

Mr. Beeson introduced PIMCO and the five unique mandates that PIMCO invests on OCERS' behalf: Total Return, \$140.9 million; Unconstrained Bond, \$166.7 million; All Asset All Authority (AAAA), \$232.3 million; Distressed Senior Credit Opportunities Fund II (DiSCO II), \$134.0 million; and Global Credit Opportunity Fund (GCOF), \$55.5 million.

Mr. Beeson stated that PIMCO will present and discuss the following three mandates: 1) Total Return, a fixed income strategy aimed at managing duration and maturity; 2) Unconstrained Bond, a fixed income mandate aimed at generating absolute returns without the traditional constraints of a benchmark, as well as sector or instrument limitations; and 3) AAAA, a highly diversified, global tactical allocation strategy with real return characteristics that is jointly managed by PIMCO and Research Affiliates LLC (RALLC).

Mr. Beeson provided an update on Bill Gross' lawsuit against PIMCO and the recent settlement on March 27, 2017. He also discussed PIMCO's hiring of Emmanuel (Manny) Roman as their new CEO, effective November 1, 2016.

The key highlights of the presentation were:

Firm update: The manager discussed OCERS' long-term relationship with PIMCO, which dates back about 35 years. In light of this, PIMCO made an investment case for continued investment in Unconstrained and All Asset All Authority (AAAA).

Total Return & Unconstrained Bond strategy:

Market Overview/Outlook for 2017: The manager explained that in recent periods, passive fixed income investing has arguably made sense relative to active investing, but this is primarily due to Central Bank intervention, quantitative easing, and negative rates, which have led to abnormal markets. The manager suggested there may be recency bias with the belief that recent periods dominated by intervention will persist; PIMCO outlined their expectation that prospective increased volatility combined with reduced Central Bank intervention are tailwinds to their strategies. Further, PIMCO observed and presented their strategies absolute and relative outperformance in the rising rate environment. Therefore, while PIMCO expressed agreement with Meketa's notion that some strategies lend itself to passive investing, i.e., large cap equity, other strategies, i.e., certain fixed income strategies, particularly their Unconstrained and Total Return strategies, do not.

Mr. Eley and Mr. Seidner discussed the manager's outperformance relative to their fees.

Mr. Seidner remarked that PIMCO's approximately 100 bps of outperformance in a 2% yielding environment thus far in 2017 is a 50% improvement in a short period.

Mr. Eley expressed his disagreement with some of Meketa's recommendations. He asked for Meketa's further rationale driving their recommendations.

Ms. Chary responded, briefly summarizing Meketa's Board-driven, asset allocation mandate, including simplifying the portfolio, reducing the number of managers and investment management fees. She explained that Meketa did not express preference for OCERS' unconstrained strategies (PIMCO Unconstrained and Loomis Sayles Strategic Alpha) due to the fees, performance issues, as well as the strategies' flexible mandate to trade anywhere. She observed that Meketa preferred more traditional core fixed income strategies. She also noted staff's divergent view on Meketa's timing of this unwind during a rising rate environment. She explained that at the most recent Investment Committee meeting, the Committee decided to table the discussion on termination of the unconstrained strategies.

Mr. Packard and Mr. Chandra discussed PIMCO's relationship with Meketa, particularly as it relates to other Meketa-led clients with PIMCO investments.

Mr. Eley asked for the performance of Unconstrained in 2002.

Mr. Chandra responded that the Unconstrained strategy launched in 2013 and performed well despite the Federal Reserve's taper tantrum. He explained that the role of Unconstrained is not as a substitute for Core fixed income strategies, but in a context of a diversified portfolio, to complement the Core fixed income allocation, particularly in a changing rate environment.

Mr. Eley asked when the Unconstrained strategy would underperform relative to a passive fixed income allocation.

Mr. Seidner responded that the strategy could underperform at the immediate onset of a market depression and recession; that said, he noted Unconstrained does have the flexibility to

have more duration, so it may not underperform and could actually outperform due to the flexible and longer duration, as the index may only have a duration of 5 – 5.5 years.

Mr. Seidner discussed that a number of unconstrained managers derive their risk and returns from different sources. He particularly noted that PIMCO's Unconstrained strategy and Loomis Sayles' Strategic Alpha strategy employ different volatility budgets, but also generate significant residual returns: he defined residual returns as idiosyncratic returns derived from security selection and active management, or returns not derived from market beta, and thus cannot be replicated through passive investing.

Mr. Dewane and Mr. Seidner discussed the apparent disconnect between PIMCO's strategies and Meketa's categorization of Unconstrained relative to the broader core fixed income bucket.

Mr. Dewane expressed agreement that PIMCO's Unconstrained strategy has exhibited risk-return characteristics that could present categorization challenges, but suggested that should not equate into the strategy's termination.

Mr. Eley and Mr. Delaney discussed Meketa's asset allocation objectives.

Mr. Seidner and Mr. Eley discussed the possibility of a future meeting that would particularly include Meketa, so that all parties could properly assess the pros and cons, costs and benefits, of OCERS' Unconstrained fixed income allocation.

Portfolio Strategy: While the Total Return portfolio is more of a traditional core fixed income strategy, with a primary focus on duration and maturity, the Unconstrained strategy has flexible discretion as to how it generates absolute returns: based on the opportunity set, Unconstrained can dynamically trade long and short, adjust duration exposure, and allocate across sectors.

Performance: The manager stated that PIMCO's best estimate for the Core bond's objectives are the following: 3.5% return, 5.5% volatility, with 5.5 years of duration. For Unconstrained, he stated 3.5% - 4%, with a duration of about one year. He summarized that this 100% of the potential return for approximately 20% of the interest rate sensitivity, speaks to the importance of portfolio diversification.

Over the last 12 months ending February 28, 2017, the Total Return portfolio generated a 3.3% net return, the Unconstrained strategies produced a 9.6% net return, while the Barclay's Aggregate Index returned 1.4%.

The Committee recessed at 11:51 a.m.

The Committee reconvened at 11:56 a.m.

All Asset All Authority (AAAA):

Mr. Cavalieri and Mr. Arnott expressed disagreement with some of Meketa's recommendations, noting that some of Meketa's proposed transfers are into assets trading at higher valuations;

further, they observed that there may be fee savings from redemptions, but not necessarily net fee savings due to higher fees associated with the newly deployed assets.

Mr. Alan-Lee discussed AAAA's liquidity profile and its efficient role as a parking space for OCERS' rebalancing needs.

Market Overview/Outlook for 2017: The Manager observed the frothy valuations in a number of asset classes, noting that the downside risks in the market are greater than the prospective return potential.

Portfolio Strategy: AAAA is a mutual fund of funds that invests in underlying PIMCO funds based on asset allocation decisions made by Research Affiliates. The fund invests according to three allocations or "pillars": 1) core stocks that seek to participate in economic growth; 2) core bonds that provide income and reduce volatility; 3) diversifying assets that provide uncorrelated returns. The combination of these three unique risk-return pillars is a portfolio that complements the traditional 60/40 allocation by contributing real returns that are uncorrelated to stocks while also hedging against inflationary risks.

Performance: The manager observed that AAAA has sourced better assets and strategies that are better inflation hedges than treasury inflation protected securities (TIPS), while also providing higher yields (since TIPS are yielding next to nothing). The manager reported that their 2017 YTD performance through the end of February has lagged the S&P 500, but has outpaced CPI +6.5%. PIMCO also stated that 73% of their underlying portfolio managers have outperformed their passive counterparts.

Mr. Dewane asked for a slide that showed the overlap across OCERS' five PIMCO investments, indicating a preference for a pie chart presenting the exposures, duration, maturity, and other risk and return measures of the invested strategies.

Mr. Cavalieri noted that the overlap is minimal to zero. He also reported that AAAA would have marginal exposure since the sub-advisor is a non-affiliated PIMCO fund.

Mr. Baldwin asked for the manager's macro view on interest rates, particularly in anticipation of inflation.

Mr. Arnott responded that in the short term, or under a year, they are not a bond bear, due to his observation that bond rates have risen so far, so fast. He stated that the 5-year inflation pressures are real. He noted that the Federal Reserve has observed 2-4% inflation as the floor, rather than the target. He also added that TIPS will outperform core bonds, but opined that other third-pillar assets would perform better.

Mr. Cavalieri added that inflation is likely not a near term issue, but over the long term, approximately 5 years, inflation could be a danger.

Ms. Chary and Mr. Arnott discussed the pros and cons of a passive liquid natural real resource ETF as a substitute for AAAA.

Ms. Chary asked for the manager's thoughts on the pros and cons of a passive liquid natural resource ETF, given AAAA's fees and Mr. Alan-Lee's earlier comments about AAAA's role as a parking spot for OCERS' private real asset exposure.

Mr. Arnott responded with the following: 1) a natural resource ETF is a stock portfolio and stocks are expensive; 2) AAAA provides exposure to various asset classes globally, with higher yields and higher return potential, including emerging market assets, which are trading at a discount to U.S. markets.

Mr. Eley commented on the inherent disadvantages in using TIPS as an inflation hedge, noting that TIPS would only outperform if the treasury market were mispriced. He opined his preference of AAAA over a passive TIPS index. He observed that the Board cannot handle the volatility from commodities. He expressed disagreement with Meketa's recommendation to terminate AAAA, opining then that the remaining issue is what OCERS should do with this money. He observed that the reason the Committee bought this fund has not come to fruition, and only once the rationale comes to fruition, can they appropriately judge the merit of the investment.

Mr. Stephen Weintroski, Mission Viejo, addressed the Committee about the manager's presentation and their perspective on rates, particularly negative rates.

A **motion** was made by Mr. Packard and **seconded** by Mr. Dewane to receive and file the manager presentations. The **motion carried unanimously.**

PUBLIC COMMENTS:

None

COMMITTEE MEMBER/CHIEF EXECUTIVE OFFICER/STAFF COMMENTS:

Ms. Chary commented that the discussion surround OCERS' fixed income and real return assets are timely and suggested that Meketa addresses the role of active versus passive fixed income, the role of unconstrained strategies, and the appropriate parking spot for the uncalled private real asset commitments.

Mr. Baldwin expressed agreement with the inefficiencies that arise from over-trading. He expressed his concerns and hesitancy surrounding the asset allocation process, specifically because he joined the Board in the midst of the process. He stated that this caution is only amplified due to the absence of a CIO. He described his preference to pause on approved motions not yet done, until a CIO is hired, but admitted that this may not be ideal for the portfolio or even feasible at this moment.

Ms. Chary observed that Meketa did say that nothing is broken with these managers, and that there is no need for the Committee to move if they do not feel comfortable.

Mr. Eley stated that he would talk to the Investment Committee chair, suggesting that the Committee may be better suited to do this step-by-step.

Mr. Delaney commented that he thought the asset allocation process was already a step-by-step progression and questioned if the Committee is perhaps racing through and actually skipping proper asset allocation steps.

Mr. Beeson responded that he did not think they were racing through and summarized that the Committee decided to terminate the GTAA and Real Return strategies, but there is no action yet until an implementation timeline is discussed and approved at the April Investment Committee meeting. He suggested that all involved parties need to think about AAAA since it was a parking spot for future private energy commitments within the real return asset class. Further, he explained the GTAA strategies were not parking spots and do not fit in the new asset allocation, and so he suggested that as long as OCERS has a good place to redeploy those redemption proceeds, staff could likely move on those strategies.

Mr. Dewane stated that he is 100% willing to make different conclusions based on new information. He discussed the mathematical sequence of returns problem, and noted, particularly for OCERS' portfolio, that the standard deviation of the risk characteristic is perhaps more important than the total return characteristic. He theorized that if a manager is simultaneously contributing return while dampening risk, he suggested that the investment is likely a fit for the portfolio, and that the categorization is perhaps less important.

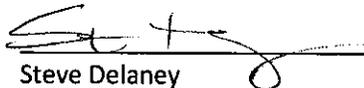
COUNSEL COMMENTS:

None

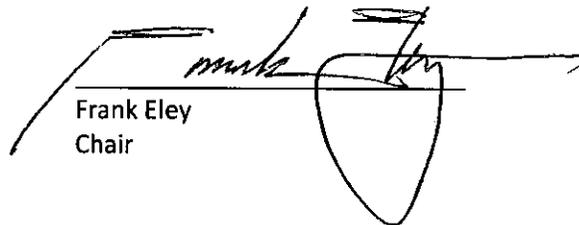
ADJOURNMENT:

The Chair adjourned the meeting at 1:10 p.m.

Submitted by:


Steve Delaney
Secretary to the Committee

Approved by:


Frank Eley
Chair