

**Fire and Police Pension Association of Colorado
Investment Committee
June 6, 2018**

Agenda

- 1:30 Call to Order
- 1:30 Minutes Approval – April 26, 2018
Minutes Approval – May 29, 2018
- 1:30 Private Markets Review
Dale Martin
Dwight Keysor, Cambridge Associates
- 3:00 Break
- 3:15 Long-Short Equity Review
Ben Bronson
- 4:00 Investment Policy Statement / Benchmarks
Scott Simon
- 4:30 Risk Leverage Framework
Scott Bryant
- 5:00 Adjourn

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Investment Committee
June 6, 2018**

**The Pines Lodge
141 Scott Hill Road
Beaver Creek, CO 81620**

Investment Committee Members Present: Chair Dave Bomberger, Guy Torres, Karen Frame, Todd Bower, and Tyson Worrell.

Staff Members Present: Dan Slack, Scott Simon, Kevin Lindahl, Austin Cooley, Ben Bronson, Dale Martin, Scott Bryan, and Karen Moore.

Others Present: Diana Gibson, Dwight Keysor, and Alex Pekker, Cambridge Associates.

Notice of this meeting and a copy of the agenda were posted outside the meeting room and on the FPPA website at least twenty-four hours prior to the meeting.

At 1:22 p.m., Mr. Bomberger called the meeting to order.

Mr. Bower moved to approve the April 26 and May 29 meeting minutes. Mr. Torres seconded the motion. The motion passed.

Private Markets Review

At 1:23 p.m., Mr. Martin began his presentation on private market pacing. Mr. Martin reviewed applicable requirements from the Investment Policy Statement (IPS), the current commitment pacing plan, and recent commitments over the past twelve months. Mr. Martin provided highlights from the portfolio snapshot as of December 31, 2017, reviewed 3-year, 5-year, and 10-year performance and exposures, and reviewed contributions and distributions over the past 10 years.

The Committee and staff discussed the energy market's impact on the portfolio.

Mr. Martin concluded that the portfolio is being constructed in accordance with the IPS, performance is good on an absolute and relative basis, it is well diversified, the allocation is within the interim and long-term policy targets, and there are no material unarticulated risks.

At 2:13 p.m., Mr. Keysor began his review of illiquid alternatives performance, providing an overview of the total illiquid alternatives program and then providing an overview of the private capital, real estate, and real assets programs.

Cambridge reviewed the current portfolio with its proprietary modeling and is in agreement with the current pacing plan. The FPPA total portfolio is close to

suggested asset class target ranges. Cambridge suggests a higher weighting in private capital, a higher weighting in real estate, and a lower weighting in real assets. The portfolio is adequately diversified among underlying sectors. The current portfolio is overweight North America. Cambridge suggests a higher weighting in developed Europe. Regarding sector exposure in private equity, Cambridge suggests a higher weighting towards technology and health care.

The private capital portfolio is currently well diversified. The private capital portfolio performance has been strong relative to benchmarks on a 3-, 5- and 10-year basis. Cambridge suggests enhancing FPPA portfolio exposure to growth equity strategies and monitoring secondary options for portfolio liquidity. Performance is strong on a 3- and 5-year basis with respect to the benchmark and is constructed very close to what Cambridge would suggest.

The real estate portfolio has outperformed the NCREIF ODCE on a 3- and 5-year basis and is in line on a 10-year basis. The portfolio is overweight core real estate at 73.4%. Given the late stage of the real estate cycle and heated asset valuations, core managers are guiding investors towards mid-single digit expected returns. Cambridge suggests a long-term, 10-year range of 20%-30% core, 10%-15% credit and 60%-70% non-core exposure within the FPPA real estate portfolio. Cambridge suggests expanding non-US exposure with an emphasis on developed Europe.

The real assets portfolio is currently well diversified across sub-categories. Given the relatively small manager landscape and the high volatility associated with energy/natural resource investments, Cambridge suggests a slight overweight to infrastructure, albeit focused on lower middle market, opportunistic managers targeting high teens IRRs. Cambridge suggests a long-term, 10-year range of 45-55% infrastructure, 25-35% natural resources, 10-15% credit and 5-10% uncorrelated/other exposure.

The Committee and staff discussed Cambridge's impact on the investment division's bandwidth.

At 2:59 p.m., Chair Bomberger called for break. Mr. Martin left the meeting.

Long-Short Equity Review

At 3:10 p.m., the meeting reconvened. Mr. Bronson presented the Liquid Strategies Annual Review. Mr. Bronson presented the market and equity hedge fund performance review and long/short annual asset class review. Recent emerging market performance has bested developed markets, but not over the longer term. Volatility remains low across the board, although it has picked up a bit. Equity hedge fund performance has improved in recent periods, led by tech and healthcare. As with market indices, equity hedge fund volatility has remained below its longer term averages.

Mr. Bronson reviewed current objectives and benchmarks and the following proposed changes to the objectives and benchmarks: Over the long term, the long/short equity portfolio is expected to exceed the performance of the HFRI Equity Hedge Index, net of fees. Secondly, the portfolio is expected to provide downside protection during periods of market stress.

Mr. Bronson reviewed portfolio allocation and manager allocation.

During the second half of 2018, the team will focus on manager(s) producing under expectations, manager pipeline research, portfolio integration with FPPA risk systems, FPPA analyst training and integration, and 2019 asset liability study.

Committee and staff discussed Cambridge's impact on the investment division's bandwidth. Mr. Bronson added that Cambridge has provided FPPA with flexibility and the ability to access closed funds.

Investment Policy Statement / Benchmarks

At 3:40 a.m., Mr. Simon presented recommended changes to the IPS. Ms. Gibson provided Cambridge's opinion on the proposed changes. The Committee discussed additional updates needed. The Committee will provide Mr. Simon with any additional updates to the IPS. The Committee will meet via phone to discuss any proposed updates to be brought before the Board for adoption in July.

Risk Leverage Framework

At 4:09 a.m., Mr. Bronson left the meeting and Mr. Bryant presented FPPA's Risk Leverage Framework. Mr. Bryant provided the following recommendations:

- Monitor aggregate risk leverage quarterly on a 'best efforts' basis, even though the available risk leverage information is not sufficient for a standardized calculation.
- Implement a total fund leverage guideline based on a multiple of assets to risk leverage. For example, estimated risk leverage for the total fund is expected to be between 1 and 1.5x assets.
- Identify individual funds as "Highly Levered" if their estimated risk leverage is more than 2x committed capital. Require minimum reporting standards and annual independent risk reviews for funds in this category. This would currently include thirteen funds and approximately \$576 million of committed capital.

Mr. Bryant reviewed the draft measurement framework and provided next steps that included refining the methodology and the underlying data, discussing risk factor estimates with staff, calculating historical comparisons, and confirming definitions and processes. Ms. Gibson provided her experience with risk leverage

frameworks and added that this framework is very reasonable and normal on an asset allocation basis.

Mr. Simon updated the Committee on a change to the private markets back office vendor. FPPA will be contracting with Hamilton Lane to handle capital call execution, quarterly reconciliations, and reporting. MUFG/Capital Analytics is the current vendor. This new contract requires an amendment to the asset based fees budget, which staff will propose to the Board on Friday.

At 4:33 p.m., staff left the meeting. The Committee met with Cambridge to discuss the transition.

At 5:15 p.m., Chair Bomberger declared the meeting adjourned.