

NOTE: These minutes were approved and executed at the December 16, 2016 Independent Investment Committee meeting.

**Independent Investment Committee Meeting
November 18, 2016**

Public Minutes

**New Hampshire Retirement System
54 Regional Drive
Concord, NH 03301**

Committee Members: Harold Janeway, *Chair*; David Jensen; Maureen Kelliher; Patrick O'Donnell; and Hersh Sosnoff.

NHRS Trustees: Dr. Richard Gustafson.

Staff: George Lagos, *Executive Director*; Larry Johansen, *Director of Investments*; Jack Dianis, *Director of Finance*; Greg Richard, *Senior Investment Officer*; Shari Crawford, *Junior Investment Officer*; and Ashley Lloyd, *Junior Investment Officer*.

NEPC: Kevin Leonard, *Partner and Senior Consultant*; and Sean Gill, *Partner*.

Mr. Janeway called the meeting to order at 9:00 a.m.

On a motion by Mr. Jensen, seconded by Ms. Kelliher, the Committee unanimously approved the public minutes of the October 21, 2016 Investment Committee meeting, as presented.

Mr. Johansen reviewed investment returns through recent periods, referring to the NEPC Marketable Investments performance flash report for periods ending October 31, 2016. He discussed the returns of various managers and asset classes over multiple time periods. Mr. Johansen also reviewed the Work Plan and updated the Committee on several initiatives.

Mr. Johansen referenced the "Proposed 2017 Investment Committee Meeting Schedule" memo dated October 24, 2016. On a motion by Mr. O'Donnell, seconded by Mr. Sosnoff, the Committee unanimously approved the 2017 Investment Committee meeting schedule, as presented.

The Committee discussed the presentations made by domestic small cap equity managers Boston Trust & Investment Management Company

("Boston Trust") and Segall, Bryant & Hamill ("SBH") and unconstrained fixed income manager GAM at the October Committee meeting.

On a motion by Ms. Kelliher, seconded by Mr. Jensen, the Committee voted unanimously to renew the Investment Management Agreement with Boston Trust through October 31, 2018.

On a motion by Mr. Sosnoff, seconded by Mr. Jensen, the Committee voted unanimously to extend the investment relationship with GAM through December 31, 2018.

On a motion by Mr. Jensen, seconded by Ms. Kelliher, the Committee voted unanimously to renew the Investment Management Agreement with SBH through October 31, 2018.

Mr. Johansen briefly reviewed the tentative agendas for the Committee's upcoming December 2016 and January 2017 Committee meetings, reminding the Committee that December's meeting will consist of NEPC's annual review of the Private Equity and Private Debt portfolio and a presentation from the System's discretionary real estate consultant The Townsend Group providing an update of the System's real estate portfolio. Additionally, Mr. Johansen stated that current private equity manager HarbourVest will present an opportunity to invest in their buyout fund, HIPEP VIII, which would be a re-up to buyout fund HIPEP VII, in which the NHRS currently invests, should the Committee make a commitment to HIPEP VIII. The Committee discussed topics of interest for potential macroeconomic presentations in conjunction with the January 2017 Committee meeting.

Mr. Johansen provided a brief update on the status of the transition of the System's assets from the GMO Foreign Small Companies Fund to Segall, Bryant and Hamill's International Small Cap Collective Investment Trust, stating that all is progressing well and is in the final stages of legal review.

Ms. Karen Sesin, Senior Portfolio Manager and Head of Blend Strategies; and Ms. Elizabeth Smith, Senior Managing Director of Public Funds; of AB presented a brief introduction of themselves and their firm. They referred to the "US Smid Style Blend" presentation dated November 18, 2016. A lengthy discussion with the Committee followed.

In presenting an update on the firm and in response to questions from the Committee, Ms. Smith acknowledged the presently difficult environment for active managers and that the firm, as led by Peter Kraus since 2008, has focused their efforts in areas that cannot be replicated by passive strategies and that doing so has improved the firm's operating margin by 24%.

Ms. Sestin reviewed the composition of the NHRS portfolio, reminding the Committee that the portfolio is a blend of both value and growth investment styles and that each style sleeve is managed by a separate investment team. She discussed that the portfolio will systematically rebalance to mitigate style risk and that such rebalancing is triggered once either style grows to comprise 55% of the portfolio. She added that the NHRS portfolio had not reached the threshold for rebalancing since the portfolio's inception in November 2010 in large part due to an additional cash flow that NHRS contributed to the portfolio back in 2012, at which time the cash flow was used to rebalance.

In response to questions from the Committee, Ms. Sestin reviewed performance for various time periods, highlighting the pronounced outperformance of the value sleeve relative to its growth counterpart. Clarifying that alpha is attributable to the firm's bottom-up, research driven stock selection process, she acknowledged that market sentiment favoring value stocks has been a headwind for the growth portfolio. Further, she clarified that the value portfolio is massively underexposed to the safety, bond-proxy stocks that rallied during the first half of 2016 due to their sought-after downside protection qualities and attractive dividend yields. She stated that the value portfolio is instead overweight the benchmark in high quality cyclical names in the Technology, Consumer Discretionary, and Industrial sectors which have more recently benefitted from the reversion to "risk on" sentiment during the third quarter.

Responding to questions from the Committee, Ms. Sestin provided outlooks as related to both the value and growth sleeves of the aggregate portfolio. She confirmed that no changes were made leading up to or since the U.S. presidential election as it is too soon to know the implications of a Trump presidency and Republican U.S. Congress. She stated that Trump's proposed corporate tax cuts would benefit small to mid-cap companies based on their higher tax rates and that fiscal stimulus could lead to potentially higher economic growth in the U.S.

Mr. Brett Hawkins, Chief Investment Officer and Portfolio Manager; and Ms. Tracy Musser, Senior Institutional Relationship Manager; of Thompson, Siegel and Walmsley ("TSW") presented a brief introduction of themselves and their firm. They referred to the "Account Review" presentation dated November 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Ms. Musser confirmed that all remains stable at TSW having no major changes to report with the exception of the recent relocation of the firm's headquarters within Richmond, VA. Mr. Hawkins added that the new location better houses

the firm's staff that has expanded since NHRS retained TSW in the fall of 2010 and also better encourages collaboration through an improved layout and design. Ms. Musser reviewed performance for various time periods ending September 30, 2016, highlighting the portfolio's relative outperformance for all periods since inception, excluding the most recent quarter.

Responding to the Committee's inquiries, Mr. Hawkins provided a review of TSW's investment process and criteria, which consists of determining whether a stock is mispriced and the causal factors of such mispricing, and whether a catalyst exists that will support a sustainable growth in stock price. He clarified how the investment team identifies a stock's fair value as it relates to free cash flow yield and expected earnings. Risk mitigation was also addressed, as Mr. Hawkins reviewed how the investment team determines a stock's risk to reward ratio, limits on position sizes, holding periods, and average annual portfolio turnover.

Mr. Hawkins provided a thorough review of performance attribution for the calendar year-to-date through September 30th, commenting on strong stock selection with Utilities aided by the rally in the sector for its perceived safety. He concluded his remarks offering a discussion on market outlook as it relates to domestic mid-cap equity, stating that M&A activity would likely continue to be a tailwind for equities so long as treasury yields and spreads within the U.S. fixed income market remain low. He added that equity market volatility should be expected until more clarification is provided as it relates to the upcoming change in political leadership in Washington.

Ms. Camilla Martin, Managing Director and Equity Portfolio Analyst; Ms. Elizabeth O'Hara, Managing Director and Client Service Manager; and Mr. Jason Law, Vice President and Relationship Manager; of Wellington Management Company ("Wellington") presented a brief introduction of themselves and their firm. They referred to the "Small Cap 2000 Review" presentation dated November 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Ms. O'Hara reminded the Committee that NHRS's domestic small cap equity portfolio ("SC2000") is managed by a subset of Wellington's 52 Global Industry Analysts who average over 20 years' experience in each of their respective industries, stating that the management style of the strategy is quite different from that of a traditional portfolio management structure. Further, Ms. O'Hara formally introduced Mr. Law, an addition to the NHRS relationship team as a result of internal restructuring at Wellington. Ms. Martin noted other changes as a result of the improvement in structure specifically related to SC2000, including her title change from Portfolio Coordinator to Equity Portfolio Analyst, which did not accompany any changes in her

responsibilities, and the promotion of Michael Masdea, a global industry analyst covering Semiconductors, who will now assist Cheryl Duckworth and Mark Mandel in the oversight of the strategy, which is closed to new investors to protect the integrity of the product despite continued interest from prospective clients.

Ms. Martin reviewed Wellington's investment philosophy which emphasizes bottom-up stock selection and encourages the global industry analysts to present their "best ideas" to be considered for incorporation into the portfolio. Ms. Martin acknowledged the portfolio's short-term underperformance and longer-term relative outperformance, highlighting the more than 100 basis points of alpha as contributed by the portfolio's Energy holdings during the trailing one year period ending September 30, 2016. She attributed the favorable performance of the portfolio's Energy exposure to names linked to the Permian Basin.

Responding to questions from the Committee, Ms. Martin stated that the analysts continue to find a wealth of opportunities in Health Care, specifically in the biotech industry and other cutting edge science fields given the potential for health care reform in the U.S. and an aging population both in the U.S. and abroad. She clarified that as an abundance of opportunities arise in one particular sector, that sector may have exposure to a large number of names with smaller position sizes, which is currently present in the portfolio's allocation to Health Care. She added further insight as to the attractiveness of stocks within the Consumer Discretionary and Financial sector, of which four regional banks are included in the portfolio's top ten largest holdings.

Mr. Aaron Prince, Senior Product Specialist of DoubleLine Capital ("DoubleLine") presented an introduction of himself and his firm. He referred to the "Flexible Income Strategy" presentation dated November 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Mr. Prince provided an overview of DoubleLine's 7-year history, which was founded in 2009 by current Chief Investment Officer Jeffrey Gundlach after his abrupt departure from TCW the same year. He confirmed that the firm remains partially owned by original investor Oak Tree Capital, which continues to hold a 20% stake, and the remaining 80% is owned by 45 of DoubleLine's approximate 180 employees. In addition to a meaningful number of staff added, Mr. Prince discussed the growth in the firm's total assets under management as well as the growth in institutional assets in the Flexible Income Strategy, in which NHRS invests. Further, Mr. Prince reviewed that the investment philosophy behind the Flexible Income portfolio is to remain "flexible" so as to position for various market environments. He commented upon the portfolio's investment results for periods ending

September 30, 2016, noting relative outperformance on a gross-of-fees basis for all measured time periods.

In response to questions from the Committee, Mr. Prince offered a discussion as it relates to the credit cycle and communicated DoubleLine's perspectives as to the status of the current fixed income market environment, given the historic lows of Treasury yields over the summer and the steepening of the yield curve since. Mr. Prince also discussed the anomalous relationship between rates and spreads that was observed in the first half of 2016, during which the portfolio's performance struggled as a result.

Responding to questions from the Committee, Mr. Prince discussed the unprecedented actions of developed market central banks and raised questions as to the efficacy of such policies. He also discussed U.S. Federal Reserve Bank (the "Fed") expectations of a Federal Funds rate hike at its December meeting as exhibited by its "dot plot" chart compared to the market's expectations as exhibited by the current prices of futures contracts. Given such considerations, Mr. Prince stated that the portfolio's interest rate sensitivity has been reduced in recent months and more significantly in recent weeks, as demonstrated by the portfolio's shorter duration. Mr. Prince further addressed the Committee's questions by clarifying the logic for the portfolio's increased TIPS and emerging markets debt exposure.

The Committee reviewed and discussed the Draft Comprehensive Annual Investment Report ("CAIR") for the Fiscal Year Ended June 30, 2016. On a motion by Mr. Sosnoff, seconded by Mr. O'Donnell, the Committee unanimously approved the Comprehensive Annual Investment Report for the Fiscal Year Ended June 30, 2016, as presented. The Committee directed Staff to submit the Report to the Board at the Board's December meeting, with a recommendation for approval.

The Committee discussed the presentations made by AB, TSW, Wellington, and DoubleLine.

On a motion by Mr. Jensen, seconded by Mr. Sosnoff, the meeting adjourned at 12:40 p.m.