

**NOTE:** These minutes were approved and executed at the April 22, 2016 Independent Investment Committee meeting.

**Independent Investment Committee Meeting  
March 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; David McCrillis; and John Beardmore.

*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*; Ashley Lloyd, *Junior Investment Officer*.

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

Mr. Janeway called the meeting to order at 9:01 a.m.

On a motion by Mr. Jensen, seconded by Mr. Sosnoff, the Committee unanimously approved the public minutes of the February 19, 2016 Investment Committee meeting, as amended by the Committee.

Mr. Johansen reviewed investment returns through recent periods, referring to the NEPC Marketable Investments performance flash report for periods ending February 29, 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. Janeway entertained a motion to convene into non-public session under RSA 91-A:3, II(d) for the purpose of considering the acquisition, sale or lease of real or personal property which, if discussed in public, would likely benefit a party or parties whose interests are adverse to the general community. A motion was made by Mr. Jensen and seconded by

Mr. O'Donnell to enter into non-public session, in accordance with the aforementioned provision.

Roll call vote:

Aye: Mr. Janeway, Mr. Jensen, Ms. Kelliher, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

The Committee discussed the structure of the System's public domestic equity portfolio. Additionally, Mr. Johansen updated the Committee on the liquidation of NHRS's fund-of-funds absolute return investment with Arden Asset Management LLC ("Arden"), which was terminated in December 2012. He also provided an update of the System's legacy investment in private equity fund VSS Communications Partners IV ("VSS IV") and discussed various options for exiting VSS IV.

A motion was made by Mr. Jensen and seconded by Ms. Kelliher to conclude non-public session.

Roll call vote:

Aye: Mr. Janeway, Mr. Jensen, Ms. Kelliher, Mr. O'Donnell, and Mr. Sosnoff.

Nay: None

Motion carried.

On a motion by Mr. Jensen, seconded by Ms. Kelliher, the Committee unanimously agreed to exit the NHRS investment in VSS IV via a secondary sale with cash to be received based on 85% of 03/31/15 Net Asset Value (NAV).

Mr. Orlando Bravo, Managing Partner; and Ms. Jennifer James, Director and Head of Investment Relations and Marketing, of Thoma Bravo provided a brief introduction of themselves and an overview of their firm and its buyout fund, Thoma Bravo Fund XII ("Fund XII"). They referred to the "New Hampshire Retirement System" presentation dated March 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Mr. Bravo provided a detailed overview of the firm's strategy and investment process, giving

examples of attractive opportunities within the software industry. He discussed the history of the software market, noting the influx of investment opportunities available as a result of recent software service consolidation. Mr. Bravo provided an analysis of software infrastructure as well as the timing associated with entering the technology market. He discussed the firm's buyout structure goals of accumulating "recurring revenue", thereby increasing earnings and improving operational capacity, resulting in favorable returns.

Responding to questions from the Committee, Mr. Bravo detailed organizational structure changes associated with Thoma Bravo's buyout operating program and the benefits associated with maintaining existing management teams. He commented on the vast opportunities available within the rapidly expanding Information Technology sector, providing examples of common inefficiencies within operations and the firm's strategy to revive these distressed opportunities.

In response to questions from the Committee, Mr. Bravo provided a detailed overview of the various software markets which would be considered for consolidation and reviewed the opportunity to invest in Fund XII. He stated the target size for the fund is \$7 billion and reviewed the terms of the investment opportunity, indicating the fund will likely be oversubscribed with a planned closing date of April 19, 2016.

Mr. Justin Burden, Managing Director of Industry Ventures, provided a brief introduction of himself and an overview of his firm and its secondaries strategy, Industry Ventures Secondary Fund VIII ("Fund VIII"). He referred to the "Industry Ventures: Secondary VIII, L.P." presentation dated March 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Mr. Burden discussed Industry Venture's investment strategy and reviewed risk mitigated exposure as it relates to opportunities in venture-backed companies. He reviewed the four existing commitments NHRS has made in prior Industry Ventures funds and commented on the historical performance of each of the prior NHRS investments. Mr. Burden discussed the presence Industry Ventures has built within the secondaries market and the competitive advantage it provides when seeking attractive investment opportunities.

Responding to questions from the Committee, Mr. Burden reviewed the influx of highly attractive investment opportunities and partnership interests created as a result of low valuations and selloff within the secondaries market. He reviewed the firm's valuation and due diligence process, detailing the factors which make an investment opportunity

attractive. Mr. Burden reviewed the firm's exit strategy and explained that M&A remains the most likely venture exit.

In his response to questions from the Committee, Mr. Burden commented on advantages associated with the firm's investment process and the increased near-term liquidity they provide and indicated that the lack of main competitors within the secondaries market allows ample opportunity for potentially high returns. He reviewed Industry Venture's next fund, Fund VIII, noting its target size of \$425 million.

Mr. Conrad A. Saldanha, Managing Director; and Ms. Carter Reynolds, Managing Director, of Neuberger Berman provided a brief introduction of themselves and an overview of their firm. They referred to the "NB Emerging Markets Equity Fund L.P." presentation dated March 18, 2016. A lengthy discussion with the Committee followed.

In response to questions from the Committee, Ms. Reynolds provided an overview of Neuberger Berman's investment strategy and bottom-up stock selection process and commented on the firm's current assets under management. She discussed recent market volatility and performance, confirming that the firm continues to focus on research and quality stock growth. Mr. Saldanha provided a review of the NHRS portfolio performance for periods ending December 31, 2015, discussing key factors impacting the portfolio's performance. He reviewed current sector and country allocations relative to the benchmark, performance attribution, and discussed portfolio positioning for the near-term.

Responding to questions from the Committee, Mr. Saldanha provided an overview of the macroeconomic environment and the firm's expectations of the Emerging Markets sector. He commented on the impact of the strong U.S. Dollar relative to various emerging market countries' currencies and declining commodity prices and their effects on inflation. He detailed China's shift to a consumption-based economy and its influence on global GDP and commented on potential opportunities.

In response to questions from the Committee, Mr. Saldanha reviewed holdings in Asia and discussed the impact of China's economic status on the Emerging Markets sector and fund performance. He stated that the team expects changes in China's market outlook over time, but that the firm remains cautiously optimistic with respect to the opportunities associated within these markets, particularly China.

The Committee discussed the presentations made by Thoma Bravo, Industry Ventures, and Neuberger Berman.

On a motion by Mr. O'Donnell, seconded by Mr. Jensen, the Committee unanimously agreed to commit \$50 million to Thoma Bravo Fund XII, subject to contract and legal review. Mr. Johansen confirmed that NHRS is in discussions regarding a seat on the Advisory Board.

The Committee discussed the current structure of the System's fixed income portfolio. Mr. Johansen referred to NEPC's "Fixed Income Portfolio Overview" presentation, dated March 18, 2016. Mr. Leonard reviewed the unique investment style associated with each fixed income manager and confirmed that each manager's strategy has remained consistent with their investment philosophy. He recapped the efforts of the Committee, NEPC, and staff to structure the System's fixed income portfolio to its current positioning, and confirmed NEPC's opinion that NHRS fixed income portfolio is structured appropriately.

The Committee discussed the assumed rate of return. Mr. Johansen noted NEPC's 5-7 year and 30 year expected rates of return for the NHRS asset allocation are approximately 6.5% and 7.5%, respectively, and AB's 5-7 year and 30 year expected rates of return for the NHRS asset allocation are approximately 6% and 7.3%, respectively. He emphasized the importance of considering a long-term time horizon when making the assumed rate of return assumption.

On a motion by Ms. Kelliher, seconded by Mr. O'Donnell, the Committee unanimously agreed to recommend an assumed rate of return of 7% to the Board of Trustees.

On a motion by Ms. Kelliher, seconded by Mr. Jensen, the meeting adjourned at 12:39 p.m.