

MINUTES OF BOSTON RETIREMENT BOARD

Administrative Session

August 21, 2019

Boston Retirement Board, Room 716

Boston, Massachusetts 02201

TRUSTEES IN ATTENDANCE: Daniel J. Greene, Mayoral Appointed Member (Chairman); Maureen A. Joyce, *Ex Officio* Member; Michael D. O'Reilly, Elected Member; (*Remotely present*) Thomas V.J. Jackson, Fifth Member; Michael W. McLaughlin Elected Member (*Remotely present*).

STAFF IN ATTENDANCE: Timothy J. Smyth, Executive Officer; Padraic P. Lydon, General Counsel; Natasha Thomas, Asst. General Counsel; Ellen M. McCarthy, Comptroller; John F. Kelly, Investment Analyst; Christine M. Weir, Operations Officer; Gloria Pizzarella, Chief Technology Officer; Greg Molina, Board Secretary.

ALSO IN ATTENDANCE: Paul Shanley, of Amity Insurance; Lou Roberts of Ernest & Young; Mathew Kieras, Nelda Cronin of Travelers Insurance; Michael Manning, Kiley Fischer of NEPC; Richard Rosen, Francine Asselta, William Landes of Columbia Threadneedle; William Averill, Gregory Padilla, of Aristotle; Michael Dwyer, Board Consultant.

Administrative Session Convene

The Board voted by the way of roll call (5-0) to convene in Administrative Session at approximately 10:05 a.m. All in attendance were identified for the record and introductions were made.

Previous Minutes

Motion made, and seconded, to accept the Administrative Session Minutes of the prior meeting as presented.

Motion accepted (5-0)

Outstanding/Ongoing Administrative Issues: Timothy J Smyth, Executive Officer

- Presentation by Ernst & Young

Executive Officer Smyth opened by introducing Mr. Roberts of Ernest & Young for his presentation. Mr. Roberts outlined the results of the audit and schedules of employer allocations of the Boston Retirement Plan. Overall, the Plan's analysis for significant accounting matters is appropriate.

- Reasonable judgments and consistency have been used by management to account for significant account estimates.
- One uncorrected misstatement was identified related to the fair value of investments and is summarized in Appendix A of audit.
- Unmodified opinions were issued.

No material weaknesses have been identified. EY is not aware of any matters that in the firm's professional judgement would impair the firm's independence. There were no significant difficulties encountered during the audit. No disagreements with management and all findings were in accordance with GASB. No findings regarding external confirmations. AICPA ethics ruling regarding third-party service providers. There are no other findings or issues arising from the audit that are, in the EY's judgement, significant and relevant to those charged with governance regarding the oversight of the financial reporting process. EY received full cooperation from management.

Motion made, and seconded, to accept Ernest & Young's s 2018 pension plan audit results as presented.

Motion accepted (5-0)

- Presentation by Travelers Insurance re cyber-security insurance policy

Mr. Smyth introduced Mr. Paul Shanley of Amity Insurance and Traveler Insurance representatives for presentation as per request of the board on options to further secure system's cyber-security policy. On behalf of Travelers Insurance, Mr. Kieras opened by introducing himself and his colleague Ms. Cronin. CyberRisk has become in general has become a very comprehensive policy. The easiest way to separate them is third and first party insurance agreements. The third party insurance agreement responds if you have some type of cyber event and your either participants or some type of regulatory entity brings some type of action against you.

There are 3 prongs to that. The first is Privacy and security which provides coverage for claims arising from unauthorized access to data, failure to provide notification of a data breach where required by law, failure to destroy confidential information, failure to comply with a privacy policy, wrongful collection of private or confidential information, failure to prevent a security breach that results in the inability of authorized users to gain system access, the participation in a DoS attack, or the transmission of a computer virus.

The second is media. This covers Coverage for claims arising from copyright infringement, plagiarism, defamation, libel, slander and violation of an individual's right of privacy or publicity in electronic and printed content.

The third is regulatory. This provides Coverage for administrative and regulatory proceedings, civil and investigative demands brought by domestic or foreign governmental entities or claims made as a result of privacy and security acts or media acts. Ms. Cronin noted that if you had a breach and someone information gets out. All different states have different rules on how you have to respond. Most states require that you notify the attorney general or whoever is appointed to receive those notices.

Ms. Cronin also stated that, as for Breach Response Insuring Agreements. Coverage for costs to notify and provide services to individuals or entities who have been affected by a data breach. Examples include call center services, notification, credit monitoring and the cost to purchase identity fraud insurance.

Travelers also provide coverage for ransom (“Ransomeware”) and related costs associated with responding to threats made to attack a system or to access or disclose confidential information. In the event of a breach, the betterment provision portion of the policy would cover for costs to improve a computer system after a security breach, when the improvements are recommended to eliminate vulnerabilities that could lead to a similar breach. Travelers would cover 50% of that betterment, up to \$100K.

Other services provided by the policy are prevention and response to Cyber Extortion, Data Restoration and Public Relations, Computer Fraud, Funds Transfer Fraud, Business interruption System Failure and Reputation Harm. The Board discussed first response, breach notification, computer network, state rules, claims responses, international experts, cyber terrorism attacks, policy conditions, state of readiness of systems data, exposure, and renewal process. Travelers have reviewed systems application and the company is ready to move forward based on that information.

- IT Update – Gloria Pizzarella, Chief Technology Officer

Chief Technology Officer Pizzarella informed the Board that she has concentrated on mainly three areas, Oracle, Vitech and Do IT for security. IT met with DoIT’s Deputy CIO Patrick Collins and IT Security to address our server infrastructure. Ms. Pizzarella proposed a plan that will make us compliant before January 14th, 2020. She worked with Vitech and Oracle to identify what needs to be done so we can stay current with the Windows Server Software risk free. Other tasks IT has been working on:

- Support and maintain V3
- Support 3rd parties with new codes and rate
- Reset several passwords
- Troubleshoot workflows routed to wrong group

- Schedule monthly Oracle security patches to non-production server/test before update updating production servers
- Manage operating system updates/test before moving to production servers
- Setup batch job to run monthly export interface for COB BAIS
- Manage deployment of 41 issues to Production
- 3200 documents were scanned into members' folder
- Imported Demographic and Deduction files from agencies

- IT Security

The IT department will go forward with this plan till we upgrade to V3 V10 is to migrate to Oracle WebLogic application server. At a high level, Vitech will do the following:

- Create new VMs/server at data center for the WebLogic instance
- Install and configure Apache Web server – In-house, OS QA and production
- Install and configure WebLogic Application Server – In-house, OS QA and production
- Install and configure WebLogic Admin Server – In-house, OS QA and production
- Modify/refactor product and client code for version 8.10 to work on WebLogic
- Regression test the application
- Create new bamboo plans for build release and deployment for WebLogic servers

IT purchased WebLogic Application Server license from Oracle and also provide requested 13 new VMs from DoIT, we will install new Oracle software as mentioned above. Once this goes live, existing QA/Production VMs supporting OC4J can be decommissioned. This will take approximately 4 months

- V10 upgrade

Mr. Smyth stated that it was a somewhat unproductive month due to vacations. Bill Oates was engaged as the Board requested. He will negotiate on behalf of BRS with Vitech. Mr Oates met with Ms. Pizzarella and Mr. Dwyer. The Board should have a far better understanding of where we should be by the next Board meeting. Mr. Dwyer has come up with an alternative utilizing PTG.

Mr. Dwyer reported that while PTG pension software functionality previously was deemed as too limited for BRS, staggering V3 upgrade costs are

forcing a second look at (a) what might be acceptable and (b) what could be achieved with an aggressive PTG software customization program. Said another way, if BRS were to decide to spend less than 50% of the V3 upgrade price of about \$13M (includes pre-purchased hours), what could be achieved?

The following proof of concept is organized around a quarterly expense with regular go / no-go decision gates to yield steadily increasing understanding of the feasibility of the PTG alternative. To start:

- Mr. Smyth talked briefly with PTG's CEO and they are willing to explore a BRS influenced development approach for the foreseeable future
- Defer the V3 V10 upgrade for a year
- Initiate a series of 90 day time-and-materials efforts as a proof of concept to ensure that can deliver significant new functionality at the desired pace and quality.

At the end of the four quarters, or sooner, both parties can better determine:

- If the approach is viable and sustainable
- Full project plan
- Whether it is safe to abandon V3 upgrades plans

PTG's capabilities and downsides, Vitech investment and time frame were discussed by Board.

Outstanding/Ongoing Investment Issues: John Kelly, Investment Analyst

- Large Cap Equity Search Review

Mr. Manning from NEPC informed the Board that the focus today is the Value portion of the Total Large Cap investment structure. There is a total of 18% targeted for Large Cap equity. We are set on the Core portion of the Cap with Rhumblin and DeShaw. We're set on the Active growth portion which is Zevenbergen. After the two potential managers come in and present. We will talk about different ways of putting the managers together depending on who you ultimately choose to hire.

- Columbia Threadneedle

A presentation was made by Richard Rosen, Senior Portfolio Manager, Francine Asselta, VP, Head of Relationship Management and William Landes, Global Head of Investment Solutions. Ms. Asselta opened by stating that the firm has had a relationship of over 20 years with the BRS and the strategy and

team that has been involved with the BRS has been the same for the inception of the portfolio management relationship.

Mr. Landes presented the firm is a fortune 500 firm with an asset management business, a financial advisory business and an insurance business. Columbia is a well-capitalized strong financial partner. That is one of the more recognized names in the country in the asset management business. The firm has over 400 investment professionals based in North America, Europe and Asia, managing US\$469.5 billion* of assets across developed and emerging market equities, fixed income, asset allocation solutions and alternatives. Columbia's parent company, Ameriprise Financial, is one of the world's largest asset management groups, managing the assets of some of the world's most prominent institutional clients, governments and publics, corporations, endowments and foundations. Columbia has a broad mix of capabilities and a willingness to work in strategic partnership with clients on customized investment solutions.

Mr. Rosen added the team structure and characteristics. The core team of two portfolio managers with generalist research responsibilities and areas of focus. The total strategy AUM: \$6.9 billion. Supported by multiple resources:

- Columbia central research – 25 senior analysts and 4 associate analysts covering 25 industry groups
- External research analysts, dedicated traders, internal investment oversight team ("5P") and internal risk management team.

Mr. Rosen referred to a chart in the presentation which showed S&P 500 earnings and S&P price appreciation. He stated going back to 1960 that earning, price and growth go pretty much hand in hand. Our definition of value is earning based. We identify low expectations companies based on earnings. The potential benefits of a concentrated, high-conviction portfolio. This allows manager to know companies extremely well. We have efficient way to capture alpha and ensure that good ideas count. Long holding periods allow catalysts time to play out and capture the full period of a stock's outperformance. We construct portfolio and manage risk. Firm invests in 30-40 stocks with the best chance of exhibiting earnings acceleration. The benefit is a concentrated portfolio with low turnover that helps keep risk exposures balanced and maximizes alpha.

- Aristotle

A presentation was made by William Averill, Managing Director, Gregory Padilla, CFA, Portfolio Manager. Mr. Averill updated the Board on firm's

portfolio Metrix and its flagship strategy. There are a few things that differentiate them from other firms and one is the firm itself. Aristotle is a 100% independent employee owned firm. Aristotle is a family of four independent registered investment advisors. Each advisor has meaningful employee ownership and complete investment autonomy. The firm manages over \$22.61 billion in combined AUM1. It has offices in Los Angeles, Newport Beach, Boston and New York. The teams are supported by an integrated shared services platform (~80 individuals).

Aristotle's key differentiators are a private equity approach to public markets. A process and philosophy applied consistently for 20 years. The firm is focused, high active share, low turnover portfolios and we have a research driven process with long-term time horizon. We have seven different funds invest with us and all of these funds are invested in either small cap or value equity. We do one thing as a firm; we manage assets for our client. This team has a one team one philosophy process. We take a long term view at everything we do. We look at three to five years on any potential investment in the portfolio. We look at it from a private equity approach. We look at the total enterprise value of a business.

Mr. Padilla stated that Aristotle starts with quality, once we establish that it is a quality business then we move on to price. Then once we have price then we ensure that there is some type of catalyst present that propel company forward.

Aristotle's portfolio consists of some non-traditional trading companies like PayPal and Twitter. Their commonalities are that they have a tremendous amount of free cash flow today. Paypal generates \$5B in free cash flow that allows them and companies like them to invest in newer concepts and technology and the firm can get in on earlier opportunities. Our investment strategy was implemented in January 2001. Last month was 164 investment period outperforming the bench marks in five year periods.

At the conclusion of the presentations, Mr. Manning and Board the discussed candidate's benchmarks performance, risks, value portfolio, allocation, managers, fees, strategy and growth.

Motion made, and seconded, to retain Columbia Threadneedle in the Large Cap Value space and hire Aristotle Capital Management in the Large Cap Value space and to fund that with approximately \$130M.

Motion accepted (5-0)

- Q2 2019 Performance Summary

Mr. Manning stated that performance in the second quarter was not great. Up 2.7%, ranking in the 84 percentile. Starting to turn around in June and July 2019.

- July 2019 Flash Report

The Total Plan was up +0.2% in July bringing the year to date performance return to +10%. What was a struggling period as Columbia stated the Large Cap manager in the fourth quarter struggled. Remember we reduced our equity exposure going into the fourth quarter last year. Because the markets were down, the markets are way up this year.

- Work Plan

NEPC noted that the BRS is going shift out of the traditional assets and run back into the alternatives. We'll update pacing plan and anticipate starting a Private Debt search. Early in the fourth quarter and Set that up for the end of 2019 and the beginning of 2020. The same with Real Estate, we did this last year.

Outstanding/Ongoing Financial Issues: Ellen M. McCarthy, Comptroller

- July 2019 Financial Snapshot

Ms. McCarthy reported the following: Pension payroll contributions; \$53,719,749; Total Payees: 15,066; Payroll non-contributors: \$309,343; Total payees: 52; New Regular Retirees: 31; Survivor/Beneficiary Retirees: 0; Disability Retirees: 6; Refunds and transfers: 63 for \$1,095,169; Members Refunds; 60 for \$762,184, Members Transfers: 3 for \$332,986; Option B Refunds: 0; Operational Warrants: \$403,678.

- June 2019 Financial Statement

Comptroller McCarthy presented a June 2019 BRS financial statements. The system total investments are up from year end and last month. \$300M primarily attributed to the systems fixed income securities and domestic equities. Receivables are down from year end and last month mostly to the collections of the pension appropriations from BHA and Suffolk County. Collections of section 3(8)(c)'s and investment receivables' are down. Payables are down primarily due

to investments payables being down in open trades. Over all the systems net assets available are up from year end \$300M.

On the income side interest and dividends are up \$15M from last month. Overall increase of investment value from last year is up over \$900M. We are on the way to recouping losses from last year. Increase in investments is up the \$900M. The BRS additions over all up \$300M from last month and year end. End of period up over \$340M. Also included is the supplemental schedule for administrative expenses.

Outstanding/Ongoing Operations Issues: Christine M. Weir, Operations Officer

- July 2019 payroll update

Operations Officer Weir presented an update on the payroll number for the month of July, 2019. She stated that there were 49 Possible Retirees: 36 Superannuation's, 8 Disabilities & 5 (Death of Active Member). 37 cases were processed, of which 12 did not make the payroll. There were 5 Superannuation's, 5 DOA's and 2 disabilities. Reasons for missing payroll; 2, did not return final papers on time: 3 were missing salary; 4 was missing documentation; 1 was applying for SS #; 1 was a legal matter.

Outstanding/Ongoing Operations Issues: Legal Issues, Padraic P. Lydon, General Counsel

- PERAC Memos offered for consideration
 - PERAC Memo #20-2019 re Reinstatement to Service under §105
 - PERAC Memo #21-2019 re COLA for Supplemental Dependent Allowance Paid to ADR and Accidental Death survivors

Executive Session

Motion made, and seconded, to enter into Executive Session at approximately 12:31 p.m.

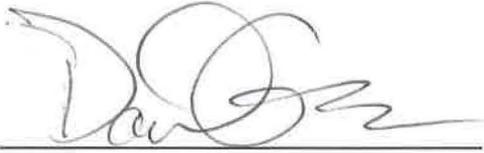
Motion accepted (5-0)

Adjourn

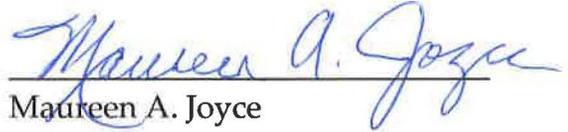
Motion made, and seconded, to adjourn from Administrative Session at approximately 12:42 P.M.

Motion accepted (5-0)

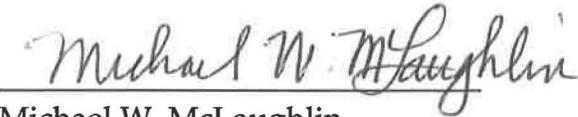
Respectfully submitted,
BOSTON RETIREMENT BOARD



Daniel J. Greene, Esquire
Mayoral Appointed Member, Chairman



Maureen A. Joyce
Ex Officio Member



Michael W. McLaughlin
Elected Member

Absent from 09/18/2019 meeting

Michael D. O'Reilly
Elected Member



Thomas V.J. Jackson
Fifth Member