Howard County
MARYLAND

Pension Oversight Commission

June 22, 2018

Mr. Allan Kittleman, County Executive
Howard County Government
3430 Court House Drive
Ellicott City, MD 21043

Ms. Mary Kay Sigaty, Chairperson
Howard County Council
3430 Court House Drive
Ellicott City, MD 21043

Dear Mr. Kittleman and Ms. Sigaty:

Enclosed is, for your review, the Annual Report of the Pension Oversight Commission for the Howard County Retirement Plan and the Howard County Police and Fire Employees' Retirement Plan. The Annual Report is presented as one document for both Plans and covers the fiscal year 2017, ending June 30, 2017.

Should you have any questions, please feel free to contact us.

Sincerely,

Todd D. Snyder
Chair

cc: Mr. Mitchell Stringer, Commission Member
Mr. Peter Hong, Commission Member
Mr. Ken Barnes, Commission Member
Ms. Wanda Hutchinson, Chair, Retirement Plan Committees
Mr. Scott Southern, Howard County
Ms. Cynthia Peltzman, Howard County

ANNUAL REPORT BY THE HOWARD COUNTY PENSION OVERSIGHT COMMISSION FOR THE FISCAL YEAR ENDED JUNE 30, 2017

Introduction

The Howard County Pension Oversight Commission (the "Commission") hereby submits its annual report of the status of the Howard County Retirement Plan (the "Retirement Plan") and the Police and Fire Employees' Retirement Plan (the "Police and Fire Plan" and together with the Retirement Plan, the "Plans") to the County Executive and the County Council for the fiscal year ended June 30, 2017. This report includes:

i. The Commission's assessment of the appropriateness of the actuarial assumptions used;

ii. A statement of revenues, including contributions, investment earnings, and forfeitures;

iii. The cost of the Plans, including an analysis of fees, commissions and expenses;

iv. An evaluation of the administration of the Plans; and

v. Any proposal or amendment of the Plans that the Commission may wish to recommend.

Introduction

The Actuarial Reports for the Plans dated July 1, 2017 submitted by Bolton Partners Inc. indicated the funding level, based on Market Value of Assets, for the Plans increased at FYE 2017 compared to FYE 2016, as follows:

	FYE 2017	FYE 2016
Retirement Plan	95.2%	94.4%
Police and Fire Plan	82.5%	78.2%

Funding levels are higher assuming actuarial value of assets, which applies "smoothing" to investment returns.[1]

The funding level of the Plans appears to compare favorably to a survey of large public plans. The Public Fund Survey of the National Association of State Retirement

[1] Smoothing spreads market value investment gains or losses in excess of the assumed return over a 5-year period.

The funding level of the Plans appears to compare favorably to a survey of large public plans. The Public Fund Survey of the National Association of State Retirement Administrators (the "Survey") indicated an aggregate actuarial funding level of 72.1% for FY 2016.

While funding levels benefitted from lower than expected pay increases and COLA adjustments, the primary driver of the increase in funding levels for the Plans appears to be investment performance above expected levels as follows:

	Current Actuarial Return Assumption	Actual Investment Return for FYE 2017	5 Year Investment Return as of FYE 2017
Combined Plans	7.5%	12.57%	8.93%

Over the past five years, the pension industry has seen increasing allocations to alternatives and real estate. The Plans allocation model currently includes allocation to alternative investments and real estate, compared to the Survey, as follows:

	Target Allocation	Actual Allocation as of June 30, 2017	Survey Allocation
Alternative Investments	22%	22.68%	18.3%
Real Estate	7.5%	3.59%	6.6%

Recommendations

The Commission makes the following recommendations with respect to the Plans:

1) **Policies and Procedures**. While the RPC has provided certain information regarding its policies and procedures, to facilitate the POC's oversight of the administration of the Plans, the POC would like to receive a comprehensive indexed compilation of all adopted policies, procedures and processes used in connection with the administration of the Plans for review. In addition, the POC seeks copies of policies, procedures and processes adopted by service providers to the Plans to the extent in the possession of the Plans, or otherwise, a summary of any information that the Plans have obtained in their assessment and monitoring of the service providers.

2) **Alternative Investments**. We understand that formal processes are being developed for alternative investments. The POC would like to receive an update and information regarding this matter.

3) **Investment Return Assumption**. The POC generally continues to believe the investment return assumption should be assessed in light of current market conditions and expectations for investment returns. We understand that a survey is planned for next year. However, the Plans may want to consider more frequent analysis of the appropriate level of returns, especially where market conditions are changing or questions arise regarding the appropriateness of expected returns, rather than wait for a prescheduled evaluation. Further, while the actuarial consultant provides a recommendation at least every five years regarding the investment return assumption, the actuary's advice appears highly reliant on information provided by the Plan's investment consultant. The POC believes the significance of this key assumption warrants advice from an additional source that was not involved in the selection of the Plan's investments. Thus, the POC recommends that the Plans (i) consider a more frequent evaluation process for the reasonableness of the investment return assumption, and (ii) retain the services of an independent third party to provide advice on the reasonableness of the return assumption and that the third-party advisor not have any conflicts with the County government or other service providers and be isolated from any political or other conflicts in rendering its advice to the Plans.

4) **Limitations on POC Oversight – Closed Door Meetings and Confidential Information**. The POC notes that access to information discussed at closed meetings is not available to the POC, including alternative investments. Alternative investments represent over 20% of the Plans' combined portfolio. Due to lack of access to information, the POC is limited in its ability to provide oversight of certain matters discussed at the closed meetings, including administration of the Plans and risks associated with the more illiquid and potentially riskier alternative investments held by the Plans. Also, the POC notes that minutes of closed door meetings have not been provided to the POC. The POC recommends that the County Council consider whether oversight by the POC is necessary or appropriate, especially given the increased exposure to alternative investments. The County Council should understand that the POC has not been able to perform oversight of these matters resulting in a gap in oversight.

5) **Limitations on POC Oversight - Access to Information**. In addition to the closed-door and confidential information discussed in item 4 above, the POC also seeks, from time to time, information that may not always be publicly available in connection with its oversight function. However, the current governing statute does not appear to provide the POC with authority to access information other than as a member of the public under freedom of information laws, which limits the ability of the POC to exercise its oversight function. In order to effectively exercise its oversight function, the POC recommends that the County Council amend the County code to include an express authority by the POC to request and receive information from the Plans to facilitate the POC's oversight function.

6) **Governance.** As the Plans continue to grow in size, the POC believes a focus on Plan governance is appropriate. While it appears that the Plans have engaged in discussions and efforts in this area, it is unclear whether the Plans have adopted current best practices in governance for public retirement plants. The POC recommends that the Plans engage a third-party consultant to conduct an

assessment of Plan governance. To enhance effectiveness of this assessment, the POC recommends that the consultant be an entity that is not a current service provider to the Plans or otherwise related to, or involved with, the existing governance, processes and procedures of the Plans

7) **Service providers.** As part of its oversight function, the POC seeks to evaluate and assess the use and oversight by the Plans of service providers, such as investment consultants, auditors, law firms and actuaries. To further such assessment, the POC would like to obtain from the Plans:
   a) A summary and list of all service providers (i.e., persons or entities that provide services to the Plans, including those relating to the administration of the Plans);
   b) A summary of all services provided;
   c) Processes and procedures for selection of service providers;
   d) Processes and procedures for oversight and monitoring of the activities performed by the service providers; and
   e) Processes and procedures for the selection of service providers.

8) **Plans' Auditor**. The Plans engaged a new auditor for FYE 2017. The POC was informed that auditor was hired by the County government without the prior knowledge of all members of the RPC, and approval by the RPC. The POC recommends that the Plans assess the process and procedure for any change in the Plans' auditor, and that such process and procedures allow the Plans an opportunity to review and assess any change in auditor prior to the change taking effect.

Evaluation of the administration of the plans

The Commission's evaluation of the administration of the plans includes the recommendations in the above Recommendations section.

Statement of revenues, investment earnings, and forfeitures

The Plans' combined investment earnings exceeded expectations for the year ended June 30, 2017. Overall returns were 12.57% for the fiscal year, approximately 2.05% higher than the implementation index returns of 10.52%. A summary of changes in fiduciary net position for the fiscal year ended June 30, 2017 follows:

	Police and Fire Plan	Retirement Plan
Beginning Year Assets	$448,948,629	$362,299,533
Investment Income	57,454,299	46,675,348
Investment Expense	(1,497,885)	(1,228,843)
Contributions	32,116,512	18,083,732
Benefits	(20,421,146)	(15,378,819)
Administrative Expenses	(344,622)	(336,066)
End of Year Assets	$516,255,787	$410,114,885

Analysis of fees, commissions and expenses

The Commission feels the Plans' fees and expenses at the Plan level appear to be reasonable and in line with the Plans' recent past. According to the 2017 NCPERS Public Retirement Systems Study (Jan. 18, 2018), the overall average expenses to administer the funds and to pay investment management fees for 2017 was 55 basis points, compared to the Plans' management fee of 64 basis points for 2017. In addition, the total operating expenses for the Plans increased significantly from 2016 ($19.5 million) to 2017 ($22.3 million). However, the most significant contributor to the increase was the increase in benefit payments which rose from $17.9 million in 2016 to $20.4 million in 2017.

We note that we requested the fees and expenses for alternative and illiquid investments, especially at the underlying fund level with respect of fund of funds. These investments may contain complex fee arrangements, carried interests and fees at sub-funds in a fund-of-funds structure. While the County did provide some information, the fee levels were not compared to a competitive set, and included limited detail, especially relating to potential carried interests. We believe that further detail and analysis of the overall fees and expenses at for these types of investments may be beneficial.

Actuarial Review

County's Pension Contributions

The Commission reviewed the Actuarial Valuation Reports for both the Retirement Plan and the Police and Firefighter's Retirement Plan (the "Plans") dated July 1, 2017 submitted by Bolton Partners Inc. The purpose of an actuarial valuation is 1) to determine the amount of actuarially determined contributions, or ADC (i.e., an amount that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long-term) and 2) to measure the Plans funding progress. The principle objective of these reports is to determine the Plans' contributions for the fiscal year 2019 (starting July 1, 2018). The actuarially determined contribution amount for the Police and Fire Plan increased to $$27,974,522 for fiscal year 2019 from $25,940,154 for fiscal year 2018. The contribution amount for the Retirement Plan increased to $14,296,317for fiscal year 2019 from $13,647,657 for fiscal year 2018.

The primary risk incurred by a defined benefit plan sponsor is the risk of substantial increases in annual contributions. If the contributions are not fully paid, interest accrues on the unpaid portion at the plan's expected long-term rate of return. Changes in the expected long-term rate of return (the discount rate) will change the ADC, with a reduction in the discount rate resulting in a higher ADC.

The County has consistently made the ADC payment to the Plans. The County made contributions in excess of the ADC in 2012 and 2017 for the Retirement Plan. Persistent underfunding will ultimately jeopardize the sustainability of a pension plan.

Funded Ratios

The funded ratios, as reported in the Auditor's Report (prepared by CliftonLarsonAllen LLP) for the fiscal year 2017, are 81% for the Police and Fire Plan, and 92% for the County Retirement Plan. The ratios are calculated using the market value of the plan assets as of June 30, 2017 and the present value of the plan liabilities. A ratio of less than 100% indicates that plan assets are less than estimated plan liabilities. The Government Finance Officers Association (GFOA) recommends a target funded ratio of 100% or more (full funding) in their Best Practice[2]. The funded ratios based on the actuarial value of assets and actuarial accrued liabilities are 95.2% for the County Plan and 82.6% for the Police and Fire Plan.

For the funded ratio calculation, the value of pension assets is simply determined based on the market value of the assets on the valuation date. Determining the value of pension liabilities is, however, more difficult and requires the following two components of assumptions: (1) the expected future cash stream of pension benefit payments and (2) the discount rate used to determine the present value of the expected future cash stream.

The expected future cash stream of the benefit payments is determined by an actuary with a set of assumptions, such as future salary increases, future mortality rates and disablement rates to mention a few examples. The details of the assumptions used to calculate the future cash stream of the pension benefit payments are based on the experience study issued on June 26, 2014 by Bolton Partners. The study covers the period from July 1, 2009 through June 30, 2013. The next experience study will be issued in 2018 covering the period from July 1, 2013 through June 30, 2017.

Once the actuary determines the expected future cash stream of payments, a discount rate is applied to calculate the present value of all the future benefit payments to determine the pension liabilities on the valuation date. As pension benefits are long-term in nature, the present value of the pension liabilities is extremely sensitive to the level of discount rate. The higher the discount rate, the lower the present value of the pension liabilities will be. To determine the pension

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[2] "Sustainable Funding Practices for Defined Benefit Pension Plans and Other Postretirement Benefits," January 2016

liabilities for the fiscal year 2018, the discount rate used is 7.50%. The discount rate is selected by the Retirement Plan Committee. The discount rate was lowered from 7.75% to 7.50% in 2014.

To assess the appropriateness of the discount rate used for the pension liability calculations, the Commission reviewed the long-term capital market assumptions as of December 31, 2017 presented by the Summit Strategies Group. Table 1 provides a summary of the review.

Table 1. Long-Term Capital Market Assumptions and Investment Return

	Expected Sector Return	Expected Alpha Return	Target Weight	Expected Rate of Return
Large Cap Composite	5.75%	0.25%	15.00%	0.90%
Non-Large Cap Composite	5.50% 1/	0.75% 1/	5.00%	0.31%
Intl. Developed Mrkts Composite	6.25% 2/	0.75% 2/	13.00%	0.91%
Emerging Markets Composite	7.50%	0.75%	7.00%	0.58%
Core Plus Fixed Income	3.25%	0.50%	25.00%	0.94%
Real Assets Composite	5.50% 3/	0.25% 3/	7.50%	0.43%
Private Equity Composite	7.33% 4/	0.96%	10.00%	0.83%
Emerging Market Debt	6.00%	0.25%	5.00%	0.31%
Hedge Fund Composite	5.25%	0.75%	12.50%	0.75%
Cash Composite	2.00%		0.00%	0.00%
Plan Total			100.00%	**5.96%**

Source: Summit Strategies Group, Economic & Capital Market Review, 12/31/2017

Note: 1/ Small Cap Sector Return

2/ Intl. Large Cap

3/ Core Real Estate

4/ Weighted average of 14% Private Debt (expected return 7.00%) and 86% of Private Equity (expected return 8.50%) based on Summit Strategies Group's Private Equity presentation on 2/27/2014

The Commission believes that the Summit Strategies Group latest long-term capital markets assumptions, which is updated quarterly, are reasonable and reflect the low interest rate and low risk premiums environment. The Commission assessed the expected rate of investment return based on the target weight of each asset under the policy asset allocation. The expected rate of return of the portfolio would be 5.96% using the long-term (10-year) strategic capital markets assumptions published by Summit Strategies Group (Table 1).

The Commission believes that the discount rate used to assess the present value of the pension liabilities for the fiscal year 2018 is too high relative to the rate of investment returns which would be reasonably expected in the long-term (10 years). If a lower rate of return is used as a discount rate for the plans' present value calculation, the plan liabilities would be larger than they are today and the funded ratios would be lower. Baltimore County uses a 6.375% discount rate, while Harford, Frederick, Cecil and Carroll counties use a 7.00% discount rate. Nationally, discount rates have been trending lower over the past several years. Bolton Partners, in a letter dated October 16, 2016, cited research by Horizon Actuarial Services (Survey of Capital Market Assumptions) that indicate higher expected returns over a 20-year period compared with a 10-year period. They also cited expected returns provided by Summit Strategies that also indicate higher expected returns over a 30-year time horizon than a 10-year horizon.

Funded Ratio Sensitivity

The independent auditor provided the estimates of the net pension liability for the fiscal year 2017 using different discount rates. If 6.50% discount rate were used, the funded ratios would be 67% instead of 81% for the Police and Fire Plan and 79% instead of 92% for the Retirement Plan. (Table 2). The use of a 6.50% discount rate seems reasonable considering the long-term rate of return estimate (5.96%) based on long-term capital market assumptions provided by Summit from their report dated December 31, 2017.

Table 2. Net Pension Liabilities Sensitivity to Changes in the Discount Rate

	1% Decrease (6.50%)	FY2017 Discount Rate (7.50%)	1% Increase (8.50%)
Net Pension Liability FY2017			
Police and Fire Plan	212,181,223	121,456,285	46,938,580
Employees Plan	93,109,552	35,438.107	(12,839,374)
Funded Ratio /1			
Police and Fire Plan	67%	81%	93%
Employees Plan	79%	92%	103%

Source: Howard County Police and Fire Employees' Retirement Plan Financial Statements, June 30, 20167 and Howard County Retirement Plan Financial Statements, June 30, 2017

/1 Funded Ratio is a ratio of pension fiduciary net position to total pension liability adjusted with estimated net pension liability.