



## Alberta Teachers' Retirement Fund Board

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May 14, 2020

Mr. Jason Schilling  
President  
Alberta Teachers' Association  
11010 142 Street NW  
Edmonton, AB  
T5N2R1

Dear Mr. Schilling:

Thank you for your letter of 12 May 2020 in which you asked several questions relating to a comparison of ATRF's actual historical returns to simulated returns that ATRF would have earned had assets been under AIMCo management. You also asked for some information regarding the recent losses experienced by AIMCo due to a volatility strategy that has been the focus of several recent high-profile news articles. All of your questions are addressed below.

### *Comparison of ATRF's Actual Total Fund Net Returns with Simulated Total Fund Net Returns under AIMCo Management for historical periods ending 31 December 2019*

Consistent with our analysis provided late last year, using publicly available information<sup>1</sup> about AIMCo's net returns by asset class, we updated our analysis of what ATRF's net returns would have been had AIMCo been managing the assets, in as comparable a manner as possible. Our updated analysis shows that ATRF's actual total fund investment performance has been better than what we estimate would have been achieved by AIMCo using ATRF's asset mix, for the last several years. Our analysis, covering the period 1 January 2013 to 31 December 2019, is summarized in the table below which presents cumulative annualized net investment returns.

	1 year	4 years	5 years	6 years	7 years
<b>ATR Actual Total Fund Net Return</b>	14.4%	8.3%	8.40%	9.00%	10.2%
<b>Simulated ATRF Total Fund Net Returns under AIMCo management</b>	11.1%	6.9%	6.9%	7.7%	8.7%
<b>Difference</b>	<b>3.3%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.3%</b>	<b>1.5%</b>

*Analysis of ATRF actual net total fund returns compared to simulated ATRF total fund returns using AIMCo performance data. All time periods in the table end 31 December 2019.*

As you requested, we clarify that *net investment returns are returns realized after paying all investment-related expenses, including internal investment operating expenses and all fees, including performance fees, paid to any third-party managers.* In short, net investment returns are what the investor earns after accounting for all costs incurred to create those returns. More detail on our methodology for

<sup>1</sup> We use the asset class returns for the Local Authorities' Pension Plan (LAPP), AIMCo's largest client, for computing returns under AIMCo management.



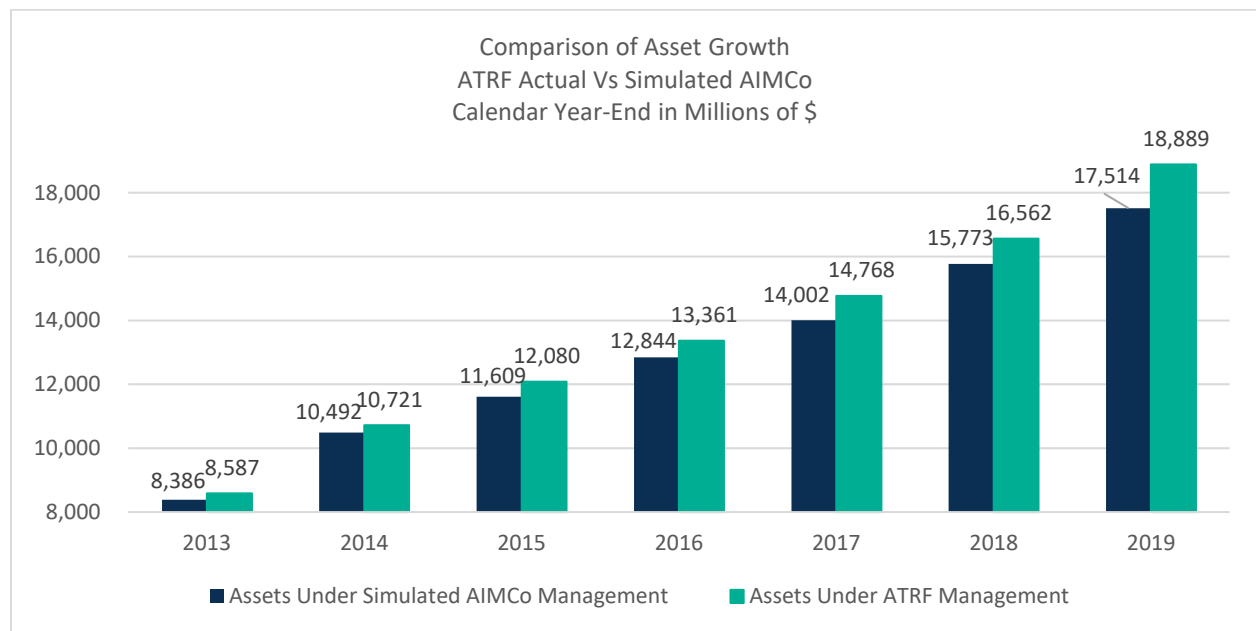
computing the simulated returns is provided as an appendix to this letter. Looking at returns from individual years is perhaps even more instructive as ATRF’s actual net investment returns surpassed the AIMCo simulated returns in each one of the seven years included in our analysis. The year-by-year results of our analysis are summarized in the following table.

	2019	2018	2017	2016	2015	2014	2013
<b>ATRF Actual Total Fund Net Return</b>	14.42%	2.40%	11.01%	5.65%	8.98%	12.08%	17.40%
<b>Simulated ATRF Total Fund Net Returns under AIMCo management</b>	11.11%	2.26%	9.24%	5.29%	6.86%	11.79%	14.85%
<b>Difference</b>	3.31%	0.14%	1.77%	0.36%	2.12%	0.29%	2.55%

*Calendar year-by-year comparison of ATRF actual total fund net returns with simulated ATRF total fund returns under AIMCo management.*

*Cumulative dollar impact to ATRF of these return differences*

Based on these numbers, we estimate that, as of 31 December 2019, ATRF’s assets would be approximately \$1.3 billion lower than actual had assets been under AIMCo management since 2013. We plot this cumulative difference year by year in the following chart.



It is incumbent upon us to observe to our sponsors that during this same time period that the ATRF Board has been able to reduce contribution rates a total of 1.54% of pay for teachers and 1.36% of payroll for government for the Teachers’ Pension Plan.



*Net Investment Returns, Private Assets*

You also asked us to update our analysis of the comparison of ATRF and AIMCo's private asset class returns for historical periods up to 31 December 2019. This information is provided below.

		<b>1 Year</b>	<b>4 Year</b>	<b>5 Year</b>	<b>6 Year</b>	<b>7 Year</b>
Private Equity	ATRF Actual	19.9%	16.0%	19.4%	20.6%	20.6%
	AIMCo (LAPP) Actual	4.1%	3.4%	0.8%	1.1%	1.3%
	<b>Difference</b>	<b>15.8%</b>	<b>12.5%</b>	<b>18.7%</b>	<b>19.5%</b>	<b>19.4%</b>
Infrastructure	ATRF Actual	24.5%	18.4%	17.1%	16.3%	15.1%
	AIMCo (LAPP) Actual	7.7%	9.3%	10.2%	9.2%	8.5%
	<b>Difference</b>	<b>16.8%</b>	<b>9.1%</b>	<b>7.0%</b>	<b>7.1%</b>	<b>6.6%</b>
Real Estate	ATRF Actual	14.3%	10.4%	10.8%	10.6%	11.0%
	AIMCo (LAPP) Actual	3.8%	7.3%	7.6%	7.7%	8.4%
	<b>Difference</b>	<b>10.5%</b>	<b>3.1%</b>	<b>3.2%</b>	<b>2.9%</b>	<b>2.6%</b>

*Cumulative Annual Net Return for Private Market Asset Classes All time periods in table end 31 December 2019.*

This table shows that for the three private asset classes, ATRF's actual returns exceeded those of AIMCo in all periods.

*Prospective losses to ATRF from the recent volatility strategy losses at AIMCo.*

All of the preceding analysis goes to 31 December 2019. Since then, concurrent with the sharp market downturn of February and March, significant losses were realized by AIMCo on an internally managed volatility strategy. You have asked what ATRF's losses resulting from this strategy would have been had AIMCo been managing its assets over this period. AIMCo has stated that the figures in the press overstate their total actual losses on this strategy. While the potential loss at the peak of market volatility was greater, market volatility has subsided and AIMCo says final losses have been reduced to the area of \$2 billion. Based on that figure our staff estimate that ATRF losses due to this strategy would have been in the range of \$300 million had ATRF's assets been managed by AIMCo over this period. This was corroborated in a recent conversation with AIMCo Board Chair J. Richard Bird. To confirm, this estimate is over and above investment losses due to the general market decline.

*Does ATRF's Investment Policy allow the type of strategy that went so badly at AIMCo?*

We are not privy to the detailed methodology of this AIMCo strategy. That said, ATRF's Board approved Investment Policy allows for the use of a wide array of investment tools, including derivative instruments. These tools allow for rapid and efficient access to market exposures that we deem consistent with ATRF's investment goals.

The Investment Policy also contains limits and I want to assure you that the Board regularly receives a robust risk report that provides us with comfort that our investment staff, including investment risk staff, are ensuring all exposures are consistent with limits embedded in the ATRF Board-approved investment policy and ATRF's overall appetite for risk. In employing any strategy, ATRF carefully considers the possible impact of that strategy on the overall portfolio and performance in the event



circumstances work against it. We scale positions accordingly as we know the unexpected can happen. In the case of “short volatility” strategies, which is the type of strategy AIMCo was employing, our investment team is well aware that such strategies will, in most periods, earn income. Our team is also aware that such strategies can have adverse outcomes at times of market stress, which is the time pension plans most want to avoid extra losses. At various times in recent years our team has explored such strategies, but, in the context of a market where conditions suggested that volatility was more likely to rise than fall, we have avoided them.

I hope the above answers your questions. Should you require any further detail, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandra Johnston", is written in a cursive style.

Sandra Johnston  
Chair  
Alberta Teachers' Retirement Fund

cc. The Honourable Travis Toews, President of Treasury Board and Minister of Finance  
Rod Matheson, CEO ATRF  
Dennis Theobald, Executive Secretary, ATA



## Appendix

### Methodology:

This analysis estimates the investment returns that ATRF would have theoretically achieved had its assets been managed by AIMCo since 2013. We use actual asset class returns earned by the Local Authorities' Pension Plan (LAPP), AIMCo's largest client, to represent AIMCo historical returns. For each year beginning 2013 a theoretical return was calculated for ATRF by applying LAPP's annual return for each asset class to the weight of that asset class in ATRF's asset mix for each year. The weighted sum of these values results in a simulated ATRF return for each calendar year. Note that ATRF's asset mix includes a 10% allocation to absolute return strategies. As this asset class does not exist at LAPP, actual ATRF results were used for the absolute return portion of the simulation.

Next, the simulated return for each calendar year was applied to ATRF's average assets under management for that calendar year. This allowed the estimation of the cumulative difference in fund value at the end of the seven-year period from December 31, 2012 to December 31, 2019.