

EXHIBIT 15



March 5, 2021

Mr. James Grossman
PSERS
5 Fifth Street
Harrisburg, PA 17101

Dear Jim:

Subject: Data Corruption of April 2015 Performance Data

In the process of reconciling some prior year asset class composites with PSERS investment staff in mid- December 2020, Aon has become aware of data corruption in some sub-composite market values, cashflows and returns for the month of April 2015. This data corruption was due to an error by an analyst in uploading NAV and cashflow data from the BNY system into the PARis performance system Aon uses.

This data corruption impacted a few asset class composites in the public markets. After exhaustive forensics and comparisons of the data, we did uncover a cashflow discrepancy which when recalculated does result in a change in the Total Plan composite returns for April and May. Unfortunately, due to this error, the FY and CY 2015 returns for several of the asset class composites and Total Plan were inaccurately reported in the June 30, 2020 report.

Background

As part of the quarterly performance process Aon uploads asset values and cash flows from BNY Mellon using a system uploader to PARis, the third-party performance reporting system utilized by Aon. After finalizing the annual 2015 report it appears that an incomplete erroneous upload was made for April 2015 data which overwrote the cashflows and Net Asst Values for several accounts, corrupting the cash flow and market value data for several accounts. While the exact timing and nature of this erroneous upload is unclear, Aon has isolated the time for the upload between October 2016 and March 2017. It appears that in attempting to update one account with revised market values and cashflows, the analyst erroneously uploaded incorrect data into other accounts overwriting and corrupting the data for April 2015. The impact of the corrupted data resulted in an overstatement of net cashflows by \$311.0 million which includes a re-statement of \$475.9 million from May 2015 to April 2015 for a net understatement of \$165.8 million in cashflows for the second quarter of 2015.

When running the Quarterly report, the PARis system calculates returns for the month or quarter based on the market values and cashflows for that month and quarter only. Historical monthly and quarterly returns are not re-calculated every quarter unless Aon specifically goes back to revise a past monthly return. As a result, the error in the cashflows and market values was not readily apparent in the quarterly reconciliation process as the April 2015 return was not recalculated with this "new" data until Aon re-calculated the April 2015 monthly data as part of its process of re-structuring the Performance Report during the first fiscal quarter of 2020 in September 2019. This recalculation was related to the restructuring of the performance composites and the revision of historical data for

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the Bain Managed Account investment due to updated market values and cashflows provided by Bain. By re-calculating the Total Fund Composite to capture all revisions, Aon also unintentionally captured the erroneous data for April 2015 which had been uploaded previously.

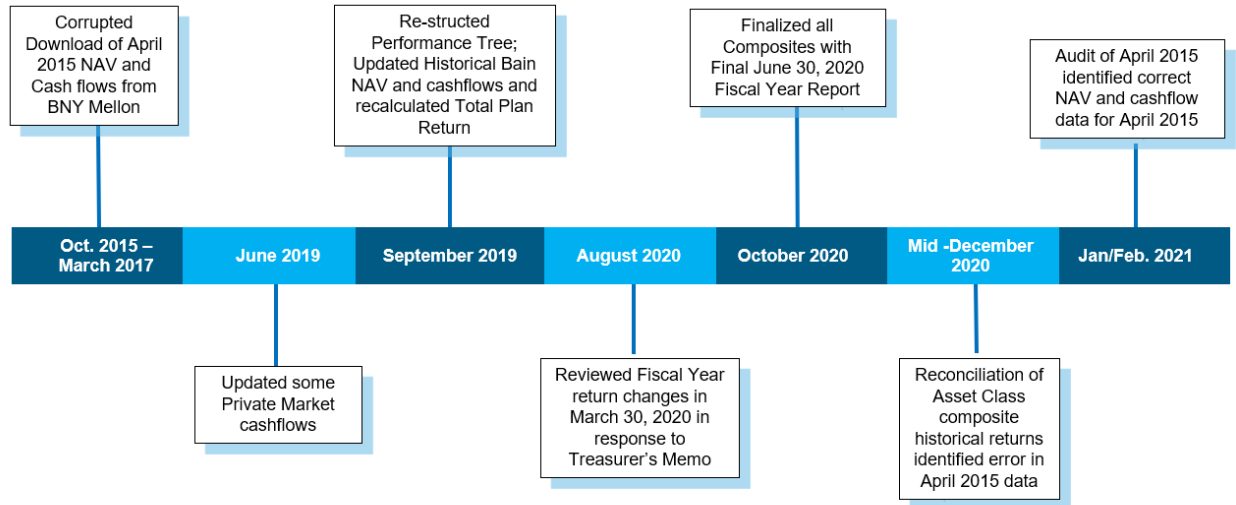
In August 2020, Aon responded to questions regarding the change in the fiscal year returns in the March 31, 2020 performance report versus prior performance reports and the CAFR reports. In this review of returns Aon conducted a review of the currently reported returns to confirm the calculations. For all Fiscal Year returns, Aon reconfirmed the calculation of the Total Fund returns were correctly calculated based on the NAVs and cashflows reported on the PARis system. All but three of the Fiscal Year returns had only modest (less than 5 basis points difference in returns). For Fiscal Year 2015 which had a 37-basis point change, Aon did a more detailed review of the returns and the changes in both the Total Plan and sub-composites versus the CAFR. As part of this review process Aon:

- Re-reviewed the return calculations for Fiscal Year 2015 and verified that the revised returns as reported in the March 31, 2020 report were correctly calculated based on the new revised NAVs received for some private market funds after the fiscal year close.
- Confirmed that there had been revisions to the market values and cash flows for some Private Credit and Commodity funds which had resulted in changes to the returns of these composites and the Total Fund.
- Reviewed the Historical Schedule of Investments in all prior quarters and confirmed that the NAVs and cashflows were the same until the changes were made in 2019 to the Private Credit and Commodity composites.
- Reviewed the changes made in September 2019 to the performance tree as part of the performance report alignment to the new Investment Policy Statement which had resulted in the re-calculation of several composites.

Our review of reports from 2019, 2018 and 2017 did not uncover any other material changes to returns or cashflows. As this review did not uncover any miscalculations of returns nor any material changes to the market values or cash flows for the period other than those known in the Private Credit and Commodity composites, Aon did not review the cashflows on the PARis system versus the source statements at this time.

When finalizing the June 30, 2020 quarterly performance report, Aon finalized all outstanding composites resulting in the recalculation of the sub-composites with the now updated cash flows resulting in changes to the underlying composites. In mid-December 2020, Aon received questions regarding the changes to these sub-composites. As part of the investigation of these changes, Aon did identify an issue with April 2015 data and began a process of reconfirming all NAVs and cashflows for the period versus the source statements.

Timeline



Aon Reconciliation Process

Aon reconciles the calculated rates of returns for Separate Accounts monthly with the Custodian Bank and Investment Managers. External Portfolio Managers fill out Aon's template for monthly performance (gross and net) and market value and provide to Aon as soon as monthly data is finalized.

Aon reconciles monthly returns for the System's internally managed portfolios with those provided by Staff. Aon reconciles market values, cash flows and performance for all separate accounts with the Custodian Bank's reports for the current month and quarter. Any differences in these amounts will be worked out between the Custodian and Aon. Any exceptions and discrepancies deemed material will be brought to the attention of PSERS Staff. Reasons for deviations are documented accordingly. Aon reconciles the calculated rates of return for Commingled Funds (i.e. Absolute Return) for the current month with the Specialty Consultant and PSERS Staff. The Specialty Consultant will provide a spreadsheet with NAVs and returns which Aon will reconcile with their NAVs and returns. Any differences in these amounts will be resolved between the Consultants. Any exceptions and discrepancies deemed material will be brought to the attention of PSERS Staff. Reasons for deviations are documented accordingly.

Aon reconciles the calculated rates of return for non-marketable accounts for the current quarter with PSERS' Private Market Team and the Specialty Consultants. Given the nature of revisions, some adjustments to prior quarter (within a fiscal year) market values and returns are addressed each quarter as well.

Cash flows are sourced from the Custodian statements for all accounts except the Private Markets. PSERS staff provides a spreadsheet quarterly for all cash flows related to the Private Market Composites. For any cash flow where the cash is transferred out in one month and not invested into the fund until the following month (subscription/settlement date), the cash flow date on Aon's records

will be the last day of the month (with the cash flow) to minimize the impact on performance. This adjustment is necessary because the cash is not invested in the fund until the subscription date (so the cash does not start earning a return until the subscription date).

Quarterly Report Review Process

1. Once all market values and returns are reconciled for each account (excludes Private Markets) as described above, Aon runs an initial monthly flash each month and confirms the returns match the reconciliation before providing the report to PSERS staff.
2. Staff notifies Aon of any additional account restatements, terminated and new accounts, and/or changes in performance benchmarks.
3. Aon makes the necessary revisions and provides a revised report.
4. Upon final reconciliation and review of reports by Staff, Aon finalizes the monthly report and distributes to PSERS.
5. On the quarter end, once the Public Market monthly report is finalized, Aon reconciles the Private Markets NAVs, cashflows and returns as described above and distributes the draft Quarterly Report to PSERS for review and reconciliation.
6. Aon finalizes the Quarterly report upon the completion of all revisions to the Quarterly Report.

Process Improvements Implemented in 2020

As a result of the identification of this error, Aon has instituted several process improvements to ensure that this type of error does not occur again.

- 1) Upon final approval of the Fiscal Year Report, Aon will lock all monthly and quarterly returns in the PARis system for asset class and Total Plan composites. Aon has identified a way to permanently lock all returns for all composites and the Total Plan once the full fiscal year report is finalized so the prior returns will not be re-calculated.
- 2) Aon has created an additional reconciliation step which will require the manual verification and sign off that all historical period cashflows, market values and returns are unchanged from prior reports. A new reconciliation spreadsheet will pull all historical market values, cashflows and returns as reported in the Schedule of Investments and confirm that all historical period information is unchanged from the prior report. Any changes to any market values and/or returns will be investigated and corrected as needed. This process will verify all quarterly periods summary data back to September 2013, the earliest period for the data on the PARis system
- 3) Process improvements have already been implemented with the finalization of the June 30, 2020 report whereby no revisions to prior fiscal year periods will be made. All revisions to market values or cashflows for any account will be made in the current fiscal year and be documented.

Comparison of Historical Quarterly Schedule of Investable Assets for June 2015, as Reported by Quarter, and Impact of Total Fund Return Revision

Note: This schedule was a new page added to the March 2017 Performance Report and was not reported in previous quarterly reports.

Report Date	Beginning MV	Contributions	Withdrawals	Net Cash Flow	Net Gain/Loss	Ending MV	Net Return	Comments
Jun-15	52,294,922.85			(643,300.00)	(258,300.00)	51,393,429.00	-0.5	June 2015 Quarterly Report as originally reported
Mar-17	52,294,922.85	5,787,431.23	6,617,330.32	(829,899.09)	(70,928.87)	51,394,094.90	-0.5	
Jun-17	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Sep-17	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Dec-17	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Mar-18	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Jun-18	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Sep-18	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Dec-18	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Mar-19	52,298,800.27	5,787,431.23	6,620,947.13	(833,515.90)	(71,189.47)	51,394,094.90	-0.5	
Jun-19	52,298,800.27	5,794,431.23	6,620,947.13	(826,515.90)	(78,189.47)	51,394,094.90	-0.5	Updated some PE cash flows
Sep-19	52,306,553.66	5,794,431.23	6,620,947.13	(826,515.90)	(85,942.86)	51,394,094.90	-0.2	Re structured Performance Tree, updated Bain Market Value Changed Net Gain Loss and Recalculated Total Plan
Dec-19	52,306,553.66	5,794,431.23	6,620,947.13	(826,515.90)	(85,942.86)	51,394,094.90	-0.2	
Mar-20	52,306,553.66	5,794,431.23	6,620,947.13	(826,515.90)	(85,942.86)	51,394,094.90	-0.2	
Jun-20	52,306,553.66	5,794,431.23	6,620,947.13	(826,515.90)	(85,942.86)	51,394,094.90	-0.2	
Sep-20	52,306,553.66	7,961,320.75	8,614,552.89	(653,232.14)	(259,226.63)	51,394,094.90	-0.2	Total Plan Return frozen;recalculation of cashflows results in a -0.5% return

Audit of Aon Returns

As part of the performance audit conducted by ACA in November 2020, Aon provided ACA the historical market values and cashflows residing on the PARis system for all months going back to July 1, 2013 and quarterly market value data for the period July 1, 2011 through June 30, 2013. ACA tested the calculation of all monthly returns from July 2013 and was able to independently calculate all monthly returns within the tolerance range set by the audit. The recalculation of the April and May 2015 returns as part of the Sept. 30, 2019 performance report had aligned Aon's calculated returns with the cashflows on the system so ACA calculated the same return as reported by Aon in June 2020.

As part of the audit, ACA did test 40 of the 84 monthly periods from July 2013 and June 2020 including six months in Fiscal Year 2015. ACA independently verified the cash flows on PARis to the source BNY statements and the Private Market spreadsheets for these 40 months tested.

Subsequent to the identification of the data error, Aon is conducting its own audit of the remaining 44 monthly returns by re-confirming all the cashflows on the PARis system with the BNY Mellon data and the Private Market source datasheets. Aon has completed verifying 83% of the 24,000 cashflow line items. To date, the only other difference identified is a \$10.3 million net cashflow adjustment for September 2015.

Impact of Correction on Total Plan Returns

With the correction of the NAVs and the contribution and distribution cashflows for the month of April, May and September 2015, the returns would be corrected as described below.

	Corrected	Reported	diff
6/30/2015	-1.25%	-1.25%	0.00%
5/31/2015	-0.11%	1.05%	-1.17%
4/30/2015	0.87%	0.04%	0.84%
2Q15	-0.50%	-0.17%	-0.33%
9/30/2015	-1.12%	-1.10%	-0.02%
8/31/2015	-2.81%	-2.81%	0.00%
7/31/2015	-0.13%	-0.13%	0.00%
3Q15	-4.02%	-4.00%	-0.02%

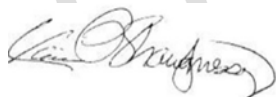
As a result of the recalculated quarterly returns for 2Q2015 and 3Q2015, the nine-year return ended June 30, 2020 is 6.34%, a 4-basis point decline from the originally reported nine-year trailing return.

Conclusion

Aon sincerely regrets the error in the prior reported finalized June 30, 2020 quarterly report. Aon is constantly reviewing our processes to identify areas for potential error in order to develop appropriate reviews and checks to eliminate the opportunity for human error. As noted above, we have worked to install additional locks on the data as well as a new reconciliation process for all historical market value, returns and cashflows reported in the quarterly report in addition to the existing detailed reconciliation process for the current period. In addition, Aon's Error Committee will be formally reviewing the performance process and this error to evaluate any additional process changes that can be made to further improve the process and further eliminate the impact of human error on the performance calculation process.

Aon takes very seriously its role in calculating accurate returns for the System. As a result of the identification of this error, we have embarked on a reconfirmation of the cashflows in the PARis system for all months not already verified in November 2020 as part of the ACA audit. To date we have not uncovered any other error.

Sincerely,



Claire P. Shaughnessy, CFA
Partner