Investigative Report

Investigation of the Theft of Funds from Quincy Retirement Board

OCTOBER 2022

COMMONWEALTH OF MASSACHUSETTS
PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

Public Employee Retirement Administration Commission

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Executive Summary

Sometime prior to February 18, 2021, a bad actor gained access to the still-active email account of the former executive director of the Quincy Retirement Board ("Quincy"). The bad actor may have been in the IT network for a period of time before sending an email on February 18, 2021, posing as the former executive director, to Aberdeen Standard Investments ("Aberdeen"), one of Quincy's investment managers. From there, a confluence of events involving the board, the manager, Quincy's investment consultant, and Quincy's custodial bank, combined with previous underlying Quincy management and operational issues, resulted in the fraudulent redemption and transfer of $3.5 million in Quincy retirement assets to an unknown overseas account on February 26, 2021. The fraudulent nature of the transfer was not detected by Quincy until October 22, 2021.

Defending against cyberattacks has become a part of doing business in the 21st century as much as alarm systems and heavy-duty safes were in the 20th century. While no defense is foolproof and one can fall victim to a determined criminal despite best efforts, that was not the case with this theft. All parties involved - Quincy, investment manager Aberdeen, its investment consultant Meketa Investment Group ("Meketa"), and custodial bank People's United Bank ("People's") - all of them statutory fiduciaries charged with protecting retirement funds, could have taken basic steps to prevent the fraud, to detect it sooner, or both.

In February 2021, the Quincy Retirement Board was in transition. Its executive director of 19 months had resigned effective December 31, 2020. An interim executive director was in place while the Board had another staff opening. The Board was behind in its statutory requirement of submitting its monthly financial information to the Public Employee Retirement Administration Commission (PERAC), the oversight agency for retirement boards. There were not established documented policies and procedures for the interim executive director to utilize regarding investment transactions. Something as fundamental as notifying the proper parties of the executive director's departure to ensure the security of investment transactions was not handled properly.

The City of Quincy operates the Board's IT services. Its policy was to leave open the email account of a departing staff member so remaining staff could access necessary information. Some emails were accessed, but the practice was haphazard at best and a simple Forward function was never instituted.

Further, there was never a complete notification of the personnel changes at the Board. The departing executive director emailed Meketa and People's nearly two months prior to her departure that she would be leaving and instructed Meketa to send distribution notices and reports to People's. Neither Quincy, Meketa, nor People's further circulated the notice of the executive director's departure[1]. Hand in hand with that, Quincy did not update its list of personnel who were authorized signatories to conduct and verify investment transactions. Not until February 26, 2021, - ironically the day the $3.5 million was fraudulently wired - did Quincy update its authorized signers list with People's, removing the former executive director, who had left December 31, 2020. Quincy did not update its authorized signers list with Aberdeen and its other investment vendors until November 4, 2021.

[1] In its response to the draft report, Meketa produced an email not submitted in the initial document request. It was dated January 26, 2021, and the subject line read "Statements and Account Info." It was addressed to a supervisor at Aberdeen and copied key staff at Quincy, Aberdeen and People's. The topic of the email was to alert Aberdeen that People's was not receiving all the Aberdeen reports that it should for monthly reporting and to ask that this be rectified. The second-to-last sentence states "I have also copied Brigid, Quincy's new interim executive director." While this does make reference to a new interim executive director which could have been picked up by the recipients, the point of this email was not to "notify Aberdeen that Brigid Connolly was QRB's new interim executive director" as Aberdeen asserts in its response.

The IT/email situation and the lack of notice of the personnel change opened the door for the bad actor. Subsequently, there were multiple opportunities for an alarm to be tripped that never happened.

Aberdeen failed to detect multiple red flags in a protracted email dialogue with the bad actor. Additionally, its own practices and actions were lacking, such as not using multiple-factor authentication. Further, Aberdeen informed the bad actor that the employee the bad actor was impersonating was authorized to conduct investment transactions.

Quincy, Meketa and People's all failed to open, or failed to open in a timely manner, notifications from Aberdeen relative to the unauthorized, fraudulent trade. In a couple instances, notices were opened after the fact, but the information was not synthesized to realize something was wrong until October 22, 2021, eight months later.

Quincy's delinquency in reviewing and submitting its monthly financial information to PERAC was one reason its notifications from Aberdeen weren't opened timely.

By accessing the notices, Meketa could have realized this was an unauthorized action. In a normal transaction, Meketa would have been involved ahead of time in identifying the funds from which to liquidate, would have assisted Quincy in drafting documents for the transaction and would have been alerted to the pending activity by Quincy as it was initiated. In this case, those things did not happen. Not opening a notice which stated there was redemption activity for which Meketa had not been involved in up front was a significant missed opportunity. Not seeing a redemption on the Aberdeen month-end report was a second important piece of information that was missed that would have caused alarm much sooner. Then in assembling its February 2021 month-end and 2021 first-quarter reports for Quincy, Meketa showed an investment return for the victimized fund that, while accurate, is grossly inconsistent with the change in fund balance from month start to month end. This was another missed opportunity at detection.

Like Meketa, People's is normally informed ahead of time of redemptions. If it had opened the trade notice timely and realized it had not been notified of a redemption, a significant red flag should have been raised. Also, People's did not open Aberdeen's email for the February 2021 month-end statement showing a redemption and there was no questioning the large decline in fund balance from month start to month end against an investment return that reflected nowhere near that level of decline.

PERAC placed Quincy under Temporary Orders on October 30, 2021, pursuant to 840 CMR 27.01. Among the directives were the continued prohibition of all new investment procurements, a review of other investment transactions to ensure no other funds were missing, and development of written policies and procedures for investment activity.

PERAC launched an Investigation pursuant to 840 CMR 27.02 in conjunction with the Temporary Order. Each of the involved parties were provided with a document request and written questions. This report is the result of that Investigation.

On November 23, 2021, Quincy terminated its relationship with Aberdeen and liquidated its remaining funds.

There was no further discovery of missing funds. To date, Quincy has not recovered through insurance, litigation or other means any of the missing funds. The Quincy Police Department has been the lead law enforcement agency investigating this matter.

Report of the Investigation

Background

The Quincy Retirement Board is one of 104 contributory retirement systems for public employees in Massachusetts governed by Chapter 32 of the Massachusetts General Laws. The retirement board is responsible for protecting and enhancing the contributions of the city and the membership through investment in order to pay the defined benefit retirement allowances per statute.

It is an independent political entity operated by a five-member board, the membership of which is dictated in Chapter 32 and includes the city auditor as an ex-officio member, a member appointed by the mayor, two members elected by system membership, and a fifth member independent of the governmental unit who is chosen by the other four. While an independent political entity, the Board is closely entwined with the City of Quincy as the Board serves city employees and retirees and the city is responsible for the employer share of contributions. Retirement boards associated with municipalities have varying levels of connection to the municipality. Often, retirement boards utilize municipal office space. In Quincy's case, its IT services are handled by the city.

The Quincy Retirement Board as of the 2021 PERAC Annual Report has 1,546 active members, and 1,521 retired members. Quincy has assets of $918.6 million as of December 31, 2021, and is nearly 100% funded after the city issued $425 million in pension obligation bonds in 2021.

By statute, retirement board members and the board's investment vendors are fiduciaries per Chapter 32, Sections 1 and 23B. Fiduciary standards are defined in MGL Chapter 32, Section 23:

"... shall discharge his duties for the exclusive purpose of providing benefits to members and their beneficiaries with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims and by diversifying the investments of the system so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so."

After a public statutory search process, Quincy re-contracted with Meketa Investments on February 1, 2021, to act as its investment consultant. Within Chapter 32, an investment consultant provides advice and assistance in developing an investment strategy and an asset allocation, conducts searches for investment managers, and tracks investment performance. Meketa is paid $182,000 per year for its services per terms of its contract with Quincy, with an additional fee of $10,000 for each non-private equity investment manager search beyond three per year.

On July 10, 2020, after a public statutory search assisted by Meketa, Quincy contracted with Aberdeen to invest $6 million in an Emerging Market Bond Fund. Aberdeen was paid $22,104 in 2021 for its services.

After a public statutory search process assisted by Meketa, Quincy contracted with People's United Bank to act as its custodian on March 1, 2020. People's was paid $45,470 in 2021 for its services.

The Public Employee Retirement Administration Commission (PERAC) is authorized in MGL Chapter 7, Sections 49 and 50, and Chapter 32, Section 21, to oversee the 104 contributory retirement systems governed by Chapter 32. Among its statutory powers and responsibilities,

PERAC is charged with reviewing retirement board assets, investment performance and compliance with statutes and regulations. Among its regulatory powers, upon reasonable belief of improprieties in the investment or recordkeeping practices of any retirement system, PERAC may institute Temporary Orders upon a retirement board, conduct an investigation, or both. Pursuant to 840 CMR 27.01-27.02, PERAC did both in this case and this report is the result of the investigation.

Underlying Quincy Issues

During 2019-2021, Quincy experienced turnover in leadership. Lisa McBirney was hired as Quincy's Executive Director on March 12, 2019. Nineteen months later, on October 27, 2020, McBirney notified the Board she was resigning effective December 31, 2020. Brigid Gaughan[2] served as Interim Executive Director from January 2021 until October 4, 2021, when Brad Croall was hired as Executive Director.

Quincy was the second-to-last of 104 retirement boards to submit to PERAC its 2020 Annual Statement, which was due on May 1, 2021, filing it on September 9, 2021. Quincy had been behind in submitting its monthly cash books to PERAC in accordance with regulation. The monthly cash book reporting package consists of the following: a year-to-date trial balance, monthly receipts, monthly disbursements, monthly adjusting journal entries and the monthly general ledger. The expectation is that each of these reports have been reconciled prior to being submitted to PERAC.

PERAC devoted staff resources to assisting Quincy in compiling its cash books. PERAC sent a warning letter to Quincy on May 10, 2021, before suspending Quincy's ability to procure investment services by letter on August 11, 2021, until the cash books were brought into compliance.

As a result of not being current with its cash books, Quincy was not up to date in reviewing investment manager statements. It was only on October 22 when the February 2021 Aberdeen statement was reviewed by Quincy that the fraud came to light.

In late 2020, McBirney began the process of leaving the employ of Quincy. McBirney sent an email to People's on November 9, 2020, copying Meketa and Brigid Gaughan, to inform them that she was leaving Quincy effective December 31, 2020. She said her last day in the office would be November 13, 2020, though she would continue to assist Gaughan remotely. Further she stated:

"Pertaining to Capital Calls and Benefit raising transactions, Susan O'Connor our Board Chair will be the official signatory (she is on file). I will complete another transaction this week, so there should be enough on hand to pay the November and December Benefits. Brigid will have access to my email, so she will get any information needed to Susan O'Connor.

"Once a new Director is chosen, the Board will transition signatory power to the new Executive Director and Susan O'Connor.

"During this transition period, I am requesting that Ali Stone of Meketa send all distribution notices, quarterly and monthly reports to you (Peoples Bank)."

2 During the time period covered in this report, Brigid Gaughan of the Quincy Retirement Board married and began using her married name rather than Brigid Connolly. Both names are used in this report to reflect the same person. The name used at different points in the report reflect the name used in source documents at the time discussed.

This notice does not appear to have been distributed to investment managers nor does it appear the recipients circulated it to relevant parties. The information contained in it would have been vital to preventing the fraudulent transaction. Considering the transition and the heightened attention raised in McBirney's email to the distribution notices, quarterly, and monthly reports, those items should have been given greater scrutiny than usual.

On January 19, 2021, Aberdeen emailed Lisa McBirney, who had resigned on December 31, 2020, copying Meketa, regarding outstanding invoices for which Quincy owed Aberdeen fees from specific quarters in 2018, 2019 and 2020. Having not received a response, Aberdeen sent a follow-up email January 25 to the same people. On January 26, the email was forwarded from McBirney to Brigid Connolly, who stated she gained access to McBirney's account. A few minutes later, Connolly replied to Aberdeen to say the fees were processed on January 20. There was no mention that McBirney no longer worked at Quincy. This exchange shows that Aberdeen still believed that McBirney was the executive director in January 2021 and neither Meketa nor Quincy, both of which knew McBirney had resigned, corrected Aberdeen. Additionally, it shows that Connolly did access McBirney's email in this instance after her departure.

Details of the Incident

On Friday, October 22, 2021, Quincy notified PERAC Executive Director John Parsons that it had discovered on that day a theft of $3.5 million from its invested funds.

The discovery had been made by Quincy staff while reviewing the materials to process the February 2021 cash books, which were long in arrears and the reason PERAC previously executed its statutory sanction of suspending Quincy's investment procurement ability.

The Quincy staff member noticed a redemption from Aberdeen for $3.5 million which did not appear to be properly authorized. As it reviewed and investigated matters on its end, Quincy contacted the City of Quincy IT Department, People's, Meketa, Aberdeen, Quincy Police and PERAC.

A bad actor had gained access to the email account of former Quincy Executive Director Lisa McBirney. This bad actor sent emails eight months earlier beginning on Thursday, Feb. 18, 2021, from McBirney's account, posing as McBirney, to two of Quincy's investment managers, Acadian and Aberdeen. Quincy IT was able to obtain the emails and then ascertain that these emails were fraudulent. It provided them to Quincy, which in turn, provided them to PERAC.

The fraudulent emails were sent to Acadian at 11:57 a.m. and to Aberdeen at 11:59 a.m. Each was sent to an individual client service associate and copied a generic client services email address at each firm. No one from Meketa, People's nor Quincy was copied.

Each email was sent from McBirney's Quincy email address. Per McBirney's letter of resignation, her last day of employment was Dec. 31, 2020. Separate emails between People's and Meketa in November 2020, document knowledge of her departure. Further, Quincy had not updated its authorized signers list to remove McBirney. Quincy stated the City of Quincy IT Department policy is to not shut off the email account of departed employees, but rather to send those emails, or allow access to those emails, to the person or people who would be fulfilling the departed employee's role. Standard security practices, including those promulgated by the Commonwealth's Executive Office of Technology Security, dictate that departed employees' network access is terminated upon separation.

Each email also contained contact information in McBirney's email signature. In each case, a phone number was included that has never been a Quincy phone number and is not close to the actual Quincy phone number; all seven digits after the area code are incorrect.

Each email stated there was a need to pull some funds from existing holdings for liquidity for other investment needs and inquired if it was possible to send the proceeds to a third party, meaning an entity other than Quincy.

Acadian responded at 1:55 p.m. and stated that it was not possible to wire funds to a third party. The funds would have to be wired to Quincy. Acadian asked if there was an amount and a timeframe in mind. The emailer posing as McBirney did not respond based on the email documents provided as part of this inquiry. Acadian took no further action.

Aberdeen responded, copying its internal unit Client Services America, at 12:15 p.m. Aberdeen stated it would be happy to process the redemption. Aberdeen said that the Emerging Markets Bond Fund "has daily liquidity and settles on a T + 4 basis. We can send the wire to any wire instructions provided, but we require a notification on company letterhead, signed by an authorized signer, that specifies the account name, the amount to be redeemed, the requested trade date, and the wire instructions for the proceeds." T + 4 refers to four days after the day of the trade.

Aberdeen stated it "sometimes require(s) up to 30 days notification per the PPM [private placement memorandum, or contract] for large or full redemptions, but we are always happy to accommodate our clients if they need the funds sooner. Do you happen to know the redemption amount and date you are looking to trade?"

"McBirney's"[3] email to Aberdeen used the associate's full formal first name, which is used in the associate's email signature, but a shorter, informal form of the name is used by the associate in signing the end of the body of the email. Aberdeen, in its December 2021 response to PERAC, noted that the email received was from the known email address of McBirney and matched the designated email address in the Subscription Agreement executed by Quincy. Also, in the response to PERAC, Aberdeen noted that McBirney was an authorized signer for Quincy at the time of the February email exchange.

"McBirney" replied to the associate and Client Services America at 12:40 p.m. "We would need to redeem $3.5M from the fund latest by Feb. 26th. I hope that would be possible. I would have the letter headed [sic] withdrawal notification as stated below sent as soon as possible but firstly need to confirm when the withdrawal can take place."

The "McBirney" reply again included the fake Quincy phone number, which was included in all subsequent emails. "McBirney" used the associate's full formal name again despite the associate using a shorter, informal version. There is awkward wording. There is a typographical error for the word letterhead. There is urgency stated. All of these are recognized warning signs of possible fraudulent activity.

Also worth noting, Aberdeen stated there can be 30 days' notification required for large or full redemptions. The amount being withdrawn represented nearly 50% of Quincy's holdings in the fund, which it opened only eight months prior, yet the 30-day notification was not utilized, nor a concern raised.

3 When used, the convention "McBirney" refers to the bad actor posing as McBirney.

Aberdeen replied to all at 1:31 p.m. and stated the amount shouldn't be an issue and asked if "McBirney" wanted the trade to take place on Feb. 26th, so that the funds would be received on March 4th, or on Feb. 22, so the funds would be received on Feb. 26. In the reply, the associate again closed with the shortened, informal version of the associate's name.

Five minutes later, at 1:36 p.m., "McBirney" answered the trade should be executed Feb. 22 and the funds should be wired Feb. 26. Again, "McBirney" used the full, formal version of the associate's name. Again, "McBirney" indicated urgency, requesting the trade and funds transfer to happen on the earlier dates.

Aberdeen replied to all at 2:05 p.m. and also copied an individual who was the associate's superior. The Aberdeen response stated that the dates were satisfactory. It requested a letter on letterhead including information previously described - the account name, the amount to be redeemed, the requested trade date, and the wire instructions for the proceeds - with a trade date of Feb. 22 and "signed by an authorized signer (please note that we show you as a signer)." Aberdeen further noted that its custodian has until 6 p.m. EST on the settlement date of Feb. 26 to send the wire.

On Friday, Feb. 19, 2021, at 9:53 a.m., "McBirney" replied to all – the associate, the superior and Client Services America – with a redemption letter as an attachment.

Aberdeen, in its December 2021 reply to PERAC, stated it "received an email from lmcbirney@quincyma.gov attaching a signed, written redemption request on Quincy letterhead, setting forth the required details for a $3,500,000.00 redemption to be executed on February 22, 2021. The letterhead matched the letterhead of prior correspondence Aberdeen had received from Quincy, and [the associate] checked that the signature for Lisa McBirney on the letter matched the signature on the Client Signature Authority Form."

The letter that was attached had the same erroneous phone number in the letterhead that had been in all of "McBirney's" email signatures. There is no hyphen between the first three digits of the phone number and the last four. The fax number is not listed as it is on actual Quincy letterhead. The Quincy letterhead is blurry in the PDF file and when printed it is a darker shade than the rest of the page, appearing to have been copied and pasted. The wire instructions in the letter contain two different account numbers, one for a Hong Kong financial institution. The date the wire is requested has the wrong year listed, February 26, 2020, instead of 2021. The body of the letter is askew from the letterhead. The alignment of paragraphs is off. The closing salutation and signature line are a different font than the rest of the letter. All of these are recognized signs of possible fraud.

"McBirney's" email of Feb. 19, 2021, at 9:53 a.m. addressed the associate using the full formal first name. The body of the email stated, "Kindly confirm if this would suffice and would there be any verbal confirmation required for this as I would like to arrange my schedule."

As of the date of this exchange, Aberdeen did not require a second form of verification, such as a phone call, to verify the identity of the person initiating the transaction, a common and effective security measure known as multi-factor authentication.

The fact that "McBirney" was unaware the second form of authentication was not required is a red flag, but more so is the fact that "McBirney" was trying to schedule and control the timing of such a call.

At 12:07 p.m., Aberdeen replied to all - "McBirney," the superior and Client Services America - and stated that "no verbal confirmation is required as the letter is on company letterhead. The trade is good to go, but we are just confirming with our custodian that there are no issues with wire instructions given that they are for Hong Kong."

At 12:12 p.m., "McBirney" replied to all, using the associate's full formal name, saying thanks very much.

At 12:36 p.m., Aberdeen replied to all. "We noticed on the instructions that there are two different lines labeled as "A/C#". Could you please confirm which is the beneficiary account number?"

Two minutes later, at 12:38 p.m., "McBirney" replied to all, using the associate's full formal name, and stated which was the beneficiary account number.

Aberdeen responded to all at 3:54 p.m. "Our custodian asked that we remove the second account number to avoid confusion. We would keep everything else the same. Could you please confirm that is okay as the authorized signer?"

Five minutes later, at 3:59 p.m., "McBirney" replied to all, using the associate's full formal name. "This is ok. Please proceed."

The last email came at 4:13 p.m. It was Aberdeen replying to all. "Perfect, we will amend the instructions accordingly. Thanks again and have a great weekend!" It was signed using the shortened, informal version of the associate's first name.

On Monday, February 22, Aberdeen executed the redemption for $3.5 million in accordance with what it believed were legitimate directions from the Quincy Retirement Board.

On Friday, February 26, Aberdeen wired the funds to the fraudulent account in accordance with what it believed were legitimate directions from Quincy.

That same day, Quincy updated its authorized signers list with People's, removing Lisa McBirney. Board Chair Susan O'Connor, City Treasurer Phi Du and Assistant Treasurer Katherine Plant were authorized to give instruction and to verify transactions. Brigid Connolly was added for administrative activity only. There is no evidence that any investment managers received this document.

The Aftermath

Aberdeen stated in its December 2021 response to PERAC that it received an email from Meketa Managing Principal, Consultant Ghiane Jones seeking online access to all correspondence for their investment in the fund for Bridget Connolly of Quincy the same day the fraudulent trade was executed, Feb. 22. The Aberdeen associate replied Connolly was already set up in the system and would reset her access.

Aberdeen said in its response to PERAC, that on Tuesday, February 23, "a trade confirmation for the February 2021 redemption was uploaded to Aberdeen's online E-delivery site, and that same morning email notification of the upload was sent to the following" which included Anthony Teberio at People's, Ali Wallace Stone and "mgrinfo" at Meketa, and Brigid Connolly and Lisa McBirney at Quincy.

The Feb. 23 email was from "Aberdeen Client Reporting." The email subject line was: "Emerging Markets Bond Fund, a series of the Aberdeen Institutional Commingled Funds, LLC - 02/22/2021 Trade Confirms." Within the body was a link to Aberdeen's internal system related to the transaction. Opening the email and logging in to the portal would have caused Quincy, Meketa or People's to be alarmed that a trade had been initiated without the awareness of any of the parties.

Aberdeen stated its records show Meketa mgrinfo first accessed the trade confirmation at 12:54 p.m. on April 5, Brigid Connolly first accessed the trade confirmation at 10:25 a.m. on October 25, 2021, and that no other recipient accessed the trade confirmation.

Opening the trade notification in a timely manner could have prevented the funds from being wired. When Meketa opened the notification on April 5, it did not detect anything amiss. Quincy accessed the trade confirmation only after it had discovered the fraud on October 22. People's did not access it.

Meketa and People's acknowledge that they are normally aware in advance of Quincy redemptions. Meketa states that it selects which funds Quincy should draw from and provides documents for Quincy to execute. Further, a copy of pending redemption notices from Quincy to People's has Meketa copied. People's needs to be aware of redemptions to both ensure the proceeds arrive and, often times, to be prepared to send the funds to an investment manager in a timely fashion. Had the trade notification been opened in a timely manner, both vendors should have been aware - absent their usual involvement in advance - that this was an unauthorized transaction and the outgoing payment to the fraudulent account could have been terminated.

On March 4, Aberdeen stated that it posted Quincy's February 2021 month-end statement to its E-delivery site and sent email notification of the upload to Teberio at People's, Stone and "mgrinfo" at Meketa, and Connolly and McBirney at Quincy.

The email was from "Aberdeen Client Reporting." The email subject line was: "Aberdeen Institutional Commingled Funds, LLC Statements for 2/28/2021."

Aberdeen stated that its records indicate that Connolly first accessed the statement at 9:54 a.m. on March 25 and Meketa's "mgrinfo" accessed it at 12:53 p.m. on April 5. Aberdeen did not provide evidence that any other user accessed the report.

The statement Aberdeen provided to PERAC was for the City of Quincy Retirement System, month ended February 28, 2021. It was for investment in the Emerging Markets Bond Fund. The Aberdeen Emerging Markets Bond Fund investment was the only holding in Quincy's Emerging Market Debt Asset class. The beginning balance for the month was $7,755,123.22. Among the credits and debits for the month was a $3.5 million redemption. The new ending balance was $4,137,190.03.

The month-end report indicated the fund performed at minus-1.99% gross of fees for February 2021. Based on that return, the ending balance for the month should have been about $7.6 million. However, the new ending balance of $4.1 million represents a nearly 47 percent drop from the beginning balance.

Meketa's Feb. 28, 2021, month-end report that was part of its presentation at Quincy's March 30, 2021, monthly meeting showed the Aberdeen Emerging Markets Debt investment with a balance of $4,137,190, as Aberdeen's month-end also showed. It showed a one-month return of -2.0%, beating the benchmark which returned -2.6%. There was no mention that the balance of the fund had dropped by over $3.6 million, a total far exceeding the -2.0% monthly return.

In its Response to PERAC, Meketa Explained its Process for Analyzing Investment Holdings Each Month:

"Meketa's team for QRB consists of two consultants, an investment analyst and a performance analyst. On a monthly basis, when the custodian bank's books close, Meketa's performance analyst reconciles market values and performance reported by QRB's investment managers and its custodian. In addition, Meketa reviews all investment manager performance relative to benchmarks, peers, and their target allocation ranges. Meketa does not supervise or otherwise monitor QRB's cash flows. Meketa understands that QRB's fund office receives manager and custodian reports at the same time Meketa does. Meketa confirms that the investment manager's and the custodian's reports align with respect to the market value of the investments. In the case of QRB, Meketa performs this analysis after statements are received for the applicable month, and reports them to QRB around 6 weeks after the end of that month. This process was followed for the month of February 2021.

"The February 19, 2021, transaction did not raise red flags because QRB has not retained Meketa to track the movement of cash in QRB's accounts, so Meketa does not perform a cash reconciliation as part of its services. Moreover, the February 19, 2021, transaction occurred at the same time QRB typically redeems funds to raise cash for benefit payments, so the timing was also not suspect. In addition, the redemption was less than one percent of QRB's total portfolio and thus did not raise a red flag when Meketa evaluated QRB's total portfolio in order to assess overall investment performance.

"In this case, Meketa would have had no ability to prevent the fraudulent transaction at issue unless Aberdeen had reached out to Meketa, prior to transferring funds, to ask about the legitimacy of a request to wire funds to a different account."

Meketa submitted in its response to PERAC a document dated September 2020 and titled ***Performance Analytics Team: Data Check and Report Review Process***. The first of five components of this document is Performance and Meketa states that manager/custodial reports are required sources of information to be used for assembling quarterly reporting. The second component is Cash Flows. "It is critical to generate a Cash Flow Summary for the (investment analyst) to proof alongside the report. This allows the (investment analyst) to confirm that all cash directives and transfers that happened over the quarter are properly accounted for."

The Aberdeen report shows the large difference in balance from month start to month end. Additionally, the Aberdeen report lists a $3.5 million redemption. Aberdeen indicated that on April 5 a Meketa user accessed its February report that was distributed on March 4. In any case, the report was either used and the redemption was not noticed, or the report was not used.

While the redemption was less than one percent of the portfolio, there was a 47 percent decrease in the value of an asset class with one holding in a month where the return was minus-2 percent. That type of variance should jump off the page and should have warranted immediate action.

On March 22, 2021, Aberdeen states that it received notice for the first time from Quincy that Lisa McBirney had left and that Gaughan would be the new contact. On March 24, 2021, Aberdeen requested an updated authorized signers list. Quincy responded minutes later that it would be sent. Aberdeen re-sent an email on October 25 again seeking the updated signers list. It was sent on November 5.

Conclusion

Quincy acknowledged in its response to PERAC that it did not have formal operating procedures in place to handle the processes, and related communication, for changes in key staff, changes in authorized signers and redemption procedures. As such, there were breakdowns in those areas that prevented needed information and documentation from being conveyed. Quincy's inability to timely and fully staff its operations contributed to the lack of internal controls and institutional knowledge and ultimately played a significant role in this matter.

Further, the City of Quincy administers the Retirement Board's IT operations. Through information relayed from the Board, the City's policy is to leave open the email account of an employee who has separated from employment in order for remaining staff to access needed information. This policy resulted in a bad actor obtaining access to Lisa McBirney's account. The desired effect of active staff receiving needed information from the former staff's account also did not happen.

Quincy also received trade confirmation and February month-end notices that if opened timely, or if the information within was utilized, could have denoted the fraud sooner.

Aberdeen's protracted email exchange with the bad actor missed a number of red flags: the urgency of the bad actor; the erroneous Quincy phone number; repeated use of the associate's full name; awkward wording and a typo; two accounts were submitted in the wire instructions; and the wrong year associated with the date of the wire. Further, Aberdeen's practices were lacking. It did not use a second form of authentication to verify the transaction. This compounded a red flag where the bad actor was trying to manipulate the time of a possible phone call to verify the transaction. Aberdeen also informed "McBirney" that she was an authorized signer, an enabling action. The letter Aberdeen requested on Quincy letterhead to act on the redemption request was shoddy – the letterhead was blurry, the Quincy phone number was wrong, the format of the phone number was not customary, the fax number was missing, a wrong year was listed, different fonts were used and it was off-center. Together, all of these were multiple missed opportunities to detect something was amiss and, at a minimum, hit pause, raise a question, or conduct due diligence such as confirming Quincy's phone number.

Contrary to its statement, Meketa had the ability to prevent the fraudulent transaction by opening the trade notice before the wire was sent. It could have utilized the month-end statement to raise questions and investigate much sooner than when the fraud was identified on October 21, 2021.

Further, Meketa established as part of Section 1.F of its contract with Quincy, that Quincy notifies Meketa when it has cash needs. Meketa will then discuss with Quincy where to redeem the funds and will assist in drafting documents that Quincy will execute. In multiple places in its response to PERAC, Meketa stated the question asked was, "Not applicable. Meketa was not copied or aware of the February 19, 2021, redemption."

Yet Meketa has said that it reviews investment manager reports and the Aberdeen month-end report for February 2021 included a $3.5 million redemption. Meketa has said that in the normal process it is aware of a redemption, but it was not aware of the February 19, 2021, redemption. Therefore, seeing a redemption on the month-end report without the usual prior notice should have been cause for alarm.

Meketa was also aware of McBirney's departure in November, but did not do anything to further disseminate that information nor apparently remind or inform Quincy of the need to do so.

People's listed the correct balance on the month-end February statement but did not account for the $3.5 million redemption. However, its contract with Quincy states it shall provide "periodic statements documenting all activity and a fair market value closing balance of the Account." The redemption from the Aberdeen statement was not included. People's also stated that it is alerted in advance of upcoming Quincy redemptions. It did not access the trade notice nor the month-end statement that Aberdeen delivered. If it accessed the Aberdeen month-end in another fashion, it did not notice the $3.5 million redemption for which it should have been notified in advance under normal circumstances. This was a missed opportunity at detecting the fraud sooner.

PERAC Actions

After dedicating repeated PERAC staff time to provide assistance and repeated warnings regarding the delinquent cash books, PERAC suspended Quincy's ability to conduct investment procurements on August 11, 2021. Quincy stated it did not receive a warning letter dated May 17, 2021, nor the suspension letter dated August 11, though it was addressed properly and Quincy received other PERAC communications during that time.

Upon notification from Quincy of the theft on Friday, October 22, 2021, PERAC staff discussed with Quincy's counsel, held internal discussions and began researching Quincy's consultant reports.

On Monday, October 25, PERAC held a virtual meeting with Quincy. PERAC asked Quincy if it had reviewed all bank and investment statements subsequent to the date of the theft to ensure that there weren't any others. Quincy said that review was in progress and later notified PERAC the review was complete and without any further issues. PERAC recommended that Quincy may want to procure specialized legal and auditing services to assist in both that analysis and in making legal and insurance claims in attempting to recoup the losses; Quincy was in agreement. PERAC notified Quincy that a Temporary Order pursuant to 840 CMR 27.00 et seq. would be issued.

On Tuesday, October 26, PERAC distributed Memo 30/2021 to alert all retirement boards of the fraudulent scheme without naming the board or the manager involved. In that memo, PERAC directed boards to ensure only current authorized users had access to the IT network and to review the protocols for reviewing said access and removing users as they leave the organization. Further, PERAC instructed boards to review processes for authorizing transactions, bank accounts and wire instructions. Lastly, PERAC urged boards and their vendors to diligently review periodic bank and investment statements.

On October 25 and 26, PERAC spoke with the Quincy Police and notified the Securities and Exchange Commission of the theft as well as the Executive Office of Administration and Finance and the Department of Revenue Division of Local Services as the City of Quincy was in the midst of seeking approval for pension obligation bonds.

During the week of October 25th, PERAC staff spoke with Meketa and People's and communicated with Aberdeen.

On October 30, PERAC instituted a Temporary Order pursuant to 840 CMR 27.00 et seq. The Order directed the following:

- Preserve and make available to PERAC all documents related to the incident.
- Notify each investment vendor of the incident. Affirm with each the written protocols in place relative to all transactions with Quincy. Review internal controls generally and in particular those related to IT security, authorized signers, wire instructions, investment notification and reporting requirements, and review of banking and investment statements. Review investment transactions prior and subsequent to the incident to assure there were no other fraud attempts or losses.
- Review the contracts and protocols for transactions with Meketa, Aberdeen and People's.
- Develop a written internal control plan for all duties relative to investment functions.
- Conduct a staffing and resources evaluation to ascertain needs.
- Procurements for auditing, accounting and legal services relative to this incident could be posted for five business days rather than the normally required two weeks.
- Bring the cash books up to date. Procurements remain suspended until further notice.
- Conduct a legal analysis to determine rights and claims to the recovery of the funds. Evaluate the relationship with Aberdeen.
- Hold meetings with PERAC as needed.

In connection with the Temporary Order, PERAC Initiated an Investigation pursuant to 840 CMR 27.00 et seq. PERAC made document requests with interrogatories of Quincy, Aberdeen, Meketa and People's on November 16, 2021, with a requested response date of December 7.

Quincy responded to the request on December 1. People's and Aberdeen responded on December 7. Meketa requested an extension and responded on January 6, 2022.

PERAC contacted the Office of the State Comptroller and the Massachusetts State Police on November 23, 2021, to inquire about conducting a cybersecurity training for retirement boards. Working collaboratively over several meetings, phone calls and emails, that training was presented to over 300 attendees on February 28, 2022. The Comptroller delivered a comprehensive document full of resources and reference materials for boards to use as a guide moving forward. Previously, PERAC offered two cybersecurity trainings in 2021, one in conjunction with the Massachusetts Association of Contributory Retirement Systems. These events were a continuation of increased emphasis through trainings and education on cybersecurity between PERAC and the retirement boards.

On December 2, 2021, PERAC issued Memo 32/2021 to request that all cyberattack attempts be reported to PERAC in order to review the situation and disseminate information to all retirement boards. The Memo also directed boards to conduct an assessment of their IT environment to ensure it is secure and up to date. Guidance from the US Department of Labor regarding cybersecurity for pension plans was also provided.

Quincy and Meketa Actions

All parties cooperated and responded to PERAC for its investigation.

The Quincy Retirement Board notified Aberdeen on November 23, 2021, that it wished to fully liquidate its holdings.

Quincy reported in its response to this inquiry that it developed a process with Meketa to notify relevant parties of staff changes, authorized signer changes and wire instructions. A signature from a signer and a telephone call from an investment manager to a different authorized signer is now required for verification of redemptions and wire transactions. Wire transactions to any party other than Quincy's custodian were expressly prohibited.

On November 18, 2021, after a public search process for forensic auditing services and specialized legal services, Quincy voted to contract with CliftonLarsonAllen for audit and, Bernstein, Litowitz, Berger & Grossmann for legal.

Quincy participated in a cybersecurity training on December 14, 2021. Quincy reported that Bernstein, Litowitz, Berger & Grossmann would deliver additional training around fraud.

In response to discussion at Quincy's board meeting on October 28, Meketa sent an email to the Quincy chair and executive director later the same day with action items it would undertake. The email states:

- Meketa will draft a letter to be reviewed by [Quincy board counsel] Michael Sacco and subsequently sent to all investment managers and the custodian bank, this letter will:
  - notify them of a cybersecurity breach
  - ask them to let us know if anyone from their firm has received a request to change wiring instructions
  - Provide them with notification of new Executive Director & contact info for Brad Croall
  - Include an updated authorized signers list and a request to change Quincy's redemption protocol to require dual verbal authorization in addition to the signed letter.
  - Include a signature page, requesting the manager sign confirming they have received this letter, understand the new procedures, and will enact it immediately.
- Present Operational Due Diligence and Cash Flow Management Best Practices at a future meeting.
- Start re-underwriting Aberdeen and evaluating their trading procedures
- Discuss setting up a safeguard with People's Bank to notify Quincy if any transfers take place that they have not previously been made aware of by a signed letter of direction.
- Include a cash flow report in all monthly meeting materials.
- Include a market value comparison in monthly reports.

To date, Quincy has not recovered any of the lost funds through insurance, legal action or other means.

Abridged Responses and Replies

The full response from each of the parties in this report are presented in the appendices. Below are highlighted summations and excerpts of the most salient points.

PERAC believes that each party, as a fiduciary, had the statutory responsibility to take more proactive steps, or stronger steps, and in some cases both.

As cited in the report, the fiduciary standard, found at MGL Ch. 32, Sec. 23 (3) calls for a fiduciary to "discharge his duties … with the skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use …"

Quincy Retirement Board

Quincy stated, "… the Board, the City, Aberdeen, the Board's investment consultant Meketa Investment Group, and the Board's custodian bank, People's United Bank all could have taken steps either prior to or during the critical February 21, 2021, to February 26, 2021, period which could have detected and likely thwarted the cyber-crime that was consummated on February 26, 2021. …

"(Quincy) has from the moment the theft was discovered been fully invested in not only cooperating with the local, state and federal authorities in their respective investigations, but also in examining its practices and procedures as any reasonable fiduciary would in like circumstances …

"The circumstances which allowed this theft to occur were a perfect storm – there was a breakdown in communication between Meketa and Board staff regarding the former executive director's departure, and despite the Board's best efforts to hire an experienced replacement, that process extended far longer than expected, which left the Board understaffed and vulnerable. During the critical time that the cybertheft was executed, the checks and balances that existed should have prevented the theft from occurring.

"In the end, regardless of any other individual or entity which did not execute their duties as the Board would have expected, the Board must accept responsibility for what occurred, and it will continue to work with PERAC and the professionals it has engaged to not only ensure that its security protocols are in compliance with the most stringent industry standards, but also to take every step necessary to hold those individuals and entities accountable for their transgressions."

Aberdeen Standard Investments

Aberdeen stated in its response that the items classified as "red flags" in the report regarding the email exchange between "McBirney" and Aberdeen did not constitute warning signs of fraudulent conduct at the time of the February 2021 redemption. Aberdeen stated that compared to other redemptions, there was no special urgency. Aberdeen discounted the use of the formal name of its associate because the associate was not the actual McBirney's primary contact and PERAC is benefiting from hindsight. Aberdeen stated it disagreed that the wrong phone number and missing fax number on the Quincy letterhead were red flags because during the pandemic and remote work, communication with clients often happened on numbers other than customary office numbers. Aberdeen countered that awkward wording, typographical errors, off-center and blurry documents and the inclusion of two account numbers in the wire instructions were not red flags because all of these were common errors in the communications it received.

Aberdeen stated that it disagreed with an assertion that its practices were lacking because it did not require multi-factor authorization. Aberdeen stated that the report does not state that multi-factor authentication was required by client instruction, contract, regulation or industry custom.

PERAC Reply

Each class of red flag cited by PERAC is commonly recognized as such in cybersecurity trainings by IT organizations across the spectrum, private and public sector. The summation of the number of red flags in this case should have triggered further scrutiny by Aberdeen. A red flag does not mean fraud has occurred, but it is a warning sign to pause and consider. Regardless of hindsight or that errors were common, the sheer number of red flags in this case should have resulted in further verification measures by any individual working in any field, let alone one bound by statutory fiduciary standards. Speaking to the urgency, "McBirney" was presented with two dates for the redemption by Aberdeen and selected the earlier of the two.

Multi-factor authorization is a widespread accepted norm in securing access to all types of electronic platforms and applications. While it may not have been required by client instruction, contract or regulation, it is clearly an industry custom across all industries. The fact that Aberdeen adopted multi-factor authorization after this incident and states itself that it "can be an effective security measure" speaks to this point. And further, as a fiduciary, Aberdeen is held to a higher standard. In this case, something as simple as a phone call to the Quincy Retirement Board would have been a very effective form of multi-factor authorization.

Meketa Investment Group

Meketa stated that it is contracted with Quincy to provide only certain, limited non-discretionary investment advisory services to Quincy. Frequently, Meketa stated that it was not contractually required to perform certain actions and it had no ability to prevent or detect the fraud.

Meketa said that the contract provides that "from time to time the Board *may request* that (Maketa) initiate, supervise and otherwise direct cash flows among the investment managers for the purposes of establishing asset allocation targets, paying benefits and other expenses, or absorbing new contributions." (emphasis added by Meketa).

PERAC Reply

As a fiduciary, and an entity that has relationships with all of Quincy's investment managers, PERAC believes Meketa had a duty to pass on the important and timely information of the executive director's departure. It's inadequate for Meketa to suggest it did not because it was not explicitly required to do so in its contract. Not to absolve Quincy from distributing the information, but whether it's contractually bound or not to do so, as a fiduciary, it seems reasonable to expect Meketa to send some type of communication or ensure Quincy had done so.

In Meketa's response to the draft it states, "Upon (Quincy's) request, Meketa discusses with (Quincy) where to redeem funds, drafts letters to third-party managers seeking to redeem funds, and sends those draft letters to (Quincy). … Importantly, (Quincy) may redeem funds without any involvement of or notification to Meketa." At every turn in this investigation, whether a verbal discussion or a written document, that was the accepted and usual process for every Quincy redemption and Quincy did not redeem funds without Meketa's involvement. It is apparent then, that if Meketa saw a redemption notice from Aberdeen for a redemption for which it had not been involved, it should have created a giant red flag and potentially prevented the fraudulent wire.

Further, Meketa states that it did everything normally and as contractually required in terms of its reporting to Quincy. When it opened the trade notification on April 5, 2021, "in a timely manner to fulfill its contracted-for services to (Quincy) … the outgoing wire payment had already been sent." Even at this point, the redemption on the manager's report was not noticed. Meketa's response to this report on page 2 states that "reconciliation involves matching a redemption with a corresponding reduction in value." As stated in the report, Meketa had the reduction in value for the fund, but it did not attribute it to the redemption on the statement. While the fraud could not have been prevented at this point, it certainly could have been detected six months sooner than it was, which could have aided law enforcement or recovery efforts.

People's United Bank

In its response, People's wanted to clarify its actions related to a sentence on page 1 of the report which says, "Neither Quincy, Meketa, nor People's circulated the notice of the executive director's departure."

People's stated that it took internal action upon learning of the executive director's departure per its procedures. It manually removed the former executive director from its authorized signature list until a new one was received. A list with the manually removed former executive director was communicated internally. As far as circulating externally, "that is not something that we would/could do as we wouldn't have the authority to do that."

PERAC Reply

PERAC believes that as a fiduciary, People's had a duty to pass on the important and timely information of the executive director's departure, or alternatively, to ensure Quincy distributed the information.

THE FRAUDULENT EMAIL EXCHANGE

Email 1: "McBirney"* to Aberdeen (2/18/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Thursday, February 18, 2021 11:59 AM
To: Benjamin Smith
Cc: Client Service Americas
Subject: [EXT] Quincy MA Funds Redemption

Hi Benjamin,

I would need to pull some funds as we need some liquidity for investment purposes, can you let me know if it is possible to redeem funds and have it sent to a third-party beneficiary?
I await your response, feel free to reach out to me if you have any questions.

Best,

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

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For further information please visit our website: https://www.aberdeenstandard.com and https://www.aberdeenstandard.com/privacy.

* As Noted in Footnote Three in the report, the use of the convention **"McBirney"** refers to the bad actor posing as former Quincy Retirement Board Executive Director Lisa McBirney.

Email 2: Aberdeen to "McBirney" (2/18/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Thursday, February 18, 2021 12:15 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

I hope you are doing well! We will be happy to help you process the redemption. If this is in regards to your investment in the Aberdeen Emerging Markets Bond Fund, the Fund has daily liquidity and settles on a T+4 basis. We can send the wire to any wire instructions provided, but we require a notification on company letterhead, signed by an authorized signer, that specifies the account name, the amount to be redeemed, the requested trade date, and the wire instructions for the proceeds.

We sometimes require up to 30 days notification per the PPM for large or full redemptions, but we are always happy to accommodate our clients if they need the funds sooner. Do you happen to know the redemption amount and date you are looking to trade?

Thanks again,
Ben

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

Email 3: "McBirney" to Aberdeen (2/18/21)

From: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Sent: Thursday, February 18, 2021 12:40:40 PM
To: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>
Subject: [EXT] Re: Quincy MA Funds Redemption

Hi Benjamin,

I am doing well, thank you for the prompt response. We would need to redeem $3.5M from the fund latest by Feb 26th. I hope that would be possible, I would have the letter headed withdrawal notification as stated below sent as soon as possible but firstly need to confirm when the withdrawal can take place.

Best,

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 4: Aberdeen to "McBirney" (2/18/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Thursday, February 18, 2021 1:31 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>; Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>
Subject: Re: Quincy MA Funds Redemption

Hello Lisa,

That amount shouldn't be an issue, but just to confirm, do you need the trade to take place on February 26th, in which case the fund would be wired on the T+4 settlement date of March 4th, or do you need the money wired on February 26th (trade date would be this Monday, the 22nd)? Either should work, but wanted to do a quick check before I had you put together the letter.

Thanks again,
Ben

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
215-405-5783

Email 5: "McBirney" to Aberdeen (2/18/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Thursday, February 18, 2021 1:36 PM
To: Benjamin Smith
Cc: Client Service Americas
Subject: [EXT] Re: Quincy MA Funds Redemption

Hi Benjamin,

Trade date should be February 22nd and funds should be wired on February 26th.

Best,

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 6: Aberdeen to "McBirney" with Aberdeen Supervisor copied (2/18/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Thursday, February 18, 2021 2:05 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>; John Grybauskas <john.grybauskas@aberdeenstandard.com>
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

Thanks again, that works from our side as well. Could you please send through the letter including the information listed below, with a trade date of February 22nd, and signed by an authorized signer (please note that we show you as a signer). If you could please have that to us tomorrow, we would greatly appreciate it.

As a reminder, our custodian has until 6pm EST on the settlement date of February 26th to send the wire. Please feel free to let us know if you have any questions.

Thanks again and have a good day,

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

Email 7: "McBirney" to Aberdeen with Aberdeen Supervisor copied (2/19/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Friday, February 19, 2021 9:53 AM
To: Benjamin Smith
Cc: Client Service Americas; John Grybauskas
Subject: [EXT] Re: Quincy MA Funds Redemption

Hi Benjamin,

Please see attached signed redemption letter. Kindly confirm if this would suffice and would there be any verbal confirmation required for this as I would like to arrange my schedule.

Best,

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 8: Aberdeen to "McBirney" with Aberdeen Supervisor copied (2/19/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Friday, February 19, 2021 12:07 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>; John Grybauskas <john.grybauskas@aberdeenstandard.com>
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

Thank you, we confirm receipt and that no verbal confirmation is required as the letter is on company letterhead and signed by an authorized signer. The trade is good to go, but we are just confirming with our custodian that there are no issues with wire instructions given that they are for Hong Kong. I will let you know as soon as we hear back.

Thanks again,

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

Email 9: "McBirney" to Aberdeen with Aberdeen Supervisor copied (2/19/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Friday, February 19, 2021 12:12 PM
To: Benjamin Smith
Cc: Client Service Americas; John Grybauskas
Subject: [EXT] Re: Quincy MA Funds Redemption

Thanks very much.
Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 10: Aberdeen to "McBirney" with Aberdeen Supervisor copied (2/19/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Friday, February 19, 2021 2:36 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>; John Grybauskas <john.grybauskas@aberdeenstandard.com>
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

We noticed on the instructions that there are two different lines labelled as "A/C #". Could you please confirm which is the beneficiary account number?

Thanks again!

Standard Chartered Bank Hong Kong
A/C # 57411990478
A/C Name: Mo World Trading Co Limited
A/C Address: 19B Kyoto Plaza, 491-499 Lockhart Road, Causeway, HK
BIC - SCBLHKHHXXX
Correspondent- Standard Chartered Bank, New York BIC – SCBLUS33XXX
A/C # 3582020451001
Payment Reference: Quincy Retirement System-043

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

Email 11: "McBirney" to Aberdeen with Aberdeen Supervisor copied (2/19/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Friday, February 19, 2021 2:38 PM
To: Benjamin Smith
Cc: Client Service Americas; John Grybauskas
Subject: [EXT] Re: Quincy MA Funds Redemption

Hi Benjamin,

The beneficiary account number is 57411990478

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 12: Aberdeen to "McBirney" with Aberdeen Supervisor copied (2/19/21)

From: Benjamin Smith <benjamin.smith@aberdeenstandard.com>
Sent: Friday, February 19, 2021 3:54 PM
To: LISA MCBIRNEY <lmcbirney@quincyma.gov>
Cc: Client Service Americas <clientservice.americas@aberdeenstandard.com>; John Grybauskas
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

Our custodian asked that we remove the second account number to avoid confusion. We would keep everything else the same. Could you please confirm that is okay as the authorized signer?

Thanks again,

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

Email 13: "McBirney" to Aberdeen with Aberdeen Supervisor copied (2/19/21)

From: LISA MCBIRNEY [mailto:lmcbirney@quincyma.gov]
Sent: Friday, February 19, 2021 3:59 PM
To: Benjamin Smith
Cc: Client Service Americas; John Grybauskas
Subject: [EXT] Re: Quincy MA Funds Redemption

Hi Benjamin,

This is ok. Please proceed.

Lisa

Lisa McBirney
Executive Director
Quincy Retirement Board
1245 Hancock Street
Suite 39
Quincy, MA 02169
T: 617-453-4261
lmcbirney@quincyma.gov

Email 14: Aberdeen to "McBirney" with Aberdeen Supervisor copied (2/19/21)

From: Benjamin Smith
Sent: Friday, February 19, 2021 4:13 PM
To: 'LISA MCBIRNEY'
Cc: Client Service Americas; John Grybauskas
Subject: RE: Quincy MA Funds Redemption

Hello Lisa,

Perfect, we will amend the instructions accordingly.

Thanks again and have a great weekend!
Ben

Benjamin Smith
Senior Client Service Associate
Aberdeen Standard Investments
T +1 215 405 5783
aberdeenstandard.us

THE FRAUDULENT AUTHORIZATION LETTER

Quincy Retirement Board
Suite 39
1245 Hancock Street
Quincy, Massachusetts 02169
(617) 453 4261

Executive Director

Lisa McBirney

Members of the Board

Leo Coppens
Richard D. Fitzpatrick
Ernest Arienti
Michael McFarland
Susan O'Connor, Chairperson

February 19, 2021

To: Aberdeen Standard
clientservice.americas@aberdeenstandard.com

RE: Quincy MA Funds Redemption

To whom it may concern:

The City of Quincy Retirement System will be making a **$3.5 million** redemption of its investment in the emerging markets bond fund. The trade date will be **February 22, 2021**. Please send a wire in the amount of **$3.5 million** on **February 26, 2020**. Please process this redemption and have funds sent to the wire instructions below.

Standard Chartered Bank Hong Kong
AIC # 57411990478
A/C Name: Mo World Trading Co Limited
A/C Address: 19B Kyoto Plaza, 491-499 Lockhart Road, Causeway, HK
BIC - SCBLHKHHXXX
Correspondent- Standard Chartered Bank, New York BIC – SCBLUS33XXX
A/C # 3582020451001
Payment Reference: Quincy Retirement System-043

If you have any questions, please feel free to call me at 617-453-4261.

Regards,

Lisa McBirney
Executive Director

cc: Benjamin Smith, Aberdeen Standard

Quincy Retirement Board (page 1)

Law Offices of
MICHAEL SACCO, P.C.

Michael Sacco, Esquire
msacco@msaccolaw.net

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August 17, 2022

John W. Parsons, Esquire, Executive Director
Public Employee Retirement
Administration Commission
Five Middlesex Avenue, Third Floor
Somerville, Massachusetts 02145

Re: Quincy Retirement Board – Response to Investigative Findings

Dear Executive Director Parsons:

The Quincy Retirement Board ("Board") has reviewed PERAC's draft investigative report regarding the Board and the Quincy Retirement System ("System") being the victim of a cybercrime that took place between February 21, 2021 and February 26, 2021 when a "bad actor" was able to penetrate the City of Quincy's ("City") electronic mail system, pose as a former employee who had left the Board's employ on December 31, 2020 but whose email account was not disabled consistent with the Commonwealth's Executive Office of Technology Security's standard security practices, and through a series of email communications during this period was able to convince one of the Board's then but now former Investment Managers, Aberdeen Standard Investments ("Aberdeen"), to fraudulently wire $3.5 million dollars to a third party account in China. The Board appreciates the opportunity to respond and address the issues raised in the draft report.

As PERAC noted in the Executive Summary, the Board, the City, Aberdeen, the Board's investment consultant Meketa Investment Group ("Meketa"), and the Board's custodian bank, People's United Bank ("People's") all could have taken steps either prior to or during the critical February 21, 2021 to February 26, 2021 period which could have detected and likely thwarted the cyber-crime that was consummated on February 26, 2021. Although the Board was the victim in this criminal act, it also acknowledges that it bears ultimate responsibility for what transpired, and as noted in the report the Board has engaged an independent audit firm, CliftonLarsonAllen, LLP ("CLA") to conduct a forensic audit to confirm that no other breaches have occurred, and to identify any potential exposures or vulnerabilities in the Board's existing practices and to create a policy and procedures manual to implement industry standard cybersecurity protocols to address these concerns, as well as to train staff regarding these issues. The Board and staff have also participated in multiple cybersecurity seminars and training to better understand Quincy Retirement System ("System") vulnerabilities and identify areas in which there could be exposures to any future illegal incursions into System directly or indirectly with its vendors. As PERAC noted towards the end of the draft investigative report, the Board has implemented a robust multi-layered

authentication procedure with its investment managers, investment consultant and custodial bank so that all future trades and transactions will be verified at every level of the trade/transaction such that what occurred in this case will not happen again. PERAC should also be aware that the City has implemented more sophisticated firewall security on its server, from which the Board and the System benefit as it utilizes the City's server. The Board's staff have also worked diligently with PERAC staff and internally to bring its cash books up-to-date and embarked on additional cross-training in the office so that all such filings are timely and submitted within the established standards. Board staff understands how imperative it is to timely access and respond to any financially related emails that are received. Once CLA has completed its System review and produced the policies and procedures manual, we will provide that to PERAC for its review.

While the Board has taken appropriate steps and implemented security procedures and protocols both internally and externally to prevent what occurred in this case, the Board also recognizes that notwithstanding its own responsibilities and vulnerabilities, the Board's professional vendors on which the Board relies for assistance and expertise should have taken steps that would have thwarted this illegal incursion. As noted in PERAC's report, when the System's former executive director announced to Meketa and People's she would be leaving the Board's employ on December 31, 2021, that disclosure should have prompted a dialogue as to notification to the Board's investment managers, which unfortunately did not occur. The Board's expectation was that Meketa would have circulated that information to the investment managers, as Meketa has day-to-day contact and monitoring responsibilities with respect to the Board's investment portfolio, or at a minimum Meketa would have engaged with the soon-to-be departing executive director as to how best effectuate notice. It was also shocking that despite all the proverbial "red flags" that Aberdeen missed in the communications with the bad actor between February 21, 2021 and February 26, 2021, that on February 23, 2021 Aberdeen notified both Meketa and People's of the upcoming February 26, 2021 transfer and neither Meketa nor People's questioned it, and had either done so, the crime in this case would have been an attempted one, rather than an actual one. While the Board had received some but not all of the source documents that Aberdeen, Meketa and People's provided to PERAC as part of its investigation, the Board will continue to review with its outside special counsel to determine whether any viable legal claims exist against any entity or individual, and the Board will also determine whether it would be prudent to continue with its existing vendor relationships as more evidence comes to light.

In closing, the Board wants PERAC to understand that while hindsight is always 20/20, it has from the moment the theft was discovered been fully invested in not only cooperating with the local, state and federal authorities in their respective and ongoing investigations, but also in examining its practices and procedures as any reasonable fiduciary would in like circumstances, with the utmost seriousness and commitment to correcting all procedural flaws within the Board's control. The circumstances which allowed this theft to occur were a perfect storm – there was a breakdown in communication between Meketa and Board staff regarding the notification of the former executive director's departure, and despite the Board's best efforts to hire an experienced replacement, that process extended far longer than expected, which left the Board understaffed and vulnerable. During the critical time that the cybertheft was executed, the checks and balances that existed should have prevented the theft from occurring. In the end, regardless

of any other individual or entity which did not execute their duties as the Board would have expected, the Board must accept responsibility for what occurred, and it will continue to work with PERAC and the professionals it has engaged to not only ensure that its security protocols and procedures are in compliance with the most stringent industry standards, but also to take every step necessary to hold those individuals and entities accountable for their transgressions.

Should you require anything further, do not hesitate to contact the System's Executive Director, Brad Croall, or me directly.

Very truly yours,

/s/ Michael Sacco

Michael Sacco

cc: Quincy Retirement Board

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August 17, 2022

Via Email

John W. Parsons, Esquire
Executive Director
Commonwealth of Massachusetts
Public Employee Retirement Administration Commission
Five Middlesex Avenue, Suite 304
Somerville, MA 02145
john.w.parsons@state.ma.us

Re: Quincy Retirement Board

Dear Mr. Parsons:

This firm represents abrdn Inc., formerly known as Aberdeen Standard Investments Inc. ("abrdn"). abrdn is the investment manager for Aberdeen Institutional Commingled Funds, LLC (the "Aberdeen Commingled Funds"). Until December 1, 2021, the Quincy Retirement Board ("Quincy") held shares of Aberdeen Emerging Markets Bond Fund (the "Fund"), one of the Aberdeen Commingled Funds. In February 2021, abrdn received a $3,500,000 redemption request on Quincy letterhead, purportedly signed by Quincy Executive Director Lisa McBirney (an authorized signer for Quincy) and sent from Ms. McBirney's known email address, which abrdn processed in accordance with its procedures and Quincy's instructions (the "February 2021 Redemption"). Approximately eight months later, in October 2021, Quincy identified the February 2021 Redemption as a fraudulent transaction. Shortly thereafter, the Commonwealth of Massachusetts Public Employee Retirement Administration Commission ("PERAC") commenced an investigation of the facts and circumstances surrounding the February 2021 Redemption. abrdn cooperated with PERAC's investigation, promptly providing documents and information requested by PERAC. On July 20, 2022, PERAC provided its draft report regarding its investigation of the February 2021 Redemption (the "Draft Report") to abrdn. At PERAC's invitation, abrdn is providing this letter in response to the Draft Report. abrdn thanks PERAC for the opportunity to assist in PERAC's investigation and to provide comments regarding the Draft Deport.

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It is evident from the Draft Report that PERAC conducted a thorough investigation of the February 2021 Redemption. The Draft Report sets forth a detailed factual background regarding the February 2021 Redemption, which incorporates, among other things, information that abrdn provided to PERAC. The Draft Report accurately reflects the facts pertaining to the February 2021 Redemption, as abrdn understands them. However, abrdn respectfully disagrees with certain of PERAC's characterizations of, and conclusions drawn from, those facts.

First, abrdn disagrees with PERAC's characterization of certain facts as "red flags" of potentially fraudulent conduct and PERAC's conclusion that abrdn failed to detect such red flags. In this regard, abrdn respectfully asserts that although certain facts, when viewed with the benefit of hindsight, may appear to have been red flags, these facts, when considered in context, were not out-of-the-ordinary and were more innocuous than the Draft Report suggests.

The following is a non-exhaustive list of facts PERAC characterizes as "red flags" in the Draft Report that abrdn does not believe constituted warning signs of fraudulent conduct at the time of the February 2021 Redemption:

1. In the Draft Report, PERAC contends that the "urgency of the bad actor" was a red flag. abrdn disagrees with this characterization. The initial February 18, 2021 email from the bad actor posing as Quincy Executive Director Lisa McBirney did not specify when the requested redemption must be completed and contained no statement indicating any "urgency." Only after abrdn employee Benjamin Smith asked when Quincy preferred to complete the redemption did the bad actor specify a deadline for completing the redemption. And even then, the bad actor requested that the redemption be completed by February 26, 2021, more than a week later. abrdn does not consider a request to complete a redemption transaction within six business days to be "urgent" or unusual. abrdn regularly receives redemption requests from investors in Aberdeen Commingled Funds with similar turn-around times.[1] In fact, abrdn has received redemption requests <u>from Quincy</u> with similar or shorter turn-around times. For example, on February 28, 2019, Ms. McBirney submitted a redemption instruction with a requested March 1, 2019 trade date, resulting in a March 7, 2019 settlement (a turn-around time of five business days). Likewise, on August 5, 2020, Ms. McBirney submitted a redemption instruction with a requested trade date of August 7, 2020, resulting in an August 13, 2020 settlement (a turn-around time of six business days). In short, the requested timetable for completing the February 2021 Redemption, which was not even raised in the first instance by the bad actor, was not unusual, let alone a red flag for fraud.

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[1] The Draft Report notes that abrdn can require up to 30 days to fulfill a redemption request. This 30-day period is in place to address situations where the given fund lacks sufficient liquidity to process a large redemption request and needs time to liquidate positions held by the fund in order to fulfill the request. In other words, a lengthier period of time may be necessary to accommodate a redemption that is large relative to the size of the fund, not necessarily a transaction that is large relative to the size of the investor's position in the fund. Here, Quincy's $3.5 million redemption request was too small to pose any liquidity issues for the Fund.

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2. The Draft Report identifies the bad actor's use of Mr. Smith's full first name, "Benjamin," instead of his nickname "Ben" as another red flag. abrdn disagrees and believes that PERAC is, in hindsight, reading more into this than is appropriate given the context. Mr. Smith was not Ms. McBirney's primary contact at abrdn. abrdn's Relationship Manager, John Grybauskas, had established abrdn's relationship with Quincy and interacted more closely with Ms. McBirney, having met her in person, attended meetings with her, and having provided period updates to her regarding Quincy's account with abrdn. Ms. McBirney's dealings with Mr. Smith, on the other hand, were limited and sporadic. For this reason, it was not unexpected for Ms. McBirney to use Mr. Smith's full first name, which is the name Mr. Smith uses for his email signature, to introduce himself in professional settings, to identify himself in voicemail messages, etc. Several client contacts routinely refer to Mr. Smith as "Benjamin," and he does not consider the use of his full first name as a red flag.

3. The Draft Report states that the bad actor's use of an "erroneous" Quincy telephone number and the omission of Quincy's fax number in the redemption request letter were red flags. abrdn disagrees. abrdn acknowledges that the email communications and redemption request letter from the bad actor include a telephone number that is different from the general office telephone number for Quincy and that the request letter does not include Quincy's fax number. However, given that the communications were made in the midst of the COVID-19 pandemic, during which time abrdn and nearly all of its clients were working remotely, neither of these facts were red flags for fraud. During the pandemic, abrdn frequently communicated with its clients using telephone numbers (home or mobile) other than their customary office telephone numbers. Additionally, during the pandemic, abrdn itself stopped including its fax number in its employees' email signatures (because its personnel were not working in the office and could not receive faxes) and instructed clients to send notices, instructions, and other documents by email instead of fax. For these reasons, the inclusion of a different phone number and exclusion of a fax number in the bad actor's communications were not unusual and gave rise to no suspicion.

4. The Draft Report also lists the supposedly "awkward wording" and typographical errors contained in the bad actor's email communications (including, for example, the use of the word "letterheaded") as red flags. Historically, the real Ms. McBirney's email communications with abrdn were short, direct, and in many cases, curt. Additionally, abrdn had received email communications from Ms. McBirney that contained minor typographical errors. The style and wording of the email did not stand out as unusual, and Mr. Smith did not consider the bad actor's description of a request on letterhead as a "letterheaded withdrawal notification" to be unusual or suspicious. This is another example where the facts look different in hindsight than they did at the time of the communications.

5. The Draft Report states that the appearance of the redemption letter (*e.g.*, off-centered, blurry, etc.) and small typographical errors in the letter should have raised abrdn's suspicions. However, it was not unusual during the pandemic for abrdn to receive poor quality scanned copies of letters, given that client contacts often used mobile phones or home-office scanners to scan documents. Likewise, minor typographical errors in instruction letters and other client communications are not uncommon and generally do not raise red flags. Indeed, even prior to the pandemic, abrdn received scanned instruction letters from Quincy that had similar image quality issues and typographical errors as those exhibited in the instruction letter for the February

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2021 Redemption. For example, in the enclosed February 7, 2020 instruction letter, the letterhead is blurry to the point that it is difficult to read the years in the emblem and there are several small typographical and formatting errors (*e.g.*, extra spacing, missing punctuation, inconsistent indenting, etc.). In comparison to previous communications from Quincy, the instruction letter for the February 2021 Redemption does not stand out as suspicious.

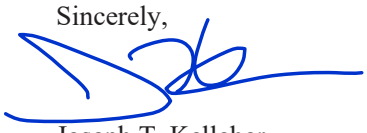
6. In the Draft Report, PERAC also identifies the fact that the bad actor included unnecessary account details in the provided wire instructions as a red flag. However, it is not uncommon for abrdn to receive wire instructions that include multiple lines of data that need to be clarified or pared down, and it is not uncommon for abrdn to seek clarification of superfluous information contained in wire instructions. Again, abrdn does not agree with PERAC's conclusion that the inclusion of superfluous information in the wire instructions should have alerted abrdn to any fraud.

Second, abrdn disagrees with PERAC's assertion that abrdn's practices "were lacking." In the Draft Report, PERAC notes that at the time of the February 2021 Redemption, abrdn did not require multi-factor authentication for redemption instructions. abrdn acknowledges that multi-factor authentication can be an effective security measure, and abrdn has since implemented a telephone verification procedure for certain types of client instructions, as it is always looking for ways to enhance its practices. With that said, the Draft Report does not state that multi-factor authentication was required by client instruction, contract, regulation, or industry custom, and abrdn is unaware of any such authority. For this reason, abrdn respectfully disagrees with PERAC's suggestion that abrdn's procedures were deficient.

*****

Again, abrdn appreciates the opportunity to provide this response to the Draft Report. If you have any questions regarding this response, please do not hesitate to contact me.

Sincerely,



Joseph T. Kelleher

Enclosure

5735149

Quincy Retirement Board
Suite 39
1245 Hancock Street
Quincy, Massachusetts 02169
(617) 376-1075 Fax (617) 376-1149

Executive Director
Lisa McBirney

Members of the Board
Ernest M. Arienti
Leo J. Coppens
Richard D. Fitzpatrick
Michael E. McFarland
Susan O'Connor, Chairperson

February 7, 2020

John Grybauskas CFA
Aberdeen Standard Investments
One Beacon Street
Boston, MA 02108

Dear Mr. Grybauskas:

By delivery of this letter the Quincy Retirement System is informing you that the board is replacing their existing Custodial Bank. Effective March 1, 2020 People's United Bank will replace State Street Bank as the board's custodian.

Effective 3/1/20 please update our wire instructions to:
REDACTED

Please ensure that all monthly/quarterly statements, capital call notices, distribution notices, etc. that are sent via mail be delivered to:

People's United Bank
Global Custody Services
Tony Teberio
240 Cabot Street, 2nd Floor
Beverly, MA 01915

For information delivered via email or for online access please use the group email, PublicFundClient@peoples.com

If you have any questions please feel free to contact the board's relationship manager at People's United Bank, Tony Teberio. He can be reached at 978-720-1233 or at anthony.teberio@peoples.com.

Sincerely,

Lisa McBirney
Executive Director

cc: Tony Teberio

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CONFIDENTIAL PURSUANT TO
THE MA PUBLIC RECORDS LAW

August 17, 2022

VIA EMAIL

John W. Parsons, Esq.
Executive Director
Public Employee Retirement Administration Commission
5 Middlesex Avenue, Suite 304
Somerville, MA 02145

Re: *Meketa Investment Group, Inc.'s Response to the PERAC Draft Report*

Dear Mr. Parsons:

On behalf of my client, Meketa Investment Group, Inc. ("Meketa"), I write in response to your July 20, 2022 letter (the "Letter"), enclosing PERAC's Draft Report (the "Draft") related to the 2021 Quincy Retirement Board ("QRB") cyber theft. Meketa appreciates the opportunity to respond to the Draft. At PERAC's request, Meketa previously responded to PERAC's specific questions relating to its processes generally and the cyber theft at issue, but Meketa provides additional context and information here to ensure that certain inaccuracies in the Draft are corrected in the final version.

I. Meketa's Limited Advisory Role

At the outset, it is important to understand that Meketa contracted with QRB to provide only certain, limited non-discretionary investment advisory services to QRB. *See* Contract Section 1 at MIG-PERAC-00000001 through MIG-PERAC-00000002 (the "Contract"). Under the Contract, Meketa is not tasked with the general supervision of QRB's cash flows, or execution, monitoring or confirmation of redemption requests. Rather, the Contract provides that "from time to time, the Board *may request* that MIG initiate, supervise, and otherwise direct cash flows among the investment managers for the purposes of establishing asset allocation targets, paying benefits and other expenses, or absorbing new contributions." Contract Section 1.F at MIG-PERAC-00000002 (emphasis added). Indeed, the Contract makes clear that QRB "is responsible for the management and control of the assets of the [City of Quincy Retirement] System." Contract recitals, at MIG-PERAC-00000001. Thus, while the Contract gives QRB the ability to occasionally request that Meketa supervise cash flows, at the time of the fraudulent redemption, QRB had not made such a request and Meketa is not otherwise empowered to supervise QRB's cash flows or required to assist with the preparation, execution, monitoring or confirmation of redemption requests.

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John W. Parsons, Esq.
August 17, 2022
Page 2

Consistent with the Contract, QRB may inform Meketa of its cash needs, typically in connection with QRB's monthly benefit payments. Upon QRB's request, Meketa discusses with QRB where to redeem funds, drafts letters to third-party managers seeking to redeem funds, and sends those draft letters to QRB. These letters are then reviewed, signed, sent and confirmed by QRB's fund office personnel directly. Meketa is not typically otherwise involved in the submission or confirmation of QRB's subscriptions or the redemptions of QRB's interests with third-party investment managers. Importantly, QRB may redeem funds without any involvement of or notification to Meketa.

In addition, as part of its asset allocation services, on a monthly basis, Meketa reconciles the market values and performance reported by QRB's investment managers and its custodian. Furthermore, Meketa reviews all investment manager performance relative to benchmarks, peers and QRB's target allocation ranges. Meketa understands that QRB's fund office receives manager and custodian reports at the same time Meketa does. Meketa confirms that the investment manager's and the custodian's reports align with respect to the market value of the investments. This reconciliation involves matching a redemption with a corresponding reduction in value, but does not involve tracking the resulting cash payment. In the case of QRB, and as requested by QRB, Meketa performs this analysis after statements are received for the applicable month, and reports it to QRB around six weeks after the end of that month.

Meketa's contracted-for services do not include managing QRB's cash, maintaining an official record of authorized signatories for QRB, or corresponding with third parties on QRB's behalf, unless specifically requested by QRB and only in furtherance of the contracted-for services.

Notwithstanding the foregoing, Meketa is disheartened that one of its clients was a victim of a cyber-theft. To Meketa's knowledge, this is the first and only time one of Meketa's clients has been the victim of this type of incident. Since the discovery of the cyber theft, Meketa has taken a number of non-contracted-for steps to assist QRB. First, although Meketa was not tasked with managing QRB's authorized signatories list, Meketa assisted QRB by drafting a letter to QRB's investment managers updating the names of authorized signatories and prohibiting the investment managers from sending wire transfers to any party other than QRB's custodian. In addition, this letter informed the investment managers of QRB's new requirement that all redemptions be confirmed in writing and orally through a telephone call to an authorized signer. MIG-PERAC-00000057 through MIG-PERAC-00000059; MIG-PERAC-00000081 through MIG-PERAC-00000082.

In addition, as a courtesy to QRB, Meketa reviewed all investment manager cash flows to and from QRB in 2021 and sought to align them with transfer letters that QRB authorized. Meketa, along with other action items, also agreed to update its monthly reporting to include an investment manager cash flow summary and market value comparison in future reports to QRB. MIG-PERAC-00000081 through MIG-PERAC-00000082; MIG-PERAC-00000119 through MIG-PERAC-00000156. Meketa also offered to have its IT and cash flow management teams advise QRB on best practices.

Unquestionably, this incident caused Meketa to consider how it may help its other Massachusetts pension fund clients guard against cyber security attacks. To that end, Meketa sent Massachusetts pension fund clients a memorandum outlining "Best Practices" for cyber security

and cash controls and a template letter the pension funds may use to confirm that their investment managers follow those Best Practices. *See e.g.*, MIG-PERAC-00000157 through MIG-PERAC-00000158 (submitted herewith).

II. Meketa Disagrees With the Draft's Conclusions

Given Meketa's limited advisory services and QRB's established practices, Meketa disagrees with the Draft's suggestion that Meketa was in a position to prevent the fraud.

First, the Draft states that Meketa did not circulate the notice of Executive Director Lisa McBirney's departure or remind QRB of the need to do so, the implication being that Meketa should have done so. Draft at 1, 12. However, Meketa's limited investment advisory role did not include corresponding with third parties on behalf of QRB or maintaining an official record of authorized signatories for QRB. Indeed, when authorized signatories had changed in the past—for example when Lisa McBirney joined QRB nineteen months prior to her departure—QRB updated and circulated its authorized signatories list on its own. In any event, on January 26, 2021, while requesting that all necessary parties receive Aberdeen Standard Investments ("Aberdeen") statements, Meketa did notify Aberdeen that Brigid Connolly was QRB's new interim executive director. *See* MIG-PERAC-00000159 (submitted herewith).[1]

Second, the Draft states that Meketa received a trade confirmation email from Aberdeen on February 23, 2021 and should have been alarmed solely by the subject line of the email. Draft at 9. The Draft correctly notes that the email subject line was: "Emerging Markets Bond Fund, a series of the Aberdeen Institutional Commingled Funds, LLC – 02/22/2021 Trade Confirms." *Id.* Neither the subject line nor the body of this trade confirmation email includes the client's name or the amount of the trade. Thus, this email alone provided no basis for Meketa to deviate from its normal practice of accessing the portal only during its monthly reporting process, which begins after the end of the month. When Meketa's back office personnel opened the trade notice in the ordinary course on April 5, 2021 for the purpose of preparing the next month's report, the fraudulent transfer had already occurred and could not have been stopped.

III. Requested Revisions to the Draft

In light of the foregoing, Meketa respectfully requests the following changes be made to the Draft, which more accurately reflect Meketa's role. The following headings and page numbers correspond to the headings and page numbers in the Draft.

Executive Summary

On page 1, the phrase "Quincy's investment consultant" should be removed from the following sentence: "From there, a confluence of events involving the board, the manager, Quincy's investment consultant, and Quincy's custodial bank, combined with previous underlying Quincy management and operational issues, led to the fraudulent redemption and transfer of $3.5 million

[1] Meketa did not previously produce this email because it was not responsive to any of PERAC's requests. None of the requests asks whether Meketa informed any third parties of Lisa McBirney's departure. Even the requests regarding authorized signatories do not ask whether Meketa notified any third parties. The lack of such requests was not surprising given that QRB had not delegated that task to Meketa and it is not incorporated in the Contract.

in Quincy retirement assets to an unknown overseas account on February 26, 2021." Meketa disagrees that any of its actions led to the fraudulent redemption (and takes no position on the actions of any other parties).

Likewise, the phrase "its investment consultant Meketa Investment Group ("Meketa")" should be removed from the following sentence: "All parties involved – Quincy, investment manager Aberdeen, its investment consultant Meketa Investment Group ('Meketa'), and custodial bank People's United Bank ('People's') – all of them statutory fiduciaries charged with protecting retirement funds, could have taken basis steps to prevent the fraud, to detect it sooner, or both." As explained above, given Meketa's limited advisory role, it was not in a position to prevent the fraud and was not tasked with the types of responsibilities that might have enabled it to detect the fraud sooner.

On page 2, the sentence: "Not opening a notice which stated there was redemption activity for which Meketa had not been involved in up front was a significant missed opportunity," should be deleted. First, although QRB typically reaches out to Meketa ahead of redemption requests, QRB is not required to do so. Second, Meketa did in fact access the notices as part of its standard monthly reporting process.

Further, the sentence, "Then in assembling its February 2021 month-end and 2021 first-quarter reports for Quincy, Meketa showed an investment return for the victimized fund that, while accurate, is grossly inconsistent with the change in fund balance from month start to month end," should be revised. Revising this sentence to: "Consistent with the typical formatting of Meketa's reports for QRB, Meketa's February 2021 month-end and 2021 first-quarter reports for Quincy accurately reflected the investment return for the victimized fund, but did not reflect the change in fund balance from month start to month end," more accurately reflects the information contained in Meketa's reports for QRB at the time.

Underlying Quincy Issues

On page 5, the sentence: "On January 19, 2021, Aberdeen emailed Lisa McBirney, who had resigned on December 31, 2020, copying Meketa, regarding outstanding invoices for which Quincy owed Aberdeen fees from specific quarters in 2018, 2019 and 2020," should be modified to specify that Aberdeen only copied a Meketa general inbox, "mgrinfo."

Further, the reference to Meketa should be removed from the following sentence: "This exchange shows that Aberdeen still believed that McBirney was the executive director in January 2021 and neither Meketa nor Quincy, both of which knew McBirney had resigned, corrected Aberdeen." First, Aberdeen copied only a Meketa general inbox and not any individual at Meketa. Thus, there is no indication that any individual at Meketa who knew of Ms. McBirney's departure received this email. Second, on January 26, 2021, Alli Wallace Stone of Meketa did email Aberdeen, notifying Aberdeen that Brigid Connolly was QRB's new interim executive director. MIG-PERAC-00000159.

Details of the Incident

On page 5, "Meketa" should be removed from the following sentence: "Separate emails between People's and Meketa in November 2020, document knowledge of her departure." The Draft

acknowledges that no one from Meketa was copied on the fraudulent emails. Thus, this sentence is not relevant to the details of the fraud.

The Aftermath

On page 9, the sentence: "The subject line of the email alone, never mind opening the email and logging in to the portal, should have caused Quincy, Meketa or People's to be alarmed that a trade had been initiated without the awareness of any of the parties," should be revised to accurately reflect the fact that, based on the subject line of the email alone, Meketa had no reason to be alarmed when it received this email. As explained above, neither the subject line nor body of the email reflects the fact that the redemption was for QRB or the amount of the redemption. Thus, based on this email alone, Meketa had no reason to log into Aberdeen's portal earlier than it would in the ordinary course of business when preparing monthly reports.

Further, the sentence: "Opening the trade notification in a timely manner could have prevented the funds from being wired," should be changed to, "While opening the trade confirmation sooner may have prevented the funds from being wired, Meketa did not typically access these confirmations until it was preparing reports for Quincy the following month pursuant to Meketa's contracted-for services to Quincy." The date Meketa opened the trade confirmation was "timely" for the purposes of Meketa's contracted-for services to QRB.

In the same vein, the sentence: "Had the trade notification been opened in a timely manner, both vendors should have been aware – absent their usual involvement in advance – that this was an unauthorized transaction and the outgoing payment to the fraudulent account could have been terminated," should be revised. Meketa did open the trade confirmation in a "timely" manner in order to fulfill its contracted-for services to QRB. Further, once Meketa opened the trade confirmation on April 5, 2021 in the ordinary course of business, the outgoing wire payment had already been sent.

On page 10, the final paragraph beginning with "Meketa submitted in its response to PERAC…" is misleading and should be deleted in its entirety. The cash flow reconciliation process as described in the *Performance Analytics Team: Data Check and Report Review Process* document directs the performance analyst to verify that the market values and performance reported by investment managers match the information provided by the client's custodial bank as the book of record. It does not direct performance analysts to track a client's expenditures or the movement of cash into and out of the custodial bank. *See* MIC-PERAC-00000020 through MIC-PERAC-00000021. In this case, Meketa's performance analyst properly followed this review process and did confirm that the market value reported by Aberdeen matched the market value provided by People's.

On page 11, given Meketa's limited role, the following sentence is misleading and should be deleted or revised: "That type of variance should jump off the page and should have warranted immediate action." As explained above, QRB was not required to involve Meketa in its redemption requests, and Meketa was not tasked with managing QRB's cash flows or expenditures.

Conclusion

On page 12, the following sentence should be deleted: "Contrary to its statement, Meketa had the ability to prevent the fraudulent transaction by opening the trade notice before the wire was sent." As explained above, given Meketa's limited role, Meketa was not in a position to prevent the fraudulent wire from being sent.

Further, the following sentence should be revised to accurately reflect the fact that, although QRB may notify Meketa when it has cash needs, it is not required to do so: "Further, Meketa established as part of Section 1.F of its contract with Quincy, that Quincy notifies Meketa when it has cash needs."

In addition, the following sentence: "In multiple places in its response to PERAC, Meketa stated that the question asked was, 'Not applicable. Meketa was not copied or aware of the February 19, 2021, redemption,'" should be revised to read, "In this case, Meketa was not copied on or made aware of the February 19, 2021 redemption ahead of its execution."

Finally, the following sentence is misleading and should be deleted: "Meketa was also aware of McBirney's departure in November, but did not do anything to further disseminate that information nor apparently remind or inform Quincy of the need to do so." As explained above, Meketa was not tasked with corresponding with third parties on behalf of QRB or with the preparation, maintenance or the dissemination of an official record of authorized signatories for QRB. In the past, during the course of Meketa's relationship with QRB, QRB updated and disseminated its authorized signatories list on its own.

* * *

Meketa is voluntarily cooperating with PERAC's inquiry. This submission includes confidential information in the form of business sensitive and proprietary information. Thus, Meketa is providing this information based on the express understanding that it will be treated as confidential and exempt from the Public Records Law, G.L. c. 66, § 10 and G.L. c. 4, § 7, unless PERAC determines to include this submission in its Final Report.

We thank you for your consideration of this submission. Please do not hesitate to reach out with any questions. We would be happy to discuss this matter further with PERAC to ensure that the Final Report is accurate.

Sincerely yours,

Diana K. Lloyd

Encl.

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MEKETA
INVESTMENT GROUP

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MEMORANDUM

TO: Debbie Wilkes, Norwood Retirement System
FROM: Meketa Investment Group
DATE: November 17, 2021
RE: Best Practices for Cybersecurity and Cash Controls

In light of an uptick in cybersecurity attacks and entering a time of year with increased volumes of cash movements and potential for fraudulent activities, we would like to verify and/or update the processes used for cash controls by authorized signers and investment managers to ensure best practices are intact.

Best Practices for Cybersecurity:

1. All servers should be backed-up and encrypted.
2. Access to the network should immediately be disabled upon an employee's resignation.
3. Ensure proper staff cybersecurity training to avoid mistaken emails, phishing attacks, loss of critical information, etc.

Best Practices for Cash Controls:

1. Ensure personal data is stored in secure systems, locked, and accessible to critical personnel only.
2. Review and update authorized signer lists at least annually and immediately upon the departure of a signatory from the organization or the addition of a new signatory.
3. All wire instruction changes should be confirmed verbally to a different signatory.

Attached please find a template letter for you to review, update, sign and send to investment partners requesting confirmation of industry best practices for the security of systems and confidential information including personal employee details, wire instructions, bank account numbers, and investment activity. As described in the letter, please also include an attachment with the most up to date list of authorized signers for the System.

We thank you in advance for your continued effort to protect your data, personnel information, and investment activity. We hope by taking these additional preventative steps, we can minimize the risk of potential issues in the future. Please call us at 781-471-3500 should you have any questions.

Thank you,

Meketa Investment Group

BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

TO: All Investment Partners of [Insert Client Name]
FROM: [Insert Client Name]
DATE: November XX, 2021
RE: Best Practices for Trade Information and Security of Client Data

In light of an uptick in cybersecurity attacks, we would like to verify our information and the processes used at your firm related to cybersecurity, cash controls, and protecting confidential client information including personal employee details, wire instructions, bank account numbers, and investment activity.

Please check the boxes below to confirm the following statements, sign, and return this form to us at _____@client.com and _____@client.com by November XX, 2021.

- ☐ All client data is stored in secure systems, locked, and accessible to critical personnel only.
- ☐ Confirm the list of authorized signers matches the attached list only, and ensure no trades can be processed without written documentation of direction from one of these parties.
- ☐ Confirm all wire instruction changes are confirmed verbally to a different signatory.
- ☐ Confirm all investment-level trade execution documents (redemption notices, capital call notices, management fee payments, etc.) are sent and received in .pdf format on company letterhead, and a client portal if available.
- ☐ Confirm all investment-level trades are reviewed and approved by multiple levels of employees internally, ultimately by a senior member of the firm, and separation of duties exist between entry of trades and ultimate approval for execution.
- ☐ Confirm all investment-level trades will be confirmed on both trade date and settlement date in writing.
- ☐ Ensure proper cybersecurity best practices are in place to avoid mistaken emails, phishing attacks, loss of critical information, etc.

If you cannot confirm any of the items, please provide a written explanation along with your response. We thank you in advance for your continued effort to protect our data, personal information, and investment activity. We hope by confirming the above items at both of our institutions that we can avoid any concerns in the future.

Thank you,

[Insert Client Authorized Signor Name]
Signer Title/Client

CONFIDENTIAL PURSUANT TO MA PUBLIC RECORDS LAW **MIG-PERAC-00000158**

To: 'john.grybauskas@aberdeenstandard.com'[john.grybauskas@aberdeenstandard.com]
Cc: Brigid Connolly[bconnolly@quincyma.gov]; Ghiane Jones[gjones@meketa.com]; 'Teberio, Anthony'[Anthony.Teberio@peoples.com]
From: Alli Wallace Stone
Sent: 2021-01-26T19:34:10Z
Importance: High
Subject: Statements and Account Info
Received: 2021-01-26T19:34:10Z
Aberdeen Standard Investments.pdf

Hi John,

Happy new year! I hope all is well. It has come to our attention that People's Bank, Quincy's custodian bank may not be receiving everything they need for monthly reporting. Can you please ensure that they are setup to receive statements for both of Quincy's investments with Aberdeen? This will allow us to close the books sooner and provide the Board with quicker reporting information. People's Bank has an account ID (publicfundclientCDT) already established, so if you could have Quincy added to this it would be greatly appreciated. I have also copied Brigid, Quincy's new interim executive director. If you have not already, can you please ensure Brigid has access to your portal and everything she needs.

Thank you very much,
Alli

Alli Wallace Stone
Principal, Consultant

The Westwood office has moved – please update our address!

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MEKETA
INVESTMENT GROUP

From: Teberio, Anthony <Anthony.Teberio@peoples.com>
Sent: Friday, August 19, 2022 12:17 PM
To: Parsons, John W. (PER) <John.W.Parsons@mass.gov>
Subject: RE: Quincy RB

John, There are a few statements in the report that I either don't fully understand or I believe may mislead the reader:

- Page 1 states that 'Neither Quincy, Meketa, nor People's circulated the notice of the executive director's departure'. I may not fully understand what this is meant to convey, but I'm reading it to mean that we took no action when we learned of the executive director's departure. We did take action, per our procedures, which is to 'manually' remove the person from our authorized signature list until an updated one is received from the client. In terms of circulating, the update of a signature list is communicated to my team and saved in our authorized signature list file. If circulating is meant to be outside of our organization, that is not something that we would/could do as we wouldn't have the authority to do that.

- Page 2 states that 'People's did not open Aberdeen's email for the February 2021 month-end statement'. Although this is an accurate statement, I believe without additional detail this may mislead the reader to believe we ignored our duties. In many cases we do not use the IM's email to gather the client's statement (unless the email includes a PDF of the statement). In most cases we pull the client statement directly from the IM's online portal when we are prepared to close the client's month end. In Quincy's case this is usually in the last four business days of the month.

Let me know if my comments create additional questions as I can fill any blanks that you need.

Thank you and have a great weekend, Tony.

Anthony J. Teberio, Vice President
People's United Bank, Institutional Asset Management

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