



OFFICE OF THE
City Auditor

Investment Funds Transfer Audit

October 03, 2008

THE CITY OF
Edmonton

The Office of the City Auditor conducted
this project in accordance with the
*International Standards for the
Professional Practice of Internal Auditing*

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Investment Funds Transfer Audit

1. Introduction

On May 1, 2008 the Treasury Management Section contacted the Office of the City Auditor to review its funds transfer process in light of a recent fraud incident. An unsuccessful attempt was made to transfer \$3,000,000 in funds from the Custodian of one of the City's External Investment Managers.

2. Background

The City's Investment Management business unit within the Treasury Management Section is responsible for managing the City of Edmonton investment portfolio in accordance with the City's Investment Policy C212C. As of June 30, 2008 the City's investments were approximately \$2.7 billion with \$1.5 billion managed internally by City Investment Managers and \$1.2 billion managed by contracted External Managers.

The City's Investment Management business unit coordinates funds transfers with the City's custodian through wire transfers to and from the City's Bank Account, direct payments of debt, and between investment funds. In instances where the External Investment Manager has their own Custodian, funds transfers also occur to and from the External Investment Manager's Custodian and the City's Custodian.

3. Objectives, Methodology and Scope

Our audit objective was to determine whether adequate controls exist over the process of funds transfers to and from City of Edmonton (COE) investment accounts.

Our methodology included the following keys steps:

- Investigate and document the details of the fraud attempt
- Document the City's existing process for funds transfers
- Identify and assess risks relative to this process, in particular the City's liability related to funds transfers
- Evaluate the adequacy of existing controls against risks such as fraud attempts
- Discuss observations and recommendations with the client

We performed our audit in accordance with the *International Standards for the Professional Practice of Internal Auditing*.

The audit scope was limited to the process of investment fund transfers coordinated by the Treasury Management Section.

4. Observations

4.1. Funds Transfer Process

We met on several occasions with staff of the Investment Management business unit to understand and document the process of fund transfers. Through analysis of this process we identified and assessed potential process risks, existing controls and made general observations and recommendations.

Transferring large value fund amounts between financial institutions is performed via wire transfers which result in an automated electronic transfer of funds between two bank accounts.

Within the City of Edmonton, wire transfers are facilitated by the City’s Investment Management business unit and the City’s Custodian for several purposes including:

- Transfer of funds from the City’s Bank Account to the City’s Custodian for investment purposes.
- Transfer of funds from the City’s Custodian to the City’s Bank Account if cash is needed.
- Transfer of funds between investment funds for investment re-balancing purposes.

Staff members in the Investment Management area are knowledgeable in the process of funds transfers and other investment procedures. The Custodianship Agreement provides some direction on funds transfer instructions, however, no other process documentation exists. We believe that in-house documentation is a necessary control for understanding and adding consistency to the investment procedures.

Recommendation 1	Management Response and Action Plan
<p>The OCA recommends that the Investment Management business unit create a standard in-house manual or guidance document for investment funds transfer procedures and responsibilities.</p>	<p>Accepted Comments: The Investment Management unit will create a formal document outlining the area’s investment funds transfer procedures. Planned Implementation: December 31, 2008 Responsible Party: Chief Investment Officer, Treasury Management Section</p>

4.2. Wire Fraud Attempt

A wire fraud attempt occurred that involved the funds transfer process with the External Investment Manager and their custodian. False instructions were faxed to the External Manager’s Custodian instructing that funds (\$3 million) be transferred from the City’s Master Account managed by the External Investment Manager. The City’s Master

account is part of the pooled investment account, which was also identified in the fraudulent letter. The faxed letter of instructions was on the External Manager's letterhead and instructed that \$3 million in funds from the City's funds be transferred to an overseas account. The External Manager's Custodian refused to take action on these instructions since the overseas account was not one the Custodian recognized. The Custodian called the External Investment Manager and alerted them of the fraud attempt. The External Investment Manager in turn notified the City of the fraud attempt.

A Custodian is responsible for the accurate transfer of funds to and from investment funds on behalf of the External Manager. Effective communications between the External Investment Manager and their Custodian proved to be an effective control to prevent this wire fraud from occurring. In this instance, the funds transfer could not have occurred because there were insufficient funds in the account to make this funds transfer.

The City's Investment Management business unit contacted the Economic Crimes Unit of the Edmonton Police Services (EPS) on April 30, 2008. Upon reviewing the information, the Economic Crimes Unit forwarded the information to the RCMP in Vancouver because the attempted fraud appeared to have initiated from outside the province and was therefore outside of their jurisdiction. We again contacted EPS on July 28, 2008 and they indicated they have received no further progress from the RCMP on this incident.

Our assessment of this wire fraud risk is that the risk has a high potential impact on the City's investments, especially since we have evidence of a \$3 million fraud attempt. However, existing controls were effective in preventing this fraud from occurring. The attempted fraud with the External Manager's Custodian was detected quickly and managed appropriately. In discussion with the City's Investment Managers, they indicated that to their knowledge there have never been any wire fraud attempts with the City's Custodians. This further suggests that the existing control framework has been successful in preventing these types of wire fraud. A further review of these controls is discussed in the next section.

4.3. Process and Control Review

Our process review included identifying risks and existing controls related to the funds transfer process. Additionally, we identified ideal controls and assessed whether these controls would strengthen the control framework relating to the funds transfer process.

4.3.1. City Policy C212C (Investment Policy)

City Policy C212C (Investment Policy) is the primary control mechanism relating to investment activities including the process of transferring funds as necessary. City Policy C212C was established by the Corporate Services Department and approved by City Council on March 7, 2006. This amended policy was established primarily to

provide a set of investment principles and guidelines. Section 2.73 of the policy identifies the need for internal controls relating to investment activities:

- 2.7.3 Internal controls will be in place for investment processes and procedures. This will include the appropriate formal delegation of authorities to transact and enter into contracts with external managers, transfer of funds, safeguarding of assets, segregation of duties, performance reporting and performance attribution and compliance checking and reporting.

The formal delegations of authority to conduct transactions with External Managers and enter into contracts on behalf of the City are the joint responsibility of the Law Branch and Chief Financial Officer. The Director of Treasury Management is responsible to prepare the content of these contract agreements.

Segregation of duties is evident within the funds transfer process. Internal Investment Managers prepare instructions for funds transfer, but these instructions must be approved and signed by authorized officers prior to implementation. Another example of segregation of duties is the relationship between the City's Custodian and External Investment Managers. The External Investment Managers can make trading decisions within their respective investment portfolio, but have no authority to transfer funds between other investment portfolios held by the City's Custodian.

4.3.2. Custodianship Agreement

The custodian agreement between the City and its Custodian identifies both parties' roles in safeguarding of assets and the responsibilities relating to funds transfers. The Custodian is responsible for executing all electronic fund transfers based on authorized instructions received from the City.

The Custodianship Agreement identifies authorized persons and their signatures who can provide instructions to the Custodian. Instructions to the Custodian must include authorized signatures. Our review and testing of a sample provided by Treasury Management indicated that this control was consistently practiced.

The agreement also defines the Custodian's responsibilities relating to records and reporting. The Custodian is required to maintain accurate accounts of all transactions and instructions. The City must also be provided full access to inspect and audit these records as required. The maintenance of the Custodian records is an important control in validating accuracy of fund transfers for both parties. The City's Investment Management business unit also receives reports on a monthly basis as well as maintains records of instructions for funds transfers that can be matched to the Custodian records should the need arise.

4.3.3. Large Value Transfer System

Within Canada, all wire transfers are performed on the Large Value Transfer System (LVTS). The Canadian Payments Association operates this computing system for electronic fund transfers and also provides regulations for all large value fund transfers within Canada. The City's Custodian and the External Manager's Custodian both use this secure system for electronic wire transfers and must conform to strict procedures defined by the Canadian Payments Association.

The use of LVTS serves as a key control to mitigate risk in the electronic transfer of funds. The system has both token and password access requirements and information is transferred with full end-to-end encryption. Participants in the LVTS (the custodians) must observe strict rules in using the system, including authenticating instructions and ensuring accurate funds transfers.

4.3.4. Contracts with External Investment Managers

The City's Management Agreement or Contract with the External Investment Managers establishes both its and the City's roles and responsibilities relating to investment management of the City's funds.

Within the agreement, External Managers are granted powers to make investments but must follow investment guidelines established by the City's Investment Policy C212C. The agreement also clearly indicates that the External Investment Manager will not be held responsible for losses unless it can be proven such losses arise out of acts or omissions done or suffered in bad faith, through negligence, willful misconduct, or willful neglect. In discussion with the Law Branch, they indicated proving negligence relating to fraud is difficult.

The External Manager is authorized under this contract to provide instructions to the Custodian. We have no access to the contractual agreement between the External Manager and its Custodian but we do know that the External Manager's Custodian did take action to authenticate those instructions detailed in the fraudulent document.

In general, we believe the contract agreement with the External Investment Manager is effective in risk prevention and in safeguarding assets for the normal investment activities between the City and the External Investment Manager. However, through our review of the standard contract for External Investment Managers we noted that there is no provision for the External Manager to have insurance coverage for losses sustained through fraudulent activities. More discussion and analysis of this subject is discussed in the following section.

4.3.5. Insurance Coverage

Insurance coverage serves to mitigate the impact of fraud. The insurer, to whom the risk has been transferred, is paid a premium for bearing this risk. In collaboration with the City's Risk Management Section, we reviewed the insurance coverage for parties involved in the funds transfer process. Our interest was to confirm that the parties involved have adequate insurance coverage for wire and computer fraud as it relates to the funds transfer process.

Custodian Insurance

The City's Custodian must have insurance coverage as stipulated within the Custodianship Agreement with a limit of \$100 million per claim. This insurance covers incidents of employee dishonesty, computer crime, loss of property through theft, robbery and other criminal acts, loss through forgery, or acceptance of counterfeit or altered securities. The City's Custodian provided an insurance summary statement indicating that this coverage is in place.

The City's Investment Management business unit provided a sample document indicating the amounts of wire transfers conducted with the City's Custodian. The insurance coverage provided by the City's Custodian is more than the estimated maximum value of wire transfers therefore we are satisfied adequate insurance coverage is being maintained by the City's Custodian.

External Investment Manager Insurance

Our first observation relating to the insurance coverage held by the External Manager is that no provision exists within the existing External Manager agreement for insurance coverage. We believe that the External Managers should bear some liability of loss since they are responsible for providing direct instructions for wire transfers to their custodian in the case of pooled funds investments.

The Investment Management business unit contacted representatives of their External Investment Managers and asked them to provide details of their insurance coverage for wire and computer fraud. Table 1 illustrates the range in insurance coverage by the External Investment Managers. The names of the External Investment Managers are not provided because this information is deemed confidential.

Table 1 – Wire and Computer Fraud Coverage

External Investment Manager	Insurance Coverage Value Per Incident (in millions)	Coverage Intent
A	\$10	Employee Theft, Depositor’s forgery, Theft, Disappearance and Destruction, Money, Securities and other Computer and Finds Transfer Fraud.
B	\$5	Fidelity, On premises, In Transit, Forgery, Securities
C	\$1 / \$20	Financial Institute Bond (\$1M) Professional Liability (\$20M)
D	\$100	Blended coverage included Financial Institute Bond and Professional Liability
E	\$300	Fraud under External Managers errors and omissions
F	\$10	Computer or Funds Transfer Fraud, Losses inside and outside premises, Counterfeit, Forgery
G	\$30	Errors and Omissions Insurance
H	\$100	Computer fraud, Forgery, Extortion

As observed in Table 1, all of the External Investment Managers do have insurance coverage; however, the insurance coverage amounts and the intention of their insurance coverage vary significantly. We recognize that the size of fund portfolio managed by each External Manager is a key factor in determining the size of insurance coverage chosen by each External Investment Manager. However, we believe that the City needs to take a more active role in ensuring that External Investment Managers have adequate insurance coverage. The City’s Risk Management Section also indicated that the City needs to clearly specify covered risks and the amount of coverage necessary specifically for the risk of wire and computer fraud.

Recommendation 2	Management Response and Action Plan
The OCA recommends that the Investment Management business unit stipulate insurance requirements within future contracts with External Investment Managers. Additionally, the Investment Management business unit should request a certificate of the insurance policy of External Managers to ensure adequate coverage exists prior to contract execution.	<p>Accepted</p> <p>Comments: The Investment Management unit will incorporate formal insurance requirements into all future Investment Management Agreements as well as request copies of the insurance policy from the External Managers prior to executing any contracts.</p> <p>Planned Implementation: Immediately</p> <p>Responsible Party: Chief Investment Officer, Treasury Management Section</p>

City of Edmonton Insurance

The City of Edmonton itself is covered under its own insurance policy for wire and computer fraud up to \$10 million. This value of insurance coverage exceeds the attempted fraud amount; however, the City often wire transfers amounts much greater than the City’s insurance coverage.

Recommendation 3	Management Response and Action Plan
<p>The OCA recommends that the Risk Management Section in conjunction with the Treasury Management Section review and adjust as necessary the City’s current level of insurance coverage for wire and computer fraud.</p>	<p>Accepted Comments: The Risk Management Section will canvas the insurance marketplace to determine the cost and availability of increased insurance coverage for wire and computer fraud. Planned Implementation: October 31, 2008 Responsible Party: Director, Risk Management Section</p>

4.3.6. Safeguarding Instructions

Wire fund transfer instructions contain detailed information including account numbers, amounts transferred, dates, and authorized signatures. The fraud attempt that occurred appears to have involved the fraudster acquiring a source document. This source document was then reproduced with altered instructions including a new date and a different destination account for the funds transfer.

Neither the Custodianship agreement nor the External Investment Manager agreements stipulate requirements to safeguard instructions on wire transfers. However, all parties do carry insurance relating to fraud and it is expected that these parties would reduce their risk exposure by ensuring that instruction documents are stored in secure locations.

The Investment Management business area itself is in a reasonably secure location controlled by security card access. We did observe that the instruction documents are stored in cabinets but these cabinets are not locked up after working hours. These documents contain sensitive investment information, which creates a moderate risk exposure for the City. We believe that the cabinets containing these investment action instructions should be locked when staff are not present to prevent unauthorized access to sensitive investment information. This proactive action will also provide evidence to the City’s Insurer that the City has taken reasonable steps to prevent fraudulent activities from occurring.

Recommendation 4	Management Response and Action Plan
<p>The OCA recommends that the Investment Management business unit ensure that all wire transfer documents are maintained in a secured (locked) storage unit.</p>	<p>Accepted Comments: Although the Investment Management unit is located on a secured floor requiring security card access, steps will be taken to further enhance the security surrounding these documents. Planned Implementation: Date: December 31, 2008 Responsible Party: Chief Investment Officer, Treasury Management Section</p>

5. Conclusion

Our objective was to determine whether adequate controls exist relating to the process of funds transfers to and from City of Edmonton investment accounts. Our overall assessment is that the control framework is generally strong. However, we believe some improvements are needed.

The fraud attempt demonstrated that the controls were successful in preventing a theft. Based on our assessment of the controls, we believe the likelihood of this kind of fraud is low, however we believe it is still important that all parties have adequate insurance coverage should such an event occur. We therefore recommended that the City’s Investment Management business unit stipulate insurance coverage within future contracts with External Managers and that the City receive a certificate of the insurance policy prior to contract execution. We also recommend that that Risk Management, in conjunction with Investment Management, review and adjust the City’s level of insurance coverage for wire and computer fraud loss.

We observed that limited in-house documentation exists on investment procedures and recommended that adequate and appropriate documentation be developed. The wire fraud attempt that occurred demonstrated the need to properly safeguard records and we therefore recommend that City records are stored in a locked unit when not attended.

We acknowledge the cooperation we received from the Investment Management business unit and all individuals contacted during this review.