University of Michigan
Investment Process Review
August 1, 2018

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It is management's responsibility to maintain their internal controls and an effective internal audit function. Management, the Finance, Audit and Investment Committee of the Board of Regents (the "FAI Committee") and the Board of Regents demonstrate this responsibility through a number of actions, including:

- Approval of the Internal Audit mission and charter.
- Approval of the risk assessment and Internal Audit plan.
- Internal Audit quality assurance and improvement programs.
- Owning of issue resolution and management action plans in Internal Audit reports.

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Executive Summary

Background

Currently, the Investment Office of the University of Michigan manages more than $13 billion of investments. The investment portfolio includes the following investment types:

- Alternative investments (private equity, venture capital, absolute return, real estate and natural resources)
- Publicly traded equity and fixed income securities
- Cash and cash equivalents
- Other illiquid securities

The University's alternative investment portfolio includes investments in more than six hundred commingled vehicles sponsored by more than two hundred external investment managers. The investment function is supported by more than fifty members of University staff across the Treasurer's Office, Financial Operations, the Investment Office itself and other functional departments. Staff are subject to a series of pre-existing policies and procedures including the Standard Practice Guide, Business & Finance Division policies and department specific policies.

The University has engaged PwC to provide specified professional services in order to assess the operational (non-financial) investment processes at the University against University policies and procedures to provide our objective findings; and where applicable, assess against our knowledge of industry leading practices.

As part of PwC's review, we were provided unfettered access across the University's investment functions, including those groups highlighted above and within Appendix B.

In summary, a majority of selections tested by PwC resulted in no recommendations or findings, and indicated a meaningful series of controls in place at the University. Included in this report are a summary of our observations (i.e. summary of the results of risks identified and testing procedures performed), accompanied by recommendations and management responses. Also included are a series of process improvement opportunities that are not indicative of findings or instances of non-compliance in the current control environment; rather, these items are raised as suggestions for the University to implement best practices and/or efficiencies.

Objectives and Scope

The scope of the services was limited to an assessment of University identified business processes, controls, and related transactions for the period July 1, 2017 through March 31, 2018 (the "Review Period"), in the areas noted below:

- Governance
- Due diligence and documentation for investments
- Authorization and funding of commitments
- Conflict of interest and conflict of commitment documentation, including participation on boards and other outside entities and related compensation
- Travel and expense reimbursement, third-party gifts, and personal trading and prohibited investments compared to University policies

Our scope of work within each area included a series of inquiries with University staff in order to gain an understanding of current processes in place, a review of the current policies in place and testing of a risk based sample of items.

For further information on the scope, please refer to ***Appendix B***.

Summary of Work Performed

Governance

The Board of Regents has delegated the oversight responsibility for the University's investment function to the FAI Committee which is made up of a subset of the Board of Regents. In addition to the Board of Regents and the FAI Committee, the University has an Investment Advisory Committee (the "IAC") in place. IAC members are appointed and serve in a non-governing advisory capacity, in order to advise on the strategic direction and implementation of the University's investment program.

We have included a finding in this area, as the allocation of the Long Term Portfolio was found to not be in compliance with the allocation policy approved by the Board of Regents during the Review Period. Please see observation A for additional details. We have also included a finding in this area regarding the FAI Committee's oversight of the "investment costs, including cost of internal management, fees paid to outside managers, custodial and brokerage fees." Please see observation B for additional details.

Due diligence and documentation for investments

Prior to making an investment, the Investment Office performs due diligence procedures over prospective external investment managers. The initial due diligence procedures performed by the Investment Office are designed to be documented within the Investment Office's Research Management Solution ("RMS") system. These procedures include but are not limited to the following:

- Meetings with investment managers
- Preparation of an investment manager scorecard
- Discussion of the investment opportunity during Investment Office meetings
- Performing reference checks with parties the Investment Office has a pre-existing relationship with

Additionally, the Investment Office actively performs ongoing due diligence with external investment managers after making an investment, which is designed to be documented in the RMS system. In two instances, we observed that documentation of meetings which were attended by Investment Office staff was input into the RMS system two to six months after the meeting occurred. Please see observation C for additional detail. We have also outlined in appendix A, one process improvement opportunity related to back office due diligence procedures which could be performed by Financial Operations or other University staff as considered appropriate.

Financial Operations also plays a role in the ongoing due diligence performed over external investment managers by performing a review and assessment of the reliability of reporting provided to the University. In two instances, we observed input errors in documents used by Financial Operations to review and assess the audited financial statements received by the University. Please see observation D for additional detail.

Authorization and funding of commitments

Upon the decision by the University to fund a new investment, any financial commitment is designed to be reviewed and approved by the Board of Regents or under its delegated authority. One such delegation allows two officers, generally the Executive Vice President and Chief Financial Officer (the "EVPCFO") and the Chief Investment Officer (the "CIO"), to approve investments which are sponsored by an existing external investment manager and plan to operate under a similar strategy as a previous investment. Notification to the Board of Regents after the transaction has closed is required in these situations. Outside of certain other delegations, all investments must be pre-approved by the Board of Regents. No observations were noted as part of the testing performed in this area. A process improvement opportunity has been outlined in appendix A related to this area.

Currently, by design, the controller and accounting function for the University's investment portfolio is maintained within Financial Operations. Financial Operations maintains a detailed listing of all commitments made by the University in addition to any remaining portion of commitments that are unfunded. One observation was noted in this area. We observed that two commitments were recorded at an amount which was incorrect but offsetting. Please refer to observation E for details.

After the approval of a new commitment, the funding of an investment is processed through the Treasurer's Office. Prior to funding an investment, the Treasurer's Office will verify that the requested funding is within the commitment amount approved by the Board of Regents or under its delegated authority, is pre-approved by the Investment Office, and is consistent with the capital call notice received from the external investment manager. After an investment is funded, Financial Operations will record the funding in the University's books and records. No instances of non-compliance were noted in this area. However, one observation was noted in this area related to an investment where the Treasurer approved both the investment funding and the investment purchase. Please refer to observation F for details.

Conflict of interest and conflict of commitment documentation, including participation on boards and other outside entities and related compensation

Conflicts of interest and conflicts of commitments within the Investment Office are governed by the various conflicts of interest policies in place at the University (i.e. the Standard Practice Guides, Business and Finance policy and Investment Office policy). Compliance with these policies is monitored within the Investment Office through an annual employee affirmation process. Included within the annual affirmation is a confirmation of the understanding of and compliance with the policies and disclosure of any external board seats held by the Investment Office staff. No observations were noted as part of the testing performed in this area.

The procedures also included a comparison to industry peers of the Conflict of Interest policy which was recently implemented for the IAC. The current policy includes requirements for all members of the IAC to complete an annual affirmation about all University investments in which they have a financial interest. In addition, the policy requires prompt notification of any changes or new relationships that develop and an annual affirmation of compliance with the policy. We have included one observation related to the opportunity to disclose these relationships to those charged with governance prior to or at the time of making a new investment. Refer to observation G for details.

Travel and expense reimbursement, third-party gifts, and personal trading and prohibited investments compared to University policies

Included within the Investment Office conflict of interest policy (referenced above) is guidance governing requirements for Investment Office staff related to employee travel and expense reimbursements, personal investing, and gifts received by the Investment Office. Our procedures included testing a sample of expense reports for compliance with University policy. As discussed in observation H, we have included two observations in this area related to one trip report which was not submitted within the timelines prescribed by Standard Practice Guide 507.10 and a second trip report in which the incorrect supervisor approved an expense report.

Additionally, our procedures included testing of the gift log, maintained by the Investment Office, to determine if the processing of such gifts complied with Investment Office policy. Our procedures also included performing inquiries with members of the Investment Office at varying staff levels to assess the completeness of the listing of gifts received, any known instances of non-compliance and the employees' understanding of the policy in this area. Through inquiry and observation, Investment Office staff noted no known instances of gifts received which were not in compliance with the current policy and the specified employees demonstrated an understanding of the policy currently in place. We have included an observation in this area related to incomplete details included within the listing of gifts received. Please see observation I for details.

To test for compliance with the personal investing aspects of the Investment Office conflict of interest policy, we performed inquiries with members of the Investment Office at varying staff levels regarding any known instances of non-compliance with the policy, where opportunities for non-compliance could arise and to assess if employees held an understanding of the policies currently in place. The University's current program includes a series of self-governing practices where employees are trusted to monitor and on an annual basis affirm their compliance with the policy. No instances of non-compliance were noted in this area.

For the full list of observations and detailed results, recommendations and management action plans, see the following sections.

Observations, Risks and Action Plans

A. Governance - Oversight of Asset Allocation

According to a Request For Action approved by the Board of Regents in February 2006, the allowable range for fixed income exposure in the Long Term Portfolio is ten to thirty-five percent with a model allocation of eighteen percent. This allocation policy also sets a corresponding allowable range for equities of sixty-five to ninety percent. At each Board of Regents meeting (approximately nine per year), an investment report is presented to the Regents which details the current asset allocation of the Long Term Portfolio. Additionally, Members of the Board of Regents, the President, and EVPCFO attend the semiannual IAC meeting where the asset allocation is also disclosed.

As reported during the May 17, 2018 Board of Regents meeting, as of March 31, 2018, the allocation of the Long Term Portfolio to Fixed Income, including Cash and Cash Equivalents, is six-and-a-half percent, which is below the allowable range established by the February 2006 Regents Item. The communication protocol discussed above permits the Board of Regents to have full insight into the allocation of Fixed Income being outside the allowable range.

Based upon discussions with management and review of the IAC meeting minutes, a revised asset allocation framework that sets allowable ranges around the target allocation for each asset class has been discussed with the FAI Committee and the Board of Regents.

Recommendations:

1. Upon completion of the planned asset allocation ranges for each asset class, the ranges should be submitted to the Board of Regents for approval.
2. As part of the investments reports presented to the Board of Regents, a comparison of the current portfolio to the approved ranges should be included.
3. On at least an annual basis, the asset allocation ranges should be presented for approval to the Board of Regents, FAI Committee or other governing body, with documentation of approval thereof.

Risk / Impact:

Potential noncompliance with University policy increases the reputational risk for the University. In situations where a judgmental decision to diverge from University policy occurs, including proper documentation as to the rationale for the decision will help to mitigate the associated risks.
Maintaining current documentation about divergence from the approved asset allocation will allow the Board of Regents to keep current on the risks associated with the investment portfolio and further mitigate risks associated with noncompliance with University policy. These risks are mitigated based on current practices already in place including:

- Open communication between the University and the Regents
- Continuous reporting of the actual asset allocation through an investment report provided at each Regent's meeting
- Disclosure of the rationale for the divergence from the approved range which is in the Report of Investments
- Discussion of the asset allocation at semiannual IAC meetings attended by members of the Board of Regents

Industry Observations:

Other institutional investors require that on periodic basis, at least annually, a range of approved allocations by asset class is presented to a governing body for review and approval. It is commonplace that the documentation of the review and approval is maintained through meeting minutes. On a quarterly basis it is commonplace that the current asset allocation, and a comparison to the approved ranges, is included as part of reporting to the governing body.

Management Action Plan: Management agrees with and will implement the recommendations.

Owner: EVPCFO

Estimated date of completion: October 2018

B. Governance - Review of Current Reporting and Documentation Requirements

Currently, governance over the University's investment function is performed by the Board of Regents, the FAI Committee and the Investment Office, which is overseen by the EVPCFO.

Commitments to new external investment managers or commitments to a new strategy within an existing external investment manager relationship require pre-approval from the Board of Regents. All other investment commitments (i.e. follow-on investments of a similar strategy with an existing investment manager) require notification to the Board of Regents, which typically occurs within one year of the transaction closing. Based upon discussions with management, the pre-approval process at times impacts the ability of the Investment Office staff to quickly react to investment opportunities and limits negotiating abilities.

The FAI Committee Charter includes the following three investment responsibilities;

1. Review investment policies including investment goals, model asset allocation, distribution policies, and performance benchmarks.
2. Review of investment costs, including cost of internal management, fees to outside managers, custodial, reporting and brokerage fees.
3. Review performance of investments compared to relevant benchmarks or indices.

The Board of Regents' ongoing monitoring of investment costs was not observed during the Review Period. Oversight of the remaining investment responsibilities, during the Review Period, was observed. Evidence of the FAI Committee's oversight was evidenced through the following actions:

- An investment report is provided to the Board of Regents at each Regents' meeting which includes the current asset allocation of the Long Term Portfolio and the performance of the Long Term Portfolio as compared to the benchmarks.
- Attendance by a subset of the Board of Regents at the semi-annual IAC meetings which includes discussion of model asset allocation, selected performance benchmarks, and a comparison of investment performance to the relevant benchmark.
- Review of the annual report of investments which details investment goals, model asset allocation, distribution policies, performance benchmarks, and performance of investments compared to relevant benchmarks or indices.

Recommendations:

1. We recommend that management reviews the current requirements of the FAI Committee Charter and any Regents action items related to the investment function to determine if the items currently requiring oversight at the executive level are warranted based upon the risk associated with these items.
2. We recommend that management assess the need for oversight by these groups over any other area which is considered to be of strategic importance to the University.
3. We recommend that after a review of the items outlined (within recommendations one and two) above is performed, all policies and areas which are considered to be of strategic importance to the investment function are formally presented to the Regents or FAI Committee on at least an annual basis for approval.

Risk / Impact:

Maintaining the appropriate oversight responsibilities at each level within the governance structure will assist the University in maintaining an enhanced framework for oversight of investment functions. In the absence of documentation to support judgements made, the University could be exposed to potential noncompliance with the FAI Committee charter or other University policies. Lack of documentation increases the reputational risk for the University.

Requirements that the Board of Regents review items at too detailed a level could lead to inefficiencies in the oversight process and distract from analysis of more critical matters. Delegation of these items also helps to mitigate risks faced by the Board of Regents. Presenting items of critical importance to the University's investment function to the Board of

Regents, FAI Committee or other governing body on a periodic basis for review and approval of any changes will help to bolster the University's oversight of the investment function.

Industry Observations:

Other institutional investors, specifically peer universities, generally allow investment staff to execute investment making decisions within specified guidelines established by a governing body. In situations where investment decisions are approved by a governing body, approval by the full board of the University is not commonplace amongst industry peers.

Typically, items that are determined by other institutional investors to be of strategic importance are presented by the investment office to the governing body on a quarterly basis and formally approved on an annual basis. The information presented varies by peer but we have observed that the following are commonly presented to those charged with governance:

- Overall investment policy
- Asset allocation policy
- Approval of performance benchmarks and comparison of performance to the benchmark

Other areas which certain peers formally present to those charged with governance include the following:

- A summary of the Investment Office's current outlook on or ratings of external investment managers
- Unique or judgmental investment opportunities in the pipeline.
- An update on certain investments within the portfolio. Examples include:
    - Significant changes within the strategy of an existing externally managed fund
    - Material valuation fluctuations of either a certain investment or asset class
    - Concentrations of underlying investments held across multiple funds

Management Action Plan: We agree with the recommendations and will implement them.

Owner: EVPCFO

Estimated date of completion: December 2018

C. Due Diligence - Documentation is Maintained Timely in the RMS System

Based on a risk based sample of fourteen external investment manager relationships, PwC observed that in all instances due diligence procedures were performed over the investment manager. However, in two instances the documentation of due diligence performed by members of the Investment Office was not maintained within the RMS system on a timely basis. In our sample, PwC observed that the due diligence conducted by the Investment Office included, but was not limited to, attending meetings and participating in conference calls with managers, completion of a manager scorecard (for new investments), performing reference checks, and discussion of the investment during Investment Office meetings.

Recommendations:

1. Implement an acceptable time frame for submitting all meeting notes and materials to authorized administrative personnel for uploading materials to the RMS system.
2. Consider the establishment of a separate email address where all information to be uploaded to the RMS system can be more efficiently managed.

Risk / Impact:
The Investment Office has made a significant investment in a tool designed to track changes in risk factors impacting its investment portfolio. Due diligence documentation available to all Investment Office staff allows the University to track performance, unusual or unexpected activity, change in strategy, and change in management. In the event that an Investment Office staff member were to leave the University, there is a risk that knowledge about a particular investment could be lost, which is partially mitigated by maintaining such information within the specified RMS system.

Industry Observations:
Other institutional investors that utilize RMS (or a similar warehouse) for due diligence documentation have formal or informal policies or procedures that require such documentation to be prepared and submitted within a specified time frame.

Management Action Plan: We agree with the recommendations and have implemented them.

Owner: CIO

Estimated date of completion: Completed

D. Due Diligence - Inaccurate Inputs Used in the Review of External Investment Manager Annual Financial Statements

Currently, Financial Operations has in place a quarterly and annual financial statement review process to assess the reliability of reporting received from external investment managers. This process includes a qualitative assessment of the accounting policies and auditors utilized during the annual audit of the externally managed fund. Additionally, the process includes a quantitative assessment of the amounts allocated to the University (obtained from capital statements provided by the investment manager) compared to the total amounts reported on the audited financial statements of the fund.

During the annual financial statement review process, two instances of input errors were observed out of fourteen items selected for testing. The first item related to an inaccurate input used in the reconciliation between the University's profit and loss allocation and the fund's audited financial statements. The second instance was that the external auditor for a fund was inaccurately recorded.

Additionally, for audited financial statements which include an audited limited partner's capital statement, there is currently no formal process in place to document the University's assessment of the reliability of the auditor or accounting framework used in reporting provided by the external investment manager.

Recommendations:

1. Management should tailor its current annual financial statement review process to ensure that all relevant inputs are captured accurately for each investment.
2. Management should carry over processes to assess the reliability of the external auditor and the framework already used in the majority of its reviews to those limited instances where audited capital statements are received.

Risk / Impact:
Inaccurate information which is input into the annual financial statement review process could impact the University's ability to assess the overall reliability of the reporting provided by external investment managers.

Management Action Plan: We agree with the recommendations and will implement them.

Owner: Director of Investment Accounting

Estimated date of completion: July 2018

E. Commitments - Accurate Recording of Investment Commitments

Currently, Financial Operations is responsible for monitoring total commitments and unfunded commitments to external investment managers. This information is utilized by the Treasurer's Office to determine if a capital call request provided by the Investment Office falls within the previously approved commitment amount. Based upon a risk based sample of seven new investment commitments, one instance was observed where an incorrect commitment amount was recorded. The difference was caused by the external investment manager rebalancing the University's commitment between two related funds which was not updated in the University's commitment schedule.

Recommendations:

1. Financial Operations should establish a formal protocol with the Investment Office to ensure that any changes to commitment amounts are properly captured in the Financial Operations commitment schedule.
2. Financial Operations should reconcile the current unfunded commitment amount per their commitment schedule to reporting received from external investment managers for all investments on a periodic basis.

Risk / Impact:

Financial Operations maintains information regarding the University's commitments in order to ensure that the University is not over-funding an investment as capital calls are received from external investment managers and to monitor future obligations of the University. Inaccurate commitment records could lead to the University contributing more capital to an investment than was planned or required and inaccurate forecasting for future cash flow needs. The difference in the final commitment amount for this investment compared to the amount recorded by Financial Operations represents .016% of the University's total investment commitments (as of 6/30/2017), indicating am inconsequential difference in this instance. In addition, due to the rebalancing of commitments between two funds, the net offsetting impact on the University's total commitment was zero. However, establishing an appropriate process to identify changes to commitments will help management to mitigate the potential risk of a material impact in the future.

Industry Observations:

Other institutional investors reconcile unfunded commitments to external investment manager reporting with varying frequency. While financial reporting to external stakeholders mandate a process that occurs at least annually, others conduct processes at least quarterly. In situations where investor reporting does not contain the unfunded commitment balance, other institutional investors will request the information from external investment managers on an annual basis.

Management Action Plan: We agree with the recommendations and will implement them.

Owner: Director of Investment Accounting

Estimated date of completion: July 2018

F. Commitments - Segregation of Duties

University Bylaws require investment purchases to be authorized by two officers, generally the EVPCFO and the CIO. Based on discussions with management, it is our understanding that in rare circumstances, the Treasurer will serve as the co-signatory for investment purchases. The Treasurer also serves as an authorized approver for cash payments of investment purchases. We observed one instance where the Treasurer served as the co-signatory for an investment purchase and was also a secondary approver for the cash payment of the transaction.

Through discussions with management, it is our understanding due to a limited number of authorized approvers existing within the Treasurer's Office, an alternative staff member was not available to approve the transaction.

Recommendations:

1. Although the cash funding and investment purchase both were executed in accordance with current University requirements, in order to maintain proper segregation of duties, management should implement a policy within the Treasurer's Office to ensure that in the limited circumstances where the Treasurer serves as a signatory to an investment purchase, the investment purchase documents are retrospectively reviewed by the EVPCFO or that the related cash payments are approved by other members of the Treasurer's Office at the time of funding.

Risk / Impact:
Without proper segregation of duties, the control function established between the Treasurer's Office, Financial Operations, and the Investment Office may not operate effectively. Risks related to this observation are mitigated since in this instance, execution of the investment purchase also required a co-signature of another officer and cash payment process required the co-approval of the assistant Treasurer. This risk is further mitigated due to the limited circumstances in which the Treasurer acts as a signatory for an investment purchase.

Industry Observations:
Other institutional investors process the purchase and funding of investments in a manner consistent with the University's current policies. As highlighted within observation B, the requirement to have the full board of the University pre-approve new investment commitments is not commonplace amongst industry peers.

Management Action Plan: Management agrees with the recommendation and will implement it.

Owner: Treasurer

Estimated date of completion: Completed

G. Conflicts of Interest - Protocols for Reporting

It is commonplace amongst industry peers for investments to be made with external investment managers which a university or its employees has a relationship. Recently the Investment Office has established an IAC Conflict of Interest Policy which will enhance the disclosure of these relationships related to the University's investments. The policy includes among other things:

- An annual affirmation of the IAC member's compliance with the policy.
- Disclosure of any University investments which the committee member has a financial interest or relationship which could create a conflict of interest or the appearance of one.
- Disclosure of these items is required to be made to the CIO on an annual basis and promptly in the event of a material change.

Recommendations:

1. Management should enhance the current conflict of interest policy to include reporting to the FAI Committee of any known financial interests and potential conflicts of interest (in fact or in appearance) as new investments are made. We would recommend that disclosure of this information is expanded to also cover all members of the Investment Office and members of its governance structure (i.e. Board of Regents, President, EVPCFO and FAI Committee).

Risk / Impact:

When financial relationships or conflicts of interest exist, providing disclosure of the relationships help to mitigate the reputational risk which the University could encounter. Lack of documentation of conflicts of interest increase the risk that investments do not represent the highest and best use of University assets, and that investments do not occur on an arm's length basis or on terms that are in the best interest of the University.

Industry Observations:

Other institutional investors manage conflicts of interests through various actions. Examples include the following:

- Disclosure to the relationships in advance of an investment being made.
- Periodic reporting to the appropriate oversight body regarding the following:
  - Performance of these investments
  - Size of these investments on a commitment or invested capital basis
  - Continued benefits gained by the organization through the relationship

Management Action Plan: Management agrees with the recommendations and will implement them. As part of the implementation, Management will evaluate the members of the governance structure to determine the specific parties covered by the policy.

Owner: EVPCFO

Estimated date of completion: December 2018

H. Travel & Expense - Timely Submission and Proper Approval of Expense Reports

Members of the Investment Office staff are given a purchasing card (known as a "PCard") to be used for business-related purchases. Section 507.10-1 of the Standard Practice Guide for the University states that, "PCard transactions are to be reconciled in the University's travel and expense system within forty-five days of purchase". Based upon a risk based sample size of thirteen expense reports, one instance was observed in which this forty-five day time limit was not met.

Section 507.10-1 of the Standard Practice Guide states that, "an employee's immediate supervisor or higher administrative authority must approve travel and business hosting expenses." Of the thirteen expense reports reviewed, PwC observed one instance in which the approver was not the employee's immediate supervisor. This instance occurred when an administrative staff booked travel on behalf of a new investment director who had not been issued a PCard. It was observed that the investment director had previously communicated with the CIO who pre-approved the travel. However, the related expense report was approved by the immediate supervisor of the administrative staff when the expense report was submitted.

Recommendations:

1. We encourage the Investment Office to reinforce to staff the importance of compliance with University policy for timely submission of travel expenses.
2. We recommend management establish a protocol to ensure that when a PCard transaction is made on behalf of another staff member that the appropriate parties review and approve the expense report.

Risk / Impact:

Timely submission of expense reports by all employees ensures the quality and efficiency of the travel and expense process. Errors, omissions, and lost receipts are more likely to occur if reports are not submitted on time. Proper approval of expense reports mitigates the risk of fraudulent or erroneous expenses being reimbursed to employees.

Management Action Plan: We agree with the recommendation and will implement it.

Owner: CIO

Estimated date of completion: July 2018

I. Third-Party Gifts - Monitoring

The current practice within the Investment Office is to request external investment managers not provide gifts to University staff. However, in keeping with current industry practice, unsolicited gifts are received and are processed (in accordance with the Investment Office Conflict of Interest policy) and logged by administrative staff. During the Review Period, fifty-five third-party gifts were registered in the log, consisting generally of bottles of wine or alcohol, perishable food items, and external investment manager branded items. Gifts received were typically donated by the Investment Office to charity, raffled to Investment Office staff with a proceeds donated to a local charity, or gifted to University staff if they were unable to be raffled.

Of the fifty-five third-party gifts received during the Review Period, four instances were observed where the gifts received were not logged within six months, six instances were observed where the third-party providing the gift was either not included in the gift log or inaccurately recorded, and one instance was observed where the name of the Investment Office staff receiving the gift was not documented.

Recommendations:

1. Management should ensure that all information is deemed to be pertinent to monitoring third-party gifts is tracked within the gift log for each gift and recorded in a timely manner.

Risk / Impact:
The Investment Office's current practice of processing gifts received from external parties helps to mitigate the appearance of conflicts of interests between Investment Office staff and external investment managers. Incomplete or inaccurate tracking of third party gifts will lessen the effectiveness of this mitigating control to avoid the appearance of conflicts of interests. The total value of all gifts reviewed is clearly inconsequential to amounts invested by the University.

Industry Observations:
Other institutional investors have developed varying policies ranging from strict prohibition of all gifts to allowing gifts within certain parameters. As discussed below, in our view the University's maintenance of a gift log is a leading practice for processing and documenting gift. Complete and accurate maintenance of the gift log will further enhance the effectiveness of the current process.

Currently, Standard Practice Guide ("SPG") section 2.16 Gifts to Regents and University Employees states that *"No Regent or University employee will accept any gift of substantial value from any student, or any person having business relations with the University, or anyone else based upon the Regent's or employee's position."* In order to comply with the SPG, the Investment Office has implemented the department level policy (described above) in relation to third-party gifts. Through discussions with peer institutions, many other universities do not maintain formal tracking of gifts received by investment staff and do not require items received as gifts to be donated to charity or require charitable donations for gifts which staff members retain. The current practice creates goodwill within the local community and shows the Investment Office's good faith in adhering to University policies.

Management Action Plan: We agree with the recommendation and will implement it. In addition, the Investment Office policy will be revised to require that all gifts, after being logged, are forwarded to a central University office for disposition.

Owner: EVPCFO

Estimated date of completion: July 2018

Appendix A: Process Improvement Opportunities

The following improvement opportunities were identified during the course of our review. These items are not observations that require immediate attention or even instances of non-compliance with a policy or procedure required by the University, but rather represent an opportunity for management's consideration and are intended to enhance existing processes, gain efficiencies, and further strengthen the control environment.

Communication with Regents

Current Process: According to a Request For Action, dated May 20, 1994 "an investment in a fund sponsored by the same group with essentially the same strategy and core investment personnel" is permitted to be made without prior approval of the Board of Regents. However, notification to the Board of Regents for certain follow-on investments continues to be required. Further, due to a July 16, 2015 Request For Action, the Board of Regents has delegated to the Executive Vice President and Chief Financial Officer the authority to approve up to three new investment managers or investment strategies per year for the University's investment program without prior approval from the Board of Regents in order to take advantage of time critical investment opportunities.

Recommendation: To ensure compliance with these Board of Regents items, the Investment Office should consider maintaining clear documentation to support the rationale of judgments made related to what constitutes a follow-on investment strategy within a pre-existing investment manager relationship and the rationale for exercising the limited authority of the EVPCFO to approve new investment manager relationships. Currently, the Investment Office's practice is to communicate follow-on commitments within approximately one year from funding. Outside of a change to the current requirements (as indicated in observation B above), we would recommend that the Investment Office and Board of Regents agree to and implement a policy of what an appropriate time frame is for notifying the Board of Regents of follow-on investments with an existing investment manager. We would recommend accelerating the timing of the communication to be prompt (e.g. 3-6 months from a fund's closing date).

Due diligence performed by back office personnel

Current Process: Currently, back-office personnel within the investment function, primarily Financial Operations, have limited interactions with the staff of the external investment managers.

Recommendation: We have observed at peer higher education institutions that an increased depth of financial due diligence being performed by back office personnel of the University has yielded positive results in understanding the finance and accounting functions within the external investment managers. Given the disparity of reporting and processes in place with various investment managers creating a relationship between the University's back office staff members and back office staff of the external investment manager will help to gain comfort over the reliability of information reported by the external investment manager. Building these relationships will also create an additional avenue for the University to gain relevant information related to the culture and controls in place at the external investment managers.

Appendix B: Detailed Scope and Approach

We performed interviews, reviewed policies and procedures, as well as other related documentation, and conducted testing over identified areas to evaluate the design and operating effectiveness of internal controls in place to mitigate risk. Accordingly, the services performed focused on the following areas:

All scope areas:

- We participated in meetings with University identified stakeholders to understand business processes/potential risks and controls to be addressed in the audit program.
- We assessed selected investment processes at the University against University policies and procedures and provided our objective findings; and where applicable, assessed against industry leading practices.
- We tested a limited number of internal controls and provided our findings for the University's consideration. University management affirmed that the sample size and parameters utilized in the risk based samples are sufficient for the University's purposes. Note: PwC was not engaged to design, implement or document internal controls related to our assessment. Nor did PwC test internal controls that relate to financial processes or that impact the financial statements of the University.
- We provided observations and high level recommendations based on our technical and industry knowledge and risk. Note: Management action plans have been outlined above for each observation. PwC has not assessed the implemntation or completion of Management's action plans.

The scope of the services was limited to an assessment of University identified business processes, controls, and related transactions during the Review Period, in the areas noted below. A summary of procedures performed and results have been described below.

Governance

- Adherence to the requirements of the Board of Regents, FAI Committee Charter as described below:
  - Review of investment policies including investment goals, model asset allocation, distribution policies, and performance benchmarks.
    - Oversight of this area was evidenced through IAC meeting materials, the annual Report of Investments, and investment reports presented to the Board of Regents at each meeting. Please see observation B for further details of evidence reviewed.
    - As is discussed in observation A above, based upon the procedures performed the asset allocation for fixed income was found to not be in compliance during the Review Period.
  - Review investment costs, including cost of internal management, fees to outside managers, custodial and brokerage fees.
    - As is discussed in observation B above, ongoing monitoring of investment costs was not observed during the Review Period.
  - Review performance of investments compared to relevant benchmark or indices.
    - Oversight of this areas was evidenced through IAC meeting materials which was attended by members of the FAI Committee.
- Approval of new manager commitments or notification of additional commitments to existing managers occurs in accordance with policy and in a timely manner.
  - A risk based sample of fourteen items were selected for testing.
  - Based upon the procedures performed no items were found to not be in compliance.
  - As is discussed in observation B above, we have included a high level observation to the University in this area.
  - As is discussed in Appendix A above, we have outlined an opportunity for a process improvement related to this area.
- Approved fee rates to outside managers are consistent with investment agreements.
  - A risk based sample of seven items were selected for testing.
  - Based upon the procedures performed no items were found to not be in compliance.
- Our team interfaced with the following individuals to complete the testing of this focus area:
  - L. Erik Lundberg, Chief Investment Officer
  - Rafael Castilla, Director of Investments and Structuring
  - Regent Katherine E. White, Board of Regents and FAI Committee Chair
  - Tim Lynch, Vice President and General Counsel

Due diligence and documentation for investments

- Due diligence performed over new investment commitments.

        - Testing of evidence of due diligence performed prior to investment.
            - For a risk based sample of seven items we observed evidence of due diligence occurring prior to investment decisions being made. Evidence included the following for each investment:
                - Notes from meetings with investment managers
                - Preparation of a manager scorecard
                - Discussion of the investment opportunity during Investment Office meetings
                - Performance of reference checks with parties the Investment Office has a pre-existing relationship with
            - Based upon the procedures performed no items were found to not be in compliance.
        - Testing of the documentation of manager meeting notes maintained in the RMS System.
            - For a risk based sample of seven items we observed that documentation of due diligence performed was maintained within the RMS System.
            - Based upon the procedures performed no items were found to not be in compliance
    - Ongoing monitoring and due diligence of existing manager relationships.
        - Testing of evidence of ongoing monitoring and due diligence performed over existing investments
            - For a risk based sample of seven items we observed evidence of ongoing monitoring and due diligence. Examples of evidence observed includes notes from meetings and calls with external investment managers, attendance at annual investor meetings, and quarterly investor update presentations.
            - Based upon the procedures performed no items were found to not be in compliance.
            - As is discussed in Appendix A above, we have outlined an opportunity for a process improvement in this area.
        - Testing of documentation of manager meeting notes maintained in the RMS System.
            - For a risk based sample of seven items we observed that documentation of due diligence performed was maintained with the RMS System.
            - As is discussed in observation C above, based upon procedures performed two items were found to not be in compliance.
        - Testing of annual and quarterly manager reporting reconciliation process by Financial Operations.
            - A risk based sample of fourteen items were selected for testing.
            - As is discussed in observation D above, based upon the procedures performed two items were found to not be in compliance.
    - Our team interfaced with the following individuals to complete the testing of this focus area:
        - Jon Schroeder, Director of Investment Accounting
        - Lauren Thorne, Investment Office Business Manager
        - Marcos Esparza, Senior Investment Analyst
        - Michael Haessler, Director of Investments
        - Molly Stolz, Investment Accountant

Authorization and funding of commitments

- Testing of the following characteristics for the authorization of commitments:
    - For a risk based sample of seven items we verified that the approval by or notification to the Board of Regents occurred in accordance with policy and in a timely manner.
        - Based upon the procedures performed no items were found to not be in compliance.
        - As is discussed in appendix A above, based upon the procedures performed we have included a process improvement opportunity to the University in this area.
    - For a risk based sample of seven items we verified that executed commitment documents were properly authorized and in line with amount approved by or presented to the Board of Regents.
        - Based upon the procedures performed no items were found to not be in compliance.
    - For a risk based sample of seven items we verified that the approved commitment amount was consistent with the amount recorded in books and records.
        - As is discussed in observation E above, based upon the procedures performed one item was found to not be in compliance.
    - For a risk based sample of seven items we verified that the commitment documents were signed by two officers prior to funding for new commitments.
        - Based upon the procedures performed no items were found to not be in compliance.
        - As is discussed in observation F above, based upon the procedures performed we have included a high level recommendation to the University in this area.
- Testing of the following characteristics of the funding of commitments.

    - For a risk based sample of twenty-two items we verified that the cash payment amount is consistent with the books and records and the capital call notice received.
        - Based upon the procedures performed no items were found to not be in compliance.
    - For a risk based sample of twenty-two items we verified that approval from Investment Office was provided to the Treasurer's Office prior to funding.
        - Based upon the procedures performed no items were found to not be in compliance.
    - For a risk based sample of twenty-two items we verified that evidence was obtained by the Treasurer's Office to confirm that the funding is within the approved commitment amount.
        - Based upon the procedures performed no items were found to not be in compliance.
    - For a risk based sample of twenty-two items we verified that the cash payment amount was properly reviewed by the Treasurer's Office prior to funding.
        - Based upon the procedures performed no items were found to not be in compliance.
        - As is discussed in observation F above, based upon the procedures performed we have included a high level recommendation to the University in this area.
- Our team interfaced with the following individuals to complete the testing of this focus area:
    - Cindy Corridore, Assistant Treasurer
    - Felicia David-Visser, Senior Manager of Investments
    - John Sullivan, Treasurer
    - Jon Schroeder, Director of Investment Accounting
    - Lauren Thorne, Investment Office Business Manager

Conflict of interest and conflict of commitment documentation, including participation on boards and other outside entities and related compensation.

- For all twenty-five Investment Office staff members' we observed the following:
    - That the staff member had signed an annual conflict of interest affirmation.
    - That the staff member had completed an annual outside board seat affirmation. Additionally, we have performed a completeness assessment of the affirmation via publicly available information.
    - That the documented treatment of compensation received from participation on any outside board seats was in compliance with University policy.
    - Based upon the procedures performed no items were found to not be in compliance.
- We have performed a comparison of the IAC conflict of interest policy to leading practices of industry peers. As is discussed in observation G above, based upon the procedures performed we have included a high level recommendation to the University in this area.
- Our team interfaced with the following individuals to complete the testing of this focus area:
    - Daniel Feder, Director of Investments
    - L. Erik Lundberg, Chief Investment Officer
    - Michael Haessler, Director of Investments
    - Rafael Castilla, Director of Investments and Structuring

Testing a sample of transactions regarding employee travel and expense reimbursement, third-party gifts, and personal trading and prohibited investments compared to University policies.

- For a risk based sample of thirteen items we have tested the travel and expense reports for compliance with University policy.
    - As is discussed in observation H above, based upon the procedures performed two items were found to not be in compliance.
- For all fifty-five items on the third-party gift log we have compared the documented disposition to University and Investment Office policy for compliance.
    - The Investment Office's current practice is to store items in a locked storage area until the items is disposed of. For a sample of four items which were pending disposition we observed that the item was maintained in the storage area.
    - As is discussed in observation I above, based upon the procedures seven items were observed to have incomplete details included in the listing.
- Inquiry with Investment Office staff regarding completeness and accuracy of the listing of third-party gifts.
    - Based upon inquiries with six Investment Office staff, as is discussed in observation I above, four items were noted to have been omitted from the listing.
- Inquiry with Investment office staff regarding personal trading and prohibited investments.
    - Based upon inquiries with six Investment Office staff no instances of non-compliance were noted.

- Our team interfaced with the following individuals to complete the review of this focus area:
  - Amy McConnell, Document Coordinator
  - Daniel Feder, Director of Investments
  - Felicia David-Visser, Senior Manager of Investments
  - L. Erik Lundberg, Chief Investment Officer
  - Lauren Thorne, Business Manager
  - Marcos Esparza, Senior Investment Analyst
  - Michael Haessler, Director of Investments