SOUTH CAROLINA RETIREMENT SYSTEM

INVESTMENT COMMISSION

Fiscal Year 2013 Investment Fees

Internal Audit Flash Report

As of June 30, 2013

TO: Darry Oliver, Chief Operating Officer
Hershel Harper, Chief Investment Officer

C: Allen Gillespie, Audit Committee Chair
Reynolds Williams, Investment Commission Chair

EXECUTIVE SUMMARY

We recently completed a review of the process for aggregating and validating the investment fees incurred, charged and paid by the South Carolina Retirement System Pension Trust Funds ("SCRS") for fiscal years 2013 and the prior year, 2012. The investment fees are separated into two categories, invoiced and non-invoiced. Invoiced fees are those fees and investment-related costs for which the fund manager provides an invoice and for which payment must be sent to the fund manager by Public Employee Benefit Authority ("PEBA") on behalf of SCRS. Non-invoiced fees are those fees and investment-related costs which are netted against the gain/loss of the investment and reflected directly in the NAV of the investment; no cash is involved. Additionally, in conformity with Generally Accepted Accounting Principles ("GAAP") over the disclosure of Investment fees in the Statement of Changes in Plan Net Assets as promulgated by Government Accounting Standards Board ("GASB"), only invoiced fees are included in SCRS financial statements. Beginning in FY 2008, both invoiced and non-invoiced fees are included in the South Carolina Retirement System Investment Commission ("RSIC") Annual Investment Report. In FY 2012, invoiced fees totaled $55,130,000 and non-invoiced fees totaled $242,579,000; total aggregated investment fees were $297,709,000.

Internal Audit's plan was to perform an audit of the investment fees as per the Fiscal Year 2013 Audit Plan for fiscal year 2013, however, there were changes in the process which were not fully implemented and therefore could not be tested. Standard audit practice is that the process and its controls be in place and functioning for a reasonable period of time prior to it being tested. Since our initial discussions revealed that this was not the case, Internal Audit determined that a more consultative role, in the form of a review, would be a better approach. A review differs from an audit in that substantive testing is not performed at a level consistent with Generally Accepted Auditing Standards ("GAAS").

Note that while the process for aggregating both the amount of invoiced and non-invoiced fees has essentially stayed the same, the method for gathering this information has changed for FY 2013. Given the short turnaround time in which this investment fee data needs to be collected, aggregated and validated prior to the release of the financials, Internal Audit wanted to provide guidance on creating some potential efficiency in the process that would benefit the Investment Reporting team for FY 2013 and going forward. Hence, the project evolved into a consultative review. Audit's intent was to aid the Investment Reporting ("IR") team in devising a strategy to ensure that they could completely and accurately collect, aggregate and validate the total management fees for reporting to PEBA and disclosure in the financial statements on a consistent basis. The intent of this summary report is to detail the results of the work performed in accordance with the aforementioned scope and not to opine on the financial integrity and/or sufficiency of Investment and Management Fees in total or the relative system of internal controls.

As a result of our review, we conclude that in aggregate, the process for collecting, aggregating, validating and reporting total fees for FY 2013 could use improvement in order to more effectively and efficiently provide a figure that is materially accurate and complete. The fee reporting process' current status, when viewed through the lens of percentage of completion, lack of a system, insufficient deployable resources and the short turnaround time in which the investment fee data needs to be produced, gives Internal Audit some cause for concern about the ability of RSIC to adequately meet the

deadline. However, if management were to implement some of Internal Audit's recommendations (see recommendations section), we anticipate a more efficient and robust system with a significant increase in the organization's ability to meet the requisite deadlines while mitigating the risk with appropriate internal controls. Additionally, implementation of the recommendations relative to the methodology of the process will significantly decrease the amount of human capital required and result in management's ability to redeploy those resources.

Management has agreed to implement some of the recommendation and has fully committed to several external parties that a fully robust, consistent, controlled and sustainable process would be in place for FY 2014. In an update to the end of our fieldwork, Internal Audit noted prior to issuance of this report that management has taken definitive steps to solidify processes and mobilize resources in a good faith effort to ensure that RSIC meets the PEBA deadlines including that of providing a total investment expense number for inclusion in the FY 2013 SCRS financial statements. Based upon our understanding of these efforts, our cause for concern about the ability of RSIC to adequately meet the deadline has been significantly diminished.

BACKGROUND

Investment fees are incurred, charged, and as appropriate paid by the South Carolina Retirement System Pension Trust Funds ("SCRS") on a monthly basis. The investment fees are separated into two categories, invoiced and non-invoiced. Invoiced fees are those fees and investment-related costs for which the fund manager provides an invoice and for which payment must be sent to the fund manager by PEBA on behalf of SCRS. Non-invoiced fees are those fees and investment-related costs which are netted against the gain/loss of the investment and reflected directly in the NAV of the investment; no cash is involved. Prior to FY 2008, the distinction in the fee categories was not important and it had nominal if any effect on SCRS financial statements due to the fact that the composition of the portfolio was almost entirely traditional, US based investments. However, as discussed below the allocation of assets to alternative investments was substantially increased in FY2008. As a result of the substantial increase in alternative investments, the dollar value of the non-invoiced fees grew substantially and the distinction in the fee categories became a matter of importance and significance to the SCRS financials. In FY 2012, invoiced fees totaled $55,130,000 and non-invoiced fees totaled 242,579,000; total aggregated investment fees were $297,709,000.

Prior to the legislative act in 2005 and the constitutional change in November 2006 which was ratified in February 2007, fund assets were not able to be invested in securities not listed on a national exchange. The State Retirement System Preservation and Investment Reform Act ("Act 153") and the amendment to S.C. Const. art. X, §16, allowed for the investment of assets into new categories such as real estate, international fixed income, international equities, private equity, and other types of investments commonly and prudently invested in by other pension funds; thereby allowing RSIC to embark upon "the process of fully diversifying the Retirement Systems' assets methodically and deliberately". In FY 2008, "remarkable progress" was made toward diversifying the portfolio assets; the allocation of assets to alternatives increased to 31.7% from 0.1% and the level of actively managed investments grew to

88.5% from 66% in prior year. See Figures 1, 2, and 3. This substantial progress towards meeting the organization's strategic goal of "continuing the prudent and orderly diversification process of implementing recent legislative reforms, which allow the Commission to structure a portfolio with far more risk and return characteristics", began to give rise to two phenomena: 1) a significant increase in the amount of investment fees and 2) a lack of transparency in the total investment fees paid. Internal Audit and Compliance ("IAC") noted that these two phenomena have historically been presented as correlative issues but they are truly separable and distinct issues who share a causative factor, portfolio diversification.

Total investment fees increased from approximately $36M in 2007 to $298M in 2012, thus increasing the risk level of material impact to the SCRS financial statements. See Figure 4. The increase in fees is the result of three different changes to the investment methodology:

1. **Internal/External Investment Management**: The Commission originally elected to utilize external investment advisors in executing the diversification plan. This "external model" results in higher annual spending on management fees while limiting the internal budget. Reversing this model would require a large budget increase over a period of years, while generating considerable management fee savings.
2. **Asset Allocation**: In determining the asset allocation in which to best implement the diversification strategy, the Commission (in agreement with the external Investment Consultant) increased the allocation of assets to hedge funds and other alternative investment strategies which are often more expensive than simple strategies involving stocks and bonds. In exchange for these higher expenses, investors expect a return profile distinctly different from that of the stock and bond markets. The result is a portfolio that more diversified and less dependent upon strong returns in the financial markets.
3. **Passive/Active Investment Approach**: In an effort to enhance the portfolio's risk adjusted returns, the Commission often employs active strategies rather than simply investing in lower-cost index strategies. Although actively-managed strategies increase costs, the goal is to earn excess returns that more than compensate for this additional cost. Historically, the portfolio investments have achieved this goal.

Asset Class Allocation by Manager

As of June 30, 2008

Manager / Asset Class	Weight	$MM*
WCM	1.9%	521.7
Legg Mason	1.3%	354.9
Total Large Cap Growth	3.2%	876.6
Aronson, Johnson & Ortiz	2.0%	543.4
Pzena	1.1%	295.0
Total Large Cap Value	3.1%	838.4
BGI S&P Alpha Tilt	1.4%	391.7
Total Large Core	1.4%	391.7
SSGA S&P 500 Index	6.2%	1,667.5
Total Large Index Funds	6.2%	1,667.5
Total Large Cap Futures	0.4%	103.8
Total Large Cap Swaps	0.7%	178.7
Total Large Cap	**15.0%**	**4,056.6**
Times Square	1.4%	367.4
Total Small/Mid Cap Growth	1.4%	367.4
Batterymarch	0.7%	182.9
Turner	0.9%	246.9
Clarivest	1.0%	270.4
Total Small Cap Growth	2.6%	700.3
TSW	0.9%	230.3
Total Small/Mid Cap Value	0.9%	230.3
Benson	1.1%	306.8
Integrity	0.5%	129.5
Total Small Cap Value	1.6%	436.2
Pyramis	1.4%	391.9
Total Small Core	1.4%	391.9
SSGA Russell 2000 Index	1.4%	383.6
Total Small Index Funds	1.4%	383.6
Total Small/Middle Cap Futures	0.8%	209.3
Total Small/Mid Cap	**10.1%**	**2,719.0**
Total U.S. Equity	**25.1%**	**6,283.9**
BGI EAFE Index Funds	1.8%	485.7
Total Non-U.S. Index Funds	1.8%	485.7
Total International Equities Futures	8.2%	2,224.3
Total International Equities Swaps	4.9%	1,330.2
Emerging Market Equity Swaps	4.8%	1,285.5
Total Non-U.S. Equity	**19.7%**	**5,325.6**
Total Public Equity	**44.7%**	**12,101.3**
Domestic Fixed Income	26.9%	7,271.5
Total Investment Grade	26.9%	7,271.5
Domestic Fixed Income Futures	-3.3%	(902.6)
Domestic Fixed Income Swaps	-0.9%	(249.9)
Total U.S. Fixed Income	22.6%	6,119.0
Loomis Sayles	3.0%	801.8
Mondrian	3.3%	886.2
Wamco	3.0%	813.8
Credit Agricole	3.1%	835.2
Total Global Bonds	12.3%	3,337.0
Loomis Sayles High Yield Trust	0.7%	194.5
Total High Yield	0.7%	194.5
International Fixed Income Futures	5.0%	1,361.0
Emerging Market Debt Swaps	2.5%	687.1
Domestic High Yield Swaps	0.4%	97.6
Total Global Opportunistic FI	21.7%	5,677.1
Total Fixed Income	**44.3%**	**11,796.2**

As of June 30, 2007

Manager / Asset Class	Weight	$MM*
WCM	2.4%	1,778.9
Legg Mason	1.7%	484.0
Total Large Cap Growth	4.1%	1,164.5
Aronson, Johnson & Ortiz	2.7%	780.8
Pzena	1.8%	517.2
Total Large Cap Value	4.5%	1,298.2
Barclay's	2.0%	568.8
SSGA S&P 500 Index	25.4%	7,258.2
S&P 500 Futures	-3.1%	(890.3)
Total Large Cap Core	24.3%	6,936.7
Total Large Cap	**32.9%**	**9,399.2**
Times Square	1.3%	380.9
Total Small/Mid Cap Growth	1.3%	380.9
Batterymarch	0.8%	228.7
Turner	0.9%	260.2
Clarivest	1.1%	328.1
Total Small Cap Growth	2.8%	817.0
TSW	0.9%	256.5
Total Small/Mid Cap Value	0.9%	256.5
Benson	1.5%	417.4
Integrity	0.6%	171.4
Total Small Cap Value	2.1%	588.8
Pyramis	1.6%	463.2
Total Small Core	1.6%	463.2
SSGA Russell 2000 Index	1.6%	457.2
Total Small Index Funds	1.6%	457.2
Total Small/Middle Cap Futures	-0.1%	(31.4)
Total Small/Mid Cap	**10.3%**	**2,932.2**
Total U.S. Equity	**43.2%**	**12,331.4**
Foreign Stock Futures (EAFE)	6.3%	1,798.7
Total Non-U.S. Equity	**6.3%**	**1,798.7**
Total Public Equity	**49.5%**	**14,130.1**
Domestic Fixed Income	40.0%	11,421.6
Total U.S. Fixed Income	40.0%	11,421.6
International Fixed Income Futures	4.2%	1,202.8
Total Global Opportunistic FI	4.2%	1,202.8
Total Fixed Income	**44.2%**	**12,624.4**

Figure 1: Continued in Figure 2

Asset Class Allocation by Manager

As of June 30, 2008

Manager / Asset Class	Weight	$MM*
Aquiline Partners	0.1%	25.9
Pantheon USA	0.1%	24.5
Pantheon Europe	0.1%	18.9
TCW SMSF	0.4%	107.9
Carousel Capital	0.0%	12.4
Goldman Sachs	0.1%	24.5
Treebridge	0.0%	8.8
Warburg Pincus	0.1%	20.8
Northstar	0.0%	9.2
Apax Europe	0.1%	15.4
TCW - Crescent Mezz	0.1%	15.3
Paul Capital	0.1%	18.3
Square 1 Ventures	0.0%	3.0
Lehman Brothers	0.0%	1.1
TCW - Strat Partnership Energy	0.1%	40.0
Total Private Equity	**1.3%**	**346.1**
Mariner	1.2%	338.0
Bridgewater Pure Alpha	1.6%	428.6
D.E. Shaw	1.4%	375.5
Frontpoint	1.4%	376.1
Morgan Stanley Completion Fund	3.1%	837.6
GAM	2.8%	755.6
Entrust	1.5%	400.8
Gottex	2.8%	763.4
Grosvenor	2.8%	767.6
Morgan Stanley Partnership	3.7%	997.4
Absolute Return Strategies	**22.3%**	**6,040.7**
GMO Strategic Opportunities	0.9%	232.8
GMO Multi-Strategy	0.4%	120.2
Bridgewater All-Weather	2.8%	746.6
Putnam	2.7%	722.0
Mellon Capital	1.3%	358.2
Total Global Asset Allocation Strategies	**8.1%**	**2,179.8**
Angelo Gordon	0.1%	15.0
Total Opportunistic Credit	**0.1%**	**15.0**
Total Alternative Assets	**31.7%**	**8,581.8**
Short Duration Investments	1.1%	310.8
Total Cash Equivalents	**1.1%**	**310.8**
Currency Forwards Gain(Loss)	0.2%	56.6
Russell Overlay Cash Account	2.4%	637.8
Futures & Swaps Cash Offset	-23.8%	(6,441.0)
Total Plan	**100.0%**	**27,043.4**

* There is a rounding error in the weights when reporting out to only one decimal.
** Balances include asset exposures which may differ from accounting statements.

As of June 30, 2007

Manager / Asset Class	Weight	$MM*
Aquiline Partners	0.1%	24.4
Total Private Equity	**0.1%**	**24.4**
Total Alternative Assets	**0.1%**	**24.4**
Short Duration Investments	6.2%	1778.9
Total Cash Equivalents	**6.2%**	**1778.9**
Total Plan	**100.0%**	**28,557.8**

* There is a rounding error in the weights when reporting out to only one decimal.
** Balances include asset exposures which may differ from accounting statements.

Figure 2: Continuation from Figure 1

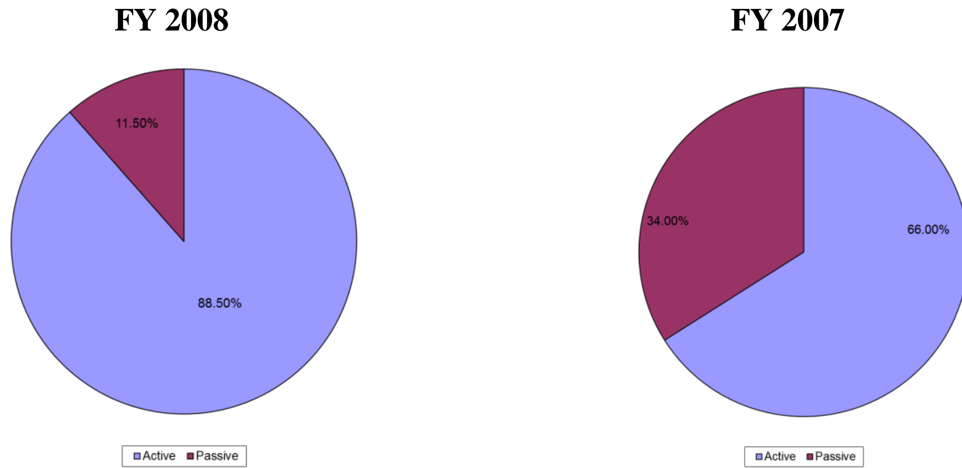

Figure 3

Total Investment Fees	
Fiscal Year	RSIC AIR
2007	36,147
2008	67,017
2009	154,581
2010	310,339
2011	345,278
2012	297,709

Figure 4

The use of Alternative Investments (AI) in implementing the diversification strategy also resulted in a lack of transparency in the fees paid relative to those investments. Typically fees relative to AI are netted against the net gain/loss and reflected in the Net Asset Value (NAV) of the fund; as per industry protocol detailed invoices of the investment fees and related costs incurred are not provided. The decreased transparency and lack of receipt of detailed invoices resulted in the decreased ability of RSIC to aggregate and report the total investment fees and cost. To add to the challenge, investment manager reporting is driven to meet the industry quarter/year-end deadlines and many of these funds receive information and prepare their reports on a delay, thereby giving rise to report timing discrepancies.

In accordance with Generally Accepted Accounting Principles ("GAAP") over the disclosure of Investment fees in the Statement of Changes in Plan Net Assets as promulgated by Government Accounting Standards Board ("GASB"), plans are not required to include in the reported amount of investment expense those investment-related costs that are not readily separable from (a) investment income (the income is reported net of related expenses) or (b) the general administrative expenses of the plan. Thus, in April 2008 PEBA adopted an accounting policy to only include the amount of the invoiced fees as investment expenses in the SCRS financials along with the appropriate footnoted disclosure; this accounting policy was standard amongst the majority of the public pension plans. Although PEBA adopted this policy for benefit of SCRS's financials, such decision was of no effect on the investment expense legislative reporting requirement for RSIC. See S.C. Code §9-16-90(b)(3). Therefore, beginning in FY 2009 the investment expense figure contained on the SCRS Statement of Changes in Plan Net Assets, the SCRS Schedule of Investment Expenses (both located in the Financial Section of the Comprehensive Annual Financial Report), and the SCRS Schedule of Investment Managers and Fees (located in the Investment Section of the Comprehensive Annual Financial Report, "CAFR") represented only the invoiced fees and the figure differed from that contained on the RSIC Schedule of Investment Expenses (located in the Expenses section of the Annual Investment Report, "AIR"). See Figure 5. Although the FY 2009 RSIC Schedule of Investment Expenses restated the prior year's expenses for comparative purposes, it contained no footnote explaining the restatement; however such was contained in the FY 2010 Schedule of Investment Expenses. In FY 2012, verbiage explaining and reconciling the differential in the investment expense figures was included in the overview contained within the Expenses section of the AIR. Additionally, the footnotes in both the Financial and Investment sections of the CAFR were expanded in an effort to provide greater clarity and transparency to the issue. It was also noted that the SCRS Schedule of Investment Managers and Fees for the same period (located in the Investment Section of the CAFR) was revised to show both invoiced and non-invoiced fees so that investment expense figures could be tied to those shown in both the CAFR and AIR.

Fiscal Year	SCRS CAFR Financial Section	SCRS CAFR Investment Section (Sch 1)[1]	SCRS CAFR Investment Section (Sch 2)[1]	RSIC AIR
2005	22,406	22,406	19,787	N/A[2]
2006	29,837	29,837	28,293	N/A[2]
2007	36,147	36,147	32,065	36,147
2008	67,017	67,017	60,159	67,017
2009	44,398	44,398	41,507	154,581
2010	51,104	51,104	49,670	310,339
2011	71,050	71,050	69,393	345,278
2012	55,130	55,130	296,135	297,709

Note 1: Sch 1 are the figures contained in the Schedule of Investment Fees and Commissions. Sch 2 are the figures contained in the Schedule of Investment Managers and Fees. The figures in Sch 2 represent investment managers' fees only (i.e. excludes other investment service and consultant fees).

Note 2: Investments were managed within the Treasurer's Office until S.C. statute creating RSIC became effective in Oct. 1, 2005. Thus no AIR was produced for this fiscal year.

Figure 5

As stated previously, S.C. Code §9-16-90(b)(3) required RSIC to provide a schedule of the sum of total investment expense for the fiscal year in an annual report. In an effort to comply with this legislative requirement to a greater degree and to provide greater transparency, in 2009 RSIC embarked upon the challenging process of disaggregating the fee amounts that were not readily separable from specific investment income. The identification and collection of the investment expenses that as a standard are netted out of income proved to be an extremely difficult process for many of the investment managers and as a result the process extended beyond the time period required for the filing of the SCRS financial statements. In FY 2012 managment attempted to improve the process through the utilization of technology. The Investment Reporting "IR" group worked to develop a custom, secure, web based portal that allowed for the direct input of management and other types of fees by fund managers and the enhanced population of validation spreadsheets. Given consideration to the resources needed to 1) update the programming for FY 2013, 2) complete the addition of other pertinent functionality, and 3) maintain the system on an ongoing basis, RSIC management decided to discontinue the use of the web based portal and look for other viable ways to improve the process.

RSIC management sought to further improve the process by 1) changing the quality of the data collected and 2) developing a process that would obtain and validate the investment fee data from the fund managers on a regular (monthly or quarterly) basis versus annually. However, many of the fund managers have not been responsive to the change in process and it appears that IR will have to revert back to the labor intensive, annual process. Instead of the fund managers inputting the management

fees directly into the web based portal and IR pulling it in via csv file and using the data to populate a blank Excel template or the managers providing the fees as part of the monthly/quarterly NAV statement, the Investment Reporting team will send out an Excel template/form to the fund managers asking them to complete it with certain information necessary to validate the management fees. Once the templates are completed and returned, IR will input the data into a table or a spreadsheet for purposes of validating and ultimately aggregating the data.

SCOPE OF REVIEW AND APPROACH

The review of the process related to the collection, validation and aggregation of Investment fees was a result of the Internal Audit & Compliance Department's Risk Assessment for FY 2013 completed in November 2012. During the evaluation of the various types of risk present in the Investment Reporting processes, it was determined that the totality of the risk related to Investment Fees was sufficient to warrant an audit. However, during the initial stages of the audit we determined that the process was not the same as the previous year. In addition, the current process was not implemented in sufficient time to allow it to be fully functional and testable, thereby presenting a testing limitation. As a result, it was determined by IAC management that the best use of the resources available was to perform a consultative review with an eye to helping the Investment Reporting team develop and put in place a methodology that was well thought out, consistently applicable on a year to year basis and sustainable over the long term.

The scope of this review covered gaining an understanding of the processes around the collection, aggregation, validation and reporting of Investment fees presented in the CAFR of the Public Employees Benefit Association ("PEBA"), be it in the actual financial statements or the Investment section. The collection, aggregation and validation of the total Investment fees appear to be a particularly challenging task for the Investment Reporting team due to the time constraints and limited resources. Investment Reporting focuses on the two main types of fees:

- Invoiced
- Non-Invoiced (also includes performance, "carried interest" and other expenses).

We performed the following procedures as part of our review:

- Reviewed guidance relative to the reporting requirements for Investment fees per the Government Accounting Standards Board ("GASB") over the disclosure of Investment fees in the Statement of Net Plan Assets and per S.C. Code of Laws Title 9 – Retirement Systems.
- Inquired of the Investment Reporting team as to the changes in the collection, aggregation, validation and reporting process between fiscal 2012 and the proposed process for fiscal 2013.
- Performed a walkthrough of the process around invoiced fees for FY 2012. Internal Audit was also able to review the already implemented parts of the FY 2013 process in addition to discussing proposed options for rollout of the rest of the process with the Investment Reporting team.

- Consulted with several pension plans that are similar in size with regard to assets under management to gain an understanding of the procedures that they currently perform related to investment fees. This was in an attempt to gauge “best practice” in the industry and to aid us in helping IR develop a more effective and efficient plan for the validation of fees in fiscal 2013.
- Discussed the Investment fees process with RSIC Investment Reporting personnel and PEBA reporting team.
- Developed and recommended a process to assist Investment Reporting with the challenge of collecting and validating the 2013 Investment fees for disclosure in the financial statements.

OBSERVATIONS

Observation #1: The process for collecting, aggregating, validating and reporting management fees has not been consistent over the past two or more years.

Inquiry of the Investment Reporting team indicated that the process has changed from FY 2012 to FY 2013, there were also indications that the process was different for FY 2011. In FY 2012 a significant number of man hours and technical expertise was dedicated to creating a web based portal for fund managers to input their fees. The team created unique passwords and user ids for each manager along with detailed information on the information that we needed and specific instructions for its use. The portal had built in system controls which included the unique ids and passwords as well along with a safeguard that only allowed the managers to “submit” their information once. Once the data was submitted, they were no longer allowed back in unless they contacted IR personnel for assistance to regain access. Due to budget and manpower constraints, this system is no longer available for use. Resources were needed to update the portal for 2013 and to fix some system limitations. Consequently, IR has reverted to a completely manual system for FY 2013 which increases the possibility of errors in the aggregation and validation of the fee numbers which can go undetected and ultimately be included in the financial statements. Additionally, the frequent changes in the process may result in fund manager request fatigue which could translate into slower response times as well as provision of inaccurate or incomplete information.

Recommendation (see listing of recommendations for additional details):

Explore retaining a third party vendor to provide validation service.

Incorporate 45 day reporting requirement into side letter with new managers.

Management’s response:

All investment management fees have been properly reported in accordance with GAAP in the financial statements. The financial statements have always received an unqualified (clean) external audit opinion and the ending net asset value (NAV) for the trust fund has always included the amount of investment management fees paid – both invoiced and non-invoiced.

As history, the Commission made a conscious decision to change the asset allocation in a manner that best balanced risk and net of fee return. This included decisions to move to external, active management. Before the Commission made the decision to change the asset allocation, a study was conducted by CEM benchmarking which anticipated the future cost of the asset allocation. The increase in the amount of fees paid is a result of the changed asset allocation and was anticipated by CEM and the Commission.

It should also be noted that while fees are an important input into the net of fee return, the Commission's mission is to achieve superior long-term investment results at a reasonable level of risk. Therefore investment decisions are made based upon risk and return characteristics.

Management appreciates the work and recommendations of Internal Audit, and the feedback they provide on our processes and procedures. The timing of internal audit's work impacted some of their observations related to the status of our process to compile and validate fees. We expect to be able to compile and test for reasonableness the vast majority of fees before the PEBA financial statement deadline, using the revised data collection process. In future years, this process should enable RSIC to provide PEBA all investment management fees that we can obtain from external managers by the financial statement deadline.

The fee collection and aggregation process has evolved and improved over time. For FY13, we chose to adopt a Quarterly Fee Statement collection process in order to improve the control environment and the timeliness of data collection. This new collection process improves the old process by making collection more frequent (on a quarterly basis), and by requiring the fees to be accounted for in the change in NAV. While this changes the manner in which the fees have been collected compared to previous fiscal years, the data requested remains the same. Characterizing this change as a reversion to a "completely manual system" ignores the primary control improvement that was made.

Management is in the process of receiving information from managers and is set to exceed data collection timeframes from previous years. RSIC staff has always met the deadline of publishing the fee information in the Annual Investment Report, met the deadline for publishing the fee information in the SCRS CAFR in FY12 and is set to meet both such deadlines again this year. Furthermore, RSIC staff will improve this historical reporting by providing a substantial portion of the fees for publication in the SCRS financial statements for FY13.

RSIC Management is considering use of third parties to provide a fee validation service. Costs will be obtained for outsourcing and a decision will be made to outsource or not based on a cost benefit analysis, legislative budgetary authorizations, and procurement laws.

The IR has been working with the Legal team to negotiate side letters with appropriate fee reporting provisions and other reporting requirements on new investment contracts as applicable since mid-2012. IR has worked to develop more standardized verbiage and investment-specific templates for contracts, which the Legal team, in conjunction with RSIC staff, strives to have included in each side letter as applicable and appropriate, depending on the specifics of each investment. RSIC includes a request that the manager agree to comply with ILPA reporting standards in each initial side letter draft and works to negotiate that point with opposing counsel and the business people. The 45 day requirement is not reasonable for some asset classes. The Legal team always seeks to include language provided by the IR

that specifies a 90 day reporting requirement after the quarter end with a 60 day deadline after fiscal year end for provision of a "good faith estimate" if final is not available. If a manager is unable or unwilling to comply with this reporting request, our request that they comply with ILPA, or any other reporting issue, Legal works in conjunction with IR and the investment staff to negotiate a reasonable solution that best suits RSIC's reporting needs.

<u>Observation #2:</u> The department is in the very early stages of moving to the quarterly collection of fee data compared to annually as in previous years and is at risk of not being able to meet the PEBA reporting deadlines.

During Internal Audit's walkthrough of the investment fee process, we noted that the IR was in the very early stages of implementing a quarterly collection of fee data from the fund managers. The team has developed two templates for data collection from the managers. One template used for hedge funds and the other is designed for use with private equity and real estate funds; each requests the managers to provide the type and amount of fees by quarter. It is important to note that these requests were sent to managers in the late April – early May 2013 time period and as such it appears the requests for quarterly fiscal year 2013 information were not sent out timely and the responses from the managers have been slow to come in.

Through inquiry of IR, Audit noted that as of June 25, 2013 the estimated amount of data received from the managers is approximately fifteen percent (15%). This low response rate puts IR in jeopardy of meeting the November 15, 2013 deadline. This is the due date for the "total investment fees" amount number which is necessary for inclusion in the Investment section of the CAFR. At this time, Audit has concern that sufficient progress has not been made toward the goal of providing a "complete and accurate" number for total investment fees paid for FY 2013 for inclusion in the CAFR.

Recommendations (see listing of recommendations for additional details):

Validate fees using a risk based approach

Consider reporting on a quarterly lag.

Formally request an extension of time to provide fee amounts.

Incorporate 45 day reporting requirement into side letter with new managers.

Management's response:

The basis for the improved fee reporting process is the principle that reported fees will correspond to the values used for financial reporting by tying the fees reported by the manager to the NAV for the same time period. This puts a control feature in the collection process, thus making it necessary for the IR to validate only a sample of the population. This sample will be selected based on a risk based approach.

The IR has been working with the Legal team to negotiate side letters with appropriate fee reporting provisions and other reporting requirements on new investment contracts as applicable since mid-2012.

IR has worked to develop more standardized verbiage and investment-specific templates for contracts, which the Legal team, in conjunction with RSIC staff, strives to have included in each side letter as applicable and appropriate, depending on the specifics of each investment. RSIC includes a request that the manager agree to comply with ILPA reporting standards in each initial side letter draft and works to negotiate that point with opposing counsel and the business people. The 45 day requirement is not reasonable for some asset classes. The Legal team always seeks to include language provided by the IR that specifies a 90 day reporting requirement after the quarter end with a 60 day deadline after fiscal year end for provision of a "good faith estimate" if final is not available. If a manager is unable or unwilling to comply with this reporting request, our request that they comply with ILPA, or any other reporting issue, Legal works in conjunction with IR and the investment staff to negotiate a reasonable solution that best suits RSIC's reporting needs.

Management is in the process of receiving information from managers and is set to exceed data collection timeframes from previous years. RSIC staff has always met the deadline of publishing the fee information in the Annual Investment Report, met the deadline for publishing the fee information in the SCRS CAFR in FY12 and is set to meet both such deadlines again this year. Furthermore, RSIC staff will improve this historical reporting by providing a substantial portion of the fees for publication in the SCRS financial statements for FY13.

Observation #3: Investment Reporting's compliance with new PEBA deadline requires the provision of investment fee amounts that have not been completely aggregated or validated.

In an effort to address the concern of the State Treasurer's Office, PEBA and IR agreed to work together to include the total of all investment fees including those for non-invoiced fee in the FY 2013 SCRS Statement of Changes in Plan Net Assets and the SCRS Schedule of Investment Expenses (both located in the Financial Section of the Comprehensive Annual Financial Report). A new reporting deadline of September 20, 2013 was established for the provision of the total investment fee number. IR agreed to provide this number with the understanding that it would not be able to fully vouch to the completeness or accuracy of the number. Provision of such information, albeit with disclosure, raises a significant concern that there were insufficient controls around IR's ability to provide a "total fees" number that was complete, accurate and valid. Providing that number without the controls and systems in place could place the organization at significant reputational and financial statement risk.

Recommendations (see listing of recommendations for additional details):

Validate fees using a risk based approach

Consider reporting on a quarterly lag.

Formally request an extension of time to provide numbers.

Management's response:

The basis for the improved fee reporting process is the principle that reported fees will correspond to the values used for financial reporting by tying the fees reported by the manager to the NAV for the same time period. This puts a control feature in the collection process, thus making it necessary for the

IR to validate only a sample of the population. This sample will be selected based on a risk based approach.

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The risk that remains is that 100% of the fees may not be disclosed in the financial statements. However, it is management's view that this effort, while not perfect, is a good faith attempt to increase transparency and is therefore appropriate.

Observation #4: Investment Reporting's current process includes recalculating stated fees as a means of validating the numbers that are already vetted by PEBA as a part of the payables process.

During our review of the process over validating invoiced fees we noted that IR was collecting invoiced fee data, recalculating it, and then comparing it to the spreadsheet that is maintained by PEBA and populated with data directly from the manager invoices. Through discussion with PEBA, Audit confirmed that the invoice amounts were validated prior to payment by comparing invoiced amounts to the contract terms for agreement. Since PEBA is vetting these invoiced fees prior to payment, the risk of finding a material discrepancy is minimal and the process is appears to be redundant. The resources expended on performing a second validation of the previously vetted invoiced fees could potentially be better utilized in another part of the process.

Recommendations (see listing of recommendations for additional details):

Utilize PEBA's validation of invoiced fees.

Management's response:

RSIC management agrees with the recommendation and currently operates under this method.

Observation #5: In order to gain comfort and attest to the total management fees, Investment Reporting validates one hundred percent (100%) of all investment fees for all funds.

Internal Audit noted through inquiry of the Reporting team, that on an annual basis they validate 100% of all fees for all funds through reperformance or recalculation. The accounting standard is not 100% assurance and even if it were, the process that is currently in place does not provide such assurance in instances where there is "carried interest" (Carried interest is the manager incentive utilized for private equity funds and it typically represents the fund manager's unrealized share of profits). Carried interest is particularly challenging to recalculate and even then, we cannot be 100% certain that it is correct. Our discussions with other pension plans did not reveal many who recalculated for 100% validation. Their standard was one of reasonableness, with which PEBA's external auditor concurred. The external

auditor thought that the burden that was placed on the organization by performing 100% recalculation and validation was onerous and it was not in alignment with the expectation.

Internal Audit believes an adequate amount of comfort could be gained by performing analytical procedures on the data collected from managers in conjunction with other procedures listed in our "Recommendations" section. Revising the validation protocol would provide IR an opportunity to regain and redeploy valuable resources to other significant areas in Reporting and other parts of RSIC. Additionally, revision of the validation process methodology would increase the ability to meet the tight deadlines for inclusion of the figures in the SCRS financial statements.

Recommendations (see listing of recommendations for additional details):

Validate fees using a risk based approach

Leverage the availability of fund manager and administrator SOC-1 reports.

Quarterly analytical procedures are performed.

Discontinue the recalculation of "carried" interest.

Explore retaining a third party vendor to provide the validation service.

Collaborate with the Operations Due Diligence team.

Management's response:

Historically, the method employed by IR has been to do reasonability tests on 100% of the population. These reasonability tests do entail calculations; however, the goal of these calculations is to ascertain whether the reported fees (both management fees and carried interest) are reasonable compared to expectations.

The goal for FY14 is to aggregate fee reporting for the complete population with validation on a sample of the population. This sample will be selected based on a risk based approach. Reasonability tests are built into the collection process so that issues can be identified and resolved with manager on a timely basis.

While a SOC-1 report from an investment manager and/or an administrator is a worthwhile internal control, and may cover the actual investment fee calculation, management's concern is that the fee reporting from the manager which details performance fees and pass through expenses is not industry standard. Rather, it is an ad-hoc report. Ad-hoc report preparation, which is what our fee reports are, typically does not fall within the scope of a SOC-1 examination. Therefore, management does not view a SOC-1 review as increasing the value of the fee report received.

RSIC management's goal is to gain confidence that all fees, including performance fees/carried interest, are in line with contractual terms. We believe this is a prudent management practice and is necessary in order to include the fees, including performance fees/carried interest, in the financial statements. Therefore, some sample testing must remain in place regarding performance fees/carried interest.

Furthermore, analyzing the total fees paid, including performance fees/carried interest, provides the investment team with valuable data upon which investment decisions can be made. It is our intention to continue to provide this value added service to the investment process. Finally, while testing performance fees/carried interest may not be industry standard, we intend to be a leader in the industry on this issue.

RSIC Management is considering use of third parties to provide a fee validation service. Costs will be obtained for outsourcing and a decision will be made to outsource or not based on a cost benefit analysis, legislative budgetary authorizations, and procurement laws.

Management will collaborate with Operational Due Diligence to determine if additional up front procedures would be value added.

Observation #6: Investment Reporting's process for collecting, aggregating, and validating investment fees is not documented at a level that ensures consistency in the process.

Per review of the process documentation and discussions with IR staff, the process has not been documented in as detailed a manner as management desires or as Internal Audit believes would sufficiently ensure consistency in performance of the process. The current documentation consists simply of a few bullet points and it would be difficult for anyone other than those intimately involved in the process to achieve success in completing or understanding the process without substantial guidance.

Recommendations (see listing of recommendations for additional details):

Fully document the process of collecting, aggregating and validating Investment fees.

Management's response:

Management does have a basic procedure in place that it follows for the fee verification project. Management plans to monitor the efficacy of the planned process and make appropriate adjustments over time. While management considers our basic procedure sufficient, we plan to develop more extensive documentation over time.

RECOMMENDATIONS

Internal Audit recommends that RSIC Investment Reporting take a risk based multistep approach to the aggregation and validation of reported fees. The plan to gain a reasonable level of comfort around the completeness and accuracy of management fees can involve any of the following:

Explore retaining a third party vendor to provide validation service.

- Investment Reporting should explore the possibility of retaining a third party vendor to provide this service. An Administrator would possess expertise in the specific area of validation and hence would have established protocol, policies and procedures. Also, an Administrator is likely to be performing this functionality for multiple clients and thus may have the ability to leverage data and relationships.

Incorporate 45 day reporting requirement into side letter with new managers.

- Implement the use of side letters with new managers that require them to use the ILPA reporting template on a quarterly basis or in some other way have the managers commit to providing the investment fee data within 45 days after quarter end.

Validate fees using a risk based approach.

- Investment Reporting should develop a comprehensive multifaceted risk based approach to the validation of total management fees for FY 2013 and forward. Some of the factors Management can consider when developing this approach can be the following:
  - Stratifying the population for fund manager and number of funds under each manager.
  - Testing a sample of 25% (above standard sample size) of each fund category or type, including strategic partnerships.
  - Looking at each fund's NAV.
  - Ease of obtaining information from fund managers.
  - Likelihood of there being additional undisclosed/unreported fees
  - Whether there has been a history of problems with the manager
  - Accuracy of data provided in the past
  - Responsiveness of managers
  - Reliability of the fund manager's system for reporting information.
  - Consider putting funds on a rotating three year cycle so that 100% of funds are tested every three years.

Consider reporting on a quarterly lag.

- The use of best available information appears to be fairly standard in the industry. Utilizing a quarter lag would appear to meet the criteria for best available information in this situation. This allows for the reporting of four quarters of actual data as compared to the three quarters of actual and one quarter of estimated data since the timing of the release of management fee information by the fund managers is generally too late to be included in the current financial statements. Management should consider adopting this approach as long as a determination has been made by the Legal department that is compliant with State statutes.

Formally request extension of time to provide fee amounts.

- The Investment Reporting team should consider availing itself of the opportunity to formally request an extension of additional time in order to gain more efficiency in the current process and to implement the new plan that Management has committed to having in place for fiscal 2014. An extension will also allow IR to obtain and provide a more complete and accurate number that will help close the gap between the amount of management fees shown in different places in the CAFR.

Utilize PEBA's validation of invoiced fees.

- Utilize 100% of invoiced fees captured from PEBA's "cumulative fees" spreadsheet populated with data received directly from statements and invoices without performing any additional work. Note that the fees shown in the PEBA cumulative fees worksheet can be relied upon since those fees are generally vetted by someone at PEBA with the requisite knowledge prior to payment on a periodic basis. It is also recommended that PEBA's performance of this task and RSIC's reliance be formally documented.

Leverage the availability of fund manager and administrator SOC-1 reports.

- The IR team can also rely on the SOC-1 reports of the fund's administrator or manager when such report covers the effectiveness of the internal controls over the processing of management fees. It should be noted when manager's fee schedule provided to SCRS are on an ad-hoc basis and/or not systematically generated, such SOC-1 report might not be relied upon. In instances where reliance was possible, the IR team would have to prepare and document their analysis of the type of report that was prepared, the type of opinion given, whether the controls over management fees were included and whether the "user considerations" were met in order to rely on the SOC-1 and consequently the data being provided by the fund and their administrator. The IR management will need to develop an "evaluation template" that can be used in the evaluation of each SOC-1 report to ensure that a thorough and consistent approach is applied in the evaluation of these reports. The template should be compliant with the AICPA standard shown at paragraph .52 at AU sec 801 and at Appendix A and available at the location shown. Internal Audit reviewed the results of the Valuation questionnaire noting that strategic partnerships were excluded and that there was potentially the opportunity to review from a sample of approximately 27 administrators SOC-1 reports. http://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AT-00801.pdf

Quarterly analytical procedures are performed.

- Investment Reporting can also consider performing some standard analytical procedures on the data to aid in assessing reasonableness of the data received and identifying exceptions. The analytics can include comparing fees, performance and NAV on a quarter over quarter basis and setting up some parameters around what changes would be reasonable. Those funds that fell outside the acceptable range (the outliers) could then be further analyzed through contact with the fund managers or additional information that the department maintained or even consultation with the Investment team.

Discontinue the recalculation of "carried" interest.

- Based on our conversations with the Investment Reporting teams at several pension plans, it appears that it is commonplace within the industry to refrain from recalculating "carried" interest. As "carried" interest is viewed as part of the investment return and therefore accounted for as a re-allocation of profits from the LP to the GP, many pensions IR teams work with their investment staff, who through their ongoing due diligence gain comfort on the processes around calculating such amount. This differs from the accounting for management and performance fees which are viewed as direct fund expenses that are charged by the GP. As such, IR should consider the effect that replacing the recalculation of "carried" interest with performing a reasonableness check would have on their resources.

Collaborate with Operations Due Diligence team.

- Collaborate with the Operations Due Diligence (Ops DD) team to potentially leverage some of the strategies they use during the due diligence process. With proper advance planning, Ops DD could possibly perform sample testing on IR's behalf during their onsite visits.

Fully document the process of collecting, aggregating and validating Investment fees.

- Management should consider it a priority to fully and completely document the procedures around the collecting, aggregating and validating of Investment fees by the Reporting team. This documentation should include roles and responsibilities, systems used, documents/reports produced and sources of data.

APPENDIX A

Items to consider when reviewing a Service Auditor's report

Preparing the Service Auditor's Report
Content of the Service Auditor's Report (Ref: par. .A59)

.52 A service auditor's type 2 report should include the following elements:
a. A title that includes the word *independent*.
b. An addressee.
c. Identification of

i. management's description of the service organization's system and the function performed by the system.

ii. any parts of management's description of the service organization's system that are not covered by the service auditor's report. (Ref: par. .A56)

iii. any information included in a document containing the service auditor's report that is not covered by the service auditor's report. (Ref: par. .A56)

iv. the criteria.

v. any services performed by a subservice organization and whether the carve-out method or the inclusive method was used in relation to them. Depending on which method is used, the following should be included:

(1) If the carve-out method was used, a statement that management's description of the service organization's system excludes the control objectives and related controls at relevant subservice organizations, and that the service auditor's procedures do not extend to the subservice organization.

(2) If the inclusive method was used, a statement that management's description of the service organization's system includes the subservice organization's specified control objectives and related controls, and that the service auditor's procedures included procedures related to the subservice organization.

d. If management's description of the service organization's system refers to the need for complementary user entity controls, a statement that the service auditor has not evaluated the suitability of the design or operating effectiveness of complementary user entity controls, and that the control objectives stated in the description can be achieved only if complementary user entity controls are suitably designed and operating effectively, along with the controls at the service organization.

e. A reference to management's assertion and a statement that management is responsible for (Ref: par. .A60)

i. preparing the description of the service organization's system and the assertion, including the completeness, accuracy, and method of presentation of the description and assertion;

ii. providing the services covered by the description of the service organization's system;

iii. specifying the control objectives unless the control objectives are specified by law, regulation, or another party, and stating them in the description of the service organization's system;

iv. identifying the risks that threaten the achievement of the control objectives;

v. selecting the criteria; and

vi. designing, implementing, and documenting controls that are suitably designed and operating effectively to achieve the related control objectives stated in the description of the service organization's system.

f. A statement that the service auditor's responsibility is to express an opinion on the fairness of the presentation of management's description of the service organization's system and on the suitability of the design and operating effectiveness of the controls to achieve the related control objectives stated in the description, based on the service auditor's examination.

g. A statement that the examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and that those standards require the service auditor to plan and perform the examination to obtain reasonable assurance about whether management's description of the service organization's system is fairly presented and the controls are suitably designed and operating effectively throughout the specified period to achieve the related control objectives.

h. A statement that an examination of management's description of a service organization's system and the suitability of the design and operating effectiveness of the service organization's controls to achieve the related control objectives stated in the description involves performing procedures to obtain evidence about the fairness of the presentation of the description and the suitability of the design and operating effectiveness of those controls to achieve the related control objectives stated in the description.

i. A statement that the examination included assessing the risks that management's description of the service organization's system is not fairly presented and that the controls were not suitably designed or operating effectively to achieve the related control objectives.

j. A statement that the examination also included testing the operating effectiveness of those controls that the service auditor considers necessary to provide reasonable assurance that the related control objectives stated in management's description of the service organization's system were achieved.

k. A statement that an examination engagement of this type also includes evaluating the overall presentation of management's description of the service organization's system and suitability of the control objectives stated in the description.

l. A statement that the service auditor believes the examination provides a reasonable basis for his or her opinion.

m. A statement about the inherent limitations of controls, including the risk of projecting to future periods any evaluation of the fairness of the presentation of management's description of the service organization's system or conclusions about the suitability of the design or operating effectiveness of controls.

n. The service auditor's opinion on whether, in all material respects, based on the criteria described in management's assertion,

> i. management's description of the service organization's system fairly presents the service organization's system that was designed and implemented throughout the specified period.
>
> ii. the controls related to the control objectives stated in management's description of the service organization's system were suitably designed to provide reasonable assurance that those control objectives would be achieved if the controls operated effectively throughout the specified period.
>
> iii. the controls the service auditor tested, which were those necessary to provide reasonable assurance that the control objectives stated in management's description of the service organization's system were achieved, operated effectively throughout the specified period.
>
> iv. if the application of complementary user entity controls is necessary to achieve the related control objectives stated in management's description of the service organization's system, a reference to this condition.

o. A reference to a description of the service auditor's tests of controls and the results thereof, that includes

> i. identification of the controls that were tested, whether the items tested represent all or a selection of the items in the population, and the nature of the tests in sufficient detail to enable user auditors to determine the effect of such tests on their risk assessments. (Ref: par. .A50)
>
> ii. if deviations have been identified in the operation of controls included in the description, the extent of testing performed by the service auditor that led to the identification of the deviations (including the number of items tested), and the number and nature of the deviations noted (even if, on the basis of tests performed, the service auditor concludes that the related control objective was achieved). (Ref: par. .A65)

p. A statement restricting the use of the service auditor's report to management of the service organization, user entities of the service organization's system during some or all of the period covered by the service auditor's report, and the independent auditors of such user entities. (Ref: par. .A61–.A64)
q. The date of the service auditor's report.
r. The name of the service auditor and the city and state where the service auditor maintains the office that has responsibility for the engagement.