

Tom Peters, Todd Crouthamel, and Jen Kreischer, Directors in Kreischer Miller's Investment Industry Group

Kreischer Miller

Agenda

- 1. Speaker and KM Intro
- SBCERA / KM ODD Program Key Points
- 3. Who's Who at an Investment Firm
- Risk and ODD
- SBCERA / KM ODD Program Overview
- 6. SBCERA / KM ODD Program Past Findings



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Speaker Introductions

Speakers

- Tom Peters
- Todd Crouthamel
- Jen Kreischer



About Kreischer Miller's Investment Industry Group

Kreischer Miller's Investment Industry Group (IIG) provides 3 main lines of service:

- Operational Due Diligence and Internal Control Services
- Global Investment Performance Standards (GIPS)
- Traditional CPA Services for advisors, funds and broker dealers:
 - Audit
 - Tax
 - SEC Custody Exams
 - Consulting



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About Kreischer Miller

Key Statistics:

- Founded in 1975
- Largest independently owned CPA firm in Philadelphia region with 300 employees
- All owners are active in the business and serve clients
- We grow organically, as opposed to growing by merger or by involving private equity
- Operate as a traditional CPA firm. We don't sell insurance products or provide wealth management services

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The Kreischer Miller Operational Due Diligence Program:

- Auditors' Approach Managers know how controls and systems should be designed and are well rehearsed in describing how systems should operate.
 - KM's operational due diligence includes interviews with Managers, but our work goes further. We perform detailed walkthroughs and testing to determine whether the controls described to us, have been placed in operation.
- Independence Operational Due Diligence providers should be free of conflict of interest.
 - KM is independent of the investment due diligence. We are not an investment advisor or consultant who makes recommendations of investment managers. As such, we are free of conflicts of interest.

The Kreischer Miller Operational Due Diligence Program:

- Targeted Managers have many business units and often different areas
 of the firm are responsible for different product lines.
 - KM's operational due diligence is focused on your investments and products.
- Deep industry knowledge Should be conducted by senior individuals who know the inner workings of investment managers
 - KM's Operational Due Diligence is lead by several Director level personnel, who have seen, first-hand, some of the industry's best, and worst practices.

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The Kreischer Miller Operational Due Diligence Program:

- Risk Mitigation An effective Operational Due Diligence Program should not only <u>identify</u> risks, but also <u>reduce</u> the plan's risks
 - KM's Operational Due Diligence is a transparent process. Managers know our issues or concerns, and are able to revise their processes, systems and controls to strengthen the process, thereby reducing a plan's operational risk. Most managers are better for having gone through our process.
- Closing loops Another element of risk mitigation, versus risk identification, is following up on points raised in our closing meetings.
 - KM's Operational Due Diligence Program may include follow up visits, calls, or remote update procedures to ensure changes as a result of operational due diligence have been implemented.

The Kreischer Miller Operational Due Diligence Program:

- Integration of Plan's Staff The Plan's staff should communicate any investment manager concerns and should have regular communications with the due diligence provider.
 - KM and SBCERA Staff have pre-visit discussions to make sure KM is aware of any SBCERA concerns for the manager. KM and SBCERA Staff have follow-up calls to discuss the key points for each visit. We are in regular communication on other matters as they arise during the year.
- Meaningful feedback The Plan should receive feedback in sufficient detail to allow them to make a qualitative assessment of operational risks
 - KM's reporting is transparent and provides the plan with a thorough understanding of potential risks, and how the manager responded to these risks as a result of our operational due diligence.

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Typical Departments

- Front Office Portfolio Management
- Middle Office Trading
- Back Office Operations
- Compliance, Marketing where do these fit?
- C-Suite



Front Office – Portfolio Management

- Portfolio Mangers
 - Responsible for overall construction of portfolios
- Analysts
 - Idea generation for portfolio managers to consider
- Risk Analysts
 - Monitor portfolios for blind spots



Middle Office – Trading

- Traders
 - Responsible for trade execution, best execution
- Trade Settlement
 - Communicate for trade matching
 - Custody notification
 - Post-trade compliance
 - Allocation of trades
- Junior trader
 - Creating trades in Order Management System
 - Pre-trade compliance



Back Office - Operations

- Reconciliation of portfolio positions and cash flows
- Pricing of securities
- Manage portfolio management system
- Process corporate actions
- Responsible for proxy voting
- Client billing
- Client reporting
- Performance measurement/GIPS



Compliance

A strong compliance department should:

- Be independent of the investment process
- Have direct reporting to CEO or Board
- Routinely monitor transactions and holdings for mandate and/or strategy compliance
- Lead annual compliance testing
- Monitor contractual compliance with investors (including side letters)
- Be responsible for regulatory compliance with SEC and other regulators.



Marketing

- Sales team, communicating with current and prospective investors
- The marketing team can be part of the Front Office
 - Client facing
 - Communicating the firm's investment strategy
- The marketing team can be part of the Back Office
 - Internal sales support
 - Generate client statements
 - Marketing materials
 - Billing
 - Responding to requests for proposals & ODD
 - GIPS Global Investment Performance Standards



C-Suite

- CEO/President
 - Often the founder
 - Often the lead PM or Chief Investment Officer
- CCO Chief Compliance Officer
- CTO Chief Technology Officer
 - Key for Cybersecurity, Disaster Recovery
- CMO Chief Marketing Officer
- CFO Chief Financial Officer



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Investment Risk vs. Operational Risk

Investment Risk

- Risk that the actual return on an investment will be lower than the investor's expectations.
- Inherent to the investment strategy of an investment manager (IM).
- Plans manage investment risk by focusing on several key factors, including:
 - Risk balance
 - Tactical allocation
 - Investment structures





Investment Risk vs. Operational Risk (cont'd)

Operational Risk

- Includes many qualitative elements (e.g. an investment manager's internal controls, design and implementation of systems, oversight of employees).
- Taking on additional operational risk is never expected to improve returns.
- For this reason, operational risk is an uncompensated business risk.





What makes an investor nervous?

- Investment managers operating outside mandates
- Ineffective transaction controls
- Weak reconciliation procedures
- Concentration of authority in one or a few individuals
- Inappropriate attitudes toward risk management
- Lack of checks and balances





Causes of Investment Mandate Violations and Increased Risk

Operational risk may be increased because:

- 1. An <u>investment manager does not fully recognize or understand its</u> <u>investment mandate or internal controls</u>, and may unwittingly be increasing operational risk
- 2. An investment manager is fully cognizant and supportive of its investment mandate, but a breakdown of internal systems and controls, and/or human misunderstanding or error may have created transactions that unwittingly are outside of the investment mandate and contribute to increased operational risk
- 3. An <u>investment manager chooses to circumvent its investment mandate</u> or internal controls for "the better interests" of the client, <u>and is making no effort to "cover up"</u> their lack of compliance with the mandate or override of controls.

Causes of Investment Mandate Violations and Increased Risk (cont'd)

Operational risk may be increased because:

4. An Investment Manager chooses to circumvent its investment mandate or internal controls as a means of improving their relative performance, and is making a <u>conscious effort to hide this circumvention</u> from their clients.*



^{*} Difficult to detect until performance falls out of line with expectations or the investment manager makes a mistake in covering the trail. Rarely resolved without substantial financial loss.

Objectives of Operational Due Diligence

- 1. For all Reaffirm the investment mandates to the IM's teams, the necessity for adhering to them, and the Plan's desire to minimize operational risks.
- 2. For those with less sophisticated internal support Create an opportunity to strengthen internal controls that preserve the investment mandate and minimize operational risks.
- 3. For those who operate outside of their investment mandate in a transparent manner or have systems and processes that expose the Plan to unnecessary risks Create an opportunity for constructive redirection of any internal systems, procedures, and personnel.



Objectives of Operational Due Diligence (cont'd)

- 4. For those who are covering up an overt disregard of their investment mandate or an overt disregard for systems and processes to reduce risk Create a potential deterrent -the process increases their risk of being discovered.
- 5. For the Plan's Staff/Board Provide feedback to the Plan's Staff and Board that strengthens its understanding of business/operational risks associated with individual investments and increase IM accountability to maintain the investment mandate and reduce business/operational risks.



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Operational Due Diligence Process

The Process – The SBCERA/Kreischer Miller Operational Due Diligence Process is customized to your plan's specific needs. Elements of the process include:

- 1. New (Initial) Manager visits
- 2. Pre-hire visits
- 3. Repeat visits
- 4. Remotely applied procedures
- 5. Fee recalculations
- 6. Other procedures (addressing specific concerns of the Staff/Board)



Operational Due Diligence Process

On-site manager visits – Pre-hire, post-hire & then every four years, unless risks increase and an earlier visit is needed.

Assess operational risks relating to the Plan's existing investment managers. Begins with a discussion with the portfolio manager to understand the strategy, then an understanding of processes and systems. Concludes with a wrap-up meeting to discuss findings and recommendations.

- Traditional Managers (such as equity and fixed income)
 - Attempting to bypass system controls (such as entering inappropriate trades into the portfolio system)
 - A day in the life of a trade



Operational Due Diligence Process (cont'd)

- Non-Traditional Managers (such as real estate, PE, FOFs)
 - Focus on Manager's due diligence for accepted investments
 - How does this manager screen potential investments?
 - Due diligence binders
 - Ongoing monitoring
 - What investments were rejected because of the manager's due diligence process?



On-Site Operational Due Diligence

- Builds on knowledge gained in remote due diligence
- More investors require on-site due diligence than in the past both before and after an investment is made
- It is critical to walk transactions through processes to determine that
 processes occur as they have been described to us. This is best done on
 site, with the team members who work in the processes on a daily basis.



Begins with Gathering of Information

- Assess Risk prior to on-site visit.
- Understanding of mandate through written materials.
- Overview of mandate drives the focus and questions during the onsite visit.

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 Customized approach that is tailored to each investment and Investment Manager



Information Collection Process

- Legal Documents
- Financial Documents
- Policy Manuals
- Organizational Charts
- Insurance
- Technology



A Day In the Life of a Transaction

- Investment Management Personnel, Portfolio Managers
- Execution of the trade, Traders
- Back Office/Operations
- Compliance
- Risk Management
- Valuation



Investment Management Personnel

- Not here to make investment decisions
- Overview of the firm and the Fund
- Process for choosing investments
 - Sourcing
 - Investment Committees
 - Approvals
- Exit strategies



Execution of the Trade

- Authorized Traders/Segregation of Duties
- Systems
- Pre-trade Compliance
 - Due diligence team will want to see how the system is set up to prevent trading outside of the mandate
 - Does trading system block such trades? Can the block be overridden?
 - If OTC trading, how many sets of eyes are required? How quickly would an out of mandate trade be caught?



Operations

- Trade Confirmation
- Booking of the trade
- Clearing and Settlement of the trade
 - Including cash management
- Accounting and Finance
- The Role of Custodians and Administrators



Compliance

- Pre and Post Trade Compliance
 - Including a walk-through of systems
- Firm level Compliance
 - Code of Ethics
 - Conflicts of Interest
 - Regulatory Examinations
 - Allocation Methodology



Compliance

- Compliance with contract between SBCERA and the Investment Manager. This includes items such as checking compliance with the following:
 - Investment mandate
 - Insurance requirements
 - Notifications of departure of key personnel
 - Other provisions noted by Staff



Risk Management

- Expect a firm-wide, fund-wide and investor specific view who is responsible and how do they monitor?
- Risks consistent with asset class
- Investment vs. Operational Risk
- Reputational Risk
- Counterparty Risk
- Look at independence of risk management function from investment decisions



Valuation

- Valuation Policies and Procedures
- Independent Oversight
- Valuation Committees
- Third-party Valuation agents
- Net Asset Value
- Management and Performance Fees



Beyond a "Day In the Life"

- Human Resources
 - Personnel
 - Turnover
 - Compensation Structures
 - Succession planning
- Technology
 - IT Infrastructure
 - Business Continuity and Disaster Recovery
- Cybersecurity
 - Policies and Procedures
 - Training
 - Use of outside vendors



Beyond a "Day In the Life" (cont'd)

- Cash Controls
 - Authorized Signatures
 - Use of Administrator
 - Selection
 - Monitoring
 - SSAE 18 or SOC 1 Reports
- Auditors
 - Recognizable Firm
 - Turnover
 - Adverse opinion



Regulator Letters

- It is now a regular part of operational due diligence to request copies of and a discussion of letters from regulators such as the SEC
- Almost all managers will at least allow it to be read on site
- SBCERA will not invest in a fund if the manager does not provide full transparency into the letter

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Sample Reporting – Manager Flash Report

- Quick overview of most important findings
- Action items, resolutions, key observations
- Establishes risk by category
 - Category 1 risks: follow-up on-site visit recommended to address issues noted during the engagement
 - Category 2 risks: Remote (rather than on-site) follow-up recommended to address issues noted during the engagement
 - Category 3 risks: No items noted for follow-up. Managers should be subject to normal rotating site visits and recurring remote procedures.



Sample Reporting – Site Visit Reporting

Detailed procedures and observations from the due diligence engagement.

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 Typically accompanied by a transmittal letter which highlights key items, items for follow-up and manager responses.



Core Areas of Focus – Customizable

- Identification and understanding of systems, controls, and resources impacting portfolio management
- Assessment of compliance with the investment mandate and effective portfolio risk management
- Understanding of investment manager's trade execution, trade allocation, soft dollar and directed brokerage policies and the related impact
- Valuation and counterparty risk
- Performance measurement and review
- Effective and timely reconciliation procedures with the custodian
- Performance reporting



Core Areas of Focus (cont'd)

- Effective and timely controls over income recording
- Timely response to notification of corporate actions
- Effective procedures to maintain confidentiality of transactions and portfolio details
- Appropriately skilled personnel with relevant training and development programs
- Effective and independent compliance functions ensuring, in particular, compliance with relevant regulatory requirements
- Adequate financial strength and insurance arrangements of investment manager
- SEC search / background checks
- Effective disaster recovery and continuity procedures



Other Areas of Focus

- Manager and custodian fee recalculations Challenges to the fee recalculation process include:
 - Changing agreements
 - Differing formulas
 - Complex formulas for investment fees
 - Differing investment vehicle structures
 - Differing custodians and administrators
 - Lags in market values
 - Complex hurdle calculations
 - Complex waterfall structures, some requiring deal-by deal analysis
- Fee recalculation engagements can identify and recover overcharges



- 1. Inappropriate levels of authority or lack of segregation of duties:
 - Client service director had authority to place trades.
 - A list of authorized traders was initially distributed to the firm's counterparties and was never updated for personnel turnover.
 - Traders, who should generally only have authority to execute trades already entered into the trading system by portfolio mangers (after clearing compliance screening), could also enter trades into the trading system and then execute them – thereby bypassing authorization controls.





- 1. Inappropriate levels of authority or lack of segregation of duties (cont'd):
 - Traders had the authority to add, delete, modify, and override compliance guidelines without any secondary approval or review.
 - Traders had the authority to add, delete, and modify the security master file without any secondary approval or review (or audit trail).
 - Portfolio managers had the authority to add, delete, modify, and override compliance guidelines without any secondary approval or review.





- 2. Differing interpretations of investment guidelines:
 - How "leverage" is defined. Is a futures contract within 5% down "leverage"? Is an option "leverage"? Is external leverage different from contract-internal leverage?
 - When assessing the percentage limitations within a portfolio, is an option considered at its contract value or its net cash value? Same for futures.
 - Is a dollar-denominated ADR of a foreign company a "Non-US Investment"?





- 3. Poorly designed compliance systems that were ineffective in blocking trades that would violate the investment guidelines:
 - Often when multiple guidelines are violated, the correction of only one
 of the violations allows the trade to be processed.
 - Guidelines violations can be overwritten or modified without appropriate oversight.
 - The latest version of the guidelines is not input into the compliance system, or guidelines are missing from the compliance system.





- 4. When evaluating non-traditional managers, we observe that many well-run fund of funds managers have a three-pronged approach to evaluating underlying hedge funds:
 - Manager research focusing on evaluating the investment strategy of the fund
 - Quantitative analysis focusing on correlation and other statistical measures to evaluate whether funds would be an uncorrelated fit for the fund of funds
 - Operational due diligence focusing on the operational and business risks inherent in the underlying fund managers' operations. The Operational Due Diligence group should have veto power over any existing or potential investment in an underlying fund.





- 4. (cont'd) Some non-traditional fund of fund managers either did not provide the Operational Due Diligence group veto power, did little or no actual operational due diligence, or excluded key components, such as the following:
 - Obtaining an understanding of key internal controls surrounding trading, reconciling, cash receipts and disbursements, accounting, compliance valuation, and performance measurement functions.
 - Requesting information on any current or prior litigation.
 - Requesting correspondence resulting from regulatory reviews, such as SEC examinations.
 - Requesting personal trading policies and obtain an understanding of how the underlying manager monitors these policies.
 - Obtaining an understanding of managers' hiring practices, including compensation structure for key personnel, and turn-over.

- 5. Poor documentation of due diligence conducted on the underlying investments. The investment manager indicated that elements were included in its due diligence process, however, the due diligence information maintained by the investment manager did not support the claim.
- 6. Inadequate assessment of fair values, including assessment of risks inherent in the lack of transparency.
- 7. Improper segregation of duties surrounding the cash disbursement or expense allocation process.
- 8. The investment manager did not adequately monitor compliance with the provisions of the side letter.





- 9. Manager fees calculated using a soft, as opposed to hard, performance hurdle resulting in overcharges.
- 10. Logic errors in the formulas used to calculate custodial fees were noted, resulting in triple-charging for certain class of investments.





- 11. Manager fees did not incorporate side letter provisions.
- 12. Manager overcalled commitments, holds onto for three years, and only credited the Plan for the net amount invested. This resulted in an understated hurdle, which caused the manager to overcharge.



In Conclusion...

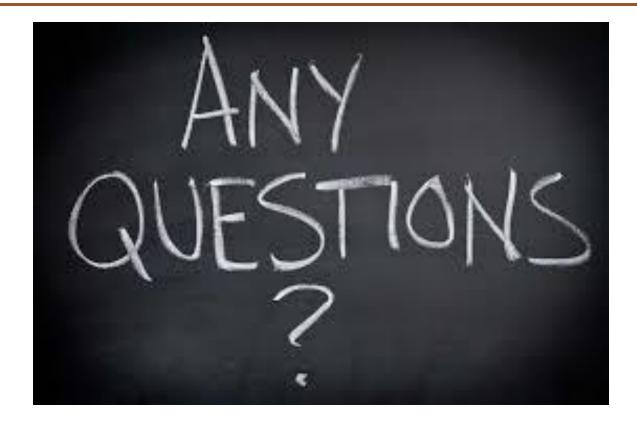
The SBCERA / KM ODD program is ever evolving to respond to the needs of the Plan and to address risks as they are identified.

The approach of the SBCERA / KM ODD program is designed with an auditor mindset coupled with the desire to work with the managers to minimize operations risk to the Plan.

In addition to integrating SBCERA Staff, KM reports directly to the board (Audit Committee) on an annual basis.

Thank you for allowing us to present on the SBCERA / KM ODD Program.

Please feel free to ask any questions.





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