



Operational Due Diligence Insights

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Welcome to Our First Issue

Welcome to the inaugural issue of Corgentum Consulting's *Operational Due Diligence Insights*. This newsletter will serve as a resource for news, opinions and insights focused on issues related to operational risk and operational due diligence on fund managers including hedge funds, private equity funds and traditional managers.

Increased Fund Regulatory Requirements Complicate Compliance Diligence

In the context of investors attempting to evaluate the sum total of operational risk in fund managers, no area is currently more rife with changes than the legal and compliance area. The passage of Dodd-Frank and the subsequent flurry of governmental rules and regulations have metastasized into a complex compliance web that both funds and investors must navigate. From the funds perspective, these new rules apply to many different fund manager types across asset classes including hedge funds, private equity funds, real estate funds and more traditional fund managers. For investors performing operational due diligence, one of the key challenges to evaluate is whether a fund not only has taken a pro-active

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approach to comply with the new rules and regulations, but whether they have done so intelligently. One of the key challenges many fund managers have recently faced is the registration requirements recently enacted by the SEC. In addition to the registration requirements, many fund managers may have to comply with additional reporting disclosure requirements, including those contained in the revised Form ADV and Form PF. Fund managers seeking to initially comply with the SEC's February 14, 2012 registration deadline, likely took a number of different approaches in their path towards compliance. Many fund managers engaged one of the bevy of third-party compliance consultants. These third-party firms have realized a recent boon to their businesses, based on increased compliance requirements. Other fund managers, instead, likely worked with law firms to assist them with this process. Still, others may have utilized internal legal and compliance resources. In any case, now that we are past the registration deadline, investors may be tempted to consider the approach taken by a particular fund to comply with registration requirements to be a moot point. After all, the only point is that a fund has met the requirements, isn't it?

Such an approach seeks to put the cart before the horse. With the registration deadline now behind them, fund managers still have an enhanced series of ongoing reporting and compliance monitoring requirements. Perhaps the most notable example of these ongoing requirements includes, the new disclosure requirements of Form PF.

During the operational due diligence process, investors can likely gain a number of useful insights into a fund manager's attitude towards compliance, by evaluating the way in which a fund manager worked to meet the initial registration requirements. By incorporating an ongoing review of a fund manager's compliance environment in their operational due diligence process, investors will be able to monitor the way in which a fund attempts to meet mandated regulatory minimum

levels of compliance. Another less obvious added benefit for investors may also be knowledge about how seriously a fund manager takes the concept of compliance.

Said another way - if a fund manager takes the bare minimum approach towards internal compliance oversight, where else might they be cutting corners? Without comprehensive operational due diligence, the answer might not be as clear as investors might like.

Backup Power Generation: Are Fund's Prepared for Blackouts?

Business continuity planning and disaster recovery, often abbreviated as BCP/DR, is one area which is typically covered, or at least should be covered, during the operational due diligence process. Reviews of a fund's BCP/DR infrastructures however, are a bit counterintuitive. The goal of evaluating a fund's BCP/DR plans seems simple enough on its' face - *can a fund continue operations in the event of a disaster?* However, from this simple enough question comes a myriad of quite complex technology, process and planning considerations. One such area that we will focus on in this article relates to backup power generation.

The concept behind a fund manager's backup power generation capabilities may seem to boil down to a singular goal - *can a fund manager keep the lights on if the power goes out?* From an operational due diligence perspective, the question of how a fund manager approaches this issue can actually be further distilled into two distinct questions.

First, does a fund manager have backup power

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capabilities to allow for an orderly shut-down or protection of the firm's hardware? Second, can the firm continue operations, and perhaps most importantly, investing activities in the event of a prolonged power outage? Let us consider each of these questions individually.

When considering backup power which provides an orderly system shutdown, we first have to understand exactly what hardware is being turned off. On its most basic level, fund managers generally have two primary types of hardware: *desktop computers* and *servers*. When the power is suddenly cut to either of these types of equipment, bad things could happen if they were to immediately just shut down. First, important data that was not saved properly before the shut down could be lost. Besides the loss of data, a sudden power loss could potentially cause actual physical damage to the hardware itself.

To combat these problems, a fund manager can typically install a piece of hardware known as an *uninterruptible power supply*, which is commonly referred to as a UPS. On their most basic level, a UPS provides protection from a power loss. It does this by automatically switching on when the power is cut. Once switched on, a UPS will minimally provide sufficient battery power to the computer or server so that it may be properly shut down without data loss or hardware damage.

The length of battery power provided by a UPS can be relatively short (i.e. - 15 minutes) or may even extend up to a number of hours. A UPS may not only serve as a backup to power loss. These devices can also protect equipment against power surges, spikes, and high frequency power oscillation from other equipment. All UPS's are not created equally, and there are many different types including offline / standby UPS, Line-interactive UPS, double-conversion online UPS, double conversion on demand, ferro-resonant UPS and diesel rotary UPS.

While UPS' range in price and capabilities, it is generally considered best practice for a fund manager to have dedicated UPS's for both their desktop computers and servers. Additionally, it is important for fund managers to perform ongoing testing of UPS's to ensure that they are appropriately holding battery power.

We can now turn to the second primary concern most investors have to backup power generation - the ability of a fund manager to continue operations in the event of a prolonged power loss. This area is most likely the more common of the two major investor concerns related to backup power generation. To clarify, a prolonged power loss generally refers to a loss of power which extends for more than a few minutes.

Depending on the fund manager's geographic location, inclement weather such as snow storms or hurricanes, may potentially cause power outages which can extend for a number of days. The problem, of course, is that the entire world does not lose power all at once, and the markets remain open.

A fund manager who cannot continue trading operations for an extended period of time is likely to be at a severe disadvantage and may potentially pile up serious losses. As an aside, for the purposes of this discussion it should be noted that while a fund managers approach to continuing operations may encompass a number of concepts not directly related to backup power generation including securing alternative work locations and maintaining backup phone lines and internet connections. Returning to the issue at hand though - what approaches is an investor likely to encounter during the operational due diligence process?

The most common solution that fund managers take to address this issue is a backup generator. Backup generators are different from UPS's in that they actually have the ability to generate power for an extended period of time. Emergency backup generators come in

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multiple types including, natural gas powered and diesel powered. Depending on the type of generator employed, a number of different ongoing maintenance requirements may be in place. With diesel generators, for example, it is important to ensure that the generator has an appropriate supply of diesel gas in its' tank. Additionally, diesel generators often need to be started several times throughout the year to ensure that the equipment continues to function properly.

Depending on their location, a fund manager may have a dedicated generator or one which is shared with multiple tenants in the same office building. Often times such large generators, which may be able to generator power for periods of multiple days, can require a significant investment of capital from a fund manager. Depending on the nature of the fund manager's strategy, some investors may consider the importance of such extended generator capabilities to be more or less important.

For example, some investors might be of the opinion that a high frequency trading hedge fund would likely suffer greater losses by having an extended power outage than a low frequency event driven manager. Regardless, of the particular specifics associated with each manager, it is generally considered best practice for a fund manager to have both UPS's and a dedicated emergency backup power generator.

Investors that take the initiative to evaluate the way in which a fund manager approaches loss of power issues, lessens the risk of being left out in the dark when the power goes out.

Financial Statement Risk: The Master-Feeder Conundrum

A commonly employed fund legal structure, which is popular among both hedge funds and private equity funds, is the master-feeder structure. Under this type of two-tiered structure, a master fund sits above a feeder fund. Investors typically allocate capital to a feeder fund, which then takes this capital and makes an investment in the master fund. Ultimately, it is the master fund that makes the investments on behalf of the whole fund complex.

The master-feeder fund relationship is one which is replete with operational intricacies. When one gets into the operational nuts and bolts of the ways in which these different fund vehicles interact, the complexity of such relationships may at first be overwhelming. Putting aside the legal pros and cons of such a fund, arrangements aside, during the operational due diligence process a number of other operational complexities may surface regarding this structure.

Many of these additional layers of detail typically center around accounting procedures. Examples of these items can include the allocation of trades among the funds, distribution of profits and losses among the funds, the allocation of management and incentive fees, the tax allocation implications of multiple fund arrangement, and tracking of the fund's inflows from the master and feeder funds.

While each of these considerations could merit their own separate discussion, in this article we instead want to focus on a different aspect of the master feeder relationship as reflected in the audited financial statements of funds. During the operational due diligence process, one of the key documents investors

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Master-Feeder - Continued from page 4...

may seek to collect are the audited financial statements of the fund(s) under consideration. Typically an investor is considering allocating capital towards one fund vehicle in particular. In a master-feeder situation, there are typically at a minimum, fund vehicles that are appropriate for onshore or domestic investors and one which is more appropriate for offshore or foreign investors. From a U.S. perspective, the onshore vehicle is typically organized via a limited partnership or "L.P." structure where the offshore vehicle is via a Limited Liability Company or "Ltd."

Investors may tend to focus the bulk of their due diligence efforts on a particular fund vehicle which is most appropriate for them. This is a dangerous trap that can lead many investors astray. Not only is it considered best practice that investors consider all other pari passu funds in the same complex (i.e. - a domestic investor should review the offshore fund as well), but also to consider the role of the master fund.

Continuing our example, when collecting and reviewing audited financial statements; investors should request both the onshore and offshore audits. It is also advisable for investors to collect and review the master fund's financial statements as well. Once all of these statements have been collected, how is an investor to go about reconciling these statements? What exactly should investors look for?

While the analysis of fund audited financial statements can be a complex and time consuming exercise, there are a number of basic checks investors can perform as part of the operational due diligence process, to ensure the basics of the master-feeder relationship are functioning properly among the multiple funds. These checks can include:

- Do the feeder funds own 100% of the master fund?
- If not, are there other fund vehicles for which you have not reviewed the audited financial statements for?

- Can you track the allocation of fund expenses from the master to the feeder funds?
- What about the allocation of profit and losses?
- At which level are fees such as management fee and performance fee charged? The master level? The feeder level? Do the financial statements accurately reflect your understanding of this arrangement?
- Have the fund's always been organized in this manner?

Making the situation more complex can be situations in which feeder funds invest in multiple masters or when investors make investments directly into the master fund skipping the feeders altogether.

Analyzing the relationship among master-feeder funds is a good example of an area where investors should coordinate their reviews of the fund's legal documents, such as the offering memoranda, and the review of the audited financial statements. By taking the time to understand the way in which a master fund and feeder fund interact via audited financial statement analysis, investors will likely be able to better target the focus of their operational due diligence reviews to ensure that they fully vet the intricacies of these relationships.

New Book Provides Tools to Evaluate Operational Risk in Private Equity and Real Estate Funds

Operational due diligence reviews on private equity funds has been an area of increased investor focus. Despite the numerous benefits of performing such reviews, some investors may still not be convinced of the benefits of performing operational due diligence on private equity funds. Still, others may be unsure as to how to best begin an operational risk review of a private equity fund. In particular, investors which already perform operational due diligence on other asset classes, such as hedge funds, may not have a clear understanding of the unique operational challenges presented by private equity.

To address these issues, Jason Scharfman (Managing Partner, Corgentum Consulting), has written a follow up to his first book, *Hedge Fund Operational Due Diligence: Understanding the Risks*, which focuses on private equity. This new book, *Private Equity Operational Due Diligence: Tools to Evaluate Liquidity, Valuation and Documentation*, addresses the unique aspects and challenges associated with performing operational due diligence reviews of both private equity and real estate asset classes.

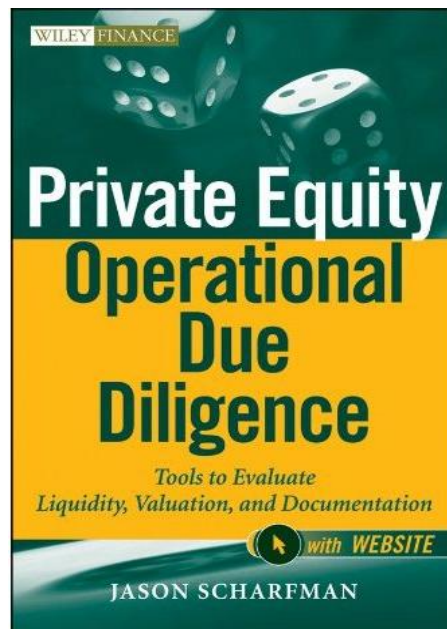
Private Equity Operational Due Diligence seeks to provide readers with the tools to develop a flexible comprehensive operational due diligence program customized for private equity. It includes techniques for

analyzing fund legal documents and financial statements, as well as methods for evaluating operational risks concerning valuation methodologies, pricing documentation and illiquidity concerns.

Filled with case studies, this book is required reading for private equity and real estate investors, as well as fund managers and service providers, for performing due diligence on the operational risks associated with private equity and real estate funds. This book also includes case studies in operational fraud and a companion website to the book includes sample

checklists, templates, spreadsheets, and links to laws and regulations referenced in the book.

Private Equity Operational Due Diligence: Tools to Evaluate Liquidity, Valuation and Documentation will be published by Wiley Finance and be released on April 10, 2012. The book is currently available for pre-order on Amazon.com.



Diagnosing Information Security Risk

Information technology is a quickly evolving area of operational risk. Fund managers are often undertaking a number of different technology projects at once. These can range from mundane software updates, to full scale hardware upgrades. Additionally with the increased acceptance of virtual work environments and increased cloud usage, many fund management organizations are

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eschewing further investment in more traditional technologies and ramping up the resources allocated to these emerging technologies.

With all of these changes taking place, investors may be tempted to focus their efforts during the operational due diligence process on these more cutting edge advances, in lieu of spending appropriate time and effort reviewing technology basics. These basics can typically include an evaluation of the appropriateness and quality of software systems utilized across a number of operational functions including order management, settlement and reconciliation and fund accounting. Other traditional items which may be covered during an operational due diligence review include, hardware related items such as understanding the types and number of servers utilized and the type of network connections in place. A common item which may become lost in the due diligence shuffle between an increased focus on a fund manager's use of new technologies and more traditional technology concerns is information security.

A fund manager is not like a traditional factory - they do not manufacture anything an end-user can touch. Rather, a fund manager is in the investing business - and this is a field that is centered around information. Funds deal with all types of information- not limited solely to investment data. For example, they typically maintain data related to daily operational procedures (i.e. - books and records, data from accounting systems, trade confirmations etc.) as well as information about their employees (i.e. - employee addresses, payroll figures etc.), and data about who their clients are. During the operational due diligence process, a key question to consider is how does a fund manager go about protecting this data? Perhaps the more appropriate preceding question should be, who is this fund manager protecting this data from?

The most common consideration that first comes to the minds of most investors is that a fund manager's

approach towards protecting data is often focused almost exclusively on external threats. For example, it would be concerning if a hacker was able to log onto the fund manager's internal network and steal data. This is certainly an important concern. During the operational due diligence process investors can take a number of steps to evaluate the quality of a hedge fund's information security defenses from external threats including:

- Has the firm performed any penetration testing? If yes:
 - has the firm employed a third-party firm to conduct an evaluation or did they perform the testing themselves?
 - what were the results of the penetration testing?
- If not, does the firm have any plans to perform such testing in the future?
- What are the firm's standard information security procedures to prevent external attacks?
- What types of firewalls are in place?

Another often overlooked area of information security due diligence relates to segregating and protecting data within the fund management firm itself. Often, particularly in a larger fund management organization, different employees will have access to certain pieces of information.

This can be both to protect the confidentiality of certain employees (i.e. - the administrative assistant does not have access to everyone's personnel files in the same way a human resources professional would) as well as more likely to implement checks and balances throughout the firm. In this regard, a fund manager who takes measures to protect or limit access to certain pieces of information would do so among the firm's employees itself. Some key considerations investors may want to consider when evaluating the way in which

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a fund manager protects data internally include:

- Are IT consultants utilized? If so, how does the firm monitor consultant access to and use of proprietary data?
- Can employees utilize remote storage devices, such as zip drives?
- If employees can access the firm's systems remotely, are equivalent data protection procedures in place to system access from within the office?

A fund manager that does not take measures to appropriately protect data from threats, both internal and external, can have critical information literally walk out the door. From an investor's perspective, putting aside any loss of competitive advantage from loss of investment related data, a fund manager that does not protect data may be exposing their client's information to others and run the risk of future fraudulent activity or even identity theft. By asking the right questions, an investor can effectively diagnose whether a fund manager approaches this subject seriously.

Understanding Fund Terms: *Reserves*

Operational due diligence is a multidisciplinary subject. An investor beginning the operational due diligence process for the first time may encounter subjects with which they have little to no familiarity. As the scope of operational due diligence has become broadened in recent years, even seasoned operational due diligence professionals may encounter terms which they may be unfamiliar. The purpose of this section of *Operational Due Diligence Insights* is to cast a spotlight on some of

the words and terms which investors may have not previously encountered, or which tend to get overlooked in operational due diligence reviews.

This issue's word: Reserves

Defined: Reserves refers to a cushion of cash that a fund can set aside typically, so that there is sufficient capital to deal with unforeseen events.

What investor's should know: Reserves are one of the many landmine terms which can be buried in a fund's offering memorandum, which may be activated when an investor least expects it. Often times the language covering reserves will be in the form of a small, seemingly innocuous sentence in the fund offering memorandum which reads to the effect of, "the fund may establish reserves for contingencies." The problem is that many times, the term "contingencies" is either completely undefined or loosely defined at best.

What this means in practice is that, as with most things related to fund offering memoranda, the fund manager (or the General Partner or Board of Directors etc. as applicable) basically has broad discretion to put capital aside. Investor's may think of reserves as a fund's rainy day fund.

If the fund manager sets reserves aside that are too large, and depending on the other terms of the offering memorandum, the fund manager could potentially halt redemptions entirely or not fully pay them out.

Investor's may want to inquire if their fund managers ever established reserves for their funds- if so, when and why?

It is also worth considering if a fund manager replies that they have no intention of ever establishing reserves, but this is just boilerplate language that their legal counsel made them put in - then perhaps an investor can have this language removed from the offering memorandum altogether or limited in a side letter.

Analyzing Fund Administrators During Operational Due Diligence - Valuation Independence

Several years ago, certain investors may not have felt the need to actively evaluate a fund's service providers. As the importance of the duties performed by fund service providers has gained greater acceptance, so too has the level of attention paid to them. In the current environment, it is considered standard practice during operational due diligence to expand a fund review to include not only the fund management organization itself, but external service providers with which the funds interact. One of the most important such service providers is typically the fund administrator.

The role that fund administrators play in the operational due diligence process is often a conflicted one. On the one hand, an administrator wants to convey to investors their independence in the valuation and fund NAV calculation process. On the other hand, administrators are typically hired by the fund management companies themselves, the same entities and individuals they are supposed to act independent of.

As such, during the fund administrator review process, investors may find it beneficial to review not only the actual operational processes and procedures in place for typical administration services such as fund accounting and shareholder services, but to also gauge the level of involvement and control which a fund manager exercises on this relationship. Consider for

example the valuation work performed by administrators. Many investors may be unaware of this fact, but in determining the valuations of particular positions most administrators typically have a small degree of discretion.

This discretion typically comes into play, when an administrator attempts to price a fund's positions independently of the fund. For example, let's say a fund manager's records indicate that a certain security, which is typically priced via broker quotes, was purchased and was worth \$60.23 a share. Let's say that the administrator reaches out to other brokers independent of the fund manager and determines the price is \$0.01 less than the fund manager's price, or \$60.23. The administrator may have the discretion to override the fund manager's price and utilize their own. Most administrators typically operate within acceptable valuation difference bands. That is a certain amount of discrepancy between the price determined by the administrator and the fund manager is acceptable as long as it is within predefined ranges. In most cases, the administrator's price (which is typically more conservative), is the one which is utilized. Indeed, fund administration agreements and offering memoranda may dictate as such. However, as there is discretion in the process, in practice a negotiation often occurs between the administrator and the fund manager with regards to what the final price should be. In certain cases, depending on the nature of the security and the specifics of the administration arrangement, the fund manager may have final say over the administrator.

Some fund managers are actively engaged with their administrators and speak to them several times a week. Others may only talk to their fund administrators at month-end when fund NAV's are being calculated. An investor which takes the time to evaluate not only the nuts and bolts of fund administration procedures but also, the degree of interaction and control exerted by a fund manager in practice may gain useful insights which other investors may not uncover during the operational due diligence process.

On the Calendar

Please see below for a list of upcoming operational risk items of note and events:

- **Investment Education Symposium - (New Orleans, LA)**
February 15 - 17, 2012. Jason Scharfman to moderate *Investing in Alternatives* panel.
Presented by Opal Financial Group.
- **2012 Investment Consultants Forum - (New York, NY)**
March 2, 2012. Jason Scharfman to speak on *Hedge Fund Opportunities*
Presented by Opal Financial Group.
- **Webinar - Operational Due Diligence Survival Kit for 2012**
March 15, 2012. Corgentum Consulting to present webinar: Operational Due Diligence Survival Kit for 2012.
Presented by Corgentum Consulting.
- **6th Annual Private Equity Summit for Institutional Investors - (San Francisco, CA)**
March 26 - 27, 2012. Jason Scharfman to moderate *Risk Management* panel
Presented by Opal Financial Group.
- **Release of *Private Equity Operational Due Diligence: Tools to Evaluate Liquidity, Valuation and Documentation***
April 10, 2012. More information available at: <http://www.corgentum.com>

About Corgentum Consulting

Corgentum Consulting is a specialist consulting firm which performs operational due diligence reviews of fund managers.

We work with investors including fund of funds, pensions, endowments, banks and family offices to conduct the industry's most comprehensive operational due diligence reviews. Our work covers all fund managers and strategies globally including hedge funds, private equity, real estate funds, and traditional funds. Our sole focus on operational due diligence, veteran experience, innovative original research and fundamental bottom up approach to due diligence allows us to ensure that our client's avoid unnecessary operational risks. More information is available at www.Corgentum.com.

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