

# A Study of Investor Operational Due Diligence (ODD)

Autumn 2012

*Passion to Perform*



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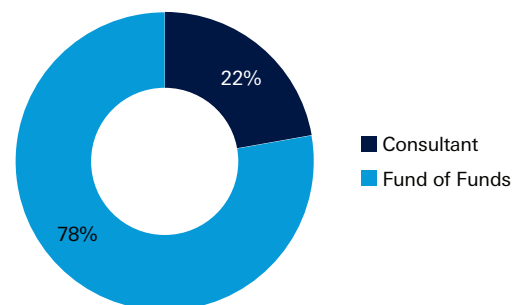
## Introduction & methodology

The hedge fund industry has evolved from a low profile group of talented investors with a primary objective of producing strong returns for high net worth individuals, to an important group of asset managers responsible for managing a growing proportion of pension fund and other institutional end-investor assets. This has increased their responsibilities, and as a result their objectives have been extended to include both preserving capital and minimising risk. The mandate to minimise risk brings a hedge fund managers people, operations and technology into focus for investors.

In response, Deutsche Bank's Global Prime Finance Hedge Fund Consulting team recently met with senior operational due diligence ("ODD") professionals at leading fund of funds ("FoF") and consultants in the US and Europe who collectively represent over \$411bn in hedge fund assets under management ("AUM").

We hope this study will highlight some of the key drivers behind these changes, outline the way that investors have adapted their own investment process, and provide some insights as to how hedge fund managers may prepare for the road ahead.

Break down of investor type surveyed by AUM



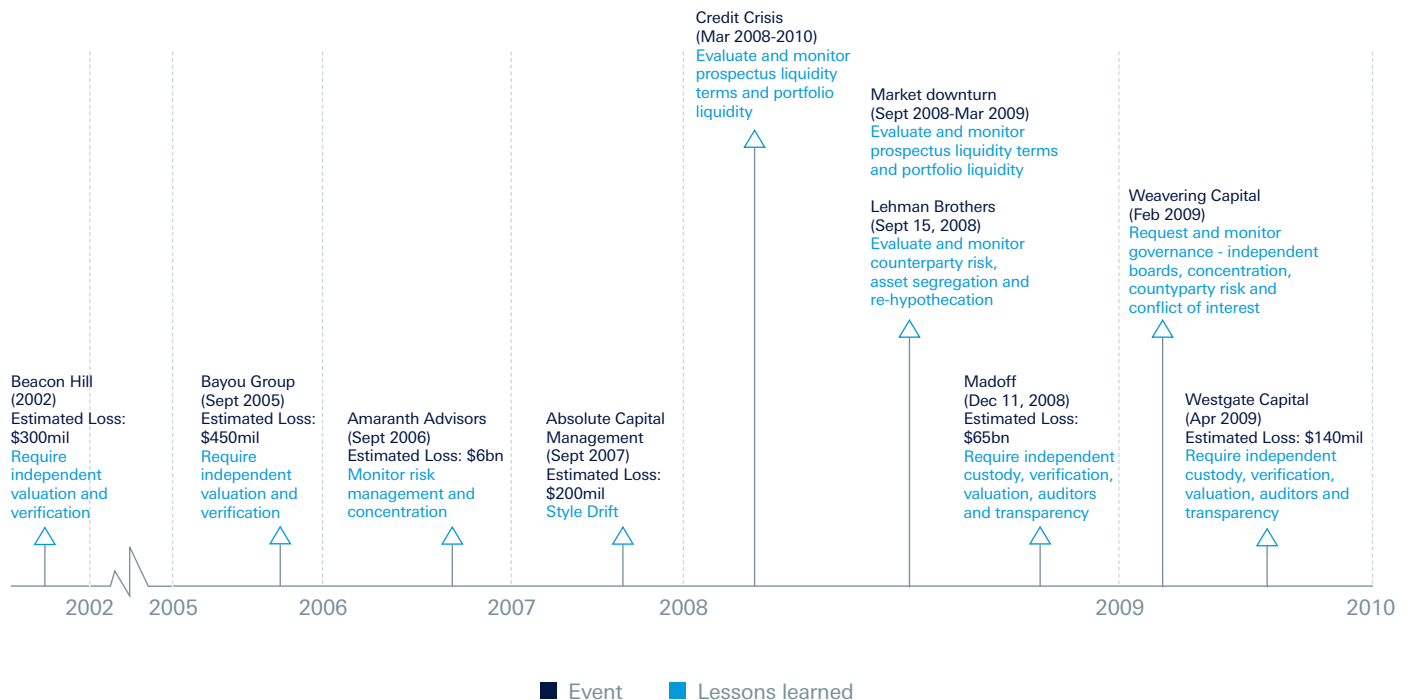
## Key findings

- 1 The credit crisis (2008/2009) and notable hedge fund losses have driven significant changes in the way investors evaluate hedge fund managers.
- 2 ODD teams now hold significant power in the investment process. They are often able to veto prospective investments if they fail their review.
- 3 The level of sophistication applied by institutional investors to ODD has increased significantly.
- 4 The individuals carrying out ODD are of a notable quality and a distinguished skill set.
- 5 Investors are demanding improved transparency from managers with whom they are invested.
- 6 A robust infrastructure, established service providers, a culture of compliance and governance are now vital considerations in the ODD process.

## A greater understanding of hedge fund losses has driven change in operational due diligence

“The recent credit crisis ushered in a new phase in the evolution of the hedge fund industry. Even though some hedge funds performed poorly and others did not survive as markets plunged, the sector proved resilient. This resilience won the interest of new institutional investors who seek the potential for both protection in times of crisis and an attractive return profile over different economic cycles. However, their interest comes at the price of broad transparency into various aspects of managers’ operations, business and controls.”<sup>1</sup>

### Hedge fund losses – A series of lessons learned...



<sup>1</sup> PWC, "Improving hedge fund infrastructure: from cost to benefit", June 2011, [http://www.pwc.com/en\\_GX/gx/asset-management/publications/pdfs/pwc-hf-infrastructure.pdf](http://www.pwc.com/en_GX/gx/asset-management/publications/pdfs/pwc-hf-infrastructure.pdf)



"65% of investors plan to invest in firms with less than \$1bn under management in 2012."<sup>2</sup>

## Despite challenges, hedge funds are here to stay

### Hedge funds outperform traditional asset classes

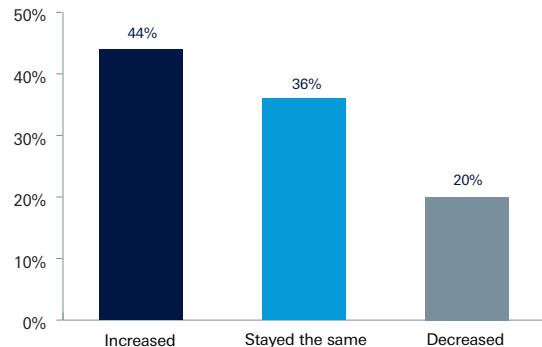
In a recent report by the Imperial College's Centre for Hedge Fund Research,<sup>3</sup> detailed analysis of hedge fund industry data from 1994 to 2011 showed that hedge funds outperformed traditional asset classes. Over that period, the research found that hedge funds achieved an average return of 9.07 percent after fees compared to 7.18 percent for stocks, 6.25 percent for bonds and 7.27 percent for commodities. Hedge funds achieved these returns with considerably lower volatility and Value-at-Risk (VaR) than stocks and commodities, close to bonds in both categories.

### Institutions have embraced hedge funds, on their own terms

A recent AIMA/KPMG global survey of hedge fund managers found 57 percent of AUM was institutional.<sup>3</sup> This 'institutionalisation' of the industry is significant because, as guardians for socially valuable investors such as pension funds, university endowments, charities and annuities, their investment objectives place an important emphasis on risk-adjusted returns and capital protection.

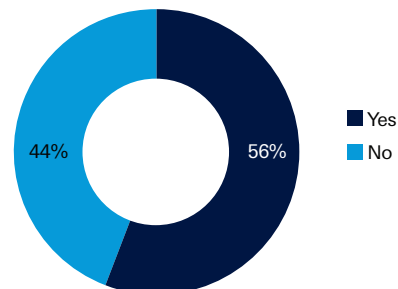
## Institutions driving change

### Institutional investors' allocation to hedge funds



Source: Deutsche Bank Alternative Investment Survey, 2012

### Do you have a separate operational due diligence team that operates independently from the investment due diligence process?



73% of funds of funds and 80% of consultants in our survey have separate operational due diligence teams in place

Source: Deutsche Bank Alternative Investment Survey, 2012

<sup>2</sup> 2012 Deutsche Bank Alternative Investment Survey

<sup>3</sup> Imperial College's Centre for Hedge Fund Research, Alternative Investment Management Association (AIMA) and KPMG, "The value of the hedge fund industry to investors, markets, and the broader economy.", April 24, 2012 <https://www.kpmg.com/KY/en/Documents/the-value-of-the-hedge-fund-industry-part-1.pdf>




# Ten reasons why ODD teams veto a hedge fund investment

ODD teams now hold significant power within the investment process. They often have the ability to veto investments if a prospective manager fails their review. We asked investors for the reasons behind why they have exercised this veto in the past 18-24 months.

- 1 Lack of independent oversight**  
Self-administered funds, self-custodied funds, using unknown or small audit firm and having a board with no independent directors are all red flags which may result in a veto either on their own or when evaluated together.
- 2 Poor segregation of duties around cash controls**  
There must be at least two signing officers, one of which should be the Chief Operating Officer (“COO”). Given recent technological developments at prime brokers and administrators, investors strongly encourage making use of either parties’ web payments systems and processes for additional layers of control.
- 3 Unwillingness to provide transparency**  
Investors recognise and respect confidentiality around trading positions, but will factor in a fund’s strategy, disclosures made to other investors and the historical track record of a particular manager. However, they will often request sample portfolios both prior to investing and throughout the life-cycle of their investment, or at the very least some sensible summaries thereof. Their analysis will vary from assessing the portfolio for style drift to detailed risk analysis.
- 4 Insufficient operational and technological infrastructure to support the fund’s strategy**  
Different strategies have different infrastructure requirements. For example, a quantitative, computer model driven hedge fund trading high volumes requires much greater infrastructure than a fundamentally-driven low volume equity long-short manager. Other red flags include insufficient disaster recovery and business continuity planning (DR/BCP).
- 5 Valuation issues:**
  - Weak or unclear valuation policies combined with deviations of estimates to final Net Asset Values (“NAV”), restated NAV and/or qualified audits.
  - A change of administrators, where the new administrator does not have sufficient expertise in pricing the products in the portfolio, for example complex hard to value positions or without a clear explanation to investors.
  - Chief Finance Officer (“CFO”) does not verify or sign-off pricing for illiquid instruments where values have been provided to the administrator by the portfolio manager.



- 6** **Insufficient checks and balances from the non-investment management staff**  
The Chief Investment Officer (“CIO”) needs to be surrounded by a management team with the necessary seniority to ensure sufficient checks and balances.
- 7** **Unsatisfactory service provider engagement**  
Refusing to allow investor engagement with service providers is regarded as a clear red flag.
- 8** **Unsatisfactory or ineffective remuneration policies**  
Trader costs charged to the fund, rather than borne by the management company, are not acceptable to many investors. Investors also look for alignment of interests and retention of key staff, so other red flags include no or insufficient compensation deferred into the fund.
- 9** **Insufficient personal wealth invested in the fund**  
Investors have a good understanding of compensation structures at both hedge funds and banks, and will develop a view of a founder’s potential liquid capital. As a result investors will always expect a significant proportion of this liquid capital to be invested in the fund in order to align interests with their own.
- 10** **Lack of integrity**  
Personal stories, disclosures and CVs that either omit or misrepresent findings from background and reference checks will result in the investment being vetoed immediately.


 “Since the financial crisis, institutional investors have made rigorous controls and greater transparency a prerequisite for investing in hedge funds. The due diligence process has become more rigorous, more intrusive and more consuming.”<sup>4</sup>

<sup>4</sup> PWC, “Improving hedge fund infrastructure: from cost to benefit”, June 2011, [http://www.pwc.com/en\\_GX/gx/asset-management/publications/pdfs/pwc-hf-infrastructure.pdf](http://www.pwc.com/en_GX/gx/asset-management/publications/pdfs/pwc-hf-infrastructure.pdf)

## The changing nature of due diligence

The depth and nature of the ODD process has changed significantly since the crisis, as have the skills and qualifications of the individuals carrying out reviews. Amid volatile and uncertain markets, there has been a greater need for investors to focus on ODD. As a result, requirements now include increased transparency, robustness of infrastructure and service providers; a culture of compliance and governance.

We asked investors with whom we met to describe how their ODD process has changed post-credit crisis.



**“Due diligence takes longer: 66% of investors take between 3 and 6 months to complete due diligence on a manager, whereas only 33% did so in 2003.”<sup>5</sup>**

### **“Our team holds veto rights”**

Investors are now prioritising the ODD function, and they are viewed as a partner and peer to the investment team.

### **“Be prepared”**

ODD teams consist of ex-auditors, hedge fund practitioners, lawyers and investment staff. They are typically seasoned professionals with greater than ten years of industry experience.

### **“Trust but verify”**

Those investors with good performance throughout the crisis did not need to change procedures significantly, however, all firms indicated that their procedures “amplified” since 2008. For example, many teams now use risk based audit principles and techniques when conducting their reviews. However, while each team has a framework (audit program, criteria etc.) within which they evaluate managers, they also focus on qualitative and subjective aspects to ensure the big picture makes sense.

### **“Interview techniques have intensified”**

More attention is paid to non-verbal communication and corroboration between key personnel, service providers and advisors.

<sup>5</sup> 2012 Deutsche Bank Alternative Investment Survey, 2003 Deutsche Bank Alternative Investment Survey

**“We look for a ‘culture of compliance’”**

The ‘tone from the top’ was mentioned several times as an important aspect of due diligence, best evaluated during onsite visits and interviews with each of the key partners of the firm.

Non-investment staff provide important checks and balances to the decision-making power of the senior investment partners. General Counsels and Chief Compliance Officers are now normal roles seen in the mid-to-larger tier managers. This trend is being driven by increasingly complex global regulations, such as Dodd- Frank (US) and Alternative Investment Fund Managers Directive (AIFMD), and by the investors themselves.

**“Use best in class service providers.****We do not want to look at secondary risk”**

It goes without saying that the ODD review process is much faster when the fund engages well-established service provider names. Investors like to eliminate as much of the business risk in their investment as possible.

**“We want to see the portfolio”**

Investors now expect well-defined, transparent reporting. While some investors have built dedicated teams with sophisticated risk analysis techniques, while others use third party risk management providers. Investors demand periodic (often weekly) performance updates, monthly ‘risk reports’ and periodic management calls. Many investors require position-level transparency from their managers both before and after they invest, and many aggregate this data for reporting to satisfy their own end-investors.

**“Managers have become more savvy with cash management and counterparty risk management”**

Three common alternatives to active management of cash and unencumbered assets include:

- 1) Active management of reputable multi-prime relationships.
- 2) Utilising a third-party custodian to house cash and unencumbered assets.
- 3) “Integrated prime solution”: a hybrid between the first two where prime brokers facilitate the use of third party custodians, either through bankruptcy remote vehicles of the prime broker or via direct accounts in the fund’s name with the third party custodian.


Investors recognise that active counterparty risk management places an increased operational burden on the manager and may impact the financing costs to the fund.

**“The days of self administration and NAV Lite are over.”**

While the majority of European and Asian funds have used independent fund administrators since their inception, the trend for US managers to convert from self-administration is reaching its end.

**“Independent fund directors have become more important post-crisis”**

Hedge fund corporate governance is generally regarded as weak and in need of improvement. One of our respondents cynically stated that in most cases boards would do what the managers tell them. A board with an independent majority is regarded as a sign of a healthy business culture.



> "67% of investors have either already made a Day 1 investment or would consider it. This is in contrast to 2004, when only 21% of respondents invested in early stage managers."<sup>6</sup>

## Investor recommendations for start-up and growth stage managers

We asked investors what they recommend to make the process more efficient. Their responses highlighted some simple steps to prepare a business for ODD visits. As long as the fundamentals are in place, having the right people, approach and audit trail in place goes a long way to ensure a smooth visit.

### “Be transparent”

From documentation, to portfolio risk, to operational processes, the best investors now have the resources and skill sets to evaluate all aspects of business. One investor insisted on “written notifications” of significant events, for example the firm being summoned by a regulator or if a manager takes out 25% or more of their own investment and if the largest investor redeems. Managers also now tend to be more proactive about flagging issues and events earlier to investors (performance, operational, structural and staff changes).

### “Invest in people”

Investors focus on the skill-set and resources of the people managing your business. Investors like to observe:

- Repeatable patterns of behaviour.
- Interests aligned with the fund.
- Involvement in key strategic decisions of the firm.
- Sufficient personnel to perform the work at hand.

### “Fund terms must be appropriate for the strategy”

The teams we spoke with highlighted issues with:

- Liquidity mis-matches between prospectus and underlying fund investments.
- Suspension of NAV.
- Redemptions in specie.
- Unreasonable gates.
- Monthly/ quarterly performance fees.
- Side letters and management company expenses charged to the fund.
- Consistent liquidity and fee terms for all investors.

### “Keep your fund terms simple and avoid over-lawyered legal documents”

Sensitive touch points for investors include “over-lawyered documents” with ambiguous wording. Many also commented that the prospectuses or offering memorandum should not be written with any bias towards the interests of either the managers or the investors.

<sup>6</sup> 2012 Deutsche Bank Alternative Investment Survey, 2004 Deutsche Bank Alternative Investment Survey

**“Funds must be able to clearly explain the commercial and legal terms agreed with their key service providers”**

Trading counterparties will be assessed, as well as the law firm who negotiated the documents on the fund’s behalf. ODD professionals generally will not ask to see confidential documentation, but they want an explanation as to the key terms for each major service provider. Investors typically focus on ISDA triggers, key man clauses, term agreements and re-hypothecation.

**“Invest in strong, proven technology commensurate with your strategy from Day 1. There is no need to be creative”**

Trading systems, checks and controls will be reviewed as part of the onsite visit. Managers should ensure that their technology platform is able to cope with the complexity of their strategy. Most investors agree that the manager should make the technology spend upfront rather than rebuild infrastructure mid-stream. Prior to launch, the manager must ensure full front-to-back testing has been performed. Investors will not require that all infrastructure is in place on Day 1, however they will expect a scalable infrastructure with a clear plan and vision in place.

**“Where are your backups?”**

**Disaster recovery needs to be more of a priority”**

Disaster Recovery and Business Continuity Planning (DR/BCP) are important throughout the lifecycle of the firm. They should be part of early business planning and commensurate with your trading strategy and size. Investors focus not only on the DR/BCP plan itself, but more importantly on the testing and its effectiveness in the event of an actual disaster. Investors will ask to see documented findings and results from such tests including remediation plans for any issues. Managers should run a full production environment on the back-up systems to ensure that they work at full capacity.

**“Cash management is king”**

Cash controls are often cited as the most common area of weakness. Managers should have a sound cash management policy and, where necessary, ensure that assets are protected through a third party custodian or an ‘integrated prime’ solution. Wire payments performed by administrators are often cited as “best practice”, preferred with dual signatories from different parts of the business. Some allocators are also encouraging SWIFT payments, another step closer to the convergence of hedge funds with the broader asset management industry. Other areas of focus include segregation of duties and well documented daily reconciliations.

**“Don’t be aspirational when explaining current operational infrastructure”**

If the actual practice differs from the documented procedures, investors will question the credibility of the written documentation. If there are known weaknesses then there should be a clear plan, including timelines, resourcing and estimated costs to remedy. Likewise, plans for broader business growth and development should be highlighted to show how your organisation plans to add people and develop systems, processes and technology. These plans are expected to be commensurate with the investment strategy and size of the firm.

**“Get organised”**

Keep a referenced binder with all key documents ready for review. Managers will need to show ODD personnel their NAV package, valuation files, cash reconciliations, amongst others. Being prepared and comfortable doing this is important to ensure a smooth visit. Many ODD professionals will want to sit down with managers and go through the steps and thought process involved in the creation, preparation and ongoing review of these documents.

**“Be consistent across firm documents”**

The fund needs to make sure their documented practices and procedures are consistent across all of their documents (DDQ, policy manuals, form ADV, marketing pitch, DR/BCP plan etc.). Fund personnel should be able to speak comfortably about documentation, policies and procedures.

**“Show and tell”**

Investors will expect you to explain operational processes and controls, and then will watch you process payments, run reconciliations and request a walk through of the full lifecycle of a trade. They will triangulate their findings with questions to other staff members and compare to written documentation to ensure consistency.

**“Ask for feedback”**

Many investors will provide feedback to managers and view their process as an opportunity to work with managers who may need to improve their operational infrastructure. Most due diligence teams have veto power. It is therefore important to understand where additional attention may be required.

**“Have a clear process and explanation for your selection of service providers”**

Quality of service provision, experience with products and strategy, financial stability and reputation of firm are all-important aspects. Cost, while important, is not the only factor. Some investors ask to review the matrices managers used to evaluate service providers; they check fees, assess capabilities (people and technology) to service the products traded, review the valuation/pricing policy in the prospectus versus the administration agreement, and expect to have access to the administrator as part of their due diligence process.

**“Include practitioners in the due diligence review”**

Investors like to speak with the practitioners who actually perform the work, in addition to partners and senior management.

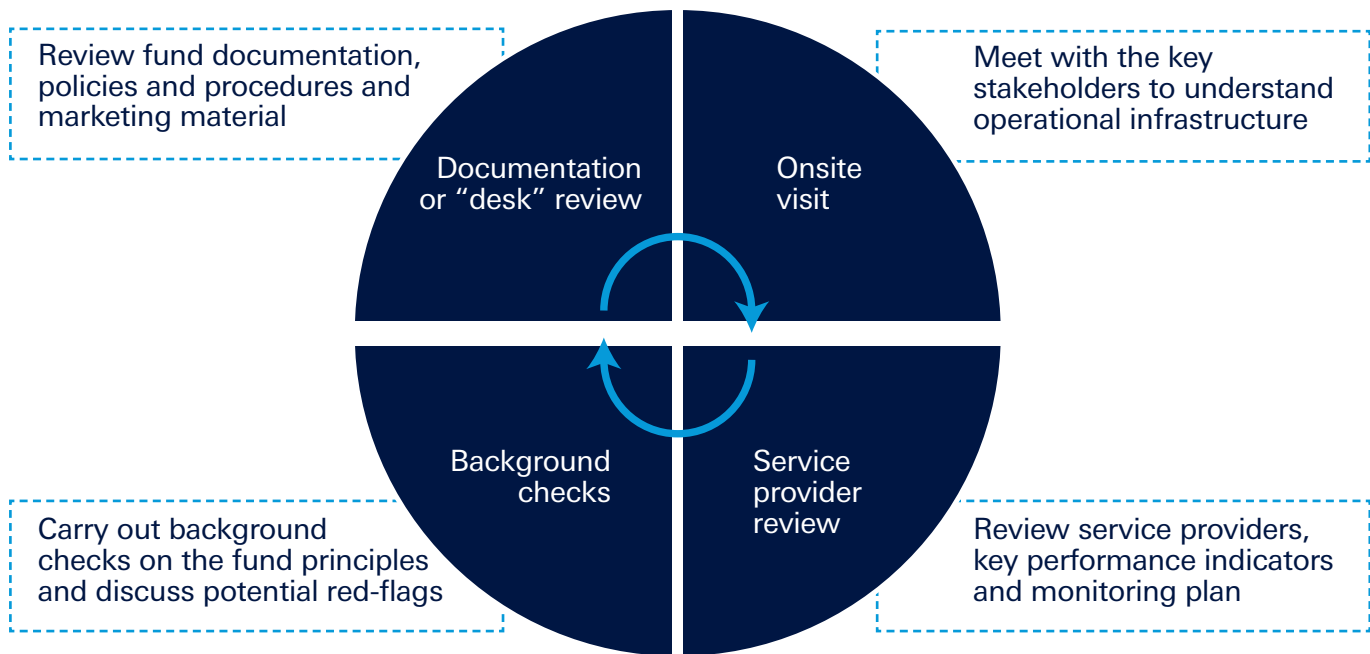
**“Where are your trades and positions”**

The fund administrator has the ‘official’ books and records, but funds should have some idea of what to expect, whether it’s their own copy of the books and records or a portfolio management system (PMS) tracking trades, cash and positions. ODD professionals want to understand the procedures a fund uses to reconcile to their administrator. An internal set of cash, trades and positions or full trial balance also enables easier reporting and analysis. Many bigger funds today have either implemented or are implementing a data warehouse solution, which can help with this process.



## The operational due diligence process – how it works

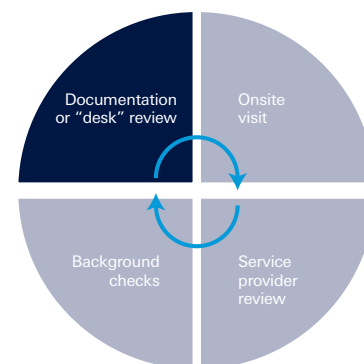
The ODD process begins after the initial investment team review, which includes a review of the marketing document, a high level initial meeting with the investment analyst and an internal assessment whereby the investor decides whether or not to proceed. The initial ODD review may take anywhere from six weeks to six months and typically involves the following four stages:



Post investment, investors will periodically monitor the manager to varying degrees, taking into account specific risk factors and both internal and external events.

## Documentation or “desk” review

The desk review typically comes first and involves a review of all relevant documentation (some documents may be requested in advance) and an overview of the business. Please see an example of the documentation ODD managers maintain for reviews below.



## Operational due diligence meeting documents

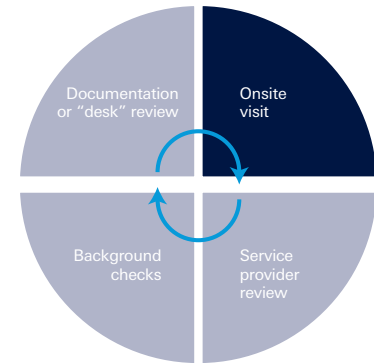
### Order Document description

1.	Marketing material	15.	Valuation policy
2.	Performance summary	16.	Cash management policy
3.	Legal structure of funds / Management company	17.	Financial statements (audited, including all prior year comparisons)
4.	Due diligence questionnaire (incl AIMA)	18.	Statement of net assets
5.	Prospectus	19.	Compliance manual
6.	Articles of association	20.	Compliance rule summary
7.	Service providers list	21.	Director information
8.	Operations manual	22.	References list
9.	IT operations contingency plan	23.	Counterparty exposure reports
10.	Trade flow diagram	24.	ISDA limits including triggers
11.	Daily report samples	25.	Staff turnover
12.	Daily reconciliation packet	26.	Risk policy
13.	Monthly accruals summary	27.	Personal dealing policy
14.	Authorised trading signatories		

## Onsite visit

Most investors will perform an onsite visit that can range from a few hours to a full day review or more. One of the key points that was made by several investors was that they not only want to have an explanation of processes and controls, but they may also want to see examples of how the controls work. The idea of 'show & tell' is one of the key changes post-2008, as investors have taken more of an interest in the operational framework of hedge funds. In addition, investors expect to meet with the practitioners of the business, i.e. key operations, technology, accounting, finance and risk staff.

While many investors ask for key documents to be emailed in advance for the "Desk review", operational due diligence teams understand the privileged nature of some agreements and documents (Prime Brokerage, ISDA, compliance/operational manuals, disaster recovery/ business continuity plan (DR/BCR), and will therefore review these on-site.



A typical ODD visit will include the following areas in their review

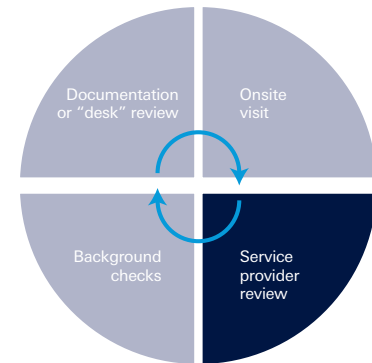


## Service provider review

Investors are now better educated than ever on the services and legal agreements governing relationships between managers and their service providers, and ODD teams maintain an active program of service provider onsite reviews. It goes without saying that the ODD review process is much faster when a fund engages familiar names. Bigger does not always mean better, however. Smaller, reputable and well-established firms are acceptable provided there is appropriate independence, knowledge, experience and quality of service.

Some investors ask to review the matrices managers used to evaluate service providers; they check fees, assess capabilities (people and technology) to service the products traded, review the valuation/pricing policy in the prospectus versus the administration agreement, and expect to have access to the administrator as part of their due diligence process.

Where key functions have been outsourced, investors are keen to see an internal owner responsible for the accuracy, completeness and timeliness of the end deliverable. The performance of service providers should be assessed regularly as well as every time the scope of the business changes. It is important to document these performance reviews, as investors will often ask to review and understand the ongoing review and decision-making process.



## Examples of key performance indicators

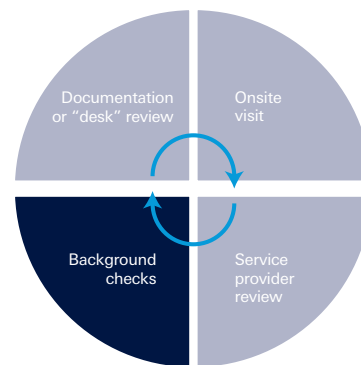
- Adherence to service level agreements.
- "Score card" performance evaluations.
- Fees.
- Product servicing capabilities (short, medium and long term).
- Disaster recovery/ business continuity planning.
- Operational controls & procedures.
- External certifications (ISAE 3402 (previously SAS70)).
- Staffing, turnover, tenure.
- Key risk dependencies.
- Access to senior management.
- Market position, reputation.
- Value-added services.

## Background checks

Background checks are a key component of the due diligence review process for all investors surveyed, and range from standard background checks (checking references and basic website searches on regulatory and other websites) to enhanced background checks via outsourced third parties.

As part of ongoing due diligence, investors will carry out regular checks on all fund principals, investment and non-investment, usually annually. Professional investigation and background checking firms are hired, and they may perform varying degrees of procedures depending on the preferences of the investor. It is not uncommon for these firms to ask for a detailed CV and to independently verify educational, personal and employment references for authenticity. Regulatory and criminal records checks are commonplace, as are civil court case searches.

Several investors made the point that it was better for managers to be upfront with any potential red flags that might come up, rather than waiting to disclose specific detail until after the background check has been completed. Investors look for open disclosure of significant legal or regulatory liabilities, which may place any individual or firm in financial or reputational difficulty.



## Ongoing operational due diligence process

ODD teams also perform ongoing review, monitoring managers on a periodic basis. Most use a risk-based approach to determine the frequency and depth of their monitoring. This incorporates an assessment of significant changes, for example in performance, risk profile, investment strategy or holdings, leadership, counterparties, service providers and prospectus terms.

ODD teams will often either participate in, or read call reports from, the investment team updates, and some even require managers to complete specific web-based forms to aid in the data collection and analysis process. Many have also worked closely with fund administrators and risk providers to tailor reports. One common example of this is the "risk transparency" report, which clearly outlines on one page which proportion of the fund's assets have been independently verified, valued and in which accounting bucket they sit (FAS 157 categorisation representing valuation complexity).

They will also perform a detailed financial review of audited accounts at year-end.



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