



## Hedge Fund Operational Risk:

Meeting the Demand for Higher Transparency  
and Best Practice

### Foreword

We are witnessing a dramatic evolution of investment behaviour in Alternative Investments, with both a phenomenal increase in the rate of flow of assets from Institutional Investors and a rapid maturation of the industry's infrastructure. These are exciting times for hedge fund investment returns which have coincided with the changing composition of the investor pool. This is having a direct impact on the habits of investors in the more prosaic area of operational due diligence.

This White Paper looks at the five key operational considerations investors should be evaluating when investing in a hedge fund and assessing its operational risks. These are identified as: 1. The experience of operations personnel; 2. Compliance; 3. Internal controls and procedures; 4. Portfolio pricing and, 5. The quality of the service providers.

This is the latest in a series of Thought Leadership studies that The Bank of New York has published on developments in the Alternative Investment industry. The series will continue in the autumn when we will be launching the follow up paper to The Bank's widely quoted study entitled 'Institutional Demand for Hedge Funds: New Opportunities and New Standards'. During 2005 The Bank of New York published 'New Frontiers of Risk', examining the risk-concerns and risk-control practices of institutional investors and also 'Delivering Value from Outsourcing by European Asset Managers', a study examining the levels of additional alpha generated by Investment Managers when outsourcing parts of their middle and back office.

Thought Leadership is an ongoing strategy we use in developing better understanding of our clients, whilst also enabling our clients to develop their business. By commissioning this research we believe we are better equipped to meet our clients' needs and understand the drivers behind success in their chosen fields.

We are pleased to be working with Amber Partners for this study, to help generate a forum for debate around this key area of the investment process in hedge funds. We welcome the opportunity to discuss these and other topics with our clients and colleagues in the world's rapidly evolving financial markets.

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# Introduction

Hedge fund managers have long been aware of the need for investors to conduct thorough due diligence when assessing the merits of their investment strategy. Yet, over the past few years, there has been an increasing focus on operational due diligence due to (1) the increasing inflows of institutional capital into hedge funds and (2) some well publicised fraud cases which have caused losses for even some of the most sophisticated investors in the industry. Regulators are also focusing their attention on hedge funds due to both the tremendous growth of this asset class over the past few years and the increasing demand from retail investors and public pension plans. Operational risk can be described accurately as “risk without reward”, as it is the only risk that investors face that is not rewarded with potentially increased returns.

This paper aims to help hedge fund investors and managers understand why operational risk is particularly relevant in the hedge fund industry today and to identify the areas investors need to focus on when evaluating the operational risk of hedge funds.

# Investors Beware

Operational risk is particularly relevant in the hedge fund industry as the type and quality of fund management organisations varies widely across the marketplace. It is quite possible for a long/short equity manager to have a billion dollars of assets under management and yet have as few as ten employees on their direct payroll. Hedge Fund Managers range from small private offices and boutique operations, through to deeply resourced institutional money managers, with a myriad of variations in between.

The diversity of hedge fund investment management organisations means that investors cannot simply assume that a fund manager has an operational infrastructure sufficient to protect shareholder assets. Exciting investment returns may blind an investor to the true infrastructure deficiencies that can exist behind the scenes. In addition, managers are incentivised by performance fees and many hedge funds trade in complex financial instruments which often have greater valuation subjectivity than those utilised in the traditional, long-only world. In this environment, the over-riding mantra must be “investors beware.”

The positive news on operational infrastructure has been the recent entry of major outsourcing providers to the alternative investment industry. This has increased the availability of robust middle office functionality to hedge fund managers who have outgrown their boutique beginnings and who now require the type of process-driven operating environment that their counterparts in the long-only world have traditionally enjoyed.

# Five Key Operational Considerations

Institutional investors are increasingly scrutinising the operational controls and procedures of hedge fund firms. A good operational due diligence review should cover the manager's organisation, fund structure, back office, valuation and independent oversight. Some of the items within these five key areas which sophisticated investors and hedge fund managers should focus on are:

## 1. Experience of Operations Personnel

All hedge fund managers should appoint an experienced CFO or COO who is able to take ownership of the operations function of the hedge fund firm. The CFO/COO should ensure that there are sufficient operations and settlement staff (both in terms of numbers and experience) relative to the size and complexity of the funds under management. Managers can make a common mistake in the early stages of building their business by not hiring a CFO/COO at launch due to cost constraints or because the back office fund accounting functions are being performed by an independent third-party administrator. It is important that someone other than the portfolio manager has responsibility for the day-to-day business management of the firm to enable the portfolio manager to concentrate solely on generating alpha. In fact, regardless of the decision to utilise an outsourced provider of operational services, it is clear that a strong CFO/COO is a major asset to the management of a hedge fund business. Furthermore, even if middle and/or back office functions have been outsourced, there should be operations staff who have responsibility in assisting and overseeing the service provider's work in detail. This includes chasing up outstanding confirmations, cash and position reconciling items, and trade breaks.

## 2. Compliance

Every firm should have a compliance manual which sets out key compliance policies in areas such as personal trading, trade errors, know your customer checks, soft dollar commission usage, etc. A Chief Compliance Officer should be responsible for ensuring that compliance policies are being adequately monitored and enforced. The lack of adequate compliance policies and lack of controls to effectively monitor and enforce such policies, may lead to future regulatory failings.

## 3. Internal Controls and Procedures

The complexity of the manager's investment strategy is one of the most important considerations when evaluating the

adequacy of the firm's internal control environment. Managers who trade in complex OTC derivative instruments will need to ensure, for instance, that there are sufficient back office staff to chase up and review long form confirmations. Firms which trade in heavy volumes should invest in third-party trade capture and order management procedures which utilise, where possible, straight through processing capabilities to the accounting systems so as to reduce the need for manual intervention.

Robust internal controls and procedures should be in place over each stage of the trading cycle: trade authorisation, execution, confirmation, settlement, reconciliation and accounting. Adequate segregation of duties should be present between those who are authorised to trade and those who are responsible for recording trade activity to prevent unrecorded trading losses. Given the incidence of frauds in certain jurisdictions involving the theft of fund assets, both wire transfers and other asset movements must be tightly controlled. No manager should allow assets to be moved outside the fund on a single signature and there should be effective segregation of duties over cash movements.

## 4. Portfolio Pricing

Valuation of assets is one of the most frequently discussed topics of operational risk amongst investors as this is the area most at risk of manager manipulation. Regulators in the US and UK are also increasing their attention on industry pricing practices and are seeking more independence of valuations. There is a risk of using asset valuations to artificially boost fund performance or to smooth "mark to market" losses. Many funds publicise their Sharpe ratios, and dampening volatility can both falsely influence the Sharpe ratio, as well as incorrectly implying higher returns. Other signals to look for include those funds that have more small winning months than small losing months, which might suggest that smoothing has been applied to returns rather than recognising small losses accurately. The presence and choice of a third-party fund administrator and auditors will be indicative of the independence of these processes from the influence of the manager.

It is important for investors to distinguish valuation risk arising from investment, rather than operational risk. When the investment strategy trades in thinly traded or illiquid instruments, investors must accept that valuation risk exists as it is inherent in the nature of the securities traded; in

some cases, only the counterparty may be able to provide a price. However, investors can reduce valuation risk resulting from poor operational controls and procedures surrounding the pricing process, by ensuring that the fund is following three **best practice principles of valuation**: transparency, consistency and independent oversight:

**a) Valuation Transparency** addresses the extent to which the investment manager clearly communicates to investors the specific methods and processes used to value securities when determining the NAV for dealing purposes. Whilst transparency may be a lesser issue for long / short equity funds holding liquid stocks, best practice for more complex funds is to develop a comprehensive, written “*Pricing Matrix*” which describes in detail the specific methods used to value each type of instrument. This pricing policy will be maintained by the third-party administrator and can normally be made available to investors at the direction of the manager. Language contained within an offshore fund’s prospectus describing NAV calculation is normally too generic for this purpose. Best practice transparency standards may also extend to the application of pre-determined policies and thresholds to challenge and override prices. Formal documentation of valuation exceptions may also involve the use of a valuation committee, which will minute changes to policy, pricing or exceptions that have been included in particular NAVs.

**b) Price Consistency** reflects the need for similar securities to be valued the same way both at a point in time and over time. If a fund bases month-end valuations for certain instruments on broker quotes for example, procedures should be in place to ensure that the source of quotations cannot be “cherry picked” to select the most favourable mark at each month end, (be it the highest mark, or the sources which best smooth portfolio performance). Equally, if multiple quotes are available, they should be averaged in the same way, across all funds managed by the firm, to ensure consistent sampling of market price dispersion month-to-month.

**c) An Independent valuation process** is a critical factor. Internal to a manager’s organisation, independence means that the back office should oversee the month end pricing process, rather than front office personnel. Such control and oversight ensures that managers do not mark their own books without back office verification.

External to the manager’s organisation, the most effective way to ensure independence in the valuation process is for funds to appoint a leading independent third-party administrator who is tasked with oversight over the month end valuation process. Best practice calls for the administrator to calculate the monthly NAV incorporating valuations derived exclusively from sources independent of the manager. Such sources include brokers, price vendors and third-party valuation agents for complex OTC derivatives.

*Which hedge fund strategies cause valuation challenges?*

Whilst there is no accepted standard definition of strategies, the table below gives an indication of the types of strategies and the underlying instruments therein, which may cause *potential* pricing issues:

High Yield /Distressed Debt	Fixed Income Arbitrage	Convertible Bond / Arbitrage	Global Macro	Emerging Markets
Secured / Unsecured Debt	Bonds with Embedded Options	Convertible Bonds / Arbitrage	Inflation Linked Bonds	Stocks
Debtor-in-Possession Loans	Interest Rate Forwards	Credit Derivatives	Swaps & Options on Swaps	Stock and Index Warrants
Bank Debt	Options on Bonds	Rights & Warrants	Exotic Commodities	Options
Senior Debt	Exotic Interest Rates Options	Options on Bonds		Futures
Mezzanine Debt	Collateralised Mortgage Obligations			Forwards
Subordinated Debt	Credit Derivatives			Swaps
Junior Debt	Swaps & Options on Swaps			Brady Bonds
Letters of Credit	Collateralised Debt Obligations			Eurobonds
High Yield Bonds	Convertible Bonds / Arbitrage			Convertible Bonds
Convertible Bonds	Mortgage-Backed Securities			Certificates of Deposit (CDs)
Distressed Bonds				Bank Loans
Increasing-rate Notes				Structured Products
Pay-in-kind Securities				Exchange-traded Funds (ETF)
Step-up/Step-down Coupon Securities				
Split Coupon Securities				
Swaps & Options on Swaps				
Trade Claims				

*(Note: the above table represents instruments which may cause valuation issues in each of the strategies noted above and should not be considered a complete list).*

## 5. Quality of Service Providers

Failure to appoint well-known, proven and independent service providers may be a warning sign. Funds should always be independently audited, preferably by a “big four” or specialist audit firm with a market reputation for auditing hedge funds. All prime brokers and other counterparties should be high quality financial institutions and there should be transparency in the identities of counterparties that are chosen by the manager.

The independent third-party administrator plays an extremely important role to protect investor assets by calculating the net asset value of the fund, independent of the manager. Business practice varies according to location with regards to the appointment of third-party administrators and as to the precise definition of the roles and responsibilities of the administrator. Investors need to check these details and have due diligence reports produced on the role of the administrator.

Consolidation in the administration industry has created a top tier of fund administration firms and it is advisable to select funds which have hired firms with adequate capital resources to invest in IT systems, high calibre staff and training programmes. Note that not all administration work is created equal and anything less than full service fund administration (ie. preparation of a complete set of accounting records) increases operational risk for investors. Some administrators only review the manager’s own accounting records, known as a “NAV light” and do not re-price the portfolio. A small number of funds do not appoint a third-party administrator at all. Investors in these funds must consider the manager’s reasons and what compensating controls, if any, are present in such circumstances where independent oversight over the trading NAV is absent.

# Conclusion

Operational risk in hedge funds is a potential “time bomb” for investors. Investors must increase their focus on this aspect of their investments and not wait for either the regulators or a disaster to alert them to these risks. Hedge fund investors, while primarily focused on their headline risk, should also keep in mind that good operational due diligence will help them avoid funds which may suffer a drag on performance due to weak controls, frequent errors or poor internal information. Overall, investors who consider operational factors will make better informed investment decisions and receive more secure returns. Chief Investment Officers, Investment Committees and ultimately Boards of Directors will take comfort that sufficient attention has been given to the operational as well as investment issues within the portfolios under their charge.

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# About The Bank of New York

The Bank of New York Company, Inc. (NYSE: BK) is a global leader in providing a comprehensive array of services that enable institutions and individuals to move and manage their financial assets in more than 100 markets worldwide. The Company has a long tradition of collaborating with clients to deliver innovative solutions through its core competencies: securities servicing, treasury management, investment management, and individual and regional banking services. The Company's extensive global client base includes a broad range of leading financial institutions, corporations, government entities, and endowments and foundations. Its principal subsidiary, The Bank of New York, founded in 1784, is the oldest bank in the United States and has consistently played a prominent role in the evolution of financial markets worldwide. Additional information is available at [www.bankofny.com](http://www.bankofny.com)

# About Amber Partners Ltd

Amber Partners is an independent operational risk certification firm to the hedge fund industry. Amber conducts comprehensive back office and fund due diligence, providing certification to funds that meet a benchmark of operational quality. Amber certified funds are industry leaders, have a commitment to operational best practice and have responded to investor requirements for greater operational transparency. The company was formed by Reiko Nahum, a leading expert in the field of operational risk, and is supported by a consortium of shareholders including Bear Stearns, BNP Paribas, certain principals of Vega, Anchor Asset Management and Alexandra Fund Management, a wholly-owned subsidiary of Temasek Holdings, Singapore. Additional information is available at [www.amberpartners.com](http://www.amberpartners.com)



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