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Evolving Demands on the Hedge Fund Administration Industry

Changing demands witnessed by the hedge fund industry since 2007

People matter, results count.

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1 Highlights

Hedge funds have gained significant prominence and acceptance across both high net worth individuals[1] and institutional investors, leading to a 37% compound annual growth rate from 2000 to 2007[2] of assets under management. However, the robust growth of the hedge fund industry came to an abrupt halt between 2007 and 2008 when assets under management fell by 32% due to the severe downturn in the market value of assets and the large amount of redemptions by customers.

The slowdown of 2007 exposed the complexity of the investment strategies deployed by hedge funds and the weakness of their internal controls. During this period, hedge funds were coming to terms with the changing profile of the client base, especially the rise of institutional investors whose contribution increased to nearly 45% in 2008 relative to less than 5% in 2001. The operational complexity of hedge funds has increased due to new demands from institutional investors such as frequent reporting, third-party portfolio valuation, an emphasis on internal controls, increased product complexity, and emerging regulations.

The financial crisis that began in 2007 has created a tough economic environment where more than one-third of all hedge fund managers failed to meet their performance criteria in 2008, and struggles have persisted through to 2011, leading to an increased focus on operational efficiency. While some hedge fund managers are comfortable with outsourcing fund administration, they have yet to rely on third-party service providers for managing their infrastructure and IT. Hedge funds' relationships with their fund administrators have come under greater scrutiny as institutional investors place more emphasis on the maturity of middle- and back-office operations of hedge funds. A strong relationship of a hedge fund with its hedge fund administrator can help it garner greater institutional assets.

Hedge funds operate in an environment of rapid change, with increased needs around global compliance and multi-lingual and multi-currency reporting. Hedge fund managers should periodically evaluate their relationship with their current fund administrator, as this would enable the hedge fund manager to align the organization with a fund administrator who can aid its growth depending on the maturity of the hedge fund.

[1] High net worth individuals are defined as those having investable assets of US$1 million or more, excluding primary residence, collectibles, consumables, and consumer durables

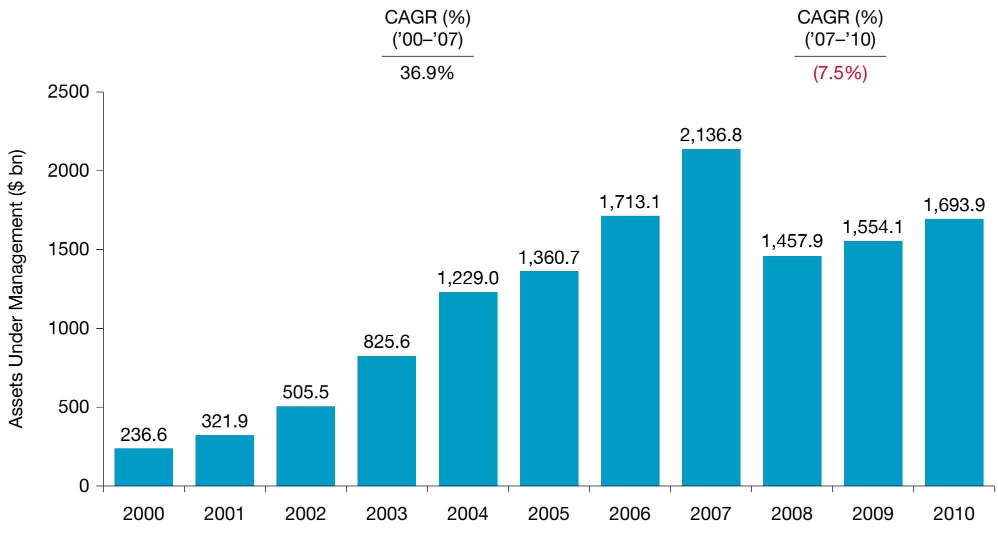
[2] Assets under Management of Hedge Funds, Barclay Hedge 2011

2 Hedge Funds and Industry Challenges

Hedge funds[3] have existed in the U.S. financial markets from the 1970s. Yet, they gained greater prominence only recently as an increasing number of institutional investors looked to hedge funds to achieve greater returns.

The increased prominence of hedge funds over the past decade has been driven by a rapid rise in the assets under management of the industry. Growing at an approximate 21% compound annual growth rate from 2000 to 2010, the hedge fund industry outpaced the growth of traditional asset managers whose assets under management grew at a 6% compound annual growth rate from 2000 to 2010[4].

Exhibit 1: Assets under Management of the Global Hedge Fund Industry ($ billion), (2000–2010)



Source: Capgemini Analysis, 2011; Assets under Management of Hedge Funds, Barclay Hedge 2011

[3] Hedge Funds are highly incentivized partnerships that aim to deliver profits with a minimal correlation with the market conditions

[4] Global Asset Manager Ranking by P&I/Tower Watson, 2009

The fast-paced growth of the hedge fund industry came to an abrupt halt in 2007 as hedge funds suffered in the wake of the global financial crisis. Due to the failure of hedge funds to protect investors from broad-based losses, the industry faced severe withdrawal pressure which led to closure of a number of hedge funds.

The financial crisis has proved to be a seminal event which highlighted a number of key changes in the hedge fund industry.

2.1. Increased Complexity of Hedge Fund Strategies

As the maturity of investors increased, they clearly began to differentiate between alpha (risk-based returns) and beta (market returns). This differentiation increased the pressure on hedge fund managers to deliver higher quality returns on the assets managed.

With increased pressure, hedge funds began exploring innovative strategies to drive growth in investments. Increasingly, hedge funds began to rely on over-the-counter (OTC) derivatives to execute their strategies. OTC derivatives provide three key advantages:

- They are highly customizable, in line with the requirements of hedge funds.
- They allowed hedge funds to create exposure to equities and debt in innovative ways.
- The margins on OTC derivatives tended to be significantly higher than standardized derivatives.

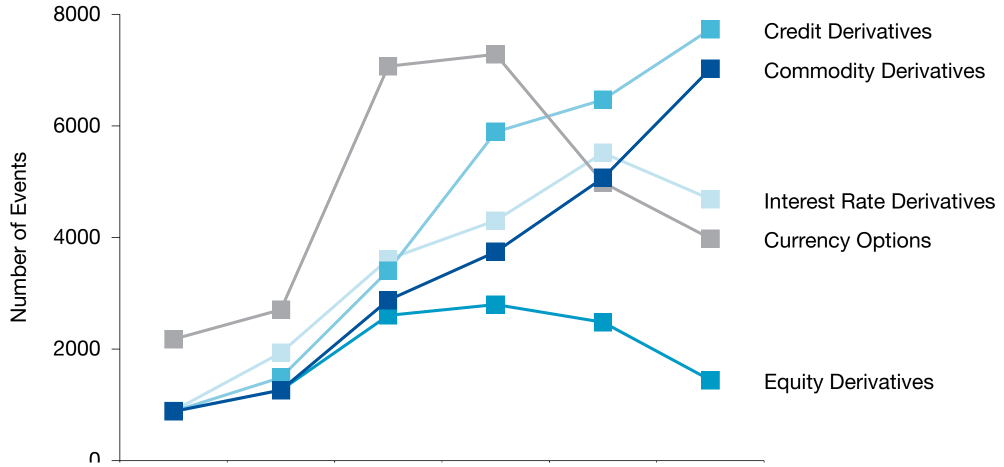
When Lehman Brothers, one of the four largest investment banks in the world at the time, failed in 2008 it held notional outstanding OTC positions of nearly $800 billion. The collapse disrupted the market severely as traders were forced to close their positions.

The collapse of MF Global in 2011, over a period of two weeks, again highlighted the pace at which counterparty risk can change in financial markets.[5]

[5] *Mitigating Collateral Damage*, Bank of New York Mellon, Q1 2011 and *Financial Times*, October 31, 2011

The increased participation of hedge funds in the OTC derivative market led to an explosion of such trading, with volumes growing at a compound annual growth rate of 31% between 2005 and 2010.

Exhibit 2: Global Average Monthly OTC Derivative Event[6] Volume by Product, 2005–2010



Source: Capgemini Analysis, 2011; Operational Benchmarking Study, ISDA 2011

Increased use of OTC derivatives significantly increased the operational complexity of hedge funds as well as their exposure to risk. In particular, the failure of Lehman Brothers exposed the lack of management focus on counterparty risk posed by these derivatives.

[6] ISDA defines an OTC derivative event as changes that include new trades, amendments, partial and full terminations, and increases/decreases in a derivate contract

The Quantum Fund of George Soros, which was started in 1973, closed its doors to outside investors in 2011. The Dodd-Frank Act, which required all investment advisers with more than $150 million in assets under management to register with the SEC, was the primary driver of this decision.

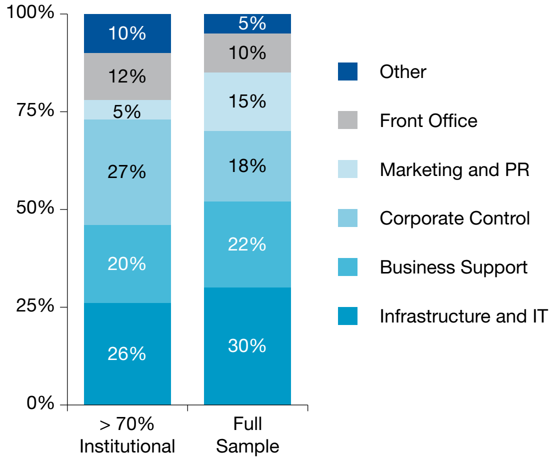
Financial Times,
July 26, 2011

2.2. Evolution of the Client Profile and Client Demands

In the 1990s, hedge funds primarily managed the assets of high net worth and ultra-high net worth individuals[7], with these two groups accounting for more than 95% of all the assets under management at the end of 2000[8]. With the increasing acceptance of hedge funds as an investment avenue by institutional investors such as pension funds, endowment funds, and insurance firms, their contribution significantly increased after 2000 and stood at nearly 45% by the end of 2008[8].

The primary driver of the steep fall in asset values in the wake of the financial crisis was the broad-based decline of the markets. But the crisis also exposed a number of instances of mismanagement and lack of risk controls, resulting in significant losses which could have been avoided. The experience of institutional investors throughout the financial crisis led to increased demands around fund governance, with a focus on internal operational controls, risk management practices, and the relationships of hedge funds with fund administrators. Moreover, institutional investors are placing increased importance on the maturity of middle- and back-office operations of the hedge funds in which they are investing.

Exhibit 3: Cost Distribution of Hedge Funds with Large Proportion of Institutional Clients vs. Mean, 2008, U.K.[9]



Source: Capgemini Analysis, 2011; Hedge Fund Cost Survey, KPMG 2008

[7] Ultra high net worth individuals are defined as those having investable assets of US$30 million or more, excluding primary residence, collectibles, consumables, and consumer durables

[8] Trends in Hedge Fund Administration, Celent 2008

[9] U.K. is one of the largest hedge fund markets and can be used as a reference for global trends in the absence of global data

Hedge funds have responded to the evolving demands of their clients by increasing the resources allocated to corporate control. For U.K. hedge funds that cater primarily to institutional investors who accounted for more than 70% of assets under management in 2008, corporate control accounted for nearly 27% of total operational expenditure relative to 18% for an average U.K. hedge fund.

2.3. Increased Regulatory Scrutiny of the Hedge Fund Industry

In 2008, the U.S. government was forced to rescue the American International Group (AIG) in order to protect the financial system. The U.S. insurance firm posed a systemic risk due to an extremely large portfolio of credit default swaps that had been underwritten by the firm.

Regulators were unable to identify the concentration of the risk in a non-banking firm as it did not fall under their jurisdiction. In order to avoid such a failure of supervision in the future, regulatory reforms in the U.S. have expanded the jurisdiction of the Securities and Exchange Commission significantly in order to include hedge funds.

Enhanced regulations have significantly increased the burden of compliance on hedge funds due to such new requirements as increased frequency of reporting, increased detail of reporting, and audit of a hedge fund's risk controls. Hedge funds lacking a flexible reporting system that can cater to regulatory demands are likely to find the task highly onerous.

3 Hedge Fund Administrators: Key to Efficient Hedge Fund Operations

Traditionally, hedge funds managed their assets by executing a single investment strategy, but this began to change as the hedge fund industry grew in size. In 2010, a number of large, established hedge funds managing a variety of funds emerged, each with varying strategies.

Growing complexity in investment strategies, a diverse portfolio of financial instruments from multiple geographies, evolution of the client profile, and the emergence of active regulation have increased the complexity of managing the operations of a hedge fund. With even more pressure on earnings due to today's volatile environment, hedge funds are increasingly turning their focus to streamlining operations in order to cut costs.

3.1. The Technology Landscape of a Hedge Fund

To gain a greater understanding of the operations of a hedge fund there is a need to appreciate a firm's technology landscape. An understanding of the technology landscape is a foundation for exploring the key functional components of a hedge fund.

Exhibit 4: Technology Landscape of a Hedge Fund

Execution Destination	Front Office	Middle Office	Back Office	Settlement
Direct Market Access	Portfolio Modeling	Risk Analytics	Accounting	Clearing Firms
Exchanges	Valuation Modeling	Monitoring	Net Asset Value Calculations	Utilities such as DTC or Swift
Brokers	Asset Allocation	Collateral Management	Clearing and Settlement	Custodians
Prime Brokers	Trade Analytics	Portfolio Reconciliation	Regulation & Compliance	Administrators
Multi-lateral Trade Facility	Trade Strategies	Performance Attribution	Billing	
	Order Management System	Post-trade and Pre-settlement Activities		
		Performance Analysis		

Enterprise Messaging System
Reporting System
Enterprise Data Management System

Market Data Sources: Bloomberg, Reuters Datastream etc.

Source: Capgemini Analysis, 2011

In 2011, UBS was the victim of nearly $2 billion in trading losses due to actions of a "rogue" trader. The trader rose from the ranks of the firm's middle office and was able to avoid detection by creating fictitious off-setting positions which were not reconciled with the actual trading history of the desk.

Financial Times,
September 18, 2011

Front Office
The front office is the primary focus of a hedge fund since it is the function that generates returns for investors. It encompasses functions such as portfolio modeling, valuation modeling, asset allocation, trade analytics, and the order management system.

The front office is responsible for designing the investment strategy of a hedge fund and executing it in the markets through appropriate financial instruments. With the increasing diversity of financial instruments traded by hedge funds, it is important that the core systems of the front office are capable of handling things in a flexible, transparent, efficient, and user-friendly manner.

Traditionally, prime brokers have specialized in delivering solutions such as trading platforms and order management systems to the hedge fund industry. The role of prime brokers has been eroded significantly in the past few years due the failure of one of the world's leading prime brokers, Lehman Brothers. To avoid exposure to a single prime broker whose failure can lead to the collapse of a hedge fund, funds are establishing relationships with multiple prime brokers to consolidate their positions across geographies.

Middle Office
Middle office is the operational heart of a hedge fund because it is responsible for a number of critical operational functions such as risk analytics, collateral management, portfolio reconciliation, and post-trade activities. The primary functions of a middle office are:

- **Risk Management.** Due to increased institutional investor participation, risk management has emerged as a key focus area for the hedge fund industry. Institutional investors place a great degree of importance on the maturity of the risk management function. It is expected to prevent losses from highly leveraged trades and fraud, and reduce volatility in profits.
- **Collateral Management.** Increasing migration of trading to centrally cleared exchanges and a high-level of awareness of counterparty risk has turned collateral management for over-the-counter trades into a critical function. Small boutique hedge funds and start-up hedge funds usually find it difficult to identify people who can manage collateral effectively due to the complexity of the task.
- **Post-Trade Activity Management.** In most markets across the world, a time lag exists between the time a trade is executed and the time the trade is settled with the counterparty. Though the existence of a time lag increases a counterparty's risk of failure, it is unavoidable due to constraints faced by financial markets such as the settlement cycle. Hence, post-trade activity management has emerged as a key area of focus for hedge funds.

Hedge fund administrators are the primary service providers who specialize in delivering middle office functions for a hedge fund. The role of a fund administrator has gained importance as they have emerged as the consolidators of trade information from across geographies.

Back Office

Back office is perhaps the most automated or outsourced portion of a hedge fund's entire operations. It addresses functions such as accounting, clearing and settlement, and regulation and compliance.

Custodian service providers have worked closely with hedge funds to deliver these key but non-differentiating activities. A high-degree of automation through extensive implementation of straight-through processing (STP) has led to the commoditization of these services. Commoditization has created an incentive for custodian service providers to expand services which have traditionally been delivered by fund administrators.

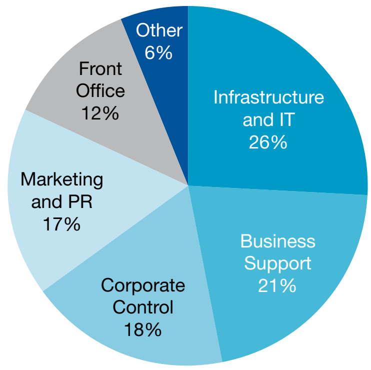
3.2. Hedge Fund Operational Expenses Breakdown

Market volatility and high correlation of assets has eroded the asset values of fund managers significantly. Due to the poor market environment at the end of April 2011, more than one-third of hedge fund managers remained below their so-called high-water marks—the asset value below which fund managers typically do not earn performance-linked fees. In this context, it is paramount that operational expenses are less than the management fee of a hedge fund in order to sustain its profitability.

Though hedge fund managers are increasingly outsourcing non-core activities such as fund administration, secretarial services, and compliance, IT and business support contribute the most to the operational expense of a hedge fund as shown in the following chart. Infrastructure and IT provides hedge funds with a significant opportunity for generating greater cost savings, especially since nearly 50%[10] of hedge fund managers in the U.K. have yet to evaluate outsourcing non-core IT functions to third party service providers.

[10] Hedge Fund Cost Survey, KPMG 2008

Exhibit 5: U.K. Hedge Fund Operational Cost Breakdown by Category, 2008 (%)



Source: Capgemini Analysis, 2011; Hedge Fund Cost Survey, KPMG 2008

Hedge fund administrators may be the key to enhancing the efficiency of hedge fund operations. The convergence of operational knowledge gained from the experience of working with multiple hedge funds and the scale of operations due to consolidation of hedge fund administrators has enabled them to deliver critical services to hedge funds efficiently.

3.3. Key Administration Requirements of Global Hedge Fund Managers

A rapid global expansion of hedge fund managers' client base and operational scope has led to the evolution of three key requirements that hedge fund managers expect administrators to deliver:

- **Global Regulatory Compliance.** Hedge fund managers need the support of fund administrators to operate in multiple international geographies across the world in order to fully comply with regulations of the operating geography.
- **Multi-Lingual Reporting and Documentation Support.** In order to attract and retain an international clientele, a hedge fund needs the ability to service its clients in multiple languages. Fund administrators with a global presence have aided hedge funds with multi-lingual reporting infrastructure.
- **Multi-Currency Transaction and Reporting Support.** Multi-currency transaction and reporting support are essential for any hedge fund which trades or operates with assets across multiple geographies.

4 Conclusion

Hedge fund administrators play a critical role in the operations of a hedge fund by driving efficiency and building the credibility of a hedge fund. The nature of the relationship of a hedge fund with its fund administrator and the maturity of the relationship play a significant role in the assessment of the maturity of a hedge fund. The key factors driving a need for a stronger relationship between a hedge fund and its administrator are:

- Need for greater operational efficiency to sustain profitability
- Demand for high-level of operational maturity in middle and back offices by institutional clients
- Increased client demands such as real-time asset valuation and independent valuation of portfolios
- Increased technology and operational complexity of hedge funds due to the use of complex investment strategies

It is therefore essential for a hedge fund to design a sound operational plan that periodically assesses the capabilities of its fund administrators, as well as the future needs of the fund. Such an evaluation is essential for a growing hedge fund to put in place a sound transition plan to align its organization with a fund administrator that can support the needs and growth of the hedge fund by allowing it to focus on core areas.

Exhibit 6: Key Challenges Faced through the Life Cycle of a Hedge Fund

A Start-up Hedge Fund

Expected Client Profile:

- Assets managed by the fund are sourced from individuals in the fund managers' network

Key Challenges:

- The hedge fund is built around a narrow strategy
- Monetary and manpower resources available to the hedge fund are limited

	Needed Maturity
Organizational	
Technological	

Recommendations:

- Evaluate the local regulations and effort required for compliance
- Trading/technology platform should be capable in executing the hedge funds' strategy
- Identify a technological platform which can process the expected trading volumes for next 1-5 years

A Growing Hedge Fund

Expected Client Profile:

- While individual investors remain the primary source of capital, the hedge fund is successful in attracting institutional capital

Key Challenges:

- Diverse client base creates increased demands such as increased frequency of reporting

	Needed Maturity
Organizational	
Technological	

Recommendations:

- Outsource fund administration to drive greater institutional demand
- Key factors to consider when selecting a fund administrator:
  - Reputation of the administrator
  - Capability and functionality delivered by the fund administrator

A Mature Hedge Fund

Expected Client Profile:

- Institutional investors contribute the majority of the assets managed by the hedge fund

Key Challenges:

- Clients demand increased operational controls through standards such as SAS 70[11]
- Third-party fund administration and valuation is a must

	Needed Maturity
Organizational	
Technological	

Recommendations:

- The hedge fund should evaluate future scope of operations
- There is a need for alignment of fund administrators' capability and the future path of the hedge fund
- The hedge fund should migrate to a more sophisticated fund administrator if necessary

Source: Capgemini Analysis, 2011

The chart highlights the challenges faced by a hedge fund as it matures and summarizes key recommendations around organizational and operational strategy. The key for a successful hedge fund lies in its ability to successfully manage these transitions without significantly affecting core activities.

[11] SAS 70 is an auditing standard developed by American Institute of Certified Public Accountants to audit the organizational controls and processes of an organization

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