

INDUSTRY OUTLOOK

Hedge Funds: 2009 Review and 2010 Outlook

Conditions have improved, but the sector is not out of the woods yet...

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Summary Opinion

The beginning of 2009 was arguably one of the most challenging and important periods in the hedge fund industry's history. Having coped with difficult and erratic markets in 2008, the massive systemic shock following the collapse of Lehman Brothers, the market turmoil that ensued and, subsequently, the reputational damage caused by the colossal Madoff fraud, the industry then had to face redemptions at an unprecedented level. Although there were a number of individual failures, hedge funds on the whole showed resilience and flexibility in 2009 and successfully adapted to the new market conditions.

In 2010, we expect a number of themes that began in 2009 to continue, including:

- » The recovery in the hedge fund industry is well underway, as performance improves and investors begin making allocations. The recovery should continue in 2010 barring another major economic shock or regulatory shifts.
- » Net inflows will likely increase and managers will continue expanding their product ranges beyond hedge funds accompanied by industry consolidation, while managed accounts will likely remain a popular mode of investment in the short term.
- » We expect operational quality for the industry as a whole to improve, as the market instability and uncertainty subside and as investors continue to maintain pressure on managers to strengthen their operations.
- » We also believe that the credit quality of funds is generally improving and likely to continue in the near term, although many challenges persist, particularly for smaller funds.

Of course, the positive trends are dependent on economic conditions and their impact on investor confidence and the global regulatory and taxation environment, which will remain major sources of uncertainty in the coming months. Moreover, another systemic shock or reputational risk to the industry caused by large-scale failures might also have adverse effects on investor confidence and, if sufficiently severe, could threaten the recovery that appears to have gained traction in the sector.

In this Industry Outlook, we broadly examine the issues described above and present our outlook for the industry, including the operational and credit implications.

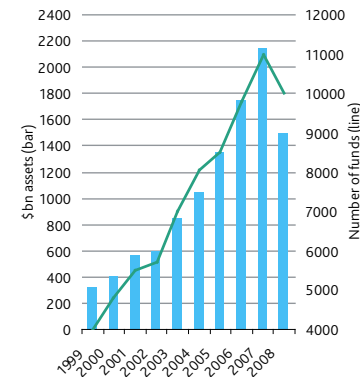
2009 in Context

It is beneficial to first take a step back to briefly review some of the issues that led to where we are now. For several years leading up to the crisis, hedge funds enjoyed rapid growth, in terms of both the number of entities and assets under management (AUM, see Figure 1). The relative ease in obtaining capital, low barriers to entry and substantial upsides for fund managers led to a great number of fund launches (arguably too many). The Industry Snapshots, below, give a rough picture of the state of the hedge fund industry leading into 2009.

Industry Snapshots (31 December 2008)

FIGURE 1

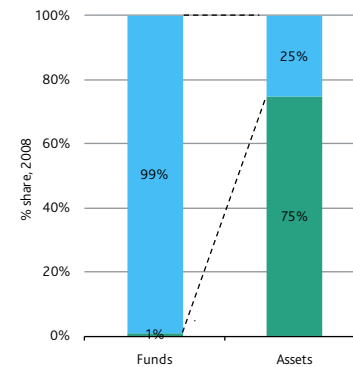
Industry Growth



Source: IFSL estimates

FIGURE 2

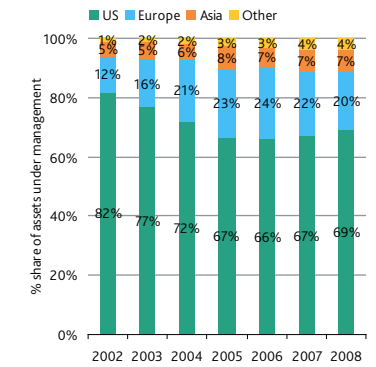
Concentration in Large Funds



Source: IFSL estimates

FIGURE 3

Geographic Split



Source: IFSL estimates

FIGURE 4

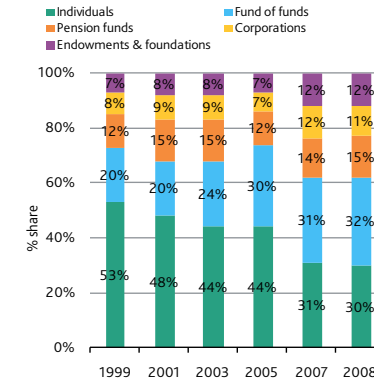
London and New York



Source: IFSL estimates

FIGURE 5

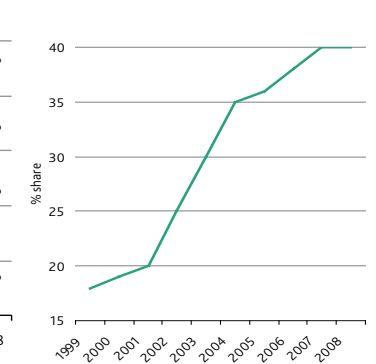
Investor Type



Source: Hennessee Group LLC

FIGURE 6

Funds of Hedge Funds - as % of Hedge Funds' AUM



Source: IFSL estimates

However, as the markets began to turn in 2007, some hedge funds came under substantial pressure and were left reeling by the ensuing turmoil. Concentration in out-of-favour assets resulted in the collapse of several funds,¹ volatility spikes occurred, low liquidity levels were common and overcrowding in certain strategies² caused some funds to unwind and de-lever, resulting in substantial losses. Although performance dispersion was wide across strategies and managers (given the varying

¹ Those that were on the wrong side of the trade, of course.

² Certain strategies, such as quantitative equity strategies, could not support the number of market participants and similarities in strategies and models during the stress periods, such as August 2007.

challenges between markets), 2007 was in the end a relatively strong year for hedge funds major investment indices, with an average return of 12.5%, according to the Credit Suisse Tremont and MSCI World index and Lehman Brothers Bond index, which were up 8.6% and 6.2%, respectively.

In late 2008, the industry took a significant turn for the worse as a result of the extraordinary market events following the Lehman collapse and the ensuing mass panic at the end of Q3. With financing and capital drying up, investor redemptions became an industry-wide issue and many funds were forced to curb redemptions using gates or suspensions. As risk aversion peaked, a number of funds collapsed and the industry came under tremendous strain, shifting from rapid expansion to contraction. The year culminated with the revealing of the Madoff fraud,³ which not only highlighted operational concerns and the need for better investor due diligence, but also cast suspicion on the rest of the industry at a time when confidence was already low.

Review of 2009

After a tumultuous 2008, last year started rather shakily in the aftermath of the Madoff scandal, then showed some improvement as signs of a return to more normal market conditions started to emerge, albeit rather tentatively at first with momentum gradually being gained. According to most accounts, the hedge fund industry collectively returned approximately 20% for the year, compared with 26.98% for the MSCI World [equity] Index and 6.93% for the Barclays Capital Global Aggregate [bond] Index. Assets also slowly started to flow back into the industry with global asset inflows trending upwards by the end of Q2, after the substantial outflows experienced in the latter part of 2008 and early 2009, which was an encouraging sign of a degree of confidence returning to the industry.

A number of changes and trends emerged in 2009, mostly early in the year, that may be significant enough to alter the shape of the industry:

- » **Signs of consolidation** appeared with the asset pool and number of players shrinking from their peak. In many cases, small funds struggled to survive, whereas their larger counterparts once again expanded. This prompted many smaller managers and trading groups to seek some form of partnership, typically, with the larger more established houses.
- » **Many investors negotiated better terms**, asking for lower management and performance fees and managers were more willing to accommodate their demands in a bid for more capital. In return, some managers asked for longer lock-up periods to ensure a more permanent capital base.
- » **Managed accounts (MACs)** increased in popularity⁴ providing investors with access to managers while retaining control over liquidity risk and custody, and gaining full transparency. As such, there is a strong case for the use of MACs, where possible, as they address some key investor concerns. However, MACs can also be expensive and time-consuming for investors and some types of operational risks are not eliminated, but rather shifted from the hedge fund to the MAC provider. While their benefits to investors are attractive, MACs are not feasible for some strategies and are usually operationally challenging for the managers, and as such are not necessarily a viable mode of investment in all cases.

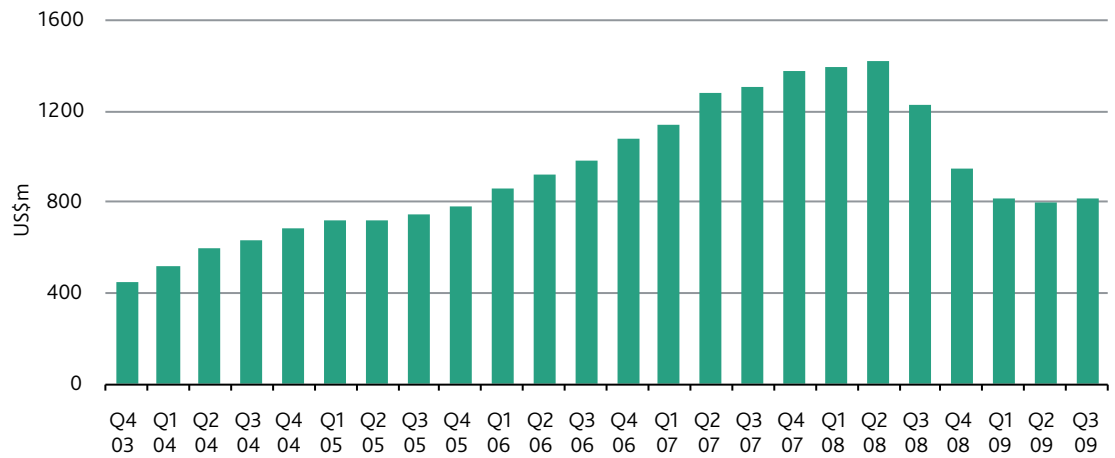
³ Although the Madoff fraud was clearly a major event for the hedge fund industry, we will not address the details surrounding the events as these have been sufficiently addressed by a plethora of research reports and articles.

⁴ As an example of this trend, Lyxor Asset Management's managed accounts platform reportedly more than doubled to \$10bn in the 12 months leading to 2010. Man Group's interim financial results announced in November 2009 indicate growth in the assets of its managed account platform, which rose by 50% from approximately US\$4 billion to US\$6 billion. Many managers anecdotally say that there has been significant growth in the (managed account) assets that they now invest from clients.

- » **A great deal of litigation activity** took place around fraud, impositions of gates and suspensions, documentation issues, the Lehman bankruptcy, etc. Most cases appeared to be settling out of court.
- » **Diversification of business risk:** as assets under management shrank, managers tried different approaches to retain and attract capital. A number of funds restructured to try to retain investors, while some managers launched UCITS III funds (in Europe) in a bid to attract a more diverse investor base and diversify business risk.
- » **Funds of hedge funds (FoHFs):** FoHFs suffered a major blow during the crisis and the benefits of diversification were muted during the severe shock in Q3 2008. The asset-liability mismatch⁵ inherent to FoHFs caused redemption problems and, in a few (fairly public) cases, there were operational due diligence failures related to Madoff. As such, H1 proved very challenging to most FoHFs and AUM decreased materially. Most of the larger more established managers managed to stabilise their business in the second half of the year.

FIGURE 8

FoHF Industry Asset Levels



Source: Hedgefund.net

- » **Heading “back-to-basics”:** In line with the more volatile, less liquid markets, many funds shrank their balance sheets in 2009 by de-leveraging, simplifying their trading strategies and heading back to their core competencies, thereby simplifying their overall operational processes. The investment opportunity set for many simpler less-leveraged strategies appeared to be richer than it had been in recent years.
- » **Regulatory bodies** and policymakers issued a number of different proposed rules, but it is still unclear what shape regulation will ultimately take (discussed in more detail below). In anticipation of the approval of regulation that hinders their ability to operate, some managers have already started exploring various alternatives. The shifting goal posts of the recent regulatory proposals had kept managers and industry bodies⁶ very busy throughout the year.

⁵ The asset-liability mismatch refers to the mismatch between the redemption terms granted by the hedge funds to the FoHFs and those granted by the FoHFs to their investors.

⁶ Not to mention compliance consultants.

- » **Changes in taxation levels** and proposed rule changes are also prompting action and some managers opened offices in more tax-efficient jurisdictions.

Despite the many challenges early on and structural changes that took place throughout the year, 2009 proved to be fairly positive for the hedge fund industry in many respects, albeit not unilaterally. The declines and challenges of 2008 followed by this “quick turnaround” will lead, in our view, to a challenging and changeable environment in the near future.

Outlook

As we have often pointed out, it is very difficult to draw general conclusions about the hedge fund industry, because of its complex, diverse and often fragmented nature. The types of market, credit and liquidity-related risks that funds take may, and often do, vary substantially depending on the managers' strategies and risk tolerance. At times, even when taking a retrospective look at the collective hedge fund industry, it is difficult to make any reasonable assertions that can be applied unilaterally; to try to do so on a forward-looking basis at a time of great uncertainty is even more challenging.

As such, our approach in this section is to discuss a number of general themes and, within these, possible scenarios that we believe may emerge in the short term, as well as those that have already emerged and are likely to continue. We focus our comments on the following areas:

- » Hedge fund industry themes;
- » Operational risk;
- » Regulatory and taxation changes; and
- » Credit trends.

Hedge Fund Industry Themes

The recovery in the hedge fund industry is well underway (as performance improves and investors begin making allocations) and should continue in 2010 barring another major economic shock or regulatory shifts. We are likely to see new fund start-ups continue to increase, albeit at a subdued rate, as well as increased consolidation of small managers into larger ones.

The shape of the industry in the near term, with respect to its size, number of managers, strategies employed, investor composition and geographic concentrations, will undoubtedly greatly depend on the pace of economic recovery, as well as changes to regulation and taxation.⁷ Investor confidence in hedge funds is another important element⁸, which is materially linked to operational risk, particularly in the post-Madoff era. Some of these themes are outlined below:

- » **The recovery:** our view is that hedge fund returns on average should remain attractive in the short-to-medium term. At the time of writing, many of the major economies were already showing signs of recovery and therefore the likelihood of a second severe economic dip seems to be much less likely. Still, most participants remain cautious and do not consider a full sustained recovery as a foregone conclusion. Our view is that, barring another severe market shock, returns

⁷ In particular, changes as they relate to the differences between various jurisdictions and the long-term viability of offshore jurisdictions, given recent regulatory proposals.

⁸ Investor behaviour and risk tolerance are also primary drivers of the behaviour of the industry, as we saw at the start of 2009 when investor redemptions or fear of redemptions imposed constraints on hedge fund managers and led to risk aversion.

in the short term will likely remain positive under most economic scenarios albeit, based on our baseline economic assumption,⁹ at lower levels than those seen in 2009. Should rapid economic growth return in conjunction with investor confidence, then we would expect hedge fund returns to inflate more quickly (see Appendix 1 – Market Shocks: Do hedge funds do “what it says on the tin?”).

- » **Net inflows and new funds:** as returns came back into positive territory for many funds in 2009, H2 2009 saw net inflows from investors, reversing the trend of net redemptions in the first two quarters. On average, those managers that produce solid returns over the forthcoming months are very well positioned to start increasing their AUM.¹⁰ The time-lag between interest in investing in a particular hedge fund and completing the due diligence process has definitely increased (anecdotally, two to three months has become typical). Thus, it seems reasonable that, with the strong returns of recent months, and if the economic environment holds, the industry should see an up-tick in subscriptions in Q1-Q2 2010. The number of new fund launches should also increase as capital flows back into hedge funds in general. However, the capital-raising environment remains extremely challenging at the moment, particularly for new managers, and the growth rate will likely be materially lower than during the peaks of the previous decade, as barriers to entry remain high due to investors' quest for transparency and their still cautious stance.
- » **Consolidation:** given the challenging capital-raising environment, the decrease in profitability and hence the financial flexibility of many fund managers, particularly the small to mid-sized managers, it is likely that we will continue to see some industry consolidation in the short term. This will most likely take the form of smaller trading teams joining bigger organisations with more substantial infrastructure and distribution capabilities.
- » **Diversification of business risk:** having faced unprecedented stresses on revenues in 2008, large established fund managers will likely continue to attempt to diversify their business risk in the short term. It is as yet unclear whether hedge fund managers' forays into long-only and/or UCITS III products (in Europe) will prove successful and, to date, most have experienced limited success. Our view is that the next few quarters will likely be a time of “trial and error” in product development for hedge fund managers.
- » **Managed accounts (MACs):** many investors are now looking to MAC platforms as their channel for hedge fund investment. Similarly, more banks, fund managers and FoHFs have started actively marketing MAC-related products. We believe that MACs will continue to be an important mode of investment in terms of hedge funds' strategies, particularly in the near term. However, given the natural limitations on their use (as previously discussed), along with the increasing risk tolerances of investors and the substantial recent increase in the supply of these products, the growth rates in assets allocated via MACs will likely trail off over time.

⁹ Our “baseline” economic assumption is that of a “hook-shaped” recovery for the major economic jurisdictions, which assumes modest growth over the next couple of years followed by an acceleration around 2011-12, but not returning to the levels of growth seen in the years leading up to the crisis. See also, [Global Macro-Risk Scenarios 2010-2011, On the “Hook” for Some Time Yet, January 2010](#)

¹⁰ Of course, fund returns (along with robust distribution capabilities) have almost always been the primary catalyst in attracting investors.

Operational Risk

Operational quality should improve, and consequently operational risk decline, in line with demands from investors (post-Madoff), more stable trading environments and the recovering profitability of hedge fund managers. Managers have both the incentive and means to improve their operational infrastructure.

The primary drivers behind the changes to operational risk and operational quality at an industry-wide level in our view currently include: regulatory changes, investor demands and accepted standards of practice, the pace of change in the trading environment, the profitability of the manager and availability of resources to manage operations, and of course the lessons learnt during the crisis. In assessing the operational quality of hedge funds, Moody's approach considers five major categories,¹¹ which form the backbone of a fund's operational framework: Operations, Valuation, Risk Management Framework, Corporate Functions and the use of third-party Service Providers. As the impact of the market turmoil subsides and managers have had time to deal with most of the operational issues that emerged, we expect that the return to more normal business conditions will result in decreased stresses and improvements throughout each of the five categories.

Investor demands with respect to the quality of a hedge fund's operational management have increased substantially over the past few years. A hedge fund that wanted to attract institutional investment was expected to have a more robust infrastructure, control and governance environment. The focus of investors on these operational elements increased exponentially post-Madoff as investors hired operational due diligence staff and consultants to ensure that risks were covered. This intense focus will likely decrease somewhat in the near term and the time-lag from interest to subscription in a fund should also decrease somewhat, as focus shifts back to investment performance. However, as we expect the level of institutional investment to continue to increase, we also expect that, to attract capital, hedge funds will need to maintain substantial operational infrastructures. Operational quality should improve and operational risk associated with investing in hedge funds should consequently decrease in the medium-to-long term. This is further supported by the industry bodies' standards of practice,¹² which have gained traction in recent times, as well as by some of the proposed regulatory changes.

Another important factor to consider is manager profitability, which affects the operational quality of a hedge fund in a number of ways as it impacts on the flexibility of the manager to run the business. Constraints on finance can affect staffing and system updates/upgrades, spending on consultants and service providers, among other things, and can decrease the overall operational quality of the business. Staff retention can also be difficult when profitability is down, for both compensation and morale reasons. During the crisis, we saw many fund managers facing such issues. However, as the average performance of funds has turned positive, particularly where the funds are once again generating performance fees, we expect such business-related strains to decrease, and the primary driver of investor demands to once again drive down operational risk.

The table in Appendix 2 outlines some of the major themes and challenges during the crisis, their effects on managers at the time and potential future impact on operational quality and our OQ ratings.

¹¹ See Moody's "[Operational Quality Rating Methodology for Hedge Funds](#)", June 2009.

¹² Managed Funds Association (MFA), The President's Working Group on Financial Markets (PWG), Hedge Fund Standards Board (HFSB) and Alternative Investment Management Association (AIMA) to name a few.

Regulatory and Taxation Changes

Regulatory and taxation proposals continue to be a major source of uncertainty for hedge funds. Given the recovery in 2009, we expect the hedge-fund-specific regulatory changes to soften somewhat from the initial proposals, particularly those in the EU.

As we have previously discussed, as performance has recovered and asset flows have once again become positive, the biggest risk to the hedge fund industry stems from regulation.¹³ There has been a raft of proposed rules published by the various regulatory bodies, with varying degrees of intervention. More severe proposals and those perceived by the industry as "draconian" have raised uproar among industry stakeholders and associations, and look likely to be "softened". However, the extent of the softening in the ultimate rules is difficult to predict and there will undoubtedly also be a great deal of political involvement before the dust settles. All this has resulted in an environment characterised by significant uncertainty and in distraction for managers.

However, given that the markets have picked up in recent months and stakeholders, increasingly agree that the contributions of hedge funds to the financial crisis was limited, the pressure to establish rules governing the industry has somewhat diminished. As such, it has become more likely¹⁴ that the ultimate rules will be less restrictive and will likely centre around: (a) the registration of funds, (b) disclosure to regulators, (c) some form of regulatory supervision and (d) regulatory powers to take action should a fund become sufficiently large to pose a systemic risk. Should these types of changes take place, the effect on a hedge fund's operational quality will vary, but will largely depend on its size (some of the implications are outlined in Appendix 2). However, it is as yet too early to predict how all this will play out.

In the long run, rule makers will need to balance the need to (i) control systemic risk and provide a level playing field with (ii) the increased market efficiency, diversity for investors and financial innovation that hedge funds (potentially) offer. The industry naturally hopes that "the pendulum will not swing too far" and that the rule makers will take the necessary time to consult with the industry to come up with a reasonable set of rules that will not damage its positive attributes and, at the same time, provide regulators with sufficient information and tools to control systemic risk. Moreover, given the increasing global nature of the industry, a consistent set of international rules would probably prevent the unnecessary reshuffling of fund and manager domiciles.

There are [several] other regulatory proposals and changes which, although not specifically aimed at hedge funds, will undoubtedly have ramifications for the hedge fund industry as a whole; these include, regulations affecting the banks, which are of course major service providers to funds, and regulations regarding securities and asset trading. As an example of such potential indirect regulatory impact, US president Obama's recent statements, while aimed at banks, also singled out investment, ownership or "sponsorship" of hedge funds (and private equity) as activities to be curtailed. Should these concepts translate into regulation in future, it will undoubtedly have implications for hedge funds. However, despite the significant interest that these statements have generated amongst industry participants, the shape of the resulting rules, if any, and their likely impact on hedge funds, remains unclear.

Aside from the regulatory issues, there have also been a number of taxation changes and proposals, with headlines in the US centring on the "carried interest" rules and in the UK on the addition of

¹³ Changes to taxation rules will also likely have major structural implications, particularly if they are not well co-ordinated.

¹⁴ Although one can never discount political aspects or what could happen in the event of another severe market shock occur in the near future.

another layer of marginal tax rates for individuals. These could have wide-ranging implications for hedge funds and will no doubt decrease overall profitability, at a time when many managers are still recovering from the crisis. It could further accelerate the spread of the industry from the US and UK mainstays (see Figures 3 and 4) to other jurisdictions, such as Asia.

Credit Implications

Credit conditions have improved since the very high risk environment that prevailed during the crisis and early months of the recovery, although this is not unilateral across the industry. Profitability is trending favourably, liquidity has greatly improved, operational risk is declining and some (larger) funds are once again able to capitalise on their "franchise value". There are, however, many funds still facing material challenges.

Credit conditions have generally already improved from the low points in recent years, in line with fund performance. Performance/profitability is one of the key drivers (in the short term) of the credit strength of hedge funds,¹⁵ FoHFs¹⁶ and fund managers,¹⁷ although the precise importance of the driver greatly depends on a number of factors, such as risk appetite, leverage, liquidity and the structure of the debt. Liquidity has improved in the markets and hence many of the above entities have seen an increase in flexibility as investor confidence has improved, redemption pressure has subsided and financing channels have once again become available. This has increased the ability of these entities to deal with additional market challenges and their likelihood of survival. Therefore, barring a reverse of these trends, credit quality for these entities is generally on the rise (all other things being equal). The table below highlights some of the major themes.

Credit Risk and Credit Quality Outlook

CHALLENGE	DURING THE CRISIS	TYPE OF ENTITY*	OUTLOOK
Performance/profitability	<ul style="list-style-type: none"> - Most hedge funds had substantial decreases in performance in 2008, as industry returns were mostly negative - Manager profitability generally decreased in line with AUM and loss of performance fees. 	HFs, HFMs, VFNs	Positive factors: <ul style="list-style-type: none"> - Trends for increased profitability should continue in general, particularly for those able to attract new investors - VFNs are once again moving clear of their NAV decline triggers, creating larger equity cushions for lenders Negative factors: <ul style="list-style-type: none"> - Many funds remain below high water marks, revenues to managers from performance fees remain muted - General downward pressure on fee levels, having greater impact on managers that are already "distressed" - Regulation and tax changes likely to have adverse effects
Liquidity	<ul style="list-style-type: none"> - Illiquidity of many asset types during the crisis, combined with investors' liquidity requirements, heightened liquidity risk and forced some HFs into default - FoHFs experienced asset-liability mismatch, exacerbated by HFs gating/suspending redemptions creating stresses on VFN collateral 	HFs, HFMs, VFNs	Positive factors: <ul style="list-style-type: none"> - As liquidity has returned to the markets and lenders' risk tolerance has increased, many of the stresses that plagued the markets have subsided (although this is not true in all cases and some remain under stress). This trend is likely to continue as increased market stability results in more active liquid capital and debt markets and increases the flexibility of most HFs and HFMs. - Liquidity stresses on VFNs have decreased and collateral positions have improved as HFs remove gates and suspensions

¹⁵ See "Assigning Unsecured Credit Ratings to Hedge Funds", April 2007.

¹⁶ Moody's provides credit ratings on Variable Funding Notes (VFNs), which are effectively revolving credit facilities in the form of notes. Typically the facilities are provided by banks (the lenders or purchasers of the notes) to FoHFs (the borrowers or issuers of the notes). The rating methodology is based on "[Moody's Approach to Rating Collateralized Funds of Hedge Fund Obligations](#)", July 2003.

¹⁷ See "[Moody's Global Rating Methodology for Asset Management Firms](#)", October 2007.

Credit Risk and Credit Quality Outlook

CHALLENGE	DURING THE CRISIS	TYPE OF ENTITY*	OUTLOOK
"Franchise value"	<ul style="list-style-type: none"> - Many HFs and HFMs lost "franchise value" following very poor performance and imposition of suspensions or gates - Those with solid performance increased their brand strength albeit in a negative environment 	HFs, HFMs	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Larger managers that performed well through the crisis and avoided the need to suspend or gate their funds should have a substantial advantage in the near term as investors return to hedge funds, thereby increasing the long-term viability of the business and profitability and hence, credit quality - Franchise value for smaller managers, which was limited even before the crisis, remains a negative as the very term "hedge fund" appears to have lost some of its "lustre"
Operational challenges	<ul style="list-style-type: none"> - The crisis created and highlighted many operational challenges as described above (see Appendix 2) 	HFs, HFMs	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Generally, operational quality trends are positive (see table 1) and hence the likelihood of operationally-related credit events should decrease¹⁸
Business risk concentration	<ul style="list-style-type: none"> - Many HFMs in the crisis became acutely aware of the concentration (and volatility) of their fee and performance-based revenue source, which as they dropped caused severe stress on their business 	HFMs	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Revenue and profitability stresses have eased since the markets rebounded, easing the problem in the short-term - Many larger managers are focused on diversifying their business risk by launching different types of products to attract other investor types, which if ultimately effective, should result in more robust revenue streams for HFMs

*O*HFs = Hedge Funds, HFMs = Hedge Fund Managers, VFNs = Variable Funding Notes (see note 16 above)

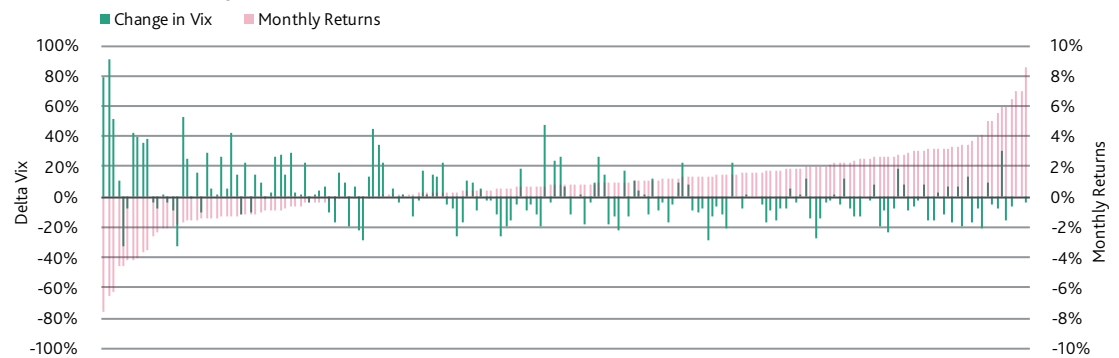
Although our view is that the general credit trend for the "collective" industry is positive, given the varied and diverse nature of the industry, there remain many funds and managers facing material challenges in the near future. In particular, funds that are in very thinly traded markets, have material side-pockets relative to the fund size, are still dealing with investor redemptions and/or have lost the confidence of investors. Moreover, risk aversion remains in the market and hence, out-of-favour funds or managers may find it difficult to obtain financing should the need arise. As such, individual names may in fact exhibit deteriorating credit quality in the near term.

¹⁸ Operational and credit events for hedge funds are intrinsically linked as the (severe) occurrence of one will invariably necessitate the occurrence of the other.

Appendix 1 – Market Shocks: Do hedge funds do “what it says on the tin”?

In recent years, the hedge fund industry has been criticised for not “doing what it says on the tin”, i.e. delivering returns and providing diversification from traditional investment markets such as equities. Market shocks such as the one following the Lehman default are often used as anecdotal evidence for such criticism. However, looking back at the collective returns from the industry, one can see that severe market shocks do cause most funds to lose money. This stands to reason, because, although it is true that risk exposures of funds can vary substantially, they are participants in the financial markets and a sudden re-pricing of risk across the board can catch managers off guard, in the same way as other market participants. A simple analysis using the VIX index as a measure of panic, and displaying the change in VIX (denoting a sudden panic) with its corresponding monthly hedge fund returns, illustrates the point: we can observe on the left of the chart that most (industry-wide) negative returns are associated with VIX spikes (i.e. panic).

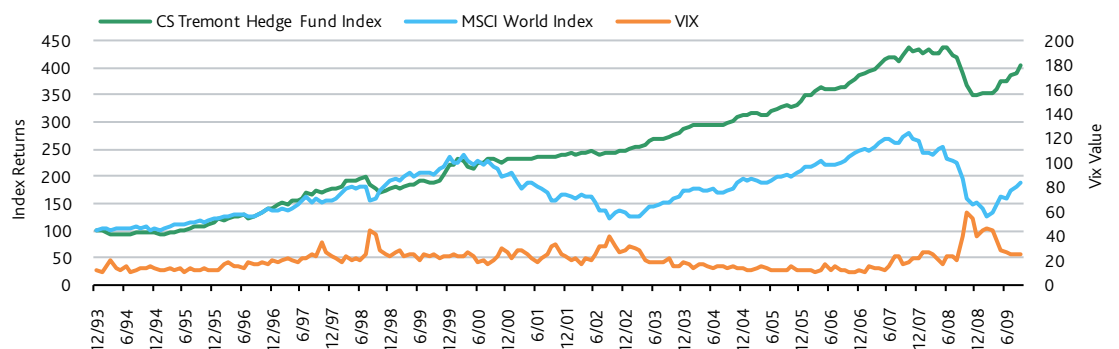
FIGURE 9
Delta Vix vs. Monthly Returns



Monthly returns, as per the CS Tremont Hedge Fund Index, are plotted in increasing order of magnitude for the period from 1/1994 to 9/2009
Source: Moody's

However, because of the inherent flexibility and diversity of the industry, collectively, hedge funds can adjust to market conditions and can continue to produce positive returns even in a recession or bear market, once the initial shock has run its course. The same is not true for traditional investment managers, who are more constrained. As such, under less positive economic scenarios, it is likely that many hedge fund strategies would still be able to record profits and assets under management should grow as investors are attracted by the high returns relative to those on traditional investments (although asset growth may be limited as investors remain cautious).

FIGURE 10
Vix vs. Cumulative Returns



Source: Moody's

Appendix 2 – Operational Quality Rating Impact Table

Operational Risk And OQ Rating Outlook

CHALLENGE	DURING THE CRISIS	CATEGORIES AFFECTED*	OUTLOOK
Volatile markets	<ul style="list-style-type: none"> - Erratic markets, in some cases caused irregular trading activity and challenges for operational staff - Unusually high volumes, may have required changes to risk management approach 	Ops, Val, RMF	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Markets have stabilised and trading conditions have normalised - Many funds have improved their risk processes and systems
Illiquidity of assets	<ul style="list-style-type: none"> - Illiquidity and inability to obtain reasonable marks created problems in obtaining reasonable NAVs - Risk was affected both in terms of ability to establish portfolio market risk and manage liquidity risk 	Val, RMF	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Liquidity of most assets has returned to the markets and barring another severe decline/shock, managers should be able to return to business as usual, often with simpler portfolios and decreased leverage
Gates / Suspensions / Side-Pockets	<ul style="list-style-type: none"> - After the imposition of gates/ suspensions, there were a number of litigation cases, as documentation and standard clauses had never been tested - Use of side-pockets/run-off portfolios also caused operational problems regarding fees earned and valuations 	Val, CF	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Longer-term trends are positive as long as market and decreasing redemption trends continue, and documentation and litigation issues are resolved (although the latter will still cause problems in the near term).
Lower AUM/ profitability	<ul style="list-style-type: none"> - AUM declines led to many problems including: cost-balancing operational needs with cost-cutting pressures due to decreased revenues from management and performance fees; and also managing a portfolio given the possibility of substantial redemptions 	All	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - AUM has picked up for many, with improved performance and net inflows <p><u>Negative factors:</u></p> <ul style="list-style-type: none"> - Many smaller managers continue to struggle - Any changes to the business, such as adding new products and mergers, increase short-term operational risk
Financing issues	<ul style="list-style-type: none"> - Difficulties obtaining financing made some strategies difficult to manage, heightened liquidity risks and increased legal work 	RMF, CF	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Financing has again become more accessible and with growing confidence in the markets, this looks set to continue. - However, we are unlikely to see a return to the ease/cost of financing before the crises for quite some time
Regulatory changes	<ul style="list-style-type: none"> - Uncertainty caused by regulatory changes created a distraction for managers and in some cases resulted in contingency plans being put in place (regulatory changes are covered in more detail below) 	Ops, CF (and potentially all others)	<p><u>Outlook uncertain:</u></p> <ul style="list-style-type: none"> - Regulatory changes could improve overall operational quality in the long term - Near term, there will likely be increased workloads, particularly for compliance and legal functions, which may lead to organisational restructuring
Investor demands			
- Transparency	<ul style="list-style-type: none"> - Demands for increased transparency of portfolio and operations greatly increased during the crisis, driving significantly increased spending on investor relations. Also, significant capital invested via managed accounts 	Ops, RMF	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Increasing transparency should improve overall operational quality in the long term and the investor relations function in the near term <p><u>Negative factors:</u></p> <ul style="list-style-type: none"> - Increased use of managed accounts, may make operations more complex and resource-intensive
- Liquidity	<ul style="list-style-type: none"> - Demands for better liquidity terms led to pressure on managers and increased use of managed accounts 	Ops, CF	<p><u>Negative factors:</u></p> <ul style="list-style-type: none"> - In addition to the above, increased use of managed accounts may add to workloads and put pressure on profitability
- Operational	<ul style="list-style-type: none"> - Increased demand for higher quality operational infrastructure and due diligence on funds 	All	<p><u>Positive factors:</u></p> <ul style="list-style-type: none"> - Should force managers to improve operational quality attract investors

* Ops = Operations, Val = Valuation, RMF = Risk Management Framework, CF = Corporate Functions, SP = Service Providers

Appendix 3 – Related Research

For a more detailed explanation of Moody's analytical approach regarding hedge funds and related entities, please refer to the following reports:

Rating Methodologies

- » [Operational Quality Rating Methodology for Hedge Funds, June 2009](#)
- » [Moody's Global Rating Methodology for Asset Management Firms](#)

Rating Research

- » [Market Turmoil Increases Stress on Hedge Fund Operations](#)
- » [Global Macro-Risk Scenarios 2010-2011, On the "Hook" for Some Time Yet , January 2010](#)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

 Report Number: 122367

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