Managing Risk in a New World
Navigating the Five Major Hurdles for Hedge Funds
Enhanced risk management practices and greater transparency have become both a regulatory and competitive necessity for today’s hedge fund managers.

The hedge fund industry is in the midst of a redefining transformation. Years of growth in assets and number of funds have been fueled by a progressive shift towards the institutional mainstream. But some of the gloss is starting to come off.

For many firms, including some of the sector’s biggest names, 2015 was a tough year. The industry as a whole posted its lowest annual return since 2011, according to the 2016 Preqin Global Hedge Fund Report. A third of institutional investors and 44% of fund managers reported that hedge funds had failed to meet their return expectations in 2015. The year also saw the most fund closures since 2009.

And 2016 has not been easy so far either. Severe market setbacks in the opening weeks of the year hit performance, bringing industry assets back below $3tn, while Hedge Fund Research data showed the number of funds continued to shrink in the first quarter.

The sector has clawed back ground since, with the Preqin All-Strategies Hedge Fund benchmark moving into positive territory for the year in April. Massive volatility following the UK’s referendum vote to leave the European Union has further tested hedge funds’ ability to ride market shocks and limit losses though. Some individual funds reported big wins from the vote, while others struggled. Overall, the HFRX Global Hedge Fund Index gained +0.20% during June, but remains down 0.83% for the year.

This period of rocky performance has lent voice to those clients and critics who have questioned hedge funds’ fee levels, market correlations and ability to deliver significant risk-adjusted returns even in difficult financial conditions. Closer scrutiny will likely continue as well, with investors becoming increasingly sophisticated in constructing their hedge fund portfolios, notes Deutsche Bank’s 2016 Alternative Investment Survey.

Calls for ever more insight into investment policies and enhanced performance attribution, as well as assurances that funds have adequate infrastructures to mitigate operational risk will only get louder.

1 2016 Preqin Global Hedge Fund Report, Preqin, February 1, 2016
2 Hedge funds culled as performance sags, by Mary Childs, Financial Times, June 16, 2016
3 Ibid
4 HFRX Index Gains 0.20% in June Despite Brexit, July 5, 2016, FINalternatives, http://www.finalternatives.com/node/33370
5 14th annual Alternative Investment Survey, Deutsche Bank, February 23, 2016
At the same time, the regulatory focus on investor protection, most notably in the shape of AIFMD in Europe and Dodd-Frank in the US, has brought more intense scrutiny of the sector. Transparency, reporting, disclosure and demonstrable risk controls have become the order of the day.

Other jurisdictions are following suit. For example, according to IOSCO’s latest Hedge Funds Survey report, rules introduced by the Monetary Authority of Singapore require hedge fund managers to “have in place proper risk management, monitoring procedures and internal controls, and are required to provide annual certification to MAS that their procedures and controls for monitoring the management and the risk of the fund are as set out in the prospectus.”

In this environment of testing market conditions, reduced tolerance for underperformance, fee scrutiny and demands for greater transparency, an advanced risk management infrastructure has never been more important. Not only can it help firms meet their increasingly challenging risk reporting requirements, but effective risk management can become an important competitive differentiator in the battle to attract and retain assets.

**Balancing Risk and Reward**

According to EY’s latest Global Hedge Fund and Investor Survey, asset growth remains the primary strategic priority for the majority of managers. Yet achieving growth is a challenging proposition given “increased competition, evolving investor demands and operating model constraints/margin considerations.”

To attract more assets and investors, and justify their fees, hedge funds are under pressure to deliver risk-adjusted returns that produce sustained market outperformance. They are also wrestling with an increasing regulatory burden and investor demands for more sophisticated services and enhanced transparency into the sources of performance and risks taken.

Growing stakeholder demands have been particularly pronounced as institutional investors have become more active in the space. Despite some high profile divestments and strategy reappraisals by a number of organizations, this institutionalization is unlikely to change. Rather, a new Citi Prime Finance survey reports that 53% of asset allocators plan to expand their hedge fund exposures over the next three years.

And their focus on sound risk practices will only intensify. For example, a new McKinsey survey of major pension and sovereign wealth funds found that 69% of executives said an important or top priority for their institution in 2020 is “evolving the risk management function.”

In addition, retail assets are growing, not least through new regulations allowing alternative 40 Act mutual funds in the US and alternative UCITS in Europe, notes the Preqin report. While this opens up new asset gathering opportunities for hedge funds, regulated vehicles bring additional challenges, including a greater onus on liquidity, the need to understand risk positions at all times, and demands for more accurate, granular and frequent reporting.

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7 The evolving dynamics of the hedge fund industry: 2015 Global Hedge Fund and Investor Survey, Ernst & Young, November 10, 2015
8 Risk Premia, the 3rd Generation of Asset Allocation, Citi Prime Finance, May 12, 2016
9 From big to great: The world’s leading institutional investors forge ahead, McKinsey & Co.
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Five Hurdles to Effective Risk Management

Different hedge funds have different risk concerns and tolerances, depending on their objectives, trading strategies and the instruments they employ. While each must define risk for itself, funds face five common challenges.

1. Finding and reporting on firm-wide positions across asset classes

Each hedge fund needs an up-to-date view of its total risk position and the exposure it creates. However, portfolio managers’ tendency to work independently, combined with IT system limitations, can result in asset-class silos within a firm. That makes it difficult to obtain an accurate, enterprise-wide picture of exposures.

Hedge funds may also face cross-asset exposure. For example, a manager may hold an equity stake in a company and a future or option on that equity, as well as a bond and related CDO. Again, the use of non-integrated IT systems makes it hard to track the firm’s aggregated risk position.

2. Evaluating and quantifying counterparty risk

With trading speed constantly accelerating, evaluating the risk counterparties pose at any given moment becomes a monumental undertaking. The complexity has been further exacerbated by many fund firms’ moves to a multi-prime model post-financial crisis in an effort to diversify their relationships. While this can be an effective hedge against counterparty risk, monitoring and managing exposures with multiple counterparties has become a significant challenge.

3. Reconciling data from multiple counterparties

A hedge fund must reconcile the trades and positions on its books against those of its counterparties if it is to understand its risk exposure fully. But getting accurate data in a timely, automated fashion from a myriad of trading counterparties and back-office service providers can be difficult and time consuming. The firm then needs to reconcile the data received and address outstanding issues, further complicating the task.

4. Accessing real-time risk and exposure reporting

Faced with escalating trading speed and volumes, a more engaged client base, globalization and closer regulatory scrutiny, hedge funds need up-to-the-minute insights on their portfolio positions and accompanying risk exposures. As the EY report points out, data needs to flow seamlessly from manager to vendor and counterparties and back, to close any gaps between trading, risk and reporting. However, real-time data feeds, trade information and position monitoring are not always available, especially when dealing in emerging markets.

5. Valuing illiquid securities and portfolios

Determining the fair value of an infrequently traded, custom-built OTC derivative or complex loan product can be problematic. Furthermore, because illiquid securities are less frequently priced, the valuations may smooth reported returns, resulting in an underestimation of their volatility and the risk they pose.

Figure 2: Percentage of funds investing in risk management functions in the preceding 12-24 months, by AUM.

Source: EY 2014 Global Hedge Fund and Investor Survey

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<th>Risk Management</th>
<th>Total</th>
<th>Over $10B</th>
<th>$2B - $10B</th>
<th>Under $2B</th>
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<td>52%</td>
<td>52%</td>
<td>61%</td>
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Hedge funds historically relied on valuations from the sell-side counterparty that created the instruments. However, this practice has raised concerns about conflicts of interest, transparency and valuation subjectivity, with the attendant risks they pose for the instrument holder.

In response, the industry has moved towards independent instrument and portfolio valuations, performed either by a fund’s in-house experts whose responsibilities are segregated from portfolio management, or by specialized pricing providers or third-party administrators.

Both the Financial Accounting Standards Board’s Fair Value Measurement Topic 820 (formerly known as FAS 157), and the International Financial Reporting Standards 13 Fair Value Measurement (IFRS 13) have been introduced to provide a consistent set of accounting standards that define how companies should determine, track and disclose the fair valuations of their assets and liabilities. The standards require institutions to categorize assets in one of three levels, based on the inputs used to value them. For “Level 3” assets—which lack observable prices for one or more of their component inputs, and are therefore valued according to estimates derived from models—companies must disclose the techniques and inputs used to arrive at a valuation, and the changes in valuations from period to period. The stated value also must reflect what would happen if the holder were exiting the position in current market conditions, rather than a notion of long-term value.

Managing Operational Risks

In addition to the challenge of tackling the various investment-related risks, hedge funds face heightened scrutiny from investors and regulators of their operational infrastructures and processes, and thus their ability to combat a wide range of operational risks.

As noted above, the EY report highlights the importance of seamless data flows. Yet many managers lack an integrated set of technologies that enable the growing speed and volume of data to be easily managed. Lack of system integration and automation also exposes hedge funds to costly manual intervention and the potential for human error. Meanwhile, weak systems increase cybersecurity risks.

Creating a Best Practices IT Framework

Technology, and/or outsourcing to dedicated third-party providers, can play a significant role in helping firms navigate these hurdles. As the Preqin survey observes, making further investments in their business operations may be difficult for hedge funds in light of the ongoing pressure on fees. And that margin squeeze is being aggravated by rising costs, with many managers facing higher prime brokerage charges, as well as increasingly complex investor servicing and regulatory demands. Nevertheless, investing in more efficient operating models “could be vital to the success of a hedge fund in 2016,” says Preqin.

A sound technology infrastructure can help fund managers demonstrate they have adequate control over investment and operational risks—a fact many firms recognize. For example, the EY survey found 41% of hedge funds had made major expenditures in risk management systems over the previous two years, which was the second highest area of spending after investment management and trading operations. Investments in compliance and regulatory reporting...
Growing stakeholder demands have been particularly pronounced as institutional investors have become more active in the space.

systems were third. The survey also reports that 70% of managers intend to make major technology investments over the coming two years. Technology spending is expected to account for 12.4% of their budgets in the next three to five years, with investment in data management and reporting technology seen as particularly crucial.

So what should a best practices IT framework for risk management look like? To handle the complexities and speed of the modern trading world, hedge funds will need an architecture that includes a number of advanced capabilities:

Multi-asset class coverage
The continuous search for alpha takes managers across asset classes and markets. Yet in many cases they do not have the ability to easily accommodate many different or new instruments within their existing infrastructure.

Effective risk management calls for a portfolio management platform that can support complex financial instruments and strategies, and include cross-asset class risk tracking and reporting. It should enable managers to track exposure by name or issuer across asset classes. The platform also needs to be able to break down the sources of risk in a portfolio by factors such as style, sector, interest rate, country and currency.

These capabilities allow the fund to run timely, comprehensive stress tests for its entire portfolio, as well as individual products, to get a quick and accurate picture of the firm-wide risk position. The system should also be easily extendable to allow new instruments to be added as they emerge.

Enterprise-wide data mining
Hedge funds often obtain their data from multiple sources, and store it in product-specific system silos. This results in a profusion of data that is inconsistent in format and fragmented across the firm. While this may provide adequate individual fund or asset class reporting, it can aggravate firm-wide exposure or valuation risks. For hedge funds to compete effectively in today’s trading environments, they need data that is cleaned in a consistent manner and consolidated to produce an enterprise-wide view of risk in real time.

Accurate instrument valuations
Funds increasingly use third-party pricing sources for hard-to-value securities, which require an automated information feed into the hedge fund’s risk management system. The hedge fund should also have an internal price modeling capability to validate third-party figures and test recent transaction prices against prior valuations.

Monitoring fund/portfolio manager thresholds
Accurate monitoring of portfolio manager thresholds and fund concentration limits helps guard against excessive exposure to particular positions, industries, economic sectors or geographies. This is essential to avoid style drift and comply with restrictions set forth by management, investors, disclosure guidelines or regulators. The limits should also be easily configurable in the system to accommodate future changes in the hedge fund’s strategies.

Intra-day Value-at-Risk (VaR) capability
Many hedge funds employ dynamic trading strategies that result in rapid position changes, although the end-of-day net effect may be zero. Therefore, VaR should be measured at frequent intervals throughout the trading day to reflect this rapidly changing situation. In addition, the risk tools should support stress, correlation and back testing for the VaR measures, as well as “what if” scenario modeling to guide portfolio decision making.

Real-time reporting
An effective risk management platform will offer real-time reporting for all assets by strategy, portfolio, counterparty, creditworthiness or firm-wide position. This provides managers with the information needed to manage risks effectively and meet investor mandates.
Integrated operations

More broadly, a robust, integrated technology infrastructure is crucial in allowing for the seamless flow of data around the enterprise to foster improved risk analysis, management and reporting. Automating processes with sophisticated capabilities also reduces manual intervention and enhances efficiencies, helping minimize operating costs and the potential for errors. Moreover, the right systems can counter the growing threat of cybersecurity breaches, and minimize the reputational risk from operational failings.

Finally, while infrastructure is crucial, it is just one pillar in a hedge fund’s risk management framework. It must be supported by rigorous processes and procedures, and well-trained, empowered risk specialists if the entire framework is to be effective.

Risk Management for the New Reality

Given the inevitable risks that come from pursuing superior absolute returns, hedge funds have long recognized the need for effective risk management and monitoring capabilities. Today, in the face of faster trading speeds, increased volume, growing instrument complexity, greater globalization and political uncertainty, hedge funds must be prepared to meet higher investor expectations and tighter regulatory scrutiny.

Meeting these challenges begins with a risk assessment to gauge the firm’s exposure. A key part of that assessment is a review of systems and processes to ensure they are sufficiently robust to support best practices in risk management. A best practices infrastructure requires a sophisticated IT platform that can track a broad range of assets, report on global positions by counterparty, and provide timely valuations and accounting for funds at multiple levels. The right technology solution will make real-time, actionable fund data readily available and reduce operational risk through a high level of automation.

With the right combination of proven technology, built-in controls and informed human judgment, firms can create a robust risk management framework that will enable them to compete successfully in this evolving, complex environment.

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