hedgeweek special report
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September 2014

Risk Management 2014

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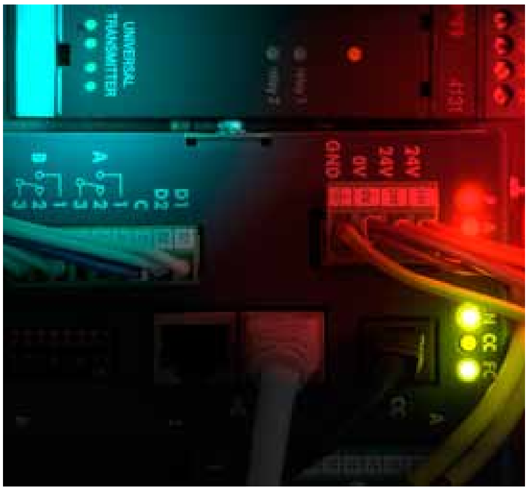

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The growing perils of operational risk

By James Williams

In the last few years, operational due diligence on hedge fund managers has taken on the same level of forensic detail as the hit TV show CSI New York. Given that this has coincided with greater institutional allocations, it is entirely understandable; mom and pop's pension is at risk.

To be sure, no institutional investor can take a punt on allocating to a hedge fund manager, no matter how stellar their track record, if the operational infrastructure in place simply doesn't meet the required standard. In a report published by Castle Hall Alternatives earlier this year entitled *Six Principles of Operational Due Diligence*, they stress this point in their conclusion, noting that "the role of operational due diligence… at the most basic level, is to worry about what can go wrong". At what point, they ask, is there an incentive to "pass" the fund, irrespective of potential operational problems?

To be honest, this ultimately depends on each individual investor but at the heart of the issue is ensuring that a detailed operational due diligence process is in place.

Managers have nowhere to hide today and are quickly becoming cognisant of the fact that operational risk is now equally as important as portfolio risk.

"When I think about operational risk it starts with the institutional investors rather than the managers. Before regulation became more stringent, it was institutional investors who were driving the controls as part of their operational due diligence requirements," says Bennett Egeth, President of Broadridge Investment Management Solutions.

"ODD determines where money is placed. It involves looking at a manager's ability to comply with different regulations, the separation of duties, key man risk, the technology choices a manager has made and whether those choices are purchased or built internally. It also involves looking at the complexity of the product mix within a firm, and looking at their actual business model compared to its description in the private placement memorandum."

The operational risk of a hedge fund is being made more complicated by the basic outputs that are required of its data. Put simply, today's manager has to process and disseminate a huge array of complex information, accurately and on time.

"I think the data transparency initiatives, both from the regulators and institutional investors, create operational risks per se given the sensitivity of data and challenge to effectively aggregate and deliver it to the numerous constituents," comments Gary Kaminsky, Managing Director, Global Regulatory and Compliance at ConceptONE LLC, a leading provider of risk management solutions, regulatory reporting and middle and back office services.

Last year the firm developed a Regulatory Enterprise Risk Management solution – RegERM – to give hedge funders a complete answer for all of their regulatory reporting needs. ConceptONE has long supported managers in risk management reporting. What the deluge of market regulation – Form PF, CPO-PQR, Annex IV, FATCA, EMIR – as well as investor-driven transparency reporting under the OPERA protocol has done is put managers' operational infrastructures under enormous pressure. Unless firms are willing to have operations teams of 20 to 30 people, staying on top of operational demands and remaining fully compliant has become the proverbial uphill challenge.

"What ends up happening within an organisation is that there has to be a harmonisation of data. Operational risk is very much challenged by the complicated aspects of data," adds Kaminsky.

The need for consistent data

Egeth notes that at Broadridge a great deal of emphasis is placed on the quality of data that drives new reporting and risk analytics so that managers don't have to worry about whether they are utilising the right data or not. Aside from data accuracy, what is also important is access to the data and, following on from Kaminsky's point about its variety and complexity, the ability to integrate it for different purposes.

"Before regulation became more stringent, it was institutional investors who were driving the controls as part of their operational due diligence requirements."

Bennett Egeth, Broadridge Investment Management Solutions

This requires data to be consistent.

"If I want to call IBM a service company rather than a technology company, I need to be able to store that information at a security level but I also need to make sure that my regulatory reports reflect that, my risk reports reflect that, my performance and attribution numbers reflect that and so on," says Egeth. "One of the biggest challenges around operational risk management is ensuring that the manager is making the same data assumptions that result in consistent data across their enterprise.

"What you don't want is when you go back to look at your aggregate exposure by asset class and you find IBM sitting in three different places, even though it's the same trade position. The ability to manage data such that disparate systems are working off consistent data is, in my mind, one of the biggest challenges for managers around operational risk."

Most hedge funds would doubtless agree. The stakes are so high today that any threat to reputational risk because a manager lacks the operational controls to identify errant data leads to one outcome only: the closure of the business. Investors will not accept inaccurate performance attribution, or the inability for a manager to show what business continuity plans they have in place should a counterparty get into trouble.

The industry has, in this regard, well and truly grown up. Hedge funds are morphing steadily into institutional asset managers: the Aberdeens, Fidelitys and BlackRocks of the world. If today's emerging managers think they can grow by harvesting 30 per cent alpha on the back of a threadbare operational framework they are kidding themselves.

"Our system helps to achieve the

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SEC alert places cyber security risk at forefront

Interview with Lisa Smith

Cyber security has quickly become a headline risk for hedge fund managers. On 15 April 2014, the SEC issued its Cyber-Security Risk Alert, a detailed 26-point questionnaire that aims to address various elements of a hedge fund's technical and operational infrastructure to determine how vulnerable it is to cyber attacks and data theft.

This initiative is being driven by the SEC's Office of Compliance Inspections and Examinations. It will assess 50 individual firms and based on its findings will draft a set of final guidelines for hedge funds to adhere to. This is essentially a way to address 'technology risk' and implement best practices through documentation in the form of a Written Information Security Policy (WISP).

According to Assured SKCG Inc, an insurance advisory firm, 37 per cent of security breaches between 2012 and 2013 affected financial organisations. Hedge funds are a high profile target. Establishing a WISP and becoming as data secure as possible is critical.

At Eze Castle Integration, the phones haven't stopped ringing as clients look to address any gaps in their IT infrastructure and operational policies.

"It wasn't at the forefront of managers' minds previously. It is now though," says Lisa Smith, BCP/Data Privacy Manager at Eze Castle Integration. "Previously they put a lot of trust in their CTO, their service providers, to implement best practices around how to protect the firm. Now, rather than thinking someone else is taking care of it, there's more emphasis on documenting everything and making sure that everybody is singing from the same hymn sheet.

"Everybody within a hedge fund should have a better understanding of what's in place with respect to data privacy and infrastructure security. There needs to be firm-wide knowledge."

Lisa Smith, BCP/Data Privacy Manager at Eze Castle Integration

A WISP acts as a blueprint. Just like the compliance manual, it sets all the firm's internal policies and procedures covering everything from service provider outages to how often system passwords should be updated and so on.

"We start off by gauging where the client is. Do they have an IT policy? What type of infrastructure do they have in place? Fortunately for us, a lot of firms who have been calling us are existing clients so we have a good understanding of what they have in place. We as a firm follow industry best practices and implement those across our clients' infrastructures," explains Smith.

What Eze Castle is able to do in producing the WISP is apply their expertise (having already written dozens of WISPs for financial institutions) and paint a picture of how well a firm is protected against cybersecurity threats. This immediately overcomes the very real issue of 'Key Man risk'. Say the CTO were to up sticks and join a competitor. If nothing has been written down and documented, nobody in the firm would have a clue as to how their IT infrastructure operates.

"Until it has been documented, everyone works off of assumptions," comments Smith, who continues:

"We help put the controls in place to address data privacy. Some firms have documented this in their compliance manual, which we would make reference to in the WISP. It sets out a firm's IT functions and applications and prioritises them.

"If a cyber attack takes place and impacts one system, having it documented means the manager will see where the impact is and what effect it will have on the rest of the firm." ■

5 ▸ repeatability of process without necessitating the marshaling of internal resources on a quarterly, if not daily basis," says Kaminsky. "Our primary goal is to deliver a solution that enables firms to comply with their regulatory reporting and third party transparency reporting obligations, and to do it in a way where they align these disclosures to achieve several goals. One is to mitigate disparities in disclosures that can result in unnecessary scrutiny from a regulator or potential investors. Second, to be able to run their business day-to-day whilst also complying with these things.

"Managers also need to have an audit trail. Someone, at some point, is going to ask why a question was answered in a particular way. To do that, managers need quick access to records contained in the audit trail."

It could be argued that indirectly, by making firms address these operational issues, regulation is helping them to run better businesses.

As managers move to develop new strategies, build new products, to widen their investor base, the reporting demands naturally increase. Risk management is more complex than ever. To address the issue, SunGard is rolling out a new integrated risk management solution known as APT Enterprise. It will give clients managed reporting services as they seek to stay on top of the complexity of risk reporting. Reports will be available in Excel and PDF format or accessed through an interactive web-based risk dashboard.

"We provide a series of workflow tools within APT Enterprise that are geared towards handling enterprise-level risk reporting. We are calling it 'Risk without the Trouble'," comments Laurence Wormald, COO and head of research, SunGard APT.

There are two main ways to utilise the dashboard for report generation.

"The first option is a full service-based model where the manager simply needs to load up their fund data to a secure FTP site. Then, within an hour or two – depending on the service level agreement – they can pick up a full set of standard form reports. The second option is where the manager can drive the process themselves through the dashboards. In other words, one day they

"What ends up happening within an organisation is that there has to be a harmonisation of data. Operational risk is very much challenged by the complicated aspects of data."

Gary Kaminsky, ConceptONE LLC

can request five reports and the following day request 50 reports.

"Most likely, managers will have a daily standard reporting cycle and then on top of that, they have the ability to generate additional reports based on what they see in the dashboards. If the VaR in one of the funds spikes up the manager might want an additional risk report. They can do their own scenario analysis and generate different reports for different market conditions. The dashboards allow for that flexibility," explains Wormald.

SunGard will send standard risk reports overnight based on closing prices before the start of trading the next day as well as 'on demand' reports within Enterprise.

"Everybody knows that getting risk management right is an expensive, troublesome exercise. We think APT Enterprise will be a trouble-free way to get your risk right, make you nimbler, take your investment story to investors in a much more powerful way, demonstrate best practice and grow your AuM," adds Wormald.

This drive towards managed services, where the operational heavy lifting is outsourced to the respective service provider, is gaining momentum as managers look for ways to trim back their operations teams. Economically, it is a much more cost-efficient solution. Moreover, it means that managers are able to mitigate operational risk by ascribing key functions to expert organisations whose sole purpose is to handle operational issues on a daily basis.

Outsourcing does not mean abdicating responsibility

Using outsourced providers, however, to handle operational issues, does not mean managers should also be outsourcing responsibility. Investors, when doing their ODD, will want clear evidence of how managers are staying on top of operational risk. They will typically be fine with a manager using third party providers – after all many managers now appoint independent fund administrators – but what they will expect to see is some form of shadowing, be it for accounting, regulatory reporting etc.

"Operational risk means understanding what the controls are to make sure the administrator has the most current and complete information as well as how I, as a fund manager, supervise my administrator's ability to produce an accurate investment book of records (IBOR)," says Egeth.

"One of my favourite expressions is 'Who watches the watchers?' From a fund's perspective, even if an administrator is producing the IBOR it doesn't mean the manager should abdicate their duty. The regulators and investors hold the manager accountable, not their administrator, if things go wrong. All an administrator can do is provide good record keeping on the information that a manager provides. If that information is incomplete, the records aren't going to be accurate."

On outsourcing, Kaminsky says: "We're just trying to help facilitate the enrichment and movement of data into the appropriate regulatory reports. It's a partnership arrangement. We can do as much or as little as the client wants us to do."

Cybersecurity & technology risk

An insufficient operational set-up is also exposing managers to yet another issue: namely technology risk and the potential for sensitive, confidential fund data to be targeted by cyberspace hackers. This has become a focus of attention in the US to the extent that this April the SEC's Office of Compliance Inspections and Examinations issued a Cyber-security Risk Alert; a seven-page report containing 26 sample questions to determine the vulnerability of hedge fund IT infrastructures, security governance and protocols, risks associated with fund transfer requests and so on.

To tackle these issues, Eze Castle Integration is helping managers to prepare what is known as a Written Information Security Policy (WISP).

"Everybody knows that getting risk management right is an expensive, troublesome exercise. We think APT Enterprise will be a trouble-free way to get your risk right..."

Laurence Wormald, SunGard APT

As Lisa Smith, BCP/Data Privacy Manager at ECI explains: "Managers need a good understanding of where confidential information is within the firm. Who has access to it? How are they protecting that information? If they are working with fund administrators on client accounts, how is that fund administrator protecting their information? What type of identify theft (i.e. are they compliant with red flag?) programs do they have in place, if at all?

"It's not all about IT, it's also about internal policies. What's the process of dispersing funds to a client's account? Are the proper checks and balances in place to ensure that the funds are going to the right investor? It needs to be a collaborative initiative to make sure that everybody (within a hedge fund) is being protected."

Adoption of best practices by establishing a WISP not only bolsters the operations, it gives investors added reassurances. Not only that, it avoids the potentially sticky issue of 'key man risk'.

"What this SEC initiative is doing is causing managers to take a step back and evaluate what they have in place. It's just the same as the compliance manual, which every year needs to be reviewed and updated. Now, managers have to review their IT policies. Before, it wasn't something that was ever properly documented. It was always in the CTO's head, or in the hands of the service provider.

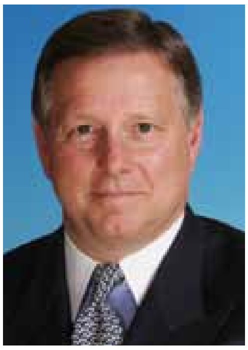
"Until it has been documented, everyone works off assumptions. It's critical that everyone knows the company's IT policy when it comes to cyber security and protecting the firm's confidential information," stresses Smith. ■

Financial intermediaries in the driver's seat

Interview with Brian Storms

New York-based Liquid Holdings Group has developed a real-time risk analytics solution for those who manage multiple accounts, traders or strategies, and as a result require an aggregate view of market and liquidity risks. The new solution, LiquidFIRM (Financial Intermediary Risk Management), is the latest addition to Liquid's cloud solutions and services.

"LiquidFIRM is unique in that it allows intermediaries to manage both pre-trade compliance and post-trade risk across underlying mangers and strategies. It empowers the intermediary's risk oversight desk to do things like limit the buying power of certain managers, put fat finger checks in place and so on, all while running real-time post-trade analytics that take into account the latest confirmed transactions," explains Brian Storms, CEO at Liquid Holdings, adding that those who will benefit most from LiquidFIRM are prime services firms, clearing firms, SMA platforms and proprietary traders.



Brian Storms, CEO at Liquid Holdings

A prime services firm (that is, a boutique prime) is required to go through a large clearing firm to process trades and provide margin to hedge funds. One of the key issues for clearing firms is making sure that the boutique prime has a full handle on the market risk being taken by their hedge fund managers. As Storms points out, "many boutique primes do not have their own risk systems and rely on those used by their clearing firm."

"LiquidFIRM allows our clients to take a high level look across many accounts. It then tests each account for market moves, stresses and shocks, liquidity problems or concentration issues, i.e., whether a manager has too large a position in a single name, sector or country. LiquidFIRM can look at things on an individual account basis as well as across multiple accounts, which allows our clients to respond to alerts as they arise," explains Charles Sweeney, who brings over thirty-five years of risk management experience from Goldman Sachs to the product management team at Liquid.

Because it does this in real time, LiquidFIRM is an effective early warning system. SMA platforms are particularly keen on the solution. Like the boutique primes, they need to ensure that each manager stays within the risk parameters set out in the mandate.

"Assume an allocator invests USD1 million with a hedge fund client and one of the conditions of the allocation is that the fund manager cannot breach certain parameters at any given time. If I shock the book X percent, the portfolio needs to be able to handle it. What's helpful with this solution is that managers can also use these same analytics to actively monitor their trading activity, market and liquidity risks," says Sweeney.

LiquidFIRM is also highly bespoke. For example, the portfolio would typically be shocked up and down 20 percent. However, if a manager prefers 22.5 percent, the risk parameters can be adjusted accordingly, says Sweeney.

"As portfolios become more complex, it's difficult to continuously know what risks you have. LiquidFIRM takes that into consideration. As it shocks the portfolio up and down it also revalues the options, the equities, the futures. It's something that you couldn't easily do by yourself," adds Sweeney, confirming that other asset classes such as fixed income will be incorporated into the solution going forward.

"When investors or regulators want to see what controls a firm has in place, risk management is at the top of the list. Firms need to answer that in a really robust way," concludes Sweeney.

LiquidFIRM is certainly going some distance to providing that answer. ■

Technology helps unravel risk management complexity

By James Williams

Hedge fund investors are taking a more measured approach to their allocation process. They want to understand the alpha proposition and the risk-weighted return profile of a manager but, as important as market risk is, they want assurances that operational risk is being demonstrably managed.

This is a big challenge for start-up fund managers: how do they get a robust infrastructure in place in a cost-efficient way and remain viable?

"The reality is if you're a manager launching with USD5-10m it's very hard to get a demonstrable infrastructure in place that ticks the box," says Phillip Chapple of KB Associates, a London-based operational consulting firm that supports managers in addressing investor operational due diligence requirements.

"This year I've seen 87 potential start-ups and only four of them have been viable. They have to have a unique alpha proposition but they also need an operational infrastructure that gives investors comfort and is appropriate," adds Chapple.

Even though the majority of new inflows into hedge funds now originate from institutional pension plans, endowments and SWFs, some investors are willing to take a calculated risk with start-ups that don't yet have institutional-quality operations in place. The need for diversification is driving this because not all investors want exposure to the same names. But as Chapple points out: "These are more day one angel investors who expect some kind of (fee) compensation. They want confirmation that these managers understand the risks and have a plan to grow the business."

Andrew Downes is the COO of New York-based Atreaus Capital LP, a global macro hedge fund that launched in May 2012. He says that despite being a relatively new fund the firm has seen the expectations of investors increase, adding that when they launched they tried to ensure that the infrastructure was as robust as possible. This was achieved by using a number of outsourced service providers to handle risk analytics and report generation.

"If you have risk limits and you need to monitor them and enforce them, not using an independent provider who manages the data, deals with exceptions, enriches the data and validates all the reports is challenging. Even if, as a smaller firm, you hire your own team, you're never going to have the same resources as risk system specialists. That's a worry because, if it is a small team, you never know if someone is going to get sick or move to another firm – it creates 'key person risk'," says Downes.

To illustrate how investors are pushing managers to up their game operationally speaking, Atreaus Capital recently selected SunGard's Hedge360 risk reporting service to handle the creation of its daily customised risk reports for its risk management purposes; this is on top of a monthly risk report that gets disseminated to investors.

"What we found was that our previous provider has a menu of different reports but the daily report we wanted to produce

"The reality is if you're a manager launching with USD5-10m it's very hard to get a demonstrable infrastructure in place that ticks the box."

Phillip Chapple, KB Associates

for ourselves and the monthly report for our investors was not something they had a form for. We were doing a fair amount of manual work to produce the daily reports we wanted," says Downes.

This led to Atreaus using SunGard's APT risk system in parallel with Front Arena to meet the customisation demands and ultimately benefit from the automation power of the Hedge360 platform.

Atreaus is just one of numerous managers who now increasingly rely on outsourced service providers to get around the operational challenges that face the industry.

As the risk management challenges grow – especially as managers explore new market areas and trade new asset classes – what is reassuring is that technology innovation is keeping pace. Front office traders are now able to manage risk exposures in real time alongside the book, giving them far more powerful insights into how the strategy might be affected in periods of different market stress.

However, financial intermediaries – prime brokers, clearing firms, SMA platforms, multi-manager allocators – need just as much of a handle on market risk as their clients. Not only that, they need to do so at an aggregate level. New York-based Liquid Holdings has just released a solution that provides a single real time risk management window across a firm's entire trading counterparties. Known as LiquidFIRM (Financial Intermediary Risk Management), it provides myriad post-trade risk controls that boutique primes, for example, have never been able to use before because of cost constraints.

"You may have one client that doesn't have a concentrated position but if you look across all 50 clients, maybe you as a firm do. LiquidFIRM supports that ability to

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"If you have risk limits and you need to monitor them and enforce them, not using an independent provider who manages the data, deals with exceptions, enriches the data and validates all the reports is challenging."

Andrew Downes, Atreaus Capital LP

APT Enterprise: integrated risk management

Interview with Laurence Wormald

"We've risen to the challenge to offer a truly integrated risk management approach with APT Enterprise," comments Laurence Wormald, COO and head of research, SunGard APT, adding:

"When you have different systems and you're trying to estimate a VaR number by combining one number from the equity desk with another number from the rates or credit desk, that is a discredited model. During the financial crisis, too many firms discovered how dangerous it was to do that."

APT Enterprise was launched in London on 25th September around a series of seminars entitled "The Challenges of Integrated Risk Management". It uses the same engine that powers APT's existing solutions, plus the risk calculations within SunGard's cloud-hosted Hedge360 platform.

The purpose of APT Enterprise is to deliver managed reporting services to better support buy-side institutions as they grapple with the scale and complexity of regulatory and investor risk reports. As its name suggests, APT provides enterprise-wide integrated market and liquidity risk management. Its launch comes at an opportune time when managers are feeling the pressure of regulatory compliance as well as needing to explore ever-more exotic, innovative investment strategies to harvest new sources of alpha.

"The most basic service for institutions is daily risk reporting for their funds. Some of our largest clients have thousands of funds. The CRO has the job of looking across all these funds globally and knowing what the different exposures clients have by asset type, by country, by legal entity or by currency. They need to know the aggregate exposure of myriad market risks and be able to slice and dice risk data to meet their responsibilities. APT Enterprise is the tool to do that," says Wormald.

Laurence Wormald, COO and head of research, SunGard APT

APT supports illiquid assets, unlisted funds, traditional asset classes such as FX, commodities, equities and bonds, and virtually every type of derivative. At the heart of the system is a risk dashboard to enable senior management to get an instant visualisation of risk; critical when one considers the huge amount of market data and engineered data including volatility surfaces and yield curves.

"All that data that needs to be marshaled and prepared every day. We provide a series of workflow tools within APT Enterprise that are geared towards handling enterprise-level risk reporting. It is a fantastic productivity tool that allows institutions to get their data right quickly and use the risk dashboards to view every stage of the process. When it comes to producing the final reports they know they are accurate," explains Wormald.

APT Enterprise has, therefore, been designed to solve the challenges of running large numbers of funds with different fund wrappers, legal entities and share classes. Integrated risk management is a growing necessity.

"Each structure will have its own reporting requirements and APT Enterprise takes care of everything. It means the manager doesn't have to mess around modifying their core risk report. It provides a powerful automation and workflow environment for clients who have multiple fund types to report on," adds Wormald.

Within the risk dashboard end users will have all key summary data – volatility, tracking error, VaR, beta, correlation, exposures, duration, greeks and so on – displayed via heat maps, pie charts and bar graphs and as Wormald concludes:

"Senior management really see the value in these dashboards because they can very quickly get a handle on what their portfolio managers are doing." ■

12 ▶ make more informed investment decisions," says Robert O'Boyle, Liquid's Executive Vice President and Director of Sales & Marketing.

In effect it acts as an early warning system by giving the intermediary a heads-up – which is achieved through the generation of an exceptions report – so that a potential risk management issue (e.g. a customer is about to get hit by a margin call) can be nipped in the bud. This is good news for smaller prime brokers because the last thing clearing firms want to do is have to deal with problem clients.

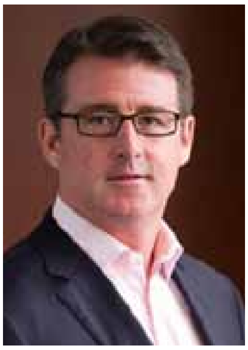
"It helps if managers themselves use LiquidFIRM in-house as well to monitor their risk real time. If they fall outside the risk parameters (agreed with their prime broker) it gives the manager the ability to alleviate the problem before the markets close," adds O'Boyle.

Using LiquidFIRM, a client can quickly generate an exceptions report to see which accounts, if any, have violated any of the pre-defined risk parameters.

"What this means is that you don't have to drill down into all your clients to check that everything's okay. If there is an issue, you can drill down into the account to see what the problem is. The power of LiquidFIRM is that because it can handle so much data for so many different accounts you don't have to keep looking at every underlying account all day long. The exceptions report tells you exactly where to go and look," explains O'Boyle.

One of the biggest risk management challenges for hedge funders is dealing with the deluge of regulation that has fallen into the market over the last few years. It's a massive burden and one that no manager can ill afford to get wrong.

Downes confirms that one of the more significant burdens post-launch has been the increasing regulatory reporting obligations. "We were SEC registered on day one, then the CFTC rules changed and we became a registered CPO so we are having to do Form PF filings annually and CPO-PQR filings on a quarterly basis. In the UK we will continue to rely on the private placement regime as a non-EU AIFM marketing a non-EU AIF under the AIFMD which will involve additional reporting obligations. Although less of a burden than for an EU AIFM



"You may have one client that doesn't have a concentrated position but if you look across all 50 clients, maybe you as a firm do. LiquidFIRM supports that ability to make more informed investment decisions."

Robert O'Boyle, Liquid Holdings

that is marketing an EU AIF, it's a burden nevertheless."

Atreaus Capital is even preparing for regulation that has yet to happen. As a global macro manager, it trades a lot of FX contracts. At some point, regulation will requires the clearing of non-deliverable forward (NDF) contracts, following in the footsteps of OTC swaps.

"In order to clear FX NDFs you will need to be connected to a middleware provider that connects traders, brokers, clearers and the clearing houses. One of these firms is Traiana. What's good about Traiana is that, in addition to connectivity for clearing, it will effectively help us automate a lot of the reconciliation processes post-trade. We plan to start using it later this year. That automation will give us even more redundancy in our operations and make us more efficient. It's a useful labour saving solution," says Downes.

Chapple stresses that for any new hedge fund it has become a necessity to have a non-trading member of the team to act as the COO – which is typically the biggest cost.

"Investors want to see that someone away from the trading desk is monitoring reconciliations, looking at compliance, managing counterparties on a daily basis. I find the most dangerous situation is where people outsource everything to a third party administrator and don't realise that they still need to provide oversight on the appointed service provider(s). The first barrier (to achieving a solid infrastructure) is having this independent COO in place. The second is the administrator – who it is, what services are they providing? How are you looking at confirmations and fills when trading? You need that level of control in place."

Such is the barrier to entry for new talent that some are turning to platforms rather than launch standalone funds.

Under AIFMD this could have unintended consequences. As Chapple explains: "A small manager with EUR10mn might choose to join a regulatory umbrella (which acts as the third party AIFM) but if the aggregate AuM of the platform exceeds EUR100mn (including leverage) the manager will inadvertently become a full scope manager under the directive and be required to appoint a depositary; an unnecessary cost that they could have avoided as a de minimis manager.

"That's something we've only seen the effect of recently. It's a strange situation because if the manager had waited and received their own FCA authorisation they'd fall out of the scope of AIFMD."

This is where firms like KB Associates can help managers by raising these issues and guiding managers towards making the best operational decisions.

One area of risk management, however, that still remains the most enigmatic is that of behavioural risk. No matter how exceptional the operational infrastructure or how robust the risk analytics framework, if traders and portfolio managers are not willing to address their behavioural biases then it counts for nothing.

"It is quite frightening how ignorant many participants are of these biases even though they operate in a profession that is purely linked to mental decision making. Traders and fund manager know intuitively that they make different decisions depending on whether they are making or losing money but maybe don't know what to do about it. Engaging in an activity without really understanding the mechanics makes me believe that behavioural risk is one of the most significant risks," says Simon Savage, Risk Specialist at Man GLG.

Whilst it is impossible to rewire the human brain, by coaching managers to make them better aware of the impact these biases have on their trading performance it is possible to bring about incremental gains; which, just as in elite sport, can lead to a significant overall improvement.

"If a trader is conscious that they might be vulnerable to certain biases they are better

"Engaging in an activity without really understanding the mechanics makes me believe that behavioural risk is one of the most significant risks."

Simon Savage, Man GLG

able to put in place logic traps and that's something we encourage our managers to think about; take time with decisions. Build a way to slow down your decision making. Get second or third opinions from colleagues to inhibit the reflex-type response to trading," adds Savage.

Key to this is providing the front office with regular feedback. They need to see the data to appreciate the impacts that behavioural biases have on their trading profile. What did the returns look like prior to closing a profitable trade (day zero) and for a period afterwards? When compared to losing positions, a manager's capacity for loss aversion is an order of magnitude lower; we are far less willing to admit to losses and wait as long as possible in the hope that things will rebound. This is the classic bias of running with the losers but cutting the winners.

It is, as Savage says, a "fear of crystallising the loss".

"One of the main bits of feedback is understanding what different managers' core strengths are and the market environments in which their strengths work or don't work. We have one short-term trader who follows a simple KPI, which is basically a time stop-loss. He knows that if a position gets too old he has to cut it. His sweet spot is running positions for one or two weeks so if he has a position that's three weeks old, whatever the price he closes it."

There's no silver bullet to overcoming behavioural risk just as there's no single solution to being completely immune to operational risk. Awareness and a willingness to address the issue, in both instances, can a long way to building incremental gains. Something that any investor will look upon favourably. ■