

HARNESSING THE POTENTIAL OF UCITS HEDGE FUNDS

Perspectives from across the hedge fund industry

On 29 June 2010, *UCITS Hedge* (a *Hedge Fund Journal* publication) hosted a half-day conference in London on the subject of UCITS-compliant hedge funds. The conference was sponsored by Deutsche Bank, GAM, Gartmore, IKOS, RBC Dexia and Simmons & Simmons and chaired by Simon Rostron of Rostron Parry.

This report is a summary of the conference.

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Harnessing the Potential of UCITS Hedge Funds

Why are so many hedge funds interested in UCITS?

STUART FIELDHOUSE

Interest in launching hedge funds in a UCITS wrapper is running at an all time high, and was particularly evident at the *UCITS Hedge* event, “Harnessing the Potential of UCITS Hedge Funds”, which was held at Kings Place, the Guardian newspaper’s building in London, on 29th June. The timing seemed right to offer readers of *The Hedge Fund Journal* and *UCITS Hedge* a selection of some of the leading service providers and fund managers in the field, who were kind enough to offer their views on the quickly developing UCITS market.

This special report contains highlights of that event, and where possible edited transcripts of the speeches. It also includes an extended Q&A with Paul Graham, the Head of Alternatives at Gartmore, including answers to questions that were not put to him on the day.

Launching a UCITS fund requires plenty of experience on hand and no shortage of resources, as the service providers who presented were able to point out. Deutsche Bank’s Alex McKenna put the case for the platform route, while Olivier Laurent, Director of Alternative Investment Product Management at RBC Dexia explained some of the operational risks and challenges that fund managers considering a UCITS launch ought to be aware of.

Also speaking were Doug Shaw, a managing director at BlackRock, and Vis Nayar, Senior Fund Manager at HSBC. Both hail from substantial fund management operations with considerable institutional and retail client bases. Both focused in particular on the characteristics of UCITS funds in their respective stables, highlighting that liquidity and frequent dealing are enabling them to reach a retail client base, in Shaw’s and Paul Graham’s words ‘deep retail’ – private individuals, stockbrokers, financial advisers – who have not previously been the traditional target market for European hedge funds.

The ‘retailisation’ of the hedge fund industry was an oft-debated theoretical issue in the heady days before the credit crunch, but the success story of BlackRock’s UK Absolute Alpha Fund, which now has over £2 billion in assets under management, demonstrates that retail is here to stay, and it is working very well for some hedge fund groups. Indeed, the BlackRock fund is so retail it has been advertised on billboards in the UK and is overseen by BlackRock’s mutual funds division, not its hedge fund division.

As Shaw pointed out, the focus for the fund, from the beginning, has been solidly retail, and private investors and their advisors comprise 55% of the investor base. This was not something

the firm stumbled into. The fund moved to daily dealing because of demands from retail clients for this facility, and similar demands led to the introduction of a LIBOR hurdle rate. So successful has this fund been that BlackRock is now looking at launching UCITS versions of some of its other hedge funds. Given its £21 billion book of single strategy hedge funds, it has a good selection of equity strategies to pick from, including some gems that have demonstrated solid track records through 2008-09.

The conference was also an opportunity to highlight the *UCITS Hedge* database, our proprietary database of UCITS compliant hedge funds. The database is unique in that it uses tough screening criteria to ensure the funds contained therein are proper hedge funds, not absolute return or 130/30 funds masquerading as hedge funds. The database and its related performance indices continue to grow rapidly as more funds come onto the market. If the level of interest exhibited in this event was anything to go by, we can expect a fair few additions to this universe in coming months.

The *UCITS Hedge* database requires funds to have €10 million under management and to meet two out of three key criteria, namely a performance fee, a high water mark, and to have no benchmark other than a money market rate. In addition, for inclusion as a component of one of the strategy indexes, the candidate fund will also require a six month track record.

UCITS hedge funds: challenges and opportunities

It is possible to summarise here some of the issues that the speakers tackled. More detail can be found in the individual presentations and transcripts that follow. The abiding message was that a UCITS fund launch is not an afterthought: it is a serious undertaking requiring considerable resources and a substantial re-think of the way a fund is managed and serviced.

Luckily, the service providers, the administrators, lawyers, and prime brokers are on hand to help. They already service a considerable universe of UCITS absolute return funds, alongside their existing work in the hedge fund sector, and are already merging these expertise sets to come up with an offering that should amply serve the bulk of launches, both new strategies and those porting over from a traditional Cayman Islands structure.

Of particular interest are the varying estimates of just how many hedge funds can be replicated under the terms of the UCITS III directive. Given the OTC swap structures being highlighted, it

seems as if close to 90% could be replicable. Ravi Chari, a portfolio manager with IKOS, was able to outline how a liquid FX strategy was ideally suited to a UCITS wrapper. Liquidity and an over reliance on commodity-based strategies are two of the key stumbling blocks for many managers, but even here funds are demonstrating an ability to be flexible in order to comply. As Dr Sushil Wadhvani mentioned in his presentation, there is no reason why a UCITS product does not have to be a distinct strategy in its own right, perhaps inspired by an earlier approach, but at the same time bringing some of its own original merits to the table.

There are, of course, the doomsayers, some of them in the regulatory community, who see the inherent complexity required to bring the more esoteric strategies into the UCITS wrapper as a distinct threat to ‘brand’ UCITS. Too many things can go wrong, they argue. It will all end horribly. RBC Dexia’s Olivier Laurent highlighted some of the critical areas, like counterparty risk, accurate P&L ledgers, and proper reconciliation of pricing data, that could turn out to be the weak points for funds that don’t do their homework.

Another issue highlighted by Deutsche Bank’s Alex McKenna and Simmons & Simmons’ Neil Simmonds was the choice of platform versus stand alone launch. This is one facing many managers at the moment, and speaking to fund manager delegates at the coffee break, it was obvious they had gleaned much food for thought from both presentations. The advantages of the platform approach are obvious, with the additional legal and infrastructure support, the advice on how to model the portfolio to comply with the directive, and the potential for distribution to large European investors being just some of the benefits. But, as Neil Simmonds pointed out, weighed against this there is the freedom and independence of doing it yourself, reducing the potential additional costs and not being contractually obliged to a middle man.

Finally, throughout the morning speakers touched on the issue of cannibalisation – the fear that a UCITS launch, with favourable terms, particularly dealing, would cause investors in a Cayman fund to defect. Speakers saw very different ways of coping with this, from offering distinct differences in the onshore vehicle – arguing that it is, to all intents and purposes, a different strategy – to refusing to allow offshore clients to invest in the onshore variant!

We hope you enjoy and find informative the following series of articles, and look forward to seeing you at another of our events in the near future. **THFJ**



Operational Risk In Alternative Investment Funds

Understanding the UCITS framework takes time

OLIVIER LAURENT, DIRECTOR, ALTERNATIVE INVESTMENTS (FUNDS SEGMENT), RBC DEXIA

Defining the universe of absolute return funds

It is very difficult to assess the percentage of strategies replicable within the UCITS structure. If we talk about the number of strategies it is 70%, but weight by assets, and 90% of strategies can be replicated under the UCITS format.

It is key to understand that apart from a few strategies, like investment in very illiquid securities or pure short selling where it is very difficult to respect the counterparty risk ratio, most hedge fund strategies under a legal offshore structure (Cayman, BVI...) can be replicated within a UCITS format.

We estimate the total of hedge funds under administration at \$1.4 trillion as at end of Q1 2010. By applying a broad definition of the UCITS absolute return strategy, we can come up with a figure of \$120 billion of UCITS funds under administration equally split between direct replication (Newcits) and synthetic replication (structured funds).

In both direct and synthetic replication, the key differentiator for UCITS funds versus Cayman funds is the use of OTC derivatives.

Direct replication consists of replicating an offshore hedge fund strategy in a UCITS fund by replacing short positions in stocks usually covered by securities borrowing by OTC derivatives, namely contracts for difference (CFD) or equity swaps: a long/short equity manager can make use of equity swaps or CFDs to take long and short positions on stocks and bonds.

Synthetic replication: After having defined an index, for instance on a managed account, a basket of commodities, the fund enters into a total return swap with an investment bank to receive the performance of the index and pay the cost of funding.

The choice between synthetic replication versus direct replication is driven by the features of the underlying strategy and the compliance with UCITS requirements. Some strategies are not replicable directly due to the constraints of leverage or the usage of non-compliant instruments. For example, a UCITS fund cannot invest directly into commodities but can instead employ a synthetic derivative using a total return swap (TRS) that replicates the performance of a managed account investing in commodities, the performance of the TRS being the value of the index representing the managed account performance.

Key requirements for UCITS absolute return funds

Understanding of the legal framework

It takes time to appreciate the UCITS legal framework, and hedge fund managers need to understand what is involved in moving a Cayman fund to an Irish or Luxembourg fund. Everything is linked to regulation, the UCITS directive and finding the best way to fit the Cayman model into a UCITS one.

We know that some asset managers attracted by the UCITS vehicle are bringing more illiquid, complicated strategies to the table, for example funds specialising in mortgage-backed securities or those using a high level of leverage.

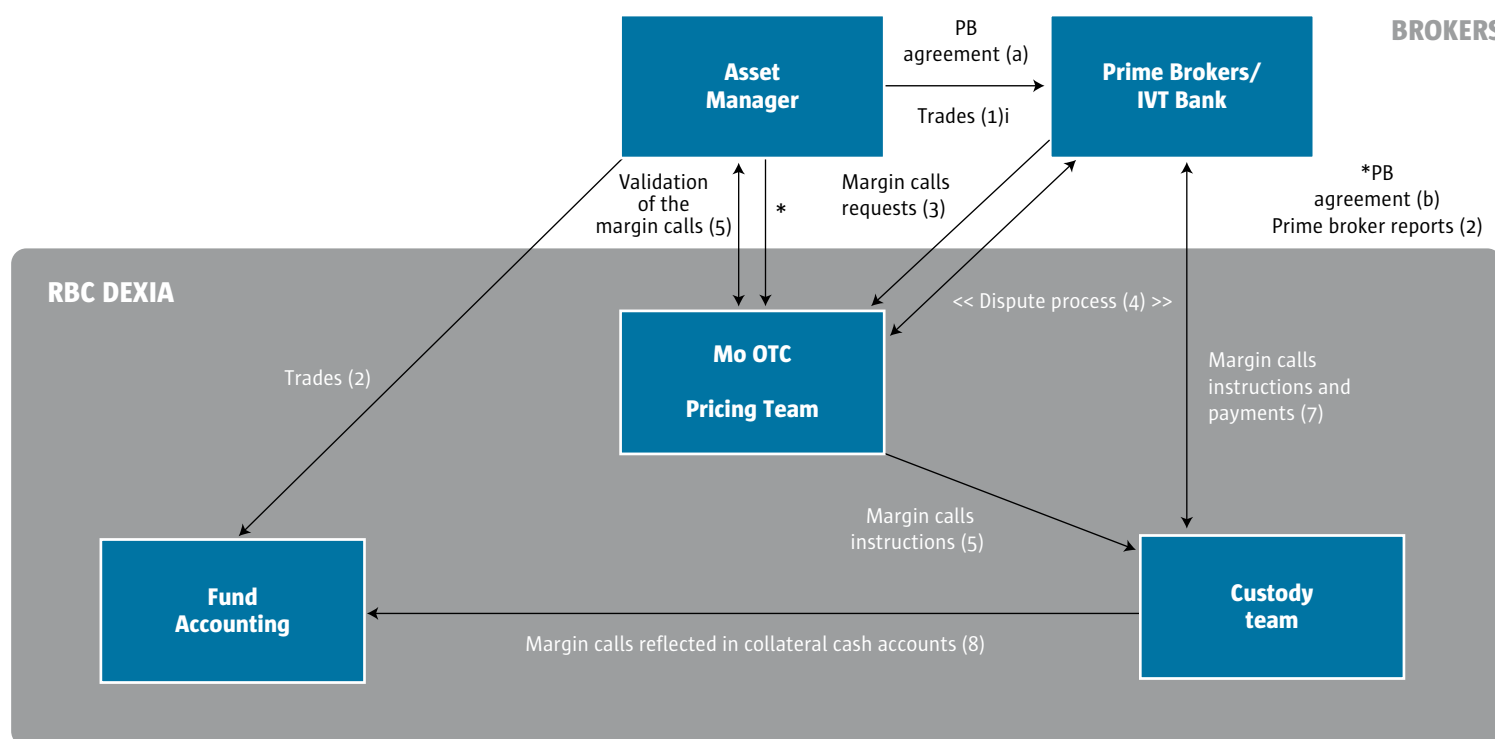
Relying on a robust front-to-back OTC derivatives platform

OTC derivatives platforms for structuring and execution are proposed by investment banks and prime brokers. Custodians and fund administrators are connected to these platforms and offer settlement, repository, and valuation services. At the asset manager level, you need to have the

Fig.1 Operational Risk: Collateral Management

Source: RBC DEXIA

Collateral management is a process where counterparties on OTC derivatives transactions reduce their credit exposures by posting cash and/or securities for an amount corresponding to the mark-to-market of the total of positions. Counterparty risk can not exceed 10% in UCITS Funds



organisational capability to handle the requirements of OTC derivatives and to interact with these platforms.

The fund administrator needs to understand all types of OTC contracts that enable the replication of hedge fund strategies within the UCITS framework, and additionally, being capable of providing a suite of middle office services geared towards the requirements of OTC derivatives: trade settlement, repository, independent valuation and collateral management.

Finally, understanding the collateral management mechanisms that exist between the prime broker, the fund and the custodian, helps all involved participate towards the overall safety of the UCITS structure.

Distribution capacities

To take advantage of the distribution opportunities that come with UCITS, a platform partner with good distribution capabilities is necessary to take care of everything around share class and shareholder services.

Operational risk in UCITS vs Cayman funds

Handling OTC derivatives

On the market for more than 10 years now and used for direct replication, equity swaps and CFDs allow the fund to receive or sell the performance of a specific equity or a portfolio of stocks forming the underlying without purchasing or selling them directly.

These are complicated and non-standard products as rules such as reset, cost of funding calculation, and corporate action handling differ from one prime broker to another. For instance, on corporate actions, custody systems have to handle the calculations and management of dividends and splits even though the custodians do not physically hold the stocks in their books. Another example is managing the volume of transactions for statistical arbitrage hedge funds, where the underlying assets must be created in advance in trading and back-office systems to maintain an automated flow.

Several years ago, anytime the volume of transactions was too difficult to handle on manual and ad hoc systems, administrators used to take the short cut in managing CFDs by only taking the prime broker's P&L and having one accounting entry for the total of all the detailed P&L on each individual trade.

This technique is not authorised in UCITS funds, where you need to account for positions on a line-by-line basis independently of the prime broker. All fund administrators will now have to develop systems that can account for equity swaps or CFDs.

Collateral management

UCITS funds cannot have counterparty risk above 10%. The amount of cash or securities you transfer to your prime broker should not induce a credit exposure superior to 10%. In practice, this ratio is not easy to monitor as the cash or securities transfer may be explained by changes in the mark to market of the fund, margin call on the book of OTC derivatives positions, or to an additional cushion that the prime brokers ask on the initial deposit (deposit call). For instance, in a more volatile market, prime brokers will ask for an additional cushion/protection against adverse MTM variations by requiring more on deposit, even if the position of the hedge fund manager has not changed. In practice, all prime brokers don't always separate their reports between margin call and deposit call, rendering the credit exposure monitoring and collateral management process more complicated. Because it is a relatively low ratio (10%), most of the time funds will face daily margin or deposit calls. A process will need to be established between the asset manager, the custodian and the prime broker (or multiple prime brokers if the fund manager is seeking to reduce counterparty risk significantly). Be under no illusions that this will be complicated. It has to be a step-by-step process. You have to reconcile all your positions with the prime brokers. Then you have to independently value all these positions and then, with a very quick turnaround of between four and six hours, you have to agree the collateral management valuation with the various investment banks involved before processing the margin call.

Reconciliation process

This is more of a reconciliation risk for hedge funds with strategies which have a high volume of transactions. Due to the fact that these are OTC derivative positions, you do not have a single universally-accepted nomenclature for the codes. Someone has to be in a position to make this reconciliation at the fund level, the prime broker level, and the administrator and custodian level. Compared to a Cayman offshore model, where you have a prime broker overseeing all the assets, a UCITS model is a little more complicated as more actors are involved in the process. Most of the time the custodian has the segregated assets, the counterparty, namely the prime broker or the investment bank, has some assets, leaving the fund manager to reconcile the portfolio against both the prime broker and the custodian.

Synthetic replication

Herewith a short description of the first generation of synthetic replication within UCITS. We have seen more efficient and flexible structures with the funded swap model but ultimately mechanisms and objectives stay the same.

At the beginning, with the cash of the fund unit holders, the fund manager will start purchasing a

portfolio of bonds and/or stocks. Then, he will pay the performance and will receive the cost of funding, and with the cost of funding obtain the final return that might be a pay-off on an OTC option, the performance of a managed account or a specific index. Where it starts to get complicated is when you move away from this plain vanilla transaction to more imaginative choices. Banks and fund managers like to launch such products with a very quick turnaround. Consequently fund administrators have to get used to analysing and understanding term sheets in a very short period of time. This is why we have set up a Paris-based team tasked with analysing the complexities inherent in the replication of hedge fund strategies, with all the operational processes (valuations, OTC derivatives processing, collateral management) being centralised in Luxembourg for Irish, Luxembourg, OEIC funds, etc.

Difficulties still exist concerning the valuation of OTC derivatives, despite their widespread use over the past 10 years. Administrators have made significant progress in being able to value a vast majority of OTC derivatives like interest rate swaps and credit default swaps. But with volatility-based strategies such as variance swaps or more complex contracts used by credit arbitrage hedge funds and emerging markets strategies, there are still difficulties in the valuation process, particularly with illiquid positions.

Importantly for UCITS hedge funds, you need to have two sources of valuation for the OTC derivatives in your portfolio. This is a huge difference to the offshore model, where, if it is indicated in your prospectus, the asset manager can be the only provider of the valuation of OTC derivatives in their portfolio. In UCITS, the valuation either has to come from the asset manager and the investment bank, or in the more common case, the valuation comes from the investment bank and from the administrator. As an administrator servicing many UCITS funds, we have developed in-house OTC derivative valuation capabilities relying on robust vendor systems used by investment banks.

Will UCITS reduce operational risk?

All this raises the question: is this additional layer of complexity and risk worth it? Is it worth accepting this replication of Cayman hedge funds under UCITS structures? We can not provide definitive answers yet, but we know that some believe (and lobby) that at some point there will be a problem with one or several UCITS hedge funds due to the added complexity that is being introduced and that it will jeopardise the UCITS label for the entire fund industry. It is fair to highlight the risk that this added complexity brings to the UCITS universe. However, if we look at the overall hedge fund industry, are we improving the level of security and reducing the level of operational risk by progressively moving from the offshore Cayman or BVI structure to UCITS? If you look at the different risks in a UCITS

fund compared to a Cayman hedge fund due to the level of regulation, as well as the fact that you have more actors involved, responsible and accountable for the overall process of controls, most of the time the balance is in favour of the UCITS funds, meaning that individually and collectively the operational risk is lower under a UCITS banner. Where we add some complexity and potentially some operational risk, compared with the Cayman model, is with the OTC derivatives replication process.

With Cayman hedge funds it is pretty simple – all the assets are at the level of the prime brokers who have well-defined systems for daily monitoring of the portfolio P&L. The usage of derivatives at the prime broker level for such funds is limited to a few strategies, specifically those using credit default swaps or other swaps. Here you have a fundamental switch with the UCITS universe where operational risk is heavily linked to OTC derivatives but at the price of needing to have all the actors in the chain being capable of handling these OTC instruments.

The good news is that UCITS should mark the end of 'lite' net asset value, where fund administrators dealing with complicated strategies or strategy replication directly take a P&L from the investment bank rather than recalculate, leading to a poor system of controls and reconciliation with the absence of the 'four eyes' principles.

The UCITS model represents a significant reduction in counterparty risk. This is limited to 10%, thereby representing a good way to limit investor risk and systemic risk. The same goes for liquidity: UCITS funds need to have bi-monthly liquidity, but if they want to convince investors they will need to provide it at least weekly. This is not something optional.

Ensuring that the hedge fund manager can apply his strategy under the UCITS banner by respecting all the regulatory ratios permanently is fundamental to the initial set-up, as not only the fund manager but also the board of directors of the funds and the custodian or the trustee, depending on jurisdiction, are jointly responsible for monitoring and ensuring that the fund is compliant with the regulation. **THFJ**

ABOUT THE AUTHOR

OLIVIER LAURENT

Olivier Laurent joined RBC Dexia in 2004 as Head of the Hedge and Structured Funds team, in charge of the development and implementation of solutions for hedge funds, FoHFs and OTC derivatives products. Prior to this he spent two years analysing structured credit operations for IXIS in New York.



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GAM Star Keynes Quantitative Strategies

How a Keynesian approach to modelling can be adapted for UCITS III

STUART FIELDHOUSE

One of the managers speaking at the UCITS Hedge event this year was Dr Sushil Wadhvani, founder and CEO of Wadhvani Asset Management, a London-based hedge fund firm that specialises in systematic macro management. Wadhvani is no stranger to the world of hedge funds, having been a partner and head of systems trading at the Tudor Group. He is also a former member of the Bank of England's Monetary Policy Committee, where he sat in 1999-2002.

Wadhvani was speaking at the conference, because he manages an onshore UCITS version of his strategy for GAM, GAM Star Keynes Quantitative Strategies. Of particular interest to the audience was how GAM and Wadhvani went about this, as the UCITS III directive precludes the use of commodities, a key part of the Wadhvani offshore fund's portfolio.

Investment approach

Wadhvani started his presentation by saying that he has always been very influenced by Keynes' view of how markets work, and that has had an important impact on his models. Essentially, he said, Keynes emphasised three key points.

Firstly, Keynes said that we know remarkably little, and as we try and form an assessment of the future, we often confront something more like pure uncertainty rather than just risk. Second, given

that, it is only natural that there is a lot of 'herding behaviour', people try and hug the consensus. This explains why momentum strategies can work for a while. Momentum represents an important part of Wadhvani's quantitative approach, but not all of it. Third, Keynes warned about the perils of momentum strategies when he talked about 'animal spirits' and how these could lead to sudden lurches in the market.

Therefore, if one is going to use momentum as a strategy, it is very important to combine it with other things which help the fund manager or investor to go to the outer edges of the herd and then peel away a significant distance from the herd before the stampede starts. For that reason, Wadhvani's modelling approach, like a lot of well known trend following funds, uses momentum and other closely related technical indicators. But he combines it with a variety of different types of non-price information. In particular, he uses economic fundamentals, where he is principally concerned with the growth and inflation outlook relative to the consensus view, sentiment, flow of funds, and explicitly allows for inter-market linkages. "Of course we worry about valuation too," Wadhvani said.

To illustrate why this approach can help, recall that in the first half of 2008 the market made a low in March. Most trend followers would have been short

global equities at that point, which happened to coincide with the Bear Stearns rescue. However, Wadhvani's models, despite having an important momentum component, were actually neutral at that point. The profits that had been made by being short global equities in the first part of 2008 were not given back when the bear market bounce occurred.

To make this point more generally, Fig.1 shows the Japanese equity market from 1992. "We actually created this picture in response to a request from a client who wanted to know how we would fare in a world which alternated between being optimistic and pessimistic, but perhaps around a downward trend," Wadhvani told the conference. "Now that of course is where Japan has been over its two lost decades."

The bottom line is a passive strategy of being long only back in 1992. Said Wadhvani: "At the time I was global equities strategist at Goldman Sachs and certainly much of my peer group back then was recommending buying the Japanese equity market, because it had fallen so much, and on some valuation indicators looked good. Of course, if you did that, it ended in tears."

Alternatively, an investor could have had the foresight to go short, and that might have clearly enhanced his wealth, but it has done so with a considerable degree of volatility, because there have been at least six bear market rallies north of 30% over that period.

The line above that is a momentum strategy, and Wadhvani admits it gives him some comfort that a simple momentum strategy outperforms either passive strategy of being long or short. It has of course been characterised by a great deal of volatility. The final line is what Wadhvani is setting out to try to do: this overlays momentum with information about sentiment and the business cycle. "That certainly would have helped you navigate Japan rather better than momentum because of this alternating optimism and pessimism," he explained.

Adapting the approach for UCITS III

When Wadhvani set out to build a UCITS III fund for GAM, his firm was not just looking at the existing regulations: "We were saying to ourselves that, in a 'bash the banker' type of environment, where the authorities are likely to become more and more restrictive on a three to five year view, we needed to come up with a product that was likely to be more immune to future regulatory change. In some respects, we were quite conservative."

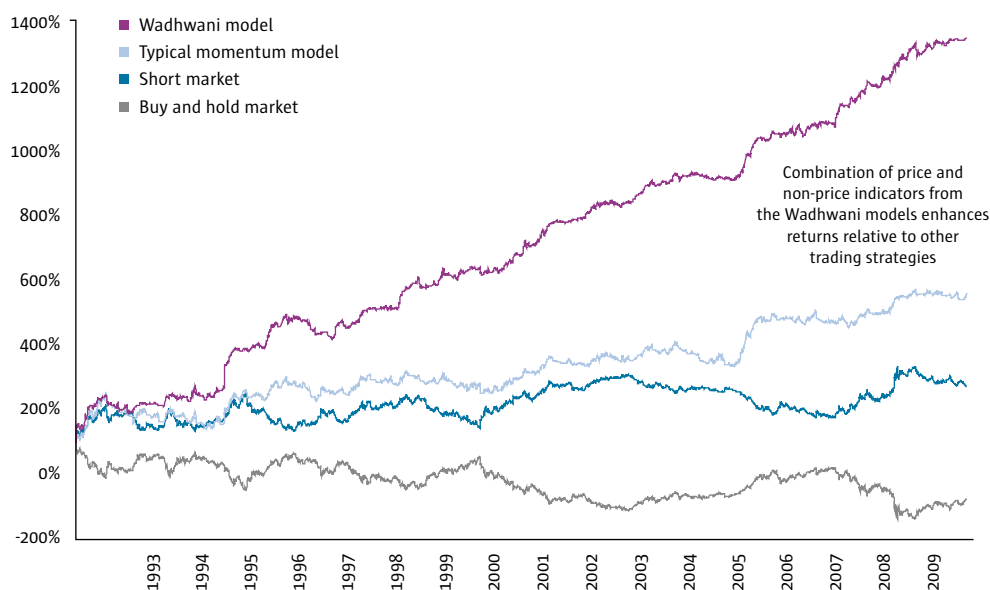
At the moment the fund offers weekly liquidity and aspires to offer daily liquidity. Fortunately

Fig.1 The Wadhvani models: the power of non-price information

Example: Nikkei 225 Stock Index*. Performance from 1 Jan 1992 to 31 Mar 2010

Source: Bloomberg, Wadhvani Asset Management.

SIMULATED PROFITABILITY OF ALTERNATIVE TRADING STRATEGIES FOR THE NIKKEI 225 STOCK INDEX IN USD



* Based on simulations involving trading of the Nikkei 225 futures contract. Note: Volatility scaled to be equal. Past performance is not indicative of future performance. Performance is provided gross of fees.

everything Wadhvani invests in within the offshore fund is highly liquid, so in that sense his strategy was a natural fit for the UCITS strategy. The main restriction that he faced related to the rules about commodities. From his perspective, the big choice he needed to make was to trade commodities using swaps or ETCs, or to drop them from the portfolio?

Another key consideration for Wadhvani was that he had no desire to launch a UCITS product if it was going to be considered in the marketplace in any way inferior to the existing offshore product. They could be different, but they had to be comparable in terms of quality.

In terms of using swaps, which was the route he would have to take if using replication, the disadvantages were higher costs, counterparty risks, and for him the key point, exposure to future regulatory risk. "I'm not saying this based on a one year view, but on a three to five year view the hostility towards the whole financial sector is so considerable that one should not assume that you aren't going to get more and more regulatory interference," Wadhvani explained.

Dropping commodities from the portfolio would mean some loss of diversification benefit. But Wadhvani is running a systematic macro fund, and the macro factors that help drive commodity prices also drive the other asset classes. Secondly, if the fund is going to continue to invest in equity markets and not commodity markets, it can continue to get exposure to the commodity bet via equities that are closely related to commodity markets. Third, Wadhvani was much influenced by the fact that theoretically, a priori, some asset classes are more amenable to modelling using systematic macro factors than others. "We know that the half life of reversion back to fair value is a much shorter period for fixed income than it is for commodities," he told the conference. "That heartened me, because it pointed to a way forward, whereby a UCITS fund could focus on fewer asset classes where our models had a higher average alpha."

This leads to an offshore fund, which trades a broader set of asset classes, but where on average the models have a lower average alpha. In addition, in Wadhvani's offshore fund, he insists on diversity; he does not necessarily have the optimal portfolio weights. "We reward diversity: some asset classes get a higher weight than would be implied by the optimiser," he said.

The UCITS fund by contrast has fewer models which both theoretically and empirically have a higher average alpha. There are therefore two different products. The UCITS fund is distinct from the offshore version. "Hand on heart, I don't know which one is

Table 1 Illustrative Performance: GAM Star Keynes Quantitative Strategies USD vs CTA indices (31.05.07 - 31.05.10)

* Using a zero benchmark rate of return Source: MSCI, Thomson Reuters, Wadhvani Asset Management, GAM and Hedge Fund Research

	Illustrative performance for GAM Star Keynes Quantitative Strategies USD	Keynes Leveraged Quantitative Strategies Fund – USD class B	Barclays CTA Index	Credit Suisse Tremont Managed Futures Index USD	HFRI Macro Systematic Diversified Index
Annual average arithmetic return	10.6%	13.9%	6.6%	4.4%	6.8%
Annual standard deviation	10.1%	13.8%	6.2%	11.6%	9.7%
Information ratio*	1.05	1.01	1.06	0.38	0.70
Sortino*	2.89	2.38	2.27	0.59	1.35
Annual return to maximum drawdown ratio	2.04	2.29	1.97	0.37	1.12
Correlation to GAM Star KQS	1.00	0.77	0.33	0.39	0.36

This is not the actual performance of GAM Star Keynes Quantitative Strategies. Past performance is not indicative of future results. Illustrative performance for GAM Star KQS is calculated based actual returns of the models used in Wadhvani's flagship Keynes Leveraged Quantitative Strategies offshore hedge fund, reweighted to operate within UCITS restrictions. They include a 1.75% management fee and 20% performance fee on a high watermark basis. The performance of the Keynes Leveraged Quantitative Strategies Fund is shown for illustrative purposes only as an example of a Wadhvani Asset Management long term track record; it uses different model parameters to GAM Star KQS and no representation is being made that GAM Star KQS is likely to achieve similar returns to the offshore fund.

going to do better over the next five years – they are just different," Wadhvani said. "Indeed, if you look back, they have pretty similar reward/risk ratios."

Wadhvani has been running the offshore fund for a while, and the issue has been one of deriving a track record for the UCITS because of these restrictions. He had to back out of the returns what the UCITS track record would be, and then ask Ernst & Young to review it.

In Table 1 the first column is the illustrative track record of the GAM UCITS fund, the second column is the actual track record of the offshore fund. The information ratio is very similar, while the Sortino ratio is a bit higher for the UCITS funds, but actually the return-to-drawdown ratio is higher for the offshore fund. They can be seen to be quite highly correlated at 0.77. Said Wadhvani: "I can genuinely say to clients that you have got two different products, quite highly correlated, but ex ante I can't tell you which one is going to do better over the next five years. Ex post, they have been pretty similar too."

Columns 3-5 show the performance of three well-known CTA indices. If Wadhvani's approach of placing a great deal of emphasis on non-price indicators has any empirical validity, it should actually show up in superior return-to-drawdown ratios and superior Sortino ratios. The Sortino or the return-to-drawdown is generally better for both the Wadhvani entities than it is for the indices. "Comparing ourselves to an index is quite a stiff test as indices already have significant diversification benefits," Wadhvani said. "If you combine a medium term trend follower with a short term fund, which some of the indices do, you're already naturally boosting your Sortino ratio. Even against that stiffer target we seem to hold up pretty well."

Why the medium-term outlook may help

Conventional assets don't do well either during inflation or deflation. They need relative macro certainty and price stability, and this is why Wadhvani thinks alternative assets are going to be much more important than conventional assets on a five to 10 year view; the most likely scenario is a very significant degree of macro instability.

"There is a lot of uncertainty now about medium term growth and inflation," he said. "Long only strategies are likely to perform poorly; you are therefore going to need an agile investment approach. I would suggest that momentum is going to outperform a lot of conventional passive strategies. More general approaches, which include non-price, should outperform trend following, and these are now beginning to be made available with a UCITS wrapper." **THFJ**

ABOUT THE SPEAKER

DR SUSHIL WADHWANI

Dr Sushil Wadhvani, CBE, is the Founder and CEO of Wadhvani Asset Management LP, a London-based asset management company that specialises in systematic macro investing. He is responsible for managing GAM Star Keynes Quantitative Strategies, a systematic macro fund within a UCITS III framework. Wadhvani was a full-time member of the Monetary Policy Committee at the Bank of England in 1999-2002. Prior to this his roles included director of research, head of systems trading and a partner at Tudor Group, and director of equity strategy at Goldman Sachs. He began his career as an academic in the Working of Financial Markets department of the London School of Economics.



Developing a UCITS Fund

A road map for hedge fund managers

NEIL SIMMONDS, PARTNER, SIMMONS & SIMMONS

The following is the text of a speech given at the recent UCITS Hedge Conference

Why UCITS? Well, everybody is doing it, aren't they? It represents a major change from five years ago when hardly anyone was looking at UCITS, so what has changed?

Firstly, the level of regulation affecting hedge funds, including the AIFM directive, is increasing, and the impact on you and your businesses will be potentially significant and material. It may mean you will have to re-think and possibly restructure some of your fund offerings if you want to sell into Europe but in the meantime, you can't sit around doing nothing while the directive is being discussed in Brussels.

Also, your strategy can, almost without exception, be adapted to fit within the constraints of the directive. The 'exception' is largely the most illiquid strategies, but with some constraints, most other strategies can be made to work. The passport, which is at the heart of the UCITS directive to sell to the public in all markets around the union, allows you to access new markets and new sources of assets. Importantly, we're seeing a lot of interest from the larger and more mature managers who see UCITS as the next stage in their own internal development.

Investors, and in particular institutional investors, are demanding greater levels of liquidity and transparency, and UCITS is clearly not the only way of delivering those. It is also becoming more of a feature of hedge funds and managed accounts. There is, however something to be said for selling a product that comes with these features built in "as standard".

Institutional investors can allocate more easily to UCITS, and they can allocate more as they can invest from pools of assets they could not use for offshore hedge funds. The prize to play for is a very significant pool of assets, namely \$7.2 trillion under management in UCITS vehicles at the end of last year.

Also, one should not think of UCITS as a purely European product – it has a reach far beyond Europe. A large proportion of Luxembourg fund sales last year – 35% – were to investors in Asia.

The strategies that can work are the usual suspects – long/short equity and its variants like market neutral and absolute return. The fund managers instructing us to launch UCITS versions of their hedge funds follow liquid equity and bond markets but there is also quite a lot of activity in global emerging markets, managed futures and macro. We are also seeing a significant increase in the level of interest from funds of funds and that helps to mature the market for UCITS hedge funds.

There is a broad cross-section of managers launching UCITS, evenly split in our experience between Ireland and Luxembourg and ranging from smaller managers with \$200 million under management up to the Brevan Howards and Bluecrests of this world, with many in between. Although there is a bias towards the larger managers who have the resources to devote to UCITS, you don't have to be in the bulge bracket to be able to contemplate UCITS as an option.

Platforms vs DIY

A platform in this context is a pre-built solution that has been established (usually but not always) by an investment bank that has invested time and resources in building a structure to which the hedge fund manager is contracted. They offer a simple solution to get into the UCITS market; there is inevitably less regulatory baggage involved and if you just want to manage assets, the platform provides you with that sort of solution. It does, however, mean less hands-on involvement in the process of launching your fund and in the management and maintenance of that vehicle.

There is less regulatory liability in you not being the manager or promoter of a UCITS, but liability comes in various forms. Inevitably, as an investment manager, you will have to manage the assets in accordance with the UCITS rules of the fund's jurisdiction, and that will be enforced by the platform agreement. Inevitably, in the case of active breaches, you will have to make good the fund, and there is no way around that as the contract will require you to do so.

The platform approach arguably outsources risk. You are relying on a number of other regulated parties to perform their functions according to the rules, but again risk also comes in many forms. With less control over the structure and the vehicle, you are putting faith to some extent in the service providers to the vehicle whom you haven't necessarily selected. Less control of the structure might arguably lead to increased risk in terms of business and reputational risk.

UCITS platforms are sold as distribution plays. If it is being put together by distributors with global reach, you should expect to see distribution as one of the big strengths of this approach. However that can be overplayed – UCITS are perfectly capable of being sold to traditional hedge fund investors, and buyers of your offshore fund might conceivably be persuaded to buy your UCITS hedge fund in greater numbers.

The platform offering is still an effective solution for many managers, particularly in the US where it can be regarded as a "toe-in-the-water" option. UCITS is unfamiliar for many US managers, and while they are interested in having a foothold in the European

market, some might regard launching their own fund as a little bit too ambitious at this point. There will likely be an economic impact. They will have to give up some fees, and there will be exclusivity requirements. For example, they might not be able to launch the same strategy in another UCITS structure for a year or two.

We turn next to the use of indices in UCITS. A number of platforms are pitching to managers that they can offer a wrap solution using an index approach for many hedge fund strategies. It is worth remembering that derivatives cannot be used to circumvent the directive and that underlying assets of derivatives must be eligible, namely: transferable securities, money market instruments, other funds and other "assets" like interest rates, foreign exchange rates and currencies. All are acceptable as eligible assets. The UCITS directive is, however, about financial assets, not physical assets, which is why commodities have been left out of the party. If, though, you structure an index which complies with the relevant criteria, the index itself is regarded as the asset, and you don't look through the index to the underlying components. The eligibility or otherwise of those components becomes irrelevant.

The index has to be sufficiently diversified, with no component comprising more than 20% of the index (35% on a very exceptional basis). The index must represent an adequate benchmark of the asset class or strategy involved, must be published in an appropriate manner, and be independently managed from the asset management function. There are undiversified indices as well, which can be used for risk diversification purposes only.

The index approach can be used for a number of hedge fund strategies, typically quantitative-type strategies around which rules can be easily constructed to accommodate an index. An example of this in practice is that of CTA/managed futures funds and, because you cannot invest in commodities or commodity derivatives (because you cannot invest through a derivative into what you cannot invest in directly), managed futures funds have a bit of a problem, because of the commodity element of any managed futures strategy. The ways you can get access to commodities is through exchange-traded commodities (ETCs), structured products, notes and also indices. There have been a number of quite high profile launches in this area over the last couple of years.

By way of example, the Aliquot Commodities (UCITS) Fund uses different types of instruments for different sectors of the commodities and futures markets including index swaps, ETCs and ETFs. The BlueTrend fund, launched on the Merrill Lynch platform a couple of years ago on the other hand, uses swaps

on specifically developed commodity indices, using single commodity indices for specific commodity plays (single commodity indices can be used but only for risk diversification purposes).

The CESR guidelines within the UCITS rules apply what is called the 5/10/40 rule to single commodities indices, treating them as if they were issuers of securities. Thus you could not invest more than 10% in any single commodity index, and any positions beyond 5% cannot in aggregate exceed 40%.

The Man AHL Diversity product involves the development of a single index (the AHL Trend Index) rather than bespoke separate indices within which the strategy operates. Man has developed the index for use within the UCITS, and the UCITS has entered into a swap on that index. The strategy can be housed within a Cayman hedge fund or a managed account, the index just lies on top of it: the trades are what are important, and the trades effectively comprise the index. Being a compliant financial index, you don't look beyond the index to the host vehicle.

The challenges and differences

It is perhaps not surprising that, with the growth of interest in hedge fund strategies being offered within UCITS, regulators have been vocal in their concerns about potential abuse of the UCITS brand, particularly where vehicles are sold to retail investors. They are concerned about their complexity, the way in which the products are sold, and in France the AMF (Autorité des Marchés Financiers) has suggested that high minimum investment limits ought to be applied. The FSA has never regarded high minimum entry levels as a viable proxy for measuring sophistication and is more concerned about systems and controls, making it clear that you will require resources to be able to cope with the compliance requirements within the UCITS environment.

Regulatory engagement is also a two way street: as a UCITS manager you will have to engage with the regulator and, particularly if you take the role of the fund promoter, the regulator will want to know you and your business in a way that the Cayman Islands regulator does not when you are managing a Cayman fund.

Key differences between UCITS and Cayman funds

1. *Cannibalisation*: the concern is that by creating a UCITS hedge fund, managers effectively create a reason for their investors to move over to the UCITS version of their strategy that might offer lower fees and better liquidity. Managers are concerned they might be creating a business risk for themselves. There is no easy answer to that, apart from perhaps via some form of product differentiation. The UCITS may be offered at less leverage or less volatility, or to different markets – for example only offering the UCITS version to institutions who would not buy the strategy in a Cayman fund.
2. *Registration*: All managers with discretion over UCITS assets must be regulated and there needs to be a cooperation agreement between the regulator of the home state of the fund and the jurisdiction in which the assets are being managed. US managers will, therefore, have to be SEC (or CFTC) registered.
3. *Master feeder*: Although UCITS are not yet often sold to US taxable investors there is no current ability to offer master-feeder facilities (this will change with UCITS IV). There is currently no scope for a UCITS to feed into a corporate master fund although you could, of course, have a Delaware LP feeding all its assets into a UCITS master. Because of the nature of the Irish corporate fund vehicle, however, an Irish PLC can't "check the box" to be treated as tax transparent for US tax purposes. An Irish unit trust could be used as it is transparent although this is less attractive as a structure and a Luxembourg SICAV may be preferable as it is able to check the box.
4. *Risk management*: The Risk Management Process (RMP) is a document that seeks to capture the risks inherent in your derivatives strategy and the processes that you apply to manage and monitor risks, including the approach you take to the use of VaR, which for most hedge fund strategies is what you will probably use. It is not difficult to draft but it does represent a new procedure to go through and it does have to be filed with the regulator.
5. *Performance fees*: Clearly most hedge fund managers will want a form of performance fee. If your fund is dealing daily or weekly, then the use of series accounting is problematic – you are creating a new class every time you deal. Equalisation is also quite a challenge for some administrators, particularly traditional hedge fund administrators on daily dealing funds. We are doing funds at the moment that use either series or equalisation but, particularly with Luxembourg funds that want to use equalisation, administrators are having to outsource that to Ireland. If it is within the same group, it is potentially feasible, but it can be a challenge.
6. *Compliance*: pre-trade compliance is advisable if you can achieve it and have the resources to do it, but the rules do not specify whether you apply pre or post-trade compliance, so long as you comply.
7. *FINRA*: new issues and IPOs will typically lead to a proportion of the portfolio being carved down and attributed to non-restricted investors. This does not work for Irish and Luxembourg UCITS, where, on current rules, you need to offer the same exposure for all investors in the same fund.
8. *Frequent liquidity*: you will have to deal twice monthly, there is really no way around this and your notice periods will be shorter. In Ireland and Luxembourg it is 10 days notice in practice and in Ireland that is from receipt of redemption notice to payment of proceeds. There is a lot less flexibility than you would be traditionally used to in your hedge funds.
9. *Dilution*: something that affects all single priced funds but which is largely ignored in the hedge fund world. The dealing costs incurred in buying or selling assets to meet a large subscription or redemption (respectively) can have a significant impact on existing (or remaining) investors. A dilution levy or use of a swinging price are two ways of compensating the fund that are commonly used in UCITS.
10. *Prime brokers*: the position of prime brokers is quite different in UCITS due to the inability to physically short and the constraints on counterparty exposure. Although some are now developing UCITS compliant "synthetic" prime brokerage models, most often UCITS trade with multiple counterparties or take collateral to reduce their exposure to their main counterparty.
11. And finally...*Regulation*: It exists, UCITS is a product of regulation, and the approval process that is attached to getting a UCITS up and running is real, it takes time, and you need to allow for that. **THFJ**

ABOUT THE AUTHOR

NEIL SIMMONDS

Neil Simmonds specialises in investment funds (both onshore and offshore) with emphasis on open-ended products, including the launch and reconstruction of unit trusts, ICVCs and UCITS, as well as hedge funds and funds of hedge funds. Neil joined Simmons & Simmons as a partner in 2003 from another City law firm and has advised a significant number of the firm's hedge fund clients on their establishment of UCITS versions of their strategies. This article is for general guidance only. It does not contain definitive advice.

Q&A

With Paul Graham, Head of Alternatives at Gartmore

QUESTIONS BY STUART FIELDHOUSE, EDITOR, UCITS HEDGE

Paul Graham joined Gartmore in January 2009 to manage the firm's hedge fund division, which oversees approximately \$7 billion in assets. With over 15 years of experience in the asset management business, including a decade with hedge funds, he has been based all over the world, including Asia, the Middle East, and former Soviet Union. Amongst the firms he worked for prior to Gartmore are Barings (part of the MassMutual Group) where he was Head of Alternatives, and Platinum, where he was Head of UK and Europe. Here he answers questions on Gartmore's UCITS hedge fund approach.

Q: What sorts of hedge fund strategies are you currently managing under UCITS?

A: We were quite late to UCITS. We launched the first UCITS fund, which is a clone of Capella, a European long/short fund, back in January 2009. That fund is now at \$850 million. We have a UK large cap fund which is a clone of Octanis which we launched in Q3 of 2009 which has \$700 million in AUM, and then we have two recent launches: Japan long/short equity, which is very small, at \$100 million, and then we have a European brokers' best ideas fund which we've just launched.

Q: Is launching a UCITS hedge fund a straightforward process?

A: Of course the first launch is always difficult, but what makes it easier for Gartmore and for the portfolio managers, unlike some other funds, is that we do just good old-fashioned equities. We are fundamental stock pickers. What we do in the hedge fund world is very portable in terms of what we do in UCITS. It really is true replication in terms of strategy, 100%. We don't trade any fancy derivatives, there's no optionality, it's all CFDs and futures, it's super liquid; this essentially means we can trade the portfolios on a daily basis. There's no mismatch in the liquidity terms and in the underlying portfolio.

Q: Are you effectively re-offering your offshore products, and is that a good or bad idea?

A: We're very conscious of that factor. If we take a step back and look at the rationale for launching UCITS products, I guess there were two key factors here. The first was that the hedge fund book was effectively wiped out in 2008 because of our liquidity, despite the fact that we had very good long term performance. When the liquidity call came, they came knocking at the door of Gartmore because we are 30 days monthly liquidity. We needed to diversify the business from a commercial perspective. The second and more important factor

was that our retail investors were demanding that they have access to Capella which they could not get via a Cayman Island fund that only traded on a monthly basis. We've set about creating two different pools of capital; there is no replication from an investor base perspective. All of our UCITS funds, or a very large proportion of them, are deep retail. We do have some very high quality UCITS funds of funds, but we cap them in terms of their exposure to the funds. They can't have the same concentration levels as investors in our hedge funds would have. We have zero institutional investors in our UCITS funds.

“We only do equity long/short; it's vanilla, and as straightforward as one could possibly hope for. We have very low gross, a very low net on a beta-adjusted basis, it's close to zero.”

Q: Do you think that will change?

A: No, we haven't seen the demand. Our institutional investors still prefer the hedge funds, as they know they are shoulder to shoulder with the other investors in the funds. They have similar desires, similar timescales, and they have access to the PMs of the hedge funds, which quite frankly our UCITS investors do not get. You do not get bespoke reporting, none of the bells and whistles that our hedge fund investors get.

Q: Are you worried that UCITS funds will bring more fee pressure onto your hedge funds range at Gartmore and onto the industry more generally?

A: For the industry in general, possibly yes. However, for Gartmore specifically no, as we charge, and have always charged 1.5 and 20%. Investors appreciated our 'good behaviour' in 2008 when we returned capital back to hedge fund

investors without question. We have never put the gates up, side-pocketed or otherwise delayed returning capital; our funds are perfectly aligned in terms of the liquidity match up and this is indicative of strong, efficient management. Not all firms can say the same. We treat our hedge fund investors as business partners.

Q: How much of a role does investor demand play in your product development thinking?

A: We only do equity long/short; it's vanilla, and as straightforward as one could possibly hope for. We have very low gross, a very low net on a beta-adjusted basis, it's close to zero. All of the funds we have launched in UCITS format are our flagship funds. They have a very long history of delivering very strong risk-adjusted returns through multiple market conditions. They're not loaded up with beta. They share very similar characteristics. We feel that type of approach is very appropriate for the retail market. Some of our other funds are willing to take more directionality, more volatility, and do not have the same downside protection mechanisms. We don't think they're suitable for UCITS at the moment.

Q: Do you think Gartmore will ever be able to partner with other managers to access retail distribution networks as you have done historically in the institutional market?

A: The important point here is that we are an investment firm with some distribution capability. We are not a distribution firm with some investment capability.

Q: Does having a distribution network give you an edge and do you see yourselves competing as a distributor of UCITS hedge funds, or are you really just focused on delivering performance to investors?

A: First and foremost we have to deliver performance for our investors. The way I would look at UCITS over the course of the last 16 months is that it is a new relationship. It feels like a new girlfriend you're trying to court. You dress up well, you treat her with respect, and everything is very rosy. Hedge funds tend to be that longer term relationship. There is a risk here that given all the governance and the regulatory factors that oversee the UCITS space, problems can still arise. Remember the split cap debacle in the 1990s – you had the crème de la crème of the product providers structuring good product and then there was so much demand that they were just throwing product at the market. I don't think we've hit that level yet,

but it has to be a consideration. In the UCITS world at the moment, if you take a football analogy, we have the Brazils, the Spains, the Argentinas of the hedge fund world that have done things with UCITS, but I just worry that at some point, when England enter the UCITS forum and we see all the euphoria and press that make us believe these guys are true stars, that they're world beaters and performance will be incredible, and then of course comes the big let down. What is important here is that if investors continue to do their due diligence properly, in an efficient manner, then if we were to take a look at the England team in this analogy, long term performance would be absolute rubbish, medium term performance okay, and short term performance is diabolical. That could be a problem for regulators and for UCITS performance going forwards.

Q: Why have you favoured launching your own UCITS funds rather than allying with one of the existing platforms?

A: In a nutshell, we have better distribution than the platforms. We also like to know who our investors are so that we are in control of our own destiny so to speak.

Q: Do you think there is a UCITS barrier to entry, that the costs associated with launching a product of this type are too high for smaller, more boutique managers?

A: That is where the platform provider comes in. The boutique gives up a chunk of the revenue for distribution, operational and regulatory expertise. Otherwise, yes, it could be onerous from a cost and hassle perspective for the smaller boutiques.

Q: Do you think that UCITS structures compromise managerial style in any way?

A: If you speak to any UCITS funds of funds out there at the moment – and there are some very, very successful firms in the space that have done a terrific job, with very, very limited choice, then it is clearly a problem. We at Gartmore would never dream of doing a carve-out and saying that 70% of a strategy could be done in a UCITS, but the other 30% would be missing. We believe experience is omnipotent in these challenging markets. We don't want a paper track record. If you look at the funds we've moved into the UCITS world, Capella has 11 years, Japan long/short has eight years, UK large cap has seven years. Those strategies are replicated 100%, completely correlated with no choppiness in terms of the return profiles. We don't leverage the funds, gross is very low. For other firms there may be a need to engineer a strategy out of a hedge fund into a UCITS formula that works, but that is

quite difficult because then you get problems with repeatability in terms of performance, track record, and that to me causes problems.

Q: Are there any Gartmore funds you think might be unsuitable for UCITS, and if so, why?

A: From a structural standpoint, the answer is no. We can replicate all our hedge fund strategies in UCITS. However, we are not in the UCITS space to gather assets, we are here to deliver strong, risk-adjusted absolute returns to retail investors that require a slightly different, more sophisticated approach to saving and investing. UCITS is evolving quickly but it is still very new to the mainstream investors. At this point in time we do not want to do anything in UCITS that could be considered volatile, or overly directional.

Q: UCITS are European, but there is a substantial amount of purchase of the brand name from around the world. Do you think this will continue and build on the hedge fund side?

A: The honest answer is we don't see demand outside of Europe. We've had a few conversations with US interested parties. When you talk to US investors about this they see the liquidity as a negative, whereas in Europe they view the liquidity as a positive. In terms of diversification on a geographical basis, there is literally zero interest from Asia, zero interest from the Middle East, same in the US, although there is the potential for that to grow out. All of our interest comes from our European investors, which we have SICAVs for, and obviously our UK investors which we offer OEICs for.

Q: How does your investment base therefore break down between UCITS and traditional hedge funds?

A: We have three types of investors: the deep retail investing wholly in UCITS product; the new phenomena of the UCITS fund of funds, also investing in the UCITS products; and then we have the hedge fund book of business. We prohibit hedge fund investors from investing in UCITS products. This avoids any cannibalisation. I simply do not see why Mrs Smith in Manchester with her ISA invested in one of our UCITS products would want to invest in a fund that offers daily liquidity alongside a US giant pension plan with \$200 million in the same fund.

Similarly, on the hedge fund side, I don't see why that pension fund client would want 5000 retail investors with them, shoulder-to-shoulder, because quite frankly their interests are not aligned. **THF**

“If you look at the funds we've moved into the UCITS world, Capella has 11 years, Japan long/short has eight years, UK large cap has seven years.”



The IKOS UCITS FX Fund

A purely systematic fund with low correlation to other CTAs

DR. RAVI CHARI, IKOS CIF LIMITED

The IKOS FX Fund has been around since the mid-1990s and has built an enviable track record. In its current offering as a double leverage fund it has a Sharpe Ratio of 2 for the last two years. It only trades the liquid G-10 currencies. It is available directly through us, offering monthly

liquidity, with a two week notice period. It is also available through Deutsche Bank via the dbSelect platform with daily liquidity and through the WR platform in the US with daily liquidity as well. Some of our largest investors are managed accounts who also have daily liquidity. So the IKOS FX strategy is

a natural candidate for a UCITS wrapper. The IKOS UCITS FX Fund is scheduled to be launched by the end of July, and it will offer daily liquidity as well. As per Deutsche Bank, the tracking error between the IKOS FX Fund and the UCITS version will be minimal.

The IKOS FX Fund is purely systematic and has had positive returns even during the past three years of major turbulence in the financial markets as Table 1 and Fig.1 show. The fund is up more than 17% year-to-date. It has a low correlation to other CTAs in part because we are not trend-followers.

There is still a lot of mystery surrounding what purely systematic funds do and this mystique has been further fostered by the managers themselves. My goal is to demystify this. The essence of systematic trading is to find some structure, some pattern, some pocket of predictability in noisy time-series. This structure is discovered by statistical, econometric or other techniques or observing the markets. Once a structure has been found, the goal is to teach the machine to recognise the structure, put the trade on and manage the risk. Easier said than done, but that is the goal. What makes the problem so hard is that as a first approximation markets do behave like noise. But a closer examination shows relationships between time-series, auto-correlations and more, with big doses of non-stationary behavior and the occasional extremely large moves that can be the undoing of the entire fund. Managing this tail risk of extreme moves is crucial not just to the performance but the survival of the fund as the last few years have shown.

The IKOS FX Fund consists of three broad families of models, traded in three different holding periods – high frequency (few minutes to hours), daily frequency and long term strategies – with overall average holding periods of 10 days. The three families of models are as follows:

Systematic Global Macro Models: Are the short rates driving the movements in currencies? Or is it the other way around? Are stock indices a barometer of the economy and the currency or does a strong currency boost the stock markets as is often the talk in Japan? Which way does causality flow? The answer depends on the situation. The beauty of systematic trading is that we don't start with preconceived notions coloured by our judgment. Instead we let the data speak for itself. If a relationship exists, we exploit this relationship and put on our trades. If none exists, we don't trade.

Carry Models: When interest rates in Japan are close to zero and those in Australia are north of 5% it is tempting to borrow from Japan and invest it in Australia and pocket the interest-rate differential. This is the essence of the carry trade. The trouble is that

Table 1 Source: IKOS

IKOS FX FUND	STRATEGY INCEPTION (APR-96 - MAY-10)	LAST 5 YEARS (MAY-05 - MAY-10)	CLASS INCEPTION (MAR-08 - MAY-10)
Total return	1141.71%	140.19%	53.60%
Annualised return	19.59%	19.16%	21.09%
Annualised volatility	17.99%	15.76%	9.55%
Sharpe ratio	0.88	1.00	2.07

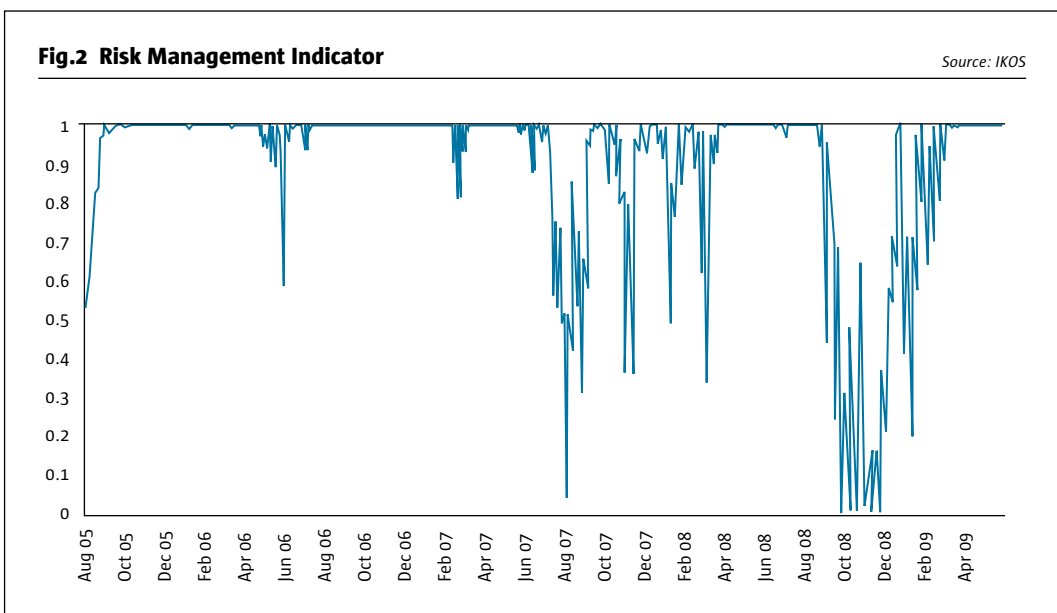
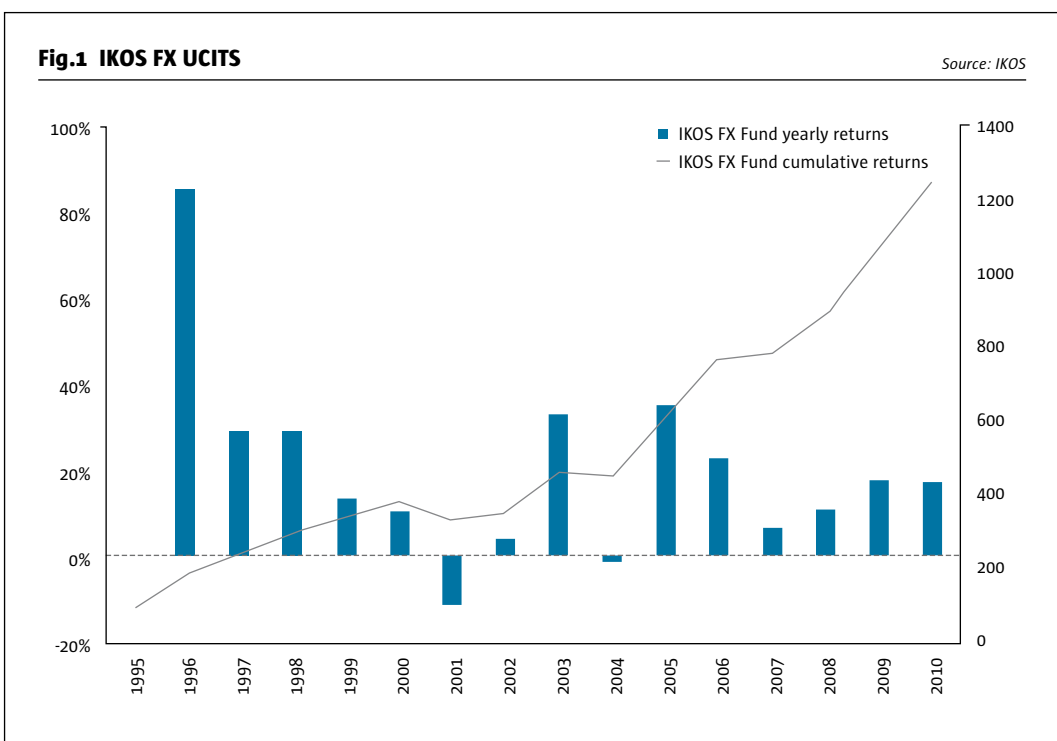
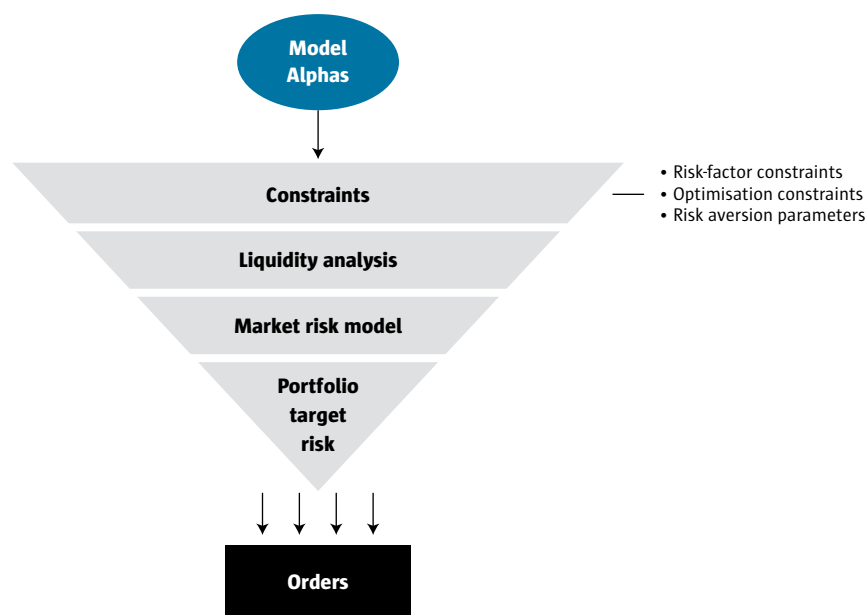


Fig.3 Portfolio Optimisation and Risk Management

Source: IKOS



With the hundreds of models competing for capital, we have an optimiser that, besides netting trades between models, ensures concentration limits on individual currencies are respected and the models that forecast a higher return on a trade get more capital than a model that forecasts less.

everybody knows this. So during moments of market panic such trades come to a violent end wiping out the entire year of P&L. The cleverness comes in being able to detect risk-aversion in the market place prior to the crash and exiting the trade while keeping the gains.

Trend-following Models: These models were added in 2008 and form a small part of our suite of strategies.

Risk Management: Our long-term carry and trend-following models are susceptible to giving up gains during periods of risk-aversion in the market place. Knowing this, we have created a risk-management indicator that measures risk-aversion in the market place and in an algorithmic manner, depending on the level of the indicator, reduces the capital allocated to these models and increases the allocation to the high-frequency models that tend to do well during these turbulent times. Fig.2 charts the values of the risk indicator. Note, the values close to zero correspond to times of crises.

There are also times when many of our models lose small amounts every day. In situations like this, when the peak-to-trough drawdown reaches a certain threshold, the entire portfolio is gradually deleveraged in a formulaic way and when the fund starts recovering the losses the leverage is brought back to normal.

With the hundreds of models competing for capital, we have an optimiser that, besides netting trades between models, ensures concentration limits on

individual currencies are respected and the models that forecast a higher return on a trade get more capital than a model that forecasts less.

In addition to these risk-management tools, emphasis is placed on execution algorithms to minimise the market impact of our trading, trying as far as possible to be liquidity providers.

Why IKOS?

IKOS has been successfully managing FX strategies for a very long time. There is a growing research group dedicated to improving our strategies, developing new ones as well as improving the execution algorithms. Many in this group have PhDs in the hard sciences. The firm and its funds are regulated by the US SEC, US CFTC/NFA, CySEC and other global regulatory bodies. IKOS has a strong culture of corporate governance and its funds are highly liquid, which also means it is well-suited for the launch of FX strategies in a UCITS wrapper. [THFJ](#)

ABOUT THE AUTHOR

DR. RAVI CHARI

Ravi joined IKOS in January of this year. He is a member of the portfolio management team at IKOS, which is comprised of four portfolio managers, and he is a member of the IKOS Investment Committee, which looks after global portfolios of equities, futures and FX traded at IKOS. Ravi has a PhD in Probability Theory from Michigan State University.

db funds - 360° UCITS funds

db funds' 360° UCITS funds platform provides investors with access to innovative, proven alternative strategies in a regulated UCITS fund format. As part of the Global Markets division of Deutsche Bank, db funds leverage the risk management, prime brokerage and managed account expertise of a leading global investment bank to offer a range of UCITS compliant managers implementing various alternative strategies, such as Long/Short Equity, Currency and CTA/Managed Futures. Established in 2002, db funds was amongst the first providers of alternative strategies in a UCITS format and has a wealth of experience in this field.

db funds

Deutsche Bank 

GAM

GAM is a leading provider of UCITS III funds. With one of the broadest ranges of UCITS III products in the marketplace, our funds are focused on producing absolute returns across a broad range of asset classes and strategies. GAM delivers active investment management to intermediaries, institutions and private clients. Our goal is to produce outstanding results by providing clients with access to great investment talent throughout the world.

GAM

Gartmore

Gartmore is a respected fund management group with around £22 billion AUM, with approximately £4 billion in equity long/short strategies. Gartmore has been running hedge funds since the late 1990's when we first launched Capella, which makes us one of the most experienced managers in the European alternative space.


Gartmore

IKOS

IKOS is one of the world's longest established alternative investment managers in Europe with US\$1.9bn AUM. The firm is a specialist in global quantitative trading of all asset classes using strategies which apply the scientific method to investment management. IKOS believes that success in the high frequency space requires a combination of science, technology and business skills, a capital investment in trading infrastructure and a dedication to the scientific method. With over 75 professionals dedicated to investor service, IKOS operates a global infrastructure from its Cyprus headquarters, utilizing execution sites and research facilities in a number of locations including New York, Tokyo, London, Vienna, and Monaco.



RBC Dexia

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