December 2017

HEDGENORDIC

Equity Indices at all time highs - Volatility at lows
Where to hide in a turning tide?

The Big Short Question
Challenges, Opportunities and Ethics of Shorting Stocks

Hedge Fund 2.0
A daring Glimpse at the Future of the Hedge Fund Space

The Many Shapes & Colours of Equity Hedge Fund Strategies

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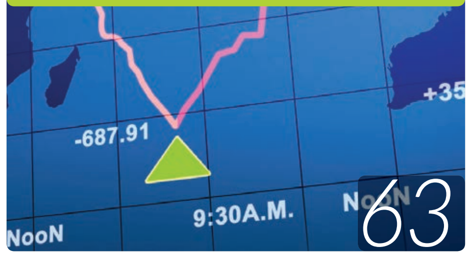

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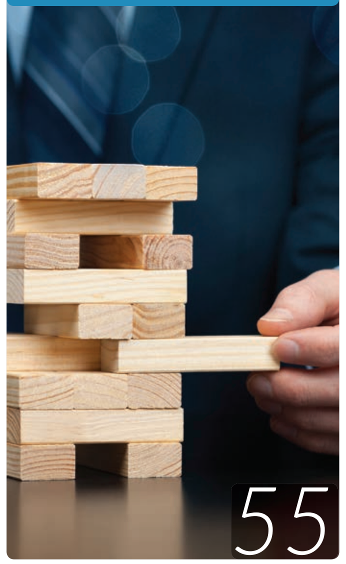

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HEDGENORDIC

INTRODUCTION

HedgeNordic is the leading media covering the Nordic alternative investment and hedge fund universe. The website brings daily news, research, analysis and background that is relevant to Nordic hedge fund professionals from the sell and buy side from all tiers.

HedgeNordic publishes monthly, quarterly and annual reports on recent developments in her core market as well as special, indepth reports on "hot topics".

HedgeNordic also calculates and publishes the Nordic Hedge Index (NHX) and is host to the Nordic Hedge Award and organizes round tables and seminars.

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Facts & Figures on NHX Equity SUB INDEX

23.2% / (-14.6%)
Best (Worst) Calendar Year for NHX Equity

-17% / 18 Months
Depth and length of largest NHX Equity Sub Index Draw Down (07/07 - 11/09)

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CONSTITUENTS TO NHX Equity SUB-INDEX

The Editor on...

The green, big short Future of Hedge Funds

Like a stubborn, powerful locomotive, equity markets are climbing from high to higher highs, barely stopping for a brief moment. While there is some dispersion coming in, volatility on an index level is hovering at historic lows. Beating Beta, and the chase for alpha pockets, and managers positioned to be able to extract those opportunities of excess returns are becoming more sought after. In the last special report of the year, HedgeNordic is putting a focus on those trading strategies predominantly navigation equity markets.

Equity strategies, be it trading stocks, equity indices or derivatives are by far the most wide spread segment of the hedge fund space. The strategies managers apply to find and extract alpha from the markets are manifold, the clean cuts being a long only (or long biased) and a dedicated short bias approach. on the other end of the spectrum. From equity arbitrage, market neutral, systematic traders or discretionary stock pickers, activist managers, those trading large caps, or only micro caps and the enormous spread in the middle. Managers could focus on certain geographies or industries, be event driven, looking at a vast number of different types of events...I could go on here and would still be doing little more than scratching the surface of the many shapes and colours equity funds appear in.

> **"Buy low, sell high", does not nesseraily dictate an order in which these actions should take place."**

Next to the general broad theme, there are two special topics we took a closer look at, the first being the challenges, opportunities and ethics of shorting stock, the other, more daring, a look into the future of the hedge fund industry.

For those of us who work with hedge funds, going short is as natural a concept as going long. If you can go upstairs, you should also be able to go downstairs. After all the saying "buy low, sell high", does not necessarily dictate an order in which these actions should take place. For outsiders, this is one of the hardest concepts to grasp.

The end of the year also marks a point to sit down and look back at the past months and events, and also attempt to look ahead. In this addition of our special report we want to take this a step further, and discussed with some market participants of where they thought the hedge fund industry was heading. There are still big regulatory waves that are influencing the space, buzz words like big data, artificial intelligence, machine learning are commonly heard when in talks with managers, some fintech players are moving and shaking the space.

A third focus point which will be playing a far stronger part in our editorial coverage and research over the coming years lies on Socially Responsible Investments (SRI) and ESG. These aspects of the financial industry will not go away and in contrast, thankfully, play an ever increasing role also in alternative investments. Do visit our sister site, NordSIP.com on this topic, too!

Thank you for having HedgeNordic and her publications on your screens, minds and agendas. Whishing you very happy holidays, Hohoho!

Kamran G. Ghalitschi
CEO / Publisher HedgeNordic

HARD EARNED FIKA FOR NORDIC EQUITY FUNDS

by Eugeniu Guzun – HedgeNordic

The NHX Equities Index, an equally-weighted sub-index of the NHX Composite, tracks the performance of Nordic-based hedge funds that predominantly invest in equities and equity-related derivative securities. The NHX Equities includes funds that employ both quantitative and fundamental techniques; their strategies can be broadly diversified or narrowly focused on certain sectors or geographies, and can range significantly in terms of net exposure, leverage, holding periods, as well as concentrations of market capitalizations.

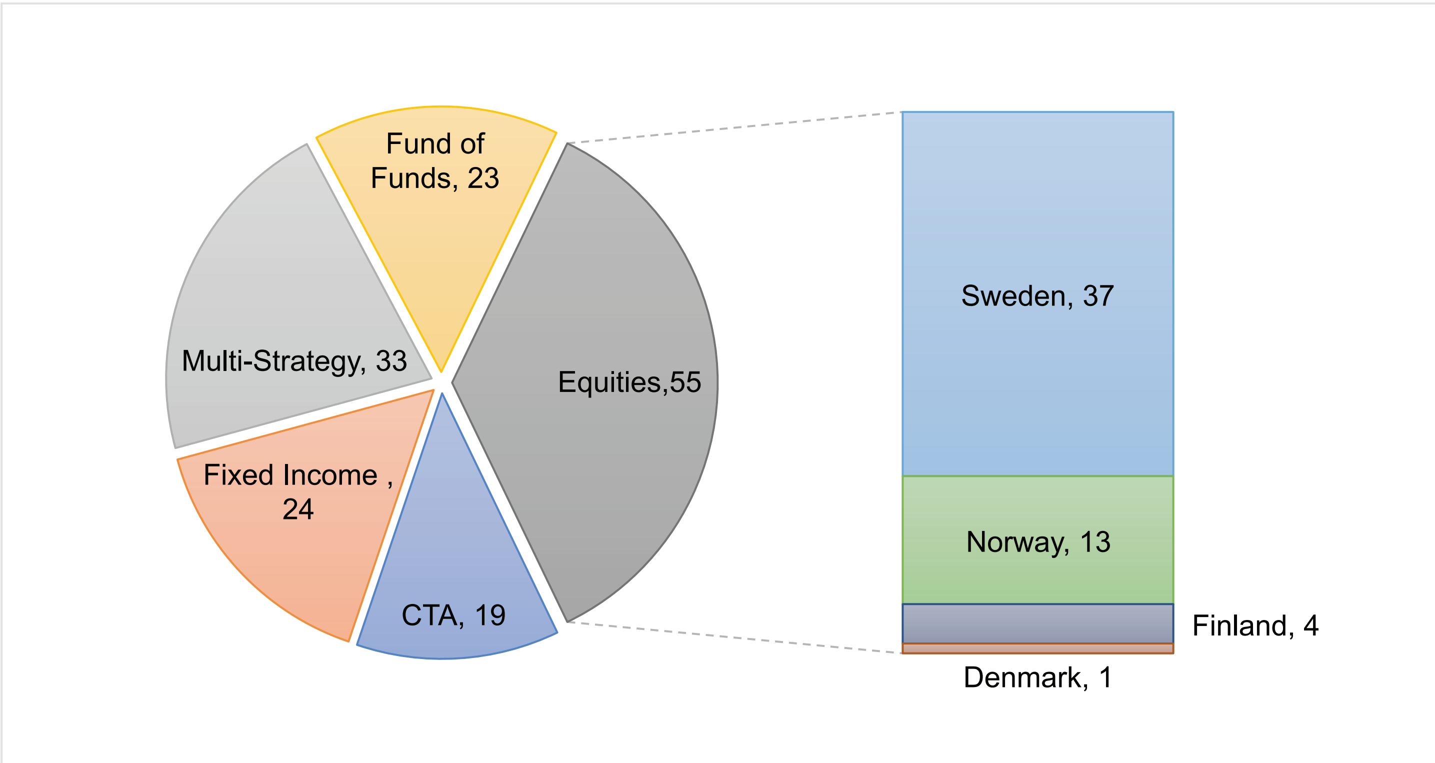
Equity-focused funds account for slightly more than one-third of the overall NHX universe, with 37 of the 55 Nordic equity funds being based Sweden. The NHX family also comprises 13 Norwegian equity funds, four Finnish, as well as one Danish equity hedge fund.

Nordic equity hedge funds have outperformed international peers by a wide margin since the beginning of 2009. For instance, the NHX Equities Index has generated a cumulative return of 90.4% since December 2008 through the end of October of this year, corresponding to an annualized return of 7.6%. Meanwhile, the HFRX Equity Hedge Index - an index that tracks the performance of various equity hedge strategies that combine core long holdings of equities with short sales of stock, stock indices, related derivatives, or other financial instruments related to equity markets - has delivered a cumulative return of 24.3%, which equates to an annualized return of merely 2.5%. Additionally, Nordic-based equity funds delivered higher returns at lower volatility levels. For instance, the annualized standard deviation of the monthly returns delivered by the NHX Equities equals 4.8%, whereas the annualized standard deviation for the HFRX index totals 6.2%.

Nordic-based equity hedge funds outstripped their international peers each year since 2009, save for 2010. However, Nordic equity fund managers are on course to suffer the worst annual result since 2011 and are lagging international fund managers this year, predominantly reflecting a recovery on the part of international players.

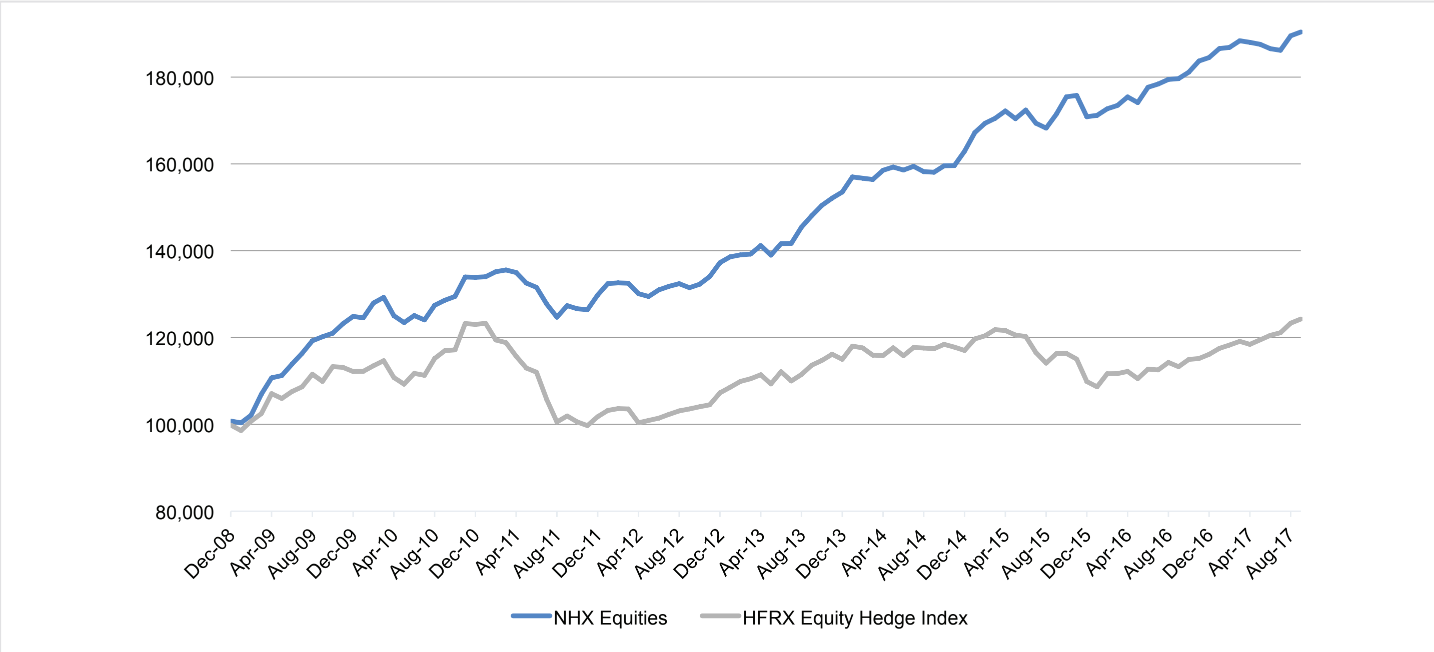
When comparing Nordic managers against international peers, one can easily notice the good downside protection offered by Nordic-based equity strategies. For instance, the NHX Equities Index lost 5.6% in 2011, whereas the HFRX Equity Hedge Index dropped by an alarming 19.1%. The outperformance may be explained by differences in the compositions of the two indices. Two categories of hedge funds that performed particularly poorly in 2011

COUNTRY BREAKDOWN OF NHX EQUITIES



Source: HedgeNordic

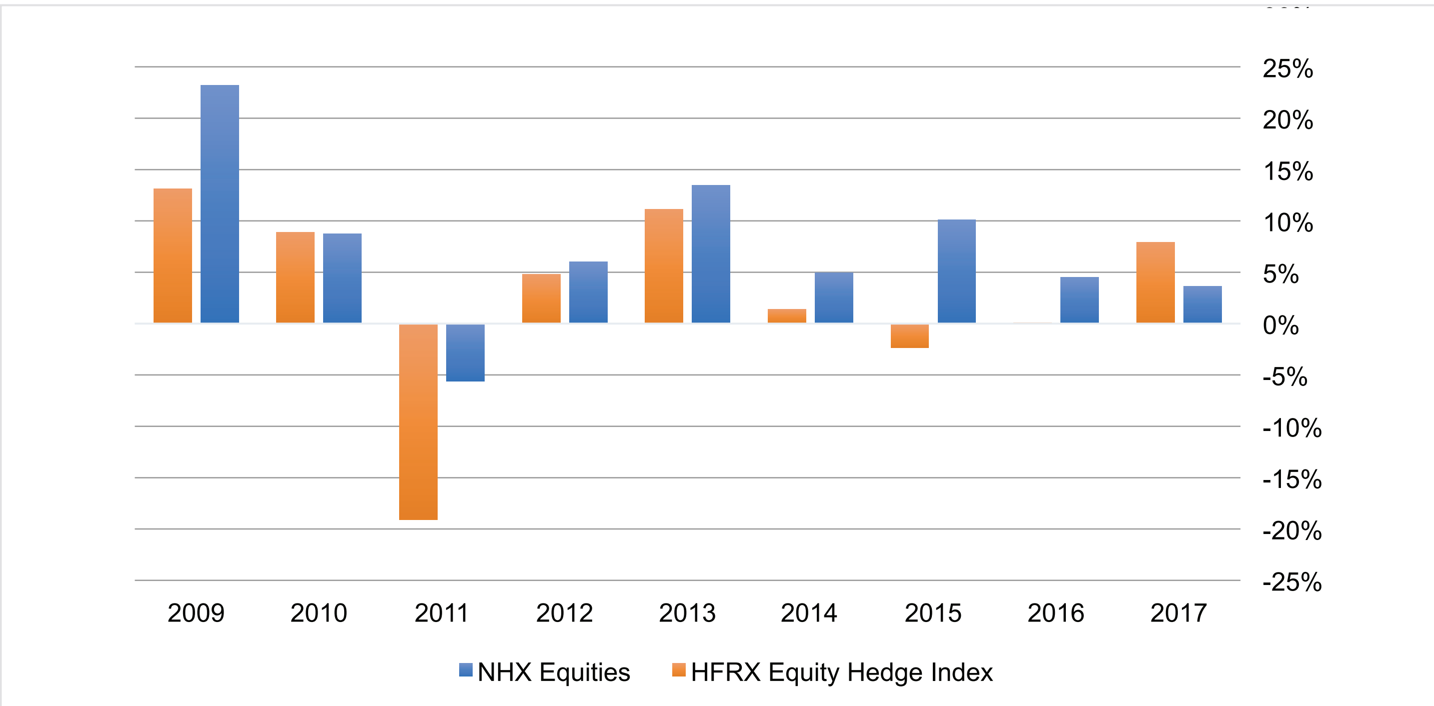
PERFORMANCE OF NHX EQUITIES VERSUS HFRX EQUITY HEDGE INDEX



Source: HedgeNordic, Hedge Fund Research.

were directional strategies, namely market directional strategies and long/short strategies. Meanwhile, market-neutral strategies and absolute return strategies suffered the least as a result of the turmoil caused by the European debt crisis of 2011. Given that the NHX Equities contains a relatively high number of market-neutral and absolute return funds, the carnage in hedge fund performance impacted the NHX Equities Index to a lesser extent. Additionally, the debt crisis of 2011 had a more severe impact on the financial markets in continental Europe than in the Nordic markets, which could also serve as an explanation for the significant difference in losses.

ANNUAL RETURNS OF NHX EQUITES AND HFRX EQUITY HEDGE INDEX

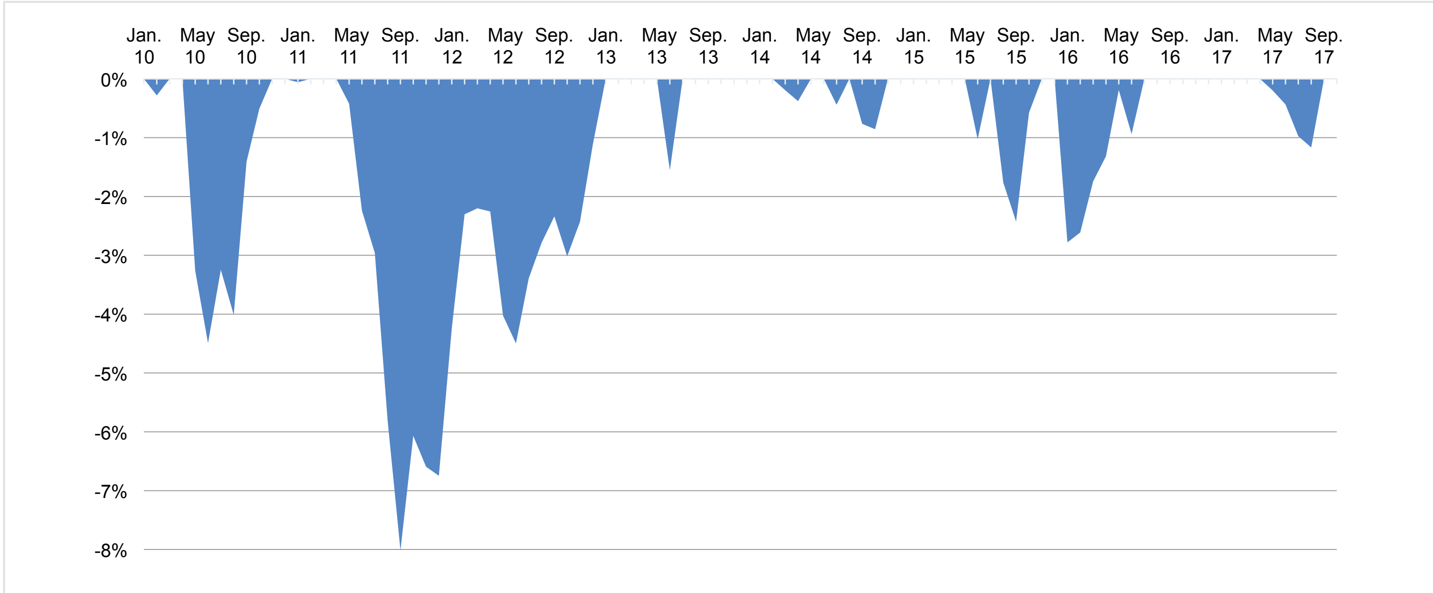


Source: HedgeNordic, Hedge Fund Research.

One possible explanation for the relative under-performance of the NHX Equities Index thus far in 2017 stems from the extremely high dispersion in returns among funds. In other words, the difference between the worst and best performers is quite significant. For instance, healthcare-focused hedge fund Rhenman Healthcare Equity L/S generated a year-to-date return of 25.8% through the end of October, whereas Finnish Gramont Equity Opportunities lost 22.7% since the start of 2017 through the end of September.

Speaking of losses, the maximum drawdown for the NHX Equities Index after the financial crisis of 2009 was 8.0%, a drawdown that began in May 2011 and lasted five months. However, the recovery from the valley value of the index to a new high lasted a total of 16 months. Capital preservation and a steady performance represent important considerations for investors. The maximum drawdowns since the beginning of 2013 were of almost-unnoticeable magnitudes and the length of the drawdown periods were extremely short.

DRAWDOWN OF NHX EQUITIES

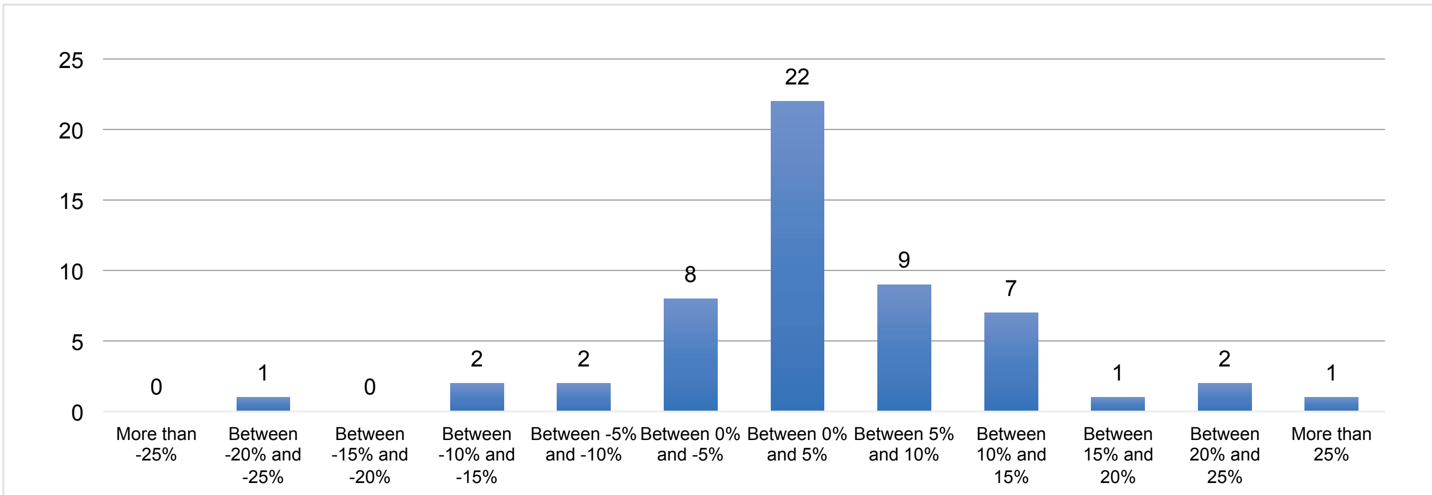


Source: HedgeNordic

22 out of the 55 equity-focused hedge funds generated returns in the range of 0% to 5%, while nine funds rewarded investors with returns between 5% and 10%.

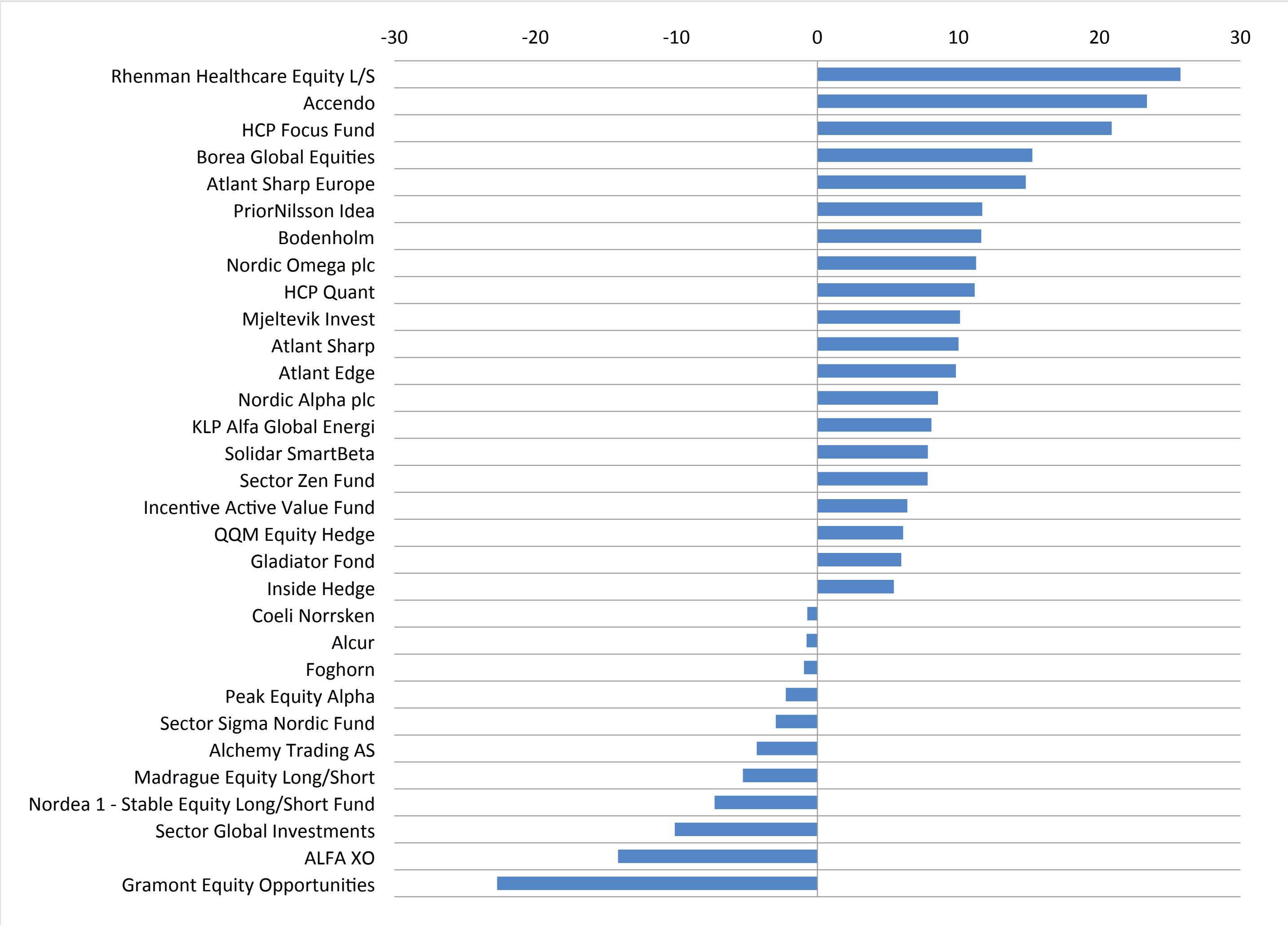
The table below shows there are a lot more winners than losers thus far in 2017. Capital preservation

DISTRIBUTION TABLE OF EQUITY FUND PERFORMANCE IN 2017



Source: HedgeNordic

BEST AND WORST PERFORMING NORDIC EQUITY FUNDS IN 2017



Source: HedgeNordic

Hedge funds used to be rare birds a couple of decades ago, but the field has become more crowded as years passed by. However, a natural selection of the fittest might lead to improved hedge fund performance going forward. For instance, two of the worst performing Nordic-based equity hedge funds are counting down their last days. Swedish hedge fund shop Alfakraft Fonder AB has initiated the process of winding down their ALFA XO fund, while Norwegian hedge fund firm Sector Asset Management will liquidate Sector Global Investments at the beginning of December.

CHANGE AND CONTINUITY:

How Nordic Pension Funds Invest in Equity

by ***Richard Tyszkiewicz*** – Senior Director - bfinance

Fifteen years ago, when we began working with Nordic institutional investors, approaches to listed equity investing were very different indeed.

The rise of passive equity investing, the refinements in alpha beta separation, the development of risk premia analysis and the increasing prominence of ESG have all fundamentally changed equity portfolios – hopefully, we believe, for the better. Meanwhile, asset allocation at a high level has shifted in favour of alternative asset classes, altering the task that listed equity investments are expected to accomplish.

Yet these much-debated changes, outlined in greater detail below, mask certain elements of consistency and continuity. Fifteen years ago, the majority of equity manager selection activity by these investors, whether for global or regional markets, focused on long-only strategies with a preference for bottom-up stock picking, a clearly explicable investment process and a pooled vehicle structure for ease of administration.

Today there is still a strong appetite for long-only active equity managers with many of the same key characteristics, although in many cases these must now clearly complement passive or smart beta strategies – and each other – rather than stand alone.

These constructions and combinations are increasingly innovative. For example, following a successful test with internally managed domestic equities, Sweden's AP7 gradually moved their whole listed equity portfolio to a structure based on 100% passive market exposure complemented by unfunded "pure alpha" long-short mandates. Another sophisticated investor has developed a long-term strategy around combining complementary active managers in a very effective "all-weather" in-house fund of funds.

Cost compression

The shift towards passive investing has perhaps been the most visible development in Nordic investors' equity allocations, followed closely by the related trend of investment insourcing – the move to manage a greater proportion of investments in-house, sometimes running them on a more systematic enhanced model.

The insourcing trend is, in part, a by-product of the quite rapid consolidation taking place in the Nordic pensions industry. Once a pension fund reaches a certain critical mass it can justify the internal resources needed for asset management. As seen in the Dutch market, the next step in this growth process can be to offer asset management services to third party clients.

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The swings in favour of passive management and insourcing both have a strong basis in investment prudence and have certainly contributed to lower expenses for equity investments, although these have often been partly offset by additional spending on the alternative investment side. We have also seen notable reductions in the fees offered to Nordic investors by active equity managers, particularly among more systematic strategies.

> "The shift towards passive investing has perhaps been the most visible development in Nordic investors' equity allocations."

Yet new practices have not always been entirely voluntary. For some investors, increasingly stringent cost constraints have dictated behaviour. Stakeholder pressure has also been a critical factor: justifying the expense of active management through short-term ups and downs in the market can be immensely difficult. We have observed cases where investors have proceeded further down the "cost-saving" path than their senior investment staff believe will be optimal for long-term investment outcomes.

Alpha/beta separation

The rise of passive investing has also been part of a general trend among Nordic institutional investors to get a better understanding of – and control over – the alpha sources in equity portfolios. The greater awareness of risk factor exposures and their contribution towards returns, in addition to the disappointment with some active managers that were suspected of "closet index" investing, led some of our clients towards restructuring their portfolios around a passive core, sometimes supplemented by carefully combined smart beta strategies and benchmark-agnostic unconstrained "satellite" managers.

The message has been clear and powerful: investors no longer intend to pay active management fees where they are not due.

Yet onlookers should not be deceived into thinking that this means active management is out of favour among Nordic pension funds. We are still running a consistent stream of searches for active equity managers for Nordic institutions. Indeed, we note a resurgence in the popularity of active managers among some contrarian Nordic investors who view the general shift into passive as an excellent opportunity to add some of the best active houses into their portfolios.

ESG acceptance

Nordic investors have long been a driving force in the increasing prominence of sustainable investing. Over the past fifteen years, ESG has definitively progressed from "ethical" side-show to mainstream industry phenomenon. Many of bfinance's clients in the region are long-standing participants in international initiatives to help advance environmental, social and governance (ESG) issues in the investment industry.

Indeed, every single equity manager selection exercise that we have conducted in the Nordic Region has required that the manager be (or become) a signatory to the Principles for Responsible investing. Viewed in the region as a basic minimum requirement, it is taken as a sign that managers are at least aware of the importance of ESG issues to their clients. That being said, there is a strong awareness among the community that many signatories have been bolting ESG functions onto existing processes rather than implementing genuine integration. This approach is rapidly becoming unacceptable to Nordic institutions, who in most cases are looking for managers with the ability and thought leadership to help their clients understand complex sustainability themes and help them develop their own sustainable investment policy.

> "There is no doubt that Nordic pension funds have either led or been 'ahead of the curve' on many of the most significant shifts in the equity landscape."

Interestingly, some of the best managers to come through our ESG assessment do not score particularly well within the PRI framework. Some of them do not even market themselves as ESG managers. Our Nordic clients typically look for managers that have a long track record of integrating non-financial criteria in their stock selection, most often on the basis that a focus on all aspects of ESG will favour sustainable companies for solid long-term investment.

Impact investing evolution

Driven initially by Nordic foundations with various philanthropic and developmental aims, 'impact investing' has become increasingly popular among some of the larger investors in the region. These strategies seek to achieve various explicit positive outcomes alongside financial returns.

This approach is generally oriented towards private equity, thanks to the direct access to and involvement with portfolio company management. Nevertheless, there is increasing appetite from Nordic institutions for impact investing in public equity markets. The greatest challenge is the accurate measurement of the positive outcomes that investors are seeking to achieve. Industry participants are hard at work trying to improve data access and agree on some form of standard reporting that would allow for better assessment of impact managers' performance.

There is no doubt that Nordic pension funds have either led or been 'ahead of the curve' on many of the most significant shifts in the equity landscape. Better active management fees, more sophisticated portfolio design and smarter asset manager analysis have all contributed to improvements. The past decade has seen particularly interesting innovations, although the driving pressures – particularly on the cost side – have not always been entirely positive in their effects.

Active management has emerged from this phase with a somewhat smaller, but perhaps no less important, role in portfolios. Diversification, genuine alpha generation, ESG and impact goals are of critical importance in today's Nordic pension market.

Richard Tyszkiewicz,
Senior Director - bfinance

ALLIANZ OPTION STRATEGIES

Harvesting Volatility in a Calm Sea.

by ***Aline Reichenberg Gustafsson***, CFA – HedgeNordic

The dynamics of equity markets are typically directional. Using options, however, investors can engineer strategies that benefit from the supply and demand underlying equity markets, but that are de-correlated from the market's direction. We asked Stephen Bond-Nelson, Managing Director and Co-Lead Portfolio Manager for the Structured Return Investment team at Allianz Global Investors to walk us through various option strategies and the opportunities his team has chosen to focus on in today's market.

The most straightforward strategy for an equity investor seeking downside protection is to buy protective puts. As the theory presumes, and reality usually proves, there is no free lunch. Hence, paying for portfolio insurance can be expensive depending on the market exposure to cover. Being insured at all times for a significant market decline may be too costly. Investors may, therefore, introduce an element of timing and buy portfolio insurance only when they believe the crisis is near, but that requires foresight. Even when markets are calm, there may be an opportunity to benefit from imbalances and supply-demand shifts in parameters that are not usually exploitable by pure-equity investors. One of those is volatility.

"When people talk about volatility strategies," explains Bond-Nelson, there is often a story where the market is trying to exploit the difference between implied (forecasted) and realised (actual) volatility. Implied volatility is usually noticeably higher, and over time, this can be quite a successful strategy. However, we do it differently." An essential element to understand at the onset is that Bond-Nelson's team only trades options on the S&P 500 and that they are agnostic about the direction of that market.

> **"When people talk about volatility strategies, there is often a story where the market is trying to exploit the difference between implied (forecasted) and realised (actual) volatility. "**

The central part of the strategy focused on "normal" market environments is based on an analysis of history. "We look back at market history, starting in the 1920s and the inception of the S&P 500," continues Bond-Nelson. "We aggregated the returns and studied how the market behaves over time. The result is a normal probability distribution of a range of expected future returns. We look at the recent price movements, and we try to find a comparable environment in the past. What the distribution shows you over time is that there are many repeatable patterns, both in terms of length and magnitude of price increases and decreases. We have been able to ascertain that there is a time between four and ten weeks where we find the most repeatability. "This phenomenon has not changed much over time. In contrast, short-dated patterns (3-10 days long) have become less predictable in recent times, and more long-dated trends have never been very reliable at all.

Based on these historical patterns, the team determines within which interval the market, absent an unusual event, will continue to trade in with 85 percent probability, over a four- to ten-week duration. The strategy then consists of writing (the equivalent of selling) puts and calls outside of this interval. The team refers to these positions as range bound spreads. "We want to take the positions today and let them expire. If history repeats, we should be highly likely to hold them to maturity. These positions presume that the history will repeat itself, but of course, that should always be viewed as a flawed assumption." Two other elements of the strategy mitigate this issue.

> **"We want to take the positions today and let them expire. If history repeats, we should be highly likely to hold them to maturity."**

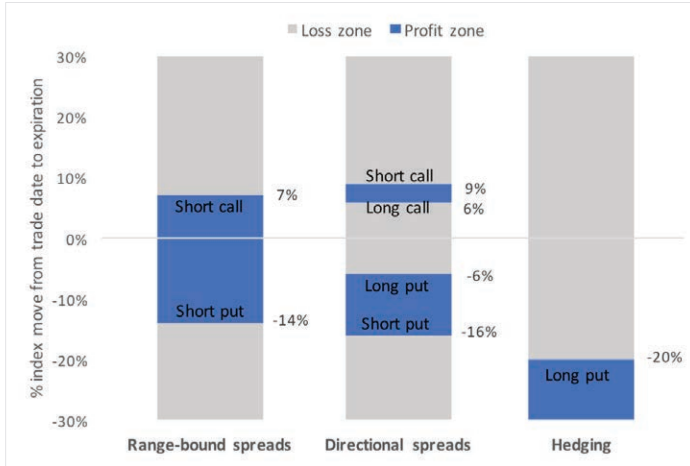
"There is no way to develop a risk-free strategy, unfortunately. The range-bound part of our portfolio carries most of the return. What we call our directional strategy acts as a risk mitigator. It does not completely counteract potential losses from the range-bound positions, but noticeably improves the results." Directionals rely on the construction of long-short option positions that benefit from a significant index move to the upside and/or downside. Over the lifetime of the product going back to mid-2008, range-bound options have provided two-thirds of the return and while directionals have produced the balance.

The third layer of the strategy comes back to the traditional portfolio insurance. "It is very specifically designed for catastrophic gap-down markets, like an overnight crash of 15 percent for example." This protection consists of options with strikes about 12-20% out of the money. "This is not a discretionary part of the process," comments Bond-Nelson. "We don't believe people can time the market well or efficiently. We are more comfortable having those overnight positions implemented systematically." Some long puts match the duration of the range-bound positions and another layer of puts with a one to two-week duration are added in every week and rolled on a continuous basis. "There has been only one time in the history of the product where we monetized this leg of the strategy: in August 2015," says Bond-Nelson. The cost is 50 to 150 basis points per year, depending on where market prices are. This amount is not insignificant for a product that has generated just above 500 basis points net from 2009 onwards, but peace of mind does not come cheap.

Stephen Bond-Nelson,
Allianz Global Investors

The fund got off to a somewhat rough start in 2008 when the team faced serious concerns with their only counterparty in the aftermath of the Lehman crisis. The entire book had to be liquidated as a result, at very unfavorable market terms. Since 2009, however, the performance has been rather smooth, and the product has met or exceeded the target 4-6% net return range every single year. "Certainly, for the last several years," admits Bond-Nelson, "we have seen relatively calm markets, except for the summer of 2015 and the beginning of 2016. Our process has evolved over time. We feel comfortable navigating these types of markets, but higher levels of volatility would be preferable overall, as well as in relative terms. Most strategies struggle in higher-volatility environments, but we would do better, and our returns would be more differentiated."

Allianz GI Structured Return Strategy Illustrated



Source: Allianz GI

A TRUE LONG/SHORT IN HEALTHCARE

by ***Aline Reichenberg Gustafsson***, CFA – HedgeNordic

During the past ten years, healthcare has been an excellent place to invest in. It was the second best-performing equity sector globally for the past six years (after information technology), and it has proved resilient during the last two negative equity years. In 2008, Healthcare outperformed the global equity index by 17%, and in 2011, by 13%. Today, many investors are afraid of jumping on the bandwagon too late. How long does this positive trend still have to go? And how do you go about investing safely in this complex industry? HedgeNordic met with Ori Hershkovitz and Daniel Malek from New York-based healthcare long/short equity fund NEXTHERA Capital, on their last visit to Stockholm, to answer these questions and talk about their expertise.

Currently, there are still reasons to be bullish about the healthcare industry. In 2016, the sector experienced a significant multiple compression, and as a result, valuation continues to remain attractive despite a solid performance this year. More generally, secular demand growth will continue to be strong, driven by the demographics of an ageing population and increased life expectancy in developed markets, and by increased spending in emerging markets, underpinned by rising wealth and improved medical coverage. Also, research for solutions in unmet medical needs will drive innovation in novel therapies. In parallel, M&A appetite is likely to provide support to company valuations in the short term.

As a sector, healthcare is not for the faint of heart, however. Every conversation starts with a disease, either chronic or fatal, and continues with plenty esoteric terms that puzzle the neophytes. To invest in healthcare, better be a specialist. Hershkovitz, who holds the title of CIO, has 20 years of experience in following the sector. He is seconded by a team of five research analysts, with several MDs and PhDs. But NEXTHERA has another string to their bow. "We are completely agnostic to where the industry is going," says Hershkovitz. "We can be pessimistic about the industry and still make money. We dynamically change the portfolio positioning based on our fundamental views

"M&A appetite is likely to provide support to company valuations in the short term."

of the healthcare sector. We can be defensively positioned like we were from July 2015 to November 2016 as we were very concerned about drug pricing in the United States. We were able to generate positive returns over the first 18 months of the fund's launch when the healthcare sector dropped meaningfully over the same period. Since then we have become much more positive for many fundamental reasons and have captured the upswing in the sector so far in 2017. Protecting capital during downturns while capturing a large part of the upside in the healthcare sector is what we wanted to achieve and thus far we have been able to do it." Capital preservation seems to be difficult for most of the firm's competitors. Looking at the performance of healthcare funds, even long/short hedge funds, not many

"On the long side, we are positive about biotech for a couple of reasons."

have shown resilience in the last market downturn. "From July 2015 until March 2016, the small-cap biotech index dropped by 55 percent. It was one of the largest drops ever for the industry. From July 2015 to December 2016, we showed that we could produce alpha with a positive net performance of approximately 2 percent against a backdrop of a 28 percent decline for the Nasdaq Biotech Index." NEXTHERA provides an interesting alternative for those wanting to gain exposure to the industry without having to worry about the cycle.

Fundamental stock picking forms the core of the team's long/short strategy, as well as a careful analysis of healthcare-related supply and demand trends. Here are some examples. "We were short Novo Nordisk," Hershkovitz starts. "They mostly sell commoditised insulin products, and we foresaw that pressure from insurers in the US would hurt them. This is exactly what happened. Today, we are much more positive on the insulin market. On the long side, we are positive about biotech for a couple of reasons, but mainly because we are in a golden period for scientific development and breakthroughs, especially in niche diseases, cures for Alzheimer's for example. We are long small companies which focus on the technologies we like because larger companies no longer develop these areas. Therefore, the larger biotech or pharma companies are hungry for these technologies once they are at a certain stage."

"In August, we were up on both the long and the short book, that doesn't happen very often" continues Hershkovitz with a laugh, "but it illustrates well what we do. On the one hand, one of our long positions, Kite Pharmaceuticals was acquired by large-cap biotech Gilead Science. Their technology is an amazing scientific breakthrough in a certain type of cancer. Independently, we were short generic manufacturer Teva, and its price dropped during the same week. The reasoning behind this position is that a huge change is going on in the world's biggest market, the US market. Players are consolidating: insurance companies and pharmacy benefit managers (PBMs, who manage prescription for healthcare benefit plans). This creates more buying power and pressure in specific sub-sectors of the pharmaceutical industry. Procurement is one of them. The first victim was the insulin market we talked about, and now the same thing is happening for generic drugs. All the generic companies are under pressure right now, and Teva feels it more than others. The last quarterly results just highlighted the magnitude of the issue, and they cut their dividend by 75 percent."

Ori Hershkovitz
Portfolio Manager Nexethra

To be able to understand and implement these long and short ideas, an MD or a scientific background at least, are of course useful. But that knowledge needs to be paired with a solid understanding of business, the competitive landscape and the complex mechanisms behind reimbursements for example. After successfully navigating the rough waters of the 2015-2016 era, thanks to its experienced team, NEXTHERA is hoping to conquer the old continent by launching a UCITS vehicle together with Geneva-based UBP. The bank currently manages more than $120 billion with close to 1,700 employees in 20 countries. Since 2014, it offers a UCITS platform to bring selected alternative strategies such as NEXTHERA into the European market. Demand for alternative UCITS expanded tremendously in the past few years. In fact, these types of investments grew faster in the past seven years than hedge funds did 20 years ago.

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From Resolute Asia Pacific Stock-Pickers:

"Déjà vu in Y2K!"

by ***Hamlin Lovell*** – HedgeNordic

For the first time ever, Asia's Technology sector now has a larger market capitalisation than its Financial counterpart. Interestingly, just four stocks have driven nearly one third of the index's 2017 rise: Samsung and the BAT complex made up of Baidu, Alibaba and Tencent. Against this back drop, the First State Stewart Asia (FSSA) team, based in Hong Kong and Singapore, are sadly well aware that fund performance has lagged in 2017 across their Asia-Pacific portfolios. But as active managers, risk to them is not about tracking error against an index but rather permanent capital loss and as such the narrowness of market leadership to four key players and the divergence of performance is reminiscent of what was seen at the climax of the TMT bubble in 2000. The team remain steadfast in their approach and optimistic.

Tencent, a leader in e-payments and the only BAT stock that the team owns, has a simple ownership model with all assets held in a single structure. However, the First State Stewart team feel uncomfortable with the governance issues around Variable Interest Ownership (VIE) structures that could leave shareholders with no title or effective equity interest. They argue that Alibaba can be perceived as having Enron-esque complexity with 600 subsidiaries and aggressive accounting; whilst separate ESG concerns around bribery have made it difficult for them to hold a large position in Samsung.

As passive, quantitative, machine-driven, index and momentum investors drive mega-cap technology stocks ever higher, plenty of venerable companies that would in 2000 have been dubbed "old economy" are at least seeing their valuation multiples contract, and in some cases suffering absolute declines in their share prices. Examples are seen in autos, food, transport, cement, healthcare, and conglomerates listed in Indonesia, Singapore, Hong Kong, Taiwan and Australia.

"For the first time ever, Asia's Technology sector now has a larger market capitalisation than its Financial counterpart. Interestingly, just four stocks have driven nearly one third of the index's 2017 rise. "

GREATER CHINA

If Greater China is defined economically to include Hong Kong and Taiwan, this is First State's largest geographic weighting in their Asia-Pacific portfolios. Cognisant of macro concerns, including debt to GDP ratios, the team as bottom-up stock pickers are seeking stocks which includes exporters more geared to the global economy. Thanks to the China Stock Connect programme, the firm now has $2 billion invested in China 'A' shares - but only owns 23 of the 3,200 stocks available. One is air conditioning and white goods maker, Midea, which looks good value on a "PEG" basis (dividing the mid-teens price-to-earnings ratio by the double-digit growth rate) and has the potential to become a global market leader. Other stocks with strong earnings growth or recovery prospects include Taiwanese smart phone chip maker Mediatek; cables maker Sinbon Electronics, and Towngas, which is committed to pollution reduction.

A classic value play is Hong Kong-listed holding company Swire Pacific, which trades at a discount to its assets, including Swire Property, which owns unique trophy properties such as Hong Kong's buzzing Pacific Place. An even more contrarian position is another part of the Swire empire: loss-making airline Cathay Pacific, which is despised by the sell side. The team at First State see potential for improving cargo numbers and the rolling off of fuel hedges to return Cathay to profitability. They have now exited Li & Fung, which faced margin pressure from the retail implosion that has seen 300 US retailers go bust.

INDIA

India is the largest single country weighting in Asia-Pac portfolio, where valuations are relatively high but may be justified by higher return on equity arising from higher barriers to entry and better management quality. The team regrets having top-sliced positions in richly valued consumer stocks, but there is much to play for in other secular growth stories. Half of India's population remains un-banked and with Modi clearly encouraging a move from the informal to the formal economy, HDFC Bank, a holding in the portfolio, should benefit if all goes to plan. Embattled generic drugs makers are a more non-consensus choice, with consolidation amongst US drug distributors accelerating pricing pressure, and some firms falling short of US FDA and German Government standards. The managers have exited Dr Reddys and bought Lupin. In IT, they have sold out of Infosys, partly due to governance issues, and expects Tech Mahindra can expand its margins amid the secular growth trends of ecommerce and digitisation. They were wrong-footed by telco Idea Cellular, which was itself unsettled by a new entrant offering free calls, but now consolidation from eight down to three players could improve profitability.

KOREA

In Korea, FSSA finds technology valuations can be more palatable than those of some Chinese firms. Google does not work in Korea, and local internet search and ecommerce firm, Naver, which owns NaverPay and a stake in Line (Japan's WhatsApp) was bought after a pullback. Elsewhere in Korea, the managers have been taking some profits and reducing positions in response to valuation expansion in LG Chemical, LG Household and Health and Amore.

ASEAN

South East Asia is a diverse region in terms of levels of economic development and sector composition. FSSA has generally taken a contrarian stance in picking up stocks that have sold off on headwinds that may prove to be temporary or peripheral issues.

Indonesia's Indocement has seen pressure from imports, but with net cash, a low valuation and a high dividend yield, it provides an attractive play on the infrastructure roll-out story.

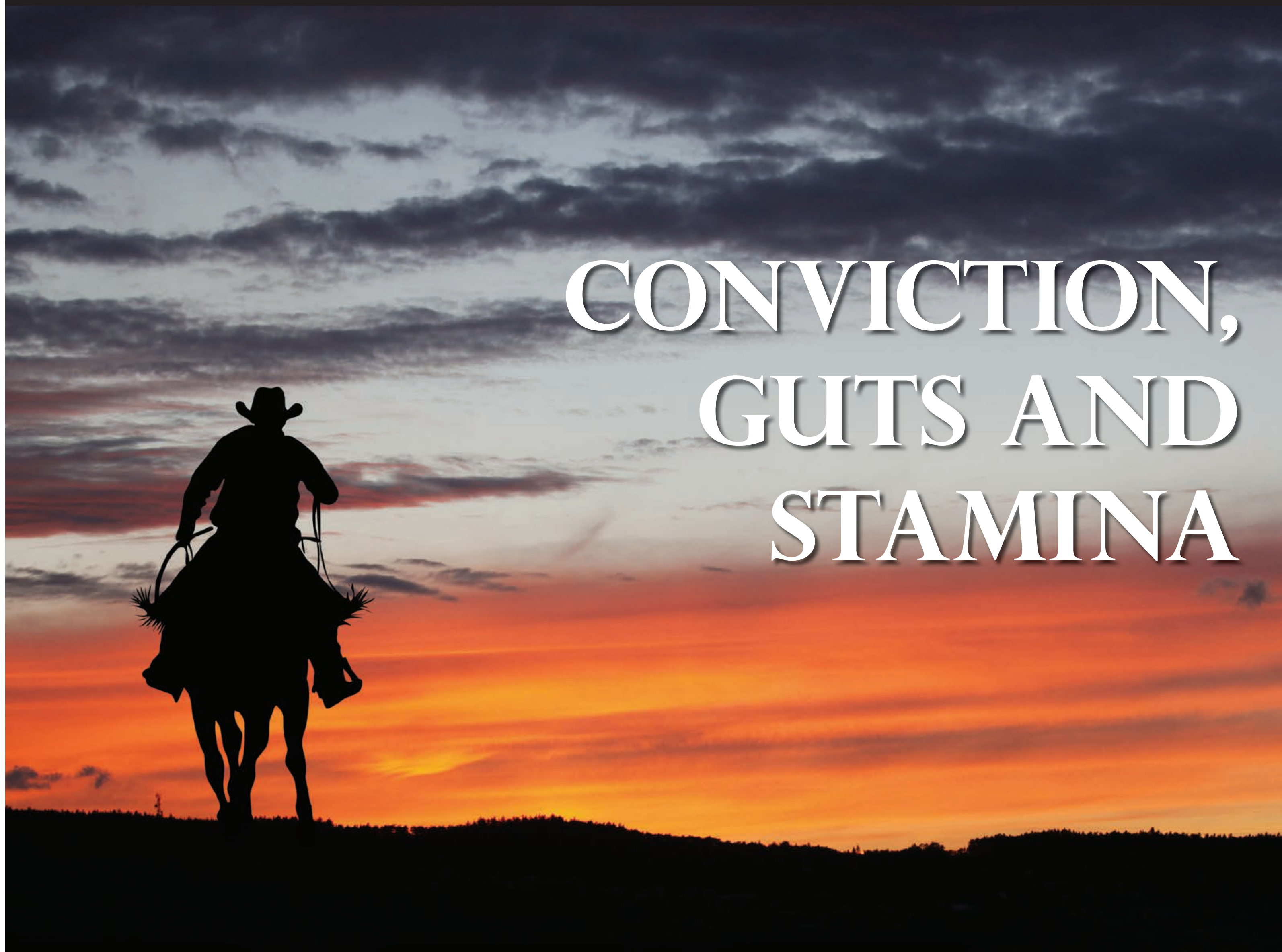
Jardine Cycle and Carriage faces more competition in Indonesian and Thai autos, but has a real gem in the form of its property development interests in booming Vietnam's Ho Chi Minh City. Singapore transport group, Comfort Delgro, is not immune from the Uber/GRAB threat to taxis, but may tie up with Uber - also has a runway of growth from the expansion of Singapore's MRT rail system.

In financials, Indonesia's Bank of Central Asia illustrates why the team adapts valuation methods to local conditions. A price-to-book value of four would normally seem high but BCA is expected to double its book value every four years. In contrast, Thailand's KasikomBak is on a much lower valuation. Singapore's OCBC Bank should soon float in Malaysia its subsidiary Great Eastern Holding (GEH) - the largest life insurer in Singapore and Malaysia - which trades at a discount to AIA. The portfolio owns both OCBC and GEH.

In some of the smaller markets, it is possible to find stocks on much lower valuations, though these positions tend to be sized smaller. The managers bought Philippines components maker, Micro-Electronics, on a single digit PE, and watched the multiple more than double to 20. In Sri Lanka, Hatton National Bank also has a single digit PE, and conglomerate John Keells is viewed as a good value.

GOLD

The portfolio's Australian sleeve contains a number of "Cinderella" stocks that have either lost value (e.g. Brambles) or moved sideways over the past year (e.g. Ramsay Healthcare and gold miner, Newcrest Mining). The managers also view gold stocks as a potential portfolio hedge, that might be recycled into cheaper stocks in the event of sharp market pullback. The team is as well attracted to the strong fundamental story at Newcrest, which justifies an investment on its own merits. With $2.5 billion of free cash flow generated under the helm of new CEO, Sandeep Biswas, and a rising cash pile, Newcrest typifies some of the qualities that the team seeks out with regards to long term potential.



CONVICTION, GUTS AND STAMINA

A SHORT MANAGER'S JOURNEY

by ***Hamlin Lovell & Aline Reichenberg Gustafsson*** – HedgeNordic

Shorting may seem like a simple concept. Some investors used to the long-only game may think that shorting is just the opposite of going long, but far from it. The trade-offs and dynamics can be very different. The simple mechanics of a short position work in a counter-intuitive direction, as performance and momentum can go against a short position. When a short position "works", the gains are limited, and when it doesn't, it increases, and theoretically, it can do so to infinity.

The very nature of the equity risk premium also tends to suggest that, over time, on average, shorting is a losing strategy. Navigating the short waters is therefore a real art. HedgeNordic asked James Clunie, Portfolio Manager at Jupiter Asset Management, how he conducts his strategy. Through several concrete examples, we were able to get a better grasp of what works and what doesn't.

James Clunie, Portfolio Manager at Jupiter Asset Management

There are several reasons managers choose to short stocks: they may expect to generate absolute profits, but they may also use shorts as a diversifying strategy to reduce overall volatility, expecting that on average shorts may underperform their long book. "To say that I expect absolute returns from the shorts is quite a strong statement," admits Clunie. "The theoretical expectation is that short stocks will lose money because of the equity risk premium. I would expect to lose money if I was picking shares at random. But by selecting specific shares to short and by being careful with timing and sizing, I aspire to make money or at the very least relative gains."

One common strategy is to focus on relative gains through pair trades. For others, matching the risks on the long and short side can be too constraining, and they prefer to make outright trades to maximise each position's potential alpha instead. Clunie shows that it can sometimes be a mix of both. "Shorts usually start as outright positions, but we sometimes find they are accidently paired off. We're short Caterpillar because it's cyclical and our screens suggest it looks expensive and hold longs in Rio Tinto and BHP Billiton. Each of these was picked for its own reasons, but the resulting longs and shorts hedge each other in a crude way. And sometimes we'll go long of a stock like Novolipetsk Steel. We liked this stock on its own but were worried about its cyclical risk, so we looked to pair it with a stock like Finnish steel company Outokumpu."

"To say that I expect absolute returns from the shorts is quite a strong statement."

Another way of approaching a short strategy is to pick a structural decline themes such as "sunset industries" or those with cyclical challenges, or to pick the losers across industries, and try to identify "terminal shorts" such as frauds and bankruptcies. "We tend not to be too thematic with our shorts, because thematic is usually code for momentum," explains Clunie. "Excitement around a particular theme, cyber security for example, is usually brought to our attention because the shares in a company have doubled. So, it was the momentum that led us to become aware of the theme and potentially get excited about the story. Many of our shorts show signs of poor accounting or overleverage, and we tend to short "glamour stocks" like NVIDIA that are just shooting up. But each position is an idiosyncratic rather than thematic short. In fact, we are more likely to go the other way around and be short popular themes and long unpopular themes."

Hitting the jackpot for a short manager means identifying a company that eventually goes bust but the ride might be quite rough. "SunEdison was the most memorable stock we ever shorted that later went bust. The company collapsed in mid-2016 under the weight of its complex financing structure and opaque business model. However, holding the short was a painful and somewhat perplexing experience, which involved us taking the opposite view to Greenlight Capital, a hedge fund we respected that happened to be an outspoken long holder of the stock. After shorting SunEdison at $20.74 in September 2014, we watched the shares climb to $32 on a day that yet another bond was issued by the company. Our fundamental concerns about the business hadn't changed and we held on, ultimately covering the position as the stock fell in the summer of 2015, ending the trade at $8.65. The position made a good profit for the strategy, albeit in a volatile fashion, and might have made more given the business ultimately failed. But I must admit, I found the whole experience quite bizarre, hard to understand, and really not at all enjoyable."

"Sometimes, some shorts can get overcrowded and the trades can be deadly, like in the famous case of the Volkswagen shares in 2008 whipsawing short traders."

Shorting darlings and going against the flow may be quite enjoyable for Clunie more often than not. "My favourite ever short position was in Glencore in 2015," he recalls. "The shorting path of this "glamour" mining stock wasn't smooth. Despite the tough backdrop for commodity markets, it took until August for confirmation that the company's hubristic business model was finally unravelling. Weakness in its balance sheet started to impair its ability to finance its risk-arbitrage business. We did the usual homework with this stock, conducting an initial quantitative screen which we followed with fundamental analysis: reading the report and accounts, and undertaking reverse-discounted cash flow (DCF) analysis to assess what expectations were priced into the stock. We looked into the ecology of the stock, who owned it, who was short and what they were doing at the margin. We concluded that Glencore had fewer options than its major peers, such as Rio Tinto and BHP Billiton. Director selling was another red flag. The stock fell sharply and in a panicking market we were able to provide liquidity when covering this short which resulted in some good prices."

Sometimes, some shorts can get overcrowded and the trades can be deadly, like in the famous case of the Volkswagen shares in 2008 whipsawing short traders. By avoiding such trades, however, one may leave money on the table. "The evidence is that large short positions – heavily shorted stocks – tend to lag in a rising market. On average, you make money being in crowded situations. But when you look at the distribution of returns you find that you might make money on average, but you lose a lot when the shares pop up. It's quite a nasty distribution – small gain, small gain, small gain, big loss. I don't like that distribution of returns so I tend to shy away from overcrowded shorts in the main. I'm willing to be short a stock like Tesla, however, which is crowded and risky because I feel strongly about it fundamentally. But I need really good conviction to be in a situation like that. Taking part in an overcrowded short boils down to odds versus information, and conviction on that information."

It may also take time for a short thesis to materialize. "NVIDIA, which is a current short in the fund, has so far been unprofitable. NVIDIA is a semi-conductor company which has been around for a long time. It looks to be highly cyclical and is currently highly valued – the stock is trading at a forward P/E of just under 50x[1]. It has performed very well. In fact, I've had two sets of colleagues ask: 'Are you short this thing?', in disbelief. We think it is overpriced, overhyped and risky as a long, but it keeps on going up. We have a modest short position and have lost money on it, but I'm holding on because I think it looks fragile."

[1] Source: Bloomberg

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Decarbonisation: A NOVEL APPROACH

by **Fons Lute** – Client Portfolio Manager, Russell Investments

Decarbonisation strategies are in vogue. Having employed these for three years, we find that a dual focus on carbon emission AND renewable energy production provides investors with the greatest impact.

One of the hottest topics within the investment community is the divestment of carbon from equity portfolios. There is building consensus amongst institutional investors globally that divestment alone is not necessarily the answer.

Passionate advocates regularly urge for a group of companies – referred to as the Carbon Underground 200 (CU200) – to be divested from investment solutions. In our own research, Russell Investments has studied the impact of divestment of CU200 from a global equity portfolio (using a MSCI World Index) and has identified that this results in a mere 6% reduction in the carbon footprint of the portfolio.

In fact, not only does the research show divestment to have a minimal impact on the carbon footprint of the portfolio, it also found that divesting from the oil and gas industry resulted in a significant decrease in exposure to the renewable energy sector. An exclusionary strategy does not capture an energy companies' strategies regarding their reserves, and/or any changes to their operating models that reflect the energy transition (i.e. the global transition from a high to relatively low carbon economy).

As a result, the question becomes: How can we decarbonise the holdings in a portfolio AND have a meaningful impact on climate change beyond simple divestment?

We propose that there are other considerations that need to be included in order to achieve an optimal environmental and economic outcome. With companies making more comprehensive financial and carbon related disclosures, there are now additional and more robust data sets relating to carbon reserves, carbon footprint and renewable energy.

Fossil fuels have a meaningful impact on the CO_2 emissions we produce and understanding the management of future balance sheet reserves by industry will be critical. Carbon reserves in a portfolio are now recognised widely as a potential financial risk. Portions of these assets may become "stranded" given that, as a global community, we are committed to maintaining a temperature increase within the "2-degree scenario". Stranded assets are those which suffer unanticipated or premature write-

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offs on the balance sheet, downward valuations or future liability, e.g. carbon tax. Assets may become stranded by one-off transformational shifts in valuation, or over time, due to appropriate risks not being analysed or true future demand not being priced into anticipated value of the assets. This risk can only be managed if it is measured and institutional investors are increasingly beginning to evaluate this type of exposure in their portfolios.

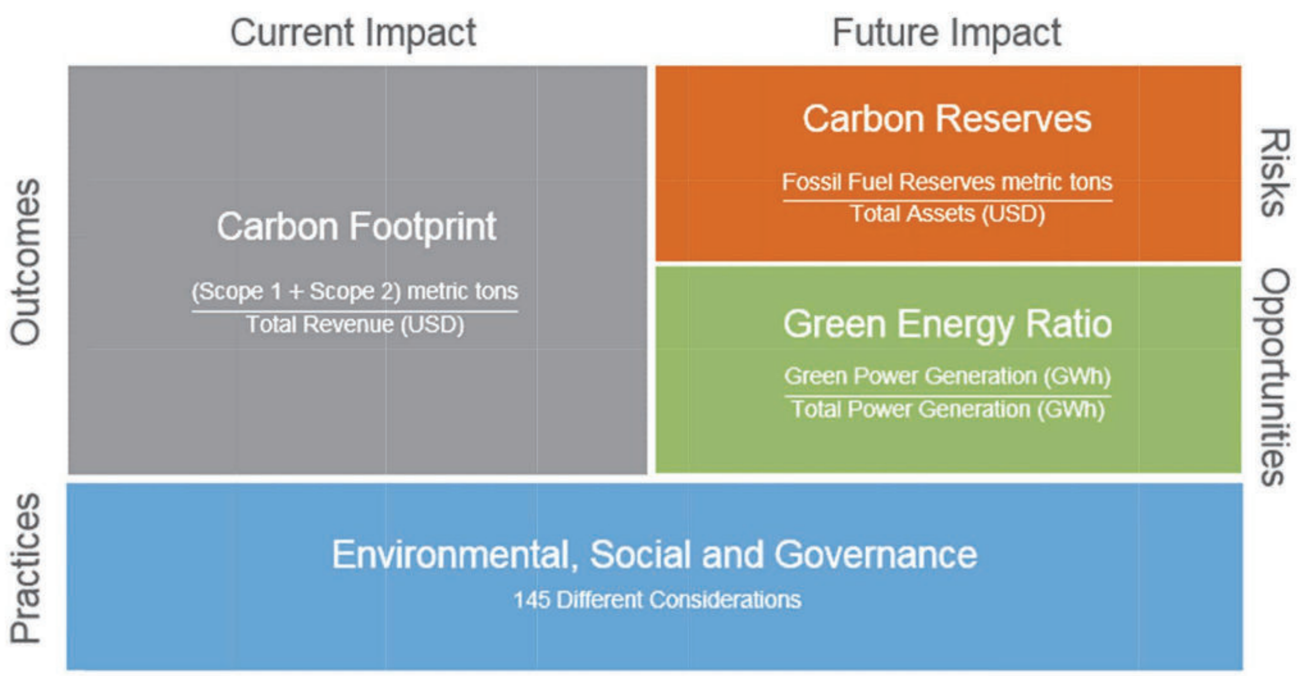
> "It is important to recognise that the most effective approaches to portfolio decarbonisation do not simply focus on one metric."

It is important to recognise that the most effective approaches to portfolio decarbonisation do not simply focus on one metric. Rather, they incorporate a variety of measures to create a more nuanced picture of the companies they are investing in and ultimately, allow for better informed decisions. This is illustrated well by considering both the carbon footprint and "green energy score" metrics which, only when examined together, offer meaningful insights into company activities. While solely reducing one's carbon footprint might seem like a great way to "go green", this is not always the case.

For example, if our singular focus is to reduce the carbon footprint of the portfolio, this often leads to reduced exposure to renewable energy. Some companies currently involved in energy production are among the best positioned to invest in renewable energy programs and are strongly incentivised to do so. Yet, standard decarbonisation might underweight these companies and lead to a renewable energy mix worse than that of the benchmark. Some notable examples are Total Energy Services – acquiring Saft Batteries (battery storage) and owning stakes in SunPower and other solar businesses. Shell created a green energy business to invest significantly in wind in 2016, stating they want to be a part of the energy transition in the countries in which they operate. Shell has committed to $1billion+ per year in investment to facilitate this.

The other complicating factor here is that green energy is still energy. Producing energy is carbon-intensive, so green energy companies inevitably have larger direct carbon footprints than banks or technology firms for example. However, it is interesting to note that out of the 61 companies in the MSCI world index that produce renewable energy, not a single one of these companies is ranked in the top 1000 companies in terms of lowest carbon footprint.

Figure 1 – Sustainability considerations



What this means is that a simple strategy based purely on reduction of emissions is likely to exclude renewable energy production along with non-renewables. While it does produce a lower carbon footprint, it is far from "going green".

> "Divestment campaigns have been very successful at raising awareness about the very real and immediate threat of climate change."

Divestment campaigns have been very successful at raising awareness about the very real and immediate threat of climate change. Their key success has been to stimulate conversation around energy policy – locally and globally – and promote social change. But awareness alone will not help to address the issue of climate change in any meaningful way.

We went through all such considerations after developing our decarbonisation strategy in 2015. The initial strategy was purely based on carbon emission; current as well as future. After implementing it we realised that we merely penalised carbon emitting companies while doing nothing to incentivise renewable energy initiatives. We acted and developed a production based 'green energy ratio' that we implemented by the end of 2016.

This dual approach is novel as it goes beyond penalising and rewards companies that help society in becoming less fossil fuel dependent. It benefits investors financially too, as it allows to significantly reduce the carbon footprint of their portfolio with the lowest possible deviations from a benchmark.

The evidence is that low carbon outcomes can be incorporated into a diversified portfolio in a way that not only maintains return objectives but goes beyond the status quo. It captures the opportunities associated with the energy transition and impacts climate change through a more holistic lens. The addition of broader carbon related data sets should rank high in the mind of investors seeking to implement a more meaningful portfolio. Since these datasets stem from a wider ESG scoring database, the carbon footprint analysis simultaneously allows for measuring the ESG scores of portfolios as well. As a most common outcome, we notice that carbon footprint improvement tends to go hand-in-hand with ESG score improvement. This turns the solution into a fascinating toolkit for investor.

Fons Lute,
Client Portfolio Manager, Russell Investments

> "The evidence is that low carbon outcomes can be incorporated into a diversified portfolio in a way that not only maintains return objectives but goes beyond the status quo."

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Low-Carbon Indices 101

Low-carbon indices are becoming a fixture on the investment landscape, as the intensifying drive to address climate change compels investors to address risks entailed for financial assets. There is, however, no uniform way of providing such indices or understanding their benefits. The following outlines what low-carbon indices are, how they diverge and what their place in the bigger picture might be.

By Glenn W. Leaper, PhD - HedgeNordic

Low-carbon indices have emerged over the past few years to help cope with the challenges of climate change and supplement the transition to a low-carbon global economy. More specifically, they exist to help track the impact of carbon emissions – both current and potential future emissions embedded in fossil fuel reserves - and the associated risk on financial assets.

For example, constraints on carbon emissions via technological innovation or government regulation in the future could cause current assets to lose value, presenting an apparent risk to investors. Carbon indices primarily take three forms: broad-market-optimised, best-in-class, and fossil-free. They employ different methodologies and cater to separate concerns and types of investors altogether.

INDEX CATEGORIES

As their name suggests, broad-market-optimised indices are designed to track broader market indices. They overweight investments with lower-carbon footprint offering potential outperformance if, for instance, policy measures develop which reward lower-carbon activities. MSCI Low Carbon Target and FTSE UK Carbon Optimised are typical examples of such programs.

These indices are likely to appeal to investors without an exclusion or divestment policy in place, as the construction methodology is consistent with how an investor would apply a Responsible Investment approach more generally across its investments. Typically, such investors are seeking reductions in their exposure to carbon emissions and carbon reserves.

Best-in-Class indices, such as those provided by MSCI Low Carbon Leaders and S&P500 Carbon Efficient Index, exclude worst performers in terms of carbon emissions/reserves from each sector and then re-weight across the sector. Investors using these consider carbon efficiency across all industries, rather than solely focusing on those with the highest carbon emissions. This strategy has the effect of explicitly signalling to stakeholders that the worst carbon emitters are not present in the portfolio.

> *"The use of low-carbon indices is not a substitute, either, for actively managed equities with a high level of ESG integration."*

Considering the relatively low cost of both broad-market and best-in-class indices, their clarity in delineating steps taken towards carbon reduction and their relatively simple implementation, these can provide the first measures for investors to reduce the carbon intensity of their portfolios. As the tracking error of these indices is usually small relative to the broader market index, they provide a viable alternative to passive investors who do not want to venture too far from their current allocation.

Fossil-free indices, in contrast, are expected to show significant deviation from broad market indices. MSCI ex Fossil Fuel and MSCI ex-Coal, or FTSE ex Fossil Fuel and FTSE ex-Coal belong to this category. As their name suggests, they are exclusionary by definition and focused on sector- or factor-based selection. They are therefore appropriate for asset owners already committed to divesting from fossil fuels. They may also be suitable as a benchmark for active management. Fossil-free indices have performed well in the current environment of falling oil prices, for example, but could underperform should the trend reverse.

METHODOLOGIES AND LIMITATIONS

As just some of the tools available for tackling climate change risk, low-carbon indices most often do not by themselves offer exposure to investment opportunities aligned with the shift to a greener economy. Such indices are primarily focused on risk management, and thereby do not capture the "opportunity" side of the equation – such as exposure to companies leading on technological innovation and the development or provision of products and services best positioned to succeed in a lower-carbon environment.

"A lot of the climate-themed funds only address the risk side of the carbon and end up excluding companies that are producing solutions, like renewables."

For example, a recent white paper by global consultancy Mercer, warns investors to beware of factor-based indices using "simplistic or naïve metrics." These can be dangerous, Mercer suggests (referring to index providers such as FTSE Russell, MSCI and S&P), due to static designs that could "lead to an inability to address concentrations of risk, valuation bubbles or crowding." Meanwhile, the same white paper finds that factor investing strategies, smart-beta, and particularly "active multi-factor" approaches can offer superior risk management and portfolio evolution over time.

Index construction methodologies and outcomes of specialist indices vary, sometimes quite substantially. For example, the term "fossil-free" does not have a consistent definition across asset owners, index providers or investment managers. Other categories of indices for their part remain subject to concerns about data availability and transparency, due to the relative inconsistency of carbon emissions reporting. In addition, different construction approaches may lead to varying degrees of tracking error.

Methodologies understandably develop over time to account for previous oversights or new knowledge, while periods of extreme market stress or dislocation can cause the performance of carbon indices to deviate considerably from mainstream benchmark indices. In determining the correct approach for them, investors should ask: what risks does a low-carbon index protect against, can there be unexpected consequences from the construction methodology, and could the investor be taking undesired biases as a result?

ONE PART OF THE EQUATION

The use of low-carbon indices is not a substitute, either, for actively managed equities with a high level of ESG integration. These often do not have exposure to high-carbon sectors in the first place as a result of their portfolio construction process and are also able to capitalise on investment opportunities explicitly addressing climate change and low carbon. Such strategies stand in contrast to the type of risk management integrated into low-carbon indices.

Some companies provide a low-carbon index as part of a broader overall sustainability strategy. UK multinational financial services company Legal & General, with £1 trillion in assets under management, of which half is equity, employs a multi-dimensional holistic approach to ensure its low-carbon strategy is on par with the company's sustainability standards. The firm has set up a low-carbon index to capture green transition, employing a methodology different from what it has observed in the market.

"We propose a factor-based index, not a market-cap based one," L&G Head of Sustainability Meryam Omi told NordSIP. "A lot of the climate-themed funds only address the risk side of the carbon and end up excluding companies that are producing solutions, like renewables. We tilt away due to emission, but tilt back in due to green opportunities, [where the] whole point is to capture the transition." Climate problems can't be solved merely by looking at data, Omi explains, so the company employs an active approach to key industries, divesting from those who fall behind in green transitioning, which also enables it to keep a very small tracking differential which makes a negligible difference to its performance against the index. Finally, it uses active voting in some of the biggest companies in the world across key sectors to oppose the election of managers who do not take ESG sufficiently seriously.

Low-carbon indices are an evolving part of addressing the risk management of carbon emissions that not only haven't been standardised in any broadly agreed sense (and possibly cannot be), but also are just one utensil in the investor's toolbox for the integration of sustainability with maximising returns. Indeed, the various ways in which investors themselves conceive of employing low-carbon indices will play a central part in their continuing evolution and their contribution to the effort to meet the carbon-reduction objectives set out by the UN Sustainable Development Goals and the Paris Climate Agreement.

EMERGING MARKET EQUITIES - KEEPING IT IN THE FAMILY

By Glen Finegan, Head of Global Emerging Markets Equities at Janus Henderson Investors

While wealth generation is a goal for all businesses, some family firms appear to place an equal emphasis on the goal of longevity. Each successive generation attempts to pass on the baton to the next and maintain the good name of the family. We believe that this combination helps create a long term and risk-aware approach to allocating capital and is why we favour such groups within the context of accessing the global emerging markets investment opportunity.

UNIQUE OWNERSHIP STRUCTURE

The unique ownership structure of family businesses gives them a long-term orientation that traditional public firms often lack. The cautious chief executive who balances both risk and reward will be fortunate to remain long at the head of a listed company. Since bonuses and share prices are often related, together they call for maintaining a certain head of steam in terms of business performance. Any diversion from maximising profits on a consistent quarterly

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basis is likely to lead to dismissal. It therefore makes it an entirely rational decision for an executive management team to prefer to fail conventionally by following the herd and taking on too much risk, than never fail at all.

To many, the phrase 'family business' denotes a small or mid-sized company with a local focus. This does not, however, reflect the powerful role that family-controlled enterprises play in the world economy today. Not only do they include corporations such as Walmart, Heineken, Tata Group, and Porsche, but they account for more than 30% of US, French and German companies with sales in excess of US$1bn, according to analysis from Boston Consulting Group (BCG).

> "The unique ownership structure of family businesses gives them a long-term orientation that traditional public firms often lack."

Family-controlled businesses are more prevalent in emerging markets. BCG research indicates they account for approximately 55% of large companies in India and Southeast Asia and 46% in Brazil. The significant presence of these types of businesses within our opportunity set, and our belief in the ability of such groups to generate wealth in a risk-averse manner, helps to explain the significant presence of controlling family groups within the portfolio. In aggregate, they make up over a quarter of the capital invested and account for five of the top-ten holdings as at 30 September 2017*.

These investments can be in the form of exposure to a single listed entity, such as in the case of Uni-President Enterprises, or to a number of entities under the control of a single family. This is the case with our ownership of the individually listed equities of Antofagasta, Quinenco and Compañia Cervecerias Unidas. These are all entities majority controlled by the Luksic family based in Chile.

SELECTIVITY IS CRUCIAL

Often the more complex a conglomerate's corporate structure, the greater the potential for misalignment between controlling-family interests and those of shareholders. Equally, having a simple organisational structure is not a guarantee for sensible alignment. At the heart of the issue for minority investors is whether there is an alignment between voting rights and access to cash flows and financial returns.

Trust has to be earned and we do not simply make an assumption that a family owner will act in the common good and emphasise stewardship over greed. The case of Samsung Vice Chairman Jay Y Lee allegedly paying government officials to gain government support for a merger of Samsung C&T and Cheil Industries speaks to the fact that not all family-founded firms create strong governance structures that protect minority shareholders.

We test this premise through our fundamental bottom-up research and we ask questions such as:

- How has the family treated its minority shareholders in the past?
- What businesses do the family own outside the listed entity and are there conflicts of interest?
- Are there good quality independent board members providing oversight?
- Does the family conduct government-related business and if so how does it win contracts or licenses?
- How is the family regarded by non-financial stakeholders such as local communities and environmental non-governmental organisations?

These lines of enquiry help us form a view of quality over and above looking at historical financial returns. We want to see returns that have been generated in a risk-aware manner as this fits with our absolute, rather than relative, return approach to what are more risky markets, often with weak rule of law.

PROFITING FROM UNCERTAINTY

Another attraction of long-term owners, such as families, is their ability to take far-sighted, sometimes contrarian decisions, that a professional management team more focused on short-term results and stock market pressure might not.

> "Another attraction of long-term owners, such as families, is their ability to take far-sighted, sometimes contrarian decisions"

A chief executive with a reduced time horizon can take decisions that are influenced by the short term and often pro-cyclical moves of the stock market, which can hurt the long-term value of a business. This is particularly the case in commodity and cyclical sectors of the market.

An example of longer-term thinking comes from family-controlled Chilean miner Antofagasta, which is controlled by the Luksic Group and announced in July 2015 the acquisition of an excellent copper asset from a financially-distressed seller. In contrast to many of its peers, Antofagasta had maintained a strong balance sheet throughout the last decade and was able to act while other miners, facing pressure from a weakening copper price and highly levered balance sheets, were forced to dispose of high-quality assets. This counter-cyclical behaviour by Antofagasta is exactly how we believe mining companies should act but it requires a management team able to resist short-term market pressure, which in this case the family provides.

RESILIENT BUSINESSES THROUGH MARKET CYCLES

These types of controlling groups also importantly tend to share our belief in a long-term approach to investment. They also put themselves in this position by being risk aware when it comes to the amount of debt that the business is willing and able to hold.

In modern corporate finance a judicious amount of debt is considered a good thing because financial leverage maximises value creation through the leverage of returns. Family-controlled firms, however, associate debt with fragility and risk. Debt means having less room to manoeuvre if a setback occurs and can also lead to being beholden to a bank or bond markets during periods of cyclical economic weakness.

ENSURE ALIGNMENT OF INTERESTS

Emerging markets present a distinctive context in which to operate a business, with constant evolution in economic, political, regulatory and financial conditions. The prudence shown by family-controlled groups can allow them to navigate these conditions in a manner that supports long-term value creation. Backing families with good reputations that share our belief in a long-term approach to investment is, in our view, an important way to align interests and deliver 'risk-aware' returns for investors.

*Source: Janus Henderson Investors

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HOME-BIASED AND MARKET NEUTRAL

How Swedish allocators eye equity hedge funds

by ***Jonathan Furelid*** – HedgeNordic

The Nordic hedge fund industry is heavily relying on equity strategies. Out of the 155 hedge funds listed in HedgeNordic´s database of Nordic funds, approximately a third was categorised as equity. According to the global hedge fund database Preqin, equity strategies accounted for 36 percent of the hedge funds active in Sweden while Norway was even more concentrated with 64 percent in the equity space.

On the allocator side, there is little data to be found on how Nordic allocations are divided between the different subsets of the hedge fund industry and to what extent equity strategies is the dominating exposure. Consequently, HedgeNordic reached out to Peter Ragnarsson, Head of Alternative Investments at PRI Pensionsgaranti and Mikael Westin, Head of Asset Management at Consortum, two Swedish allocators in the hedge fund space. We asked them to share their current view on hedge fund allocations overall and on equity strategies in particular.

"We have approximately ten percent of our portfolio allocated to hedge funds today," starts Ragnarsson. "This allocation has increased slowly in recent years, as a result of the low interest rate environment. We do not do any major tactical allocations within the hedge fund book, but rather try to have a diversified portfolio designed to deliver stable returns over time. The strategies that have increased somewhat recently are CTA, equity market neutral and long/short credit while we have reduced multi-strategy funds and funds of funds. We see a clear advantage having niche strategies being specialised in their respective segment of the hedge fund industry."

At Consortum, for multi-asset portfolios Westin invests in equities, fixed income and alternative investments. "We alter the equity exposure depending on where we are in the equity market cycle and how we look upon valuations compared to earnings growth," he says. "Currently we have a neutral allocation to equities, we are strongly underweight fixed income and strongly overweight alternative investments, hedge funds in particular."

A move away from fixed income seems to have been a winning strategy. "We have actively allocated away from fixed income and added to hedge funds in recent years," Westin continues, "which has proven to be a good decision. Given the low risk environment and the risk of suffering losses in a rising interest rate environment, we have, since last year, a very limited fixed income exposure. That portfolio weight has instead been shifted to hedge funds."

"We have actively allocated away from fixed income and added to hedge funds in recent years."

When it comes to equity strategies in particular, both managers seem to have a slightly stronger inclination towards the lower-risk of the spectrum. "Approximately 60 percent of the funds we allocate to on the hedge fund side are what we refer to as low-risk funds," explains Westin. "Those are funds that have a standard deviation of below

Mikael Westin

10 percent. Within the low-risk allocation we hold 50 percent in equity-market-neutral strategies, 25 percent in fixed-income-hedge strategies and 25 percent in a well-diversified macro strategy. The remaining 40 percent of the total hedge fund allocation is divided between three different equity long/short strategies, two of which are focusing on small and medium sized companies using an activist approach."

For Ragnarsson, "equity-hedge strategies is a significant part of our allocations on the hedge-fund side, although not the dominating one. We tend to prefer market-neutral strategies that exhibit a clear convexity with regards to return profiles. We also have an allocation to equity long/short focused on strategies showing low net exposure over time."

Peter Ragnarsson

"We have managed to find a number of Nordic managers that compare favourably to international peers."

Both allocations also tend to have strong ties to the motherland. "Our hedge fund allocations are clearly dominated by Swedish and European managers," Ragnarsson says. "We believe there is a lot of talent and solid hedge fund managers in the Nordics and Europe. It is also much easier from a due diligence perspective to focus on these regions as a relatively small Swedish allocator with limited resources. Having said that, we do have allocations outside of Europe. Another factor playing into us focusing on adjacent markets is the interest rate difference between Sweden on the one hand and the US on the other, making currency hedges expensive."

Westin admits he also favours Nordic-based hedge funds. "It is the result of the fact that it is easier for us to monitor and evaluate managers in close proximity and that we have managed to find a number of Nordic managers that compare favourably to international peers.

At PRI Pensiongaranti and Consortum managers are equally satisfied with the contribution of their hedge-fund exposure overall. As Ragnarsson puts it, "there has been a significant dispersion among strategies and performance differences have rather been linked to individual managers. On the equity side, sector specific strategies have worked well along with market neutral, we are also pleased with the contribution from fixed income relative value and an allocation to a volatility-strategy. On the negative side, CTAs have struggled in recent years. The allocations to that particular strategy has however been limited, even if it will always be included in the portfolio."

And while Westin is generally happy with his allocation, some parts have performed better than others. "Our low-risk strategies have struggled somewhat in the current interest rate environment," says Westin, "macro hedge funds in particular. We have been very pleased with the contribution of equity long/short, market neutral equity hedge and fixed income relative value."

Despite the general satisfaction, equities are unlikely to see much of an increase going forward, particularly for Westin, as he is preparing for a rocky ride. "We are currently planning to reduce our equity allocation and instead increase our exposure to alternative investments," he says. "We have among other things evaluated a number of trend following hedge funds or CTAs that could offer good downside protection should we be in for a period of increased volatility. However, CTAs are currently facing somewhat difficult trading conditions and are, initially, likely to suffer in a trend reversal in equities. We are therefore holding back on this investment until we see more distinguished price trends in global financial markets."

Ragnarsson may not worry as much given his careful exposure to market factors. "We do not plan any major changes to our hedge fund portfolio in the near term. We are probably going to have a net increase of our hedge fund exposure going into 2018 and we are currently looking more closely at credit hedge funds."

ETHICS OF SHORTING

Rooted in Capitalism and Democracy

By Aline Reichenberg Gustafsson, CFA – HedgeNordic

For those of us who work with hedge funds on a day-to-day basis, going short is as natural a concept as going long. If you can go upstairs, you should also be able to go downstairs. But let us step back for a few minutes, and put ourselves in the shoes of traditional investors or people outside of the investment community. Shorting has sometimes earned bad press and been singled out as an unethical investment practice. We decided to have a closer look and ask four long/short managers how they view this hairy question and we found that each of them had quite strong opinions indeed.

WHAT'S IN A NAME?

"Public opinion of shorting is a reflection of the coverage short selling receives, which is almost universally negative," starts Alex Tselentis at London-based sustainability-focused asset manager Finex. "Derided at the height of the last financial crisis short selling has become synonymous with negativity, crisis, and above all, deriving profits from others' misfortunes. Such a one-sided misrepresentation leaves shorting misunderstood. Consequently, shorting has become a difficult conversation at times, and many asset managers (due to fear of upsetting potential investors) fail to defend the practice, preferring instead to leave misconceptions unchallenged."

At Adrigo, a Stockholm-based long/short equity manager, CEO Stefan Gavelin cautiously states: "We have actually not encountered investors who believe shorting is unethical. However, it is understandable that some investors may have the view that it is not ethical as you make money on a company performing badly."

"The unethicality of shorting as an argument is deployed by company boards to excuse their bad share performance"

Alex Tselentis

At London-based Jupiter Asset Management, long/short fund manager James Clunie had to play devil's advocate: "I've met folk who asked me about the ethics of short-selling, mostly as a philosophical matter or because they've heard others raise the issue. I've even taken part in a debate on this topic at the University of Edinburgh - I was given the task of trying to demonstrate that it could be unethical!" As a result, Clunie had to dig through the numbers: "Most of the academic evidence shows that short-selling in aggregate helps with price discovery and market liquidity, and is thus beneficial for the working of markets. But that's an aggregate finding. There are instances where short-selling can be abused to make markets worse – for example, in creating intra-day liquidity crises (and there are some academic papers that demonstrate how this can arise)."

For Finex's Tselentis, it is not so much investors but company management that takes issue with shorting. "Managers exploit the bad press surrounding shorting to excuse troublesome performance, whilst Investors understand that without an efficiently run system they would struggle to meet their goals of both impact and a reasonable return. The unethicality of shorting as an argument is deployed by company boards to excuse their bad share performance. The fact is that no good company has ever been damaged by shorting, the only thing an increase in shorting can be accused of doing is diverting people's attention from the fact that there might be an underlying company problem. Shorting is the symptom of an event caused by bad management, fraud, poor capital structure, structural problems in an industry and, or technological obsolescence."

Norwegian-based Jarle Birkeland, CIO at Alchemy Trading, takes a more empathic approach. "We have to remember that corporations and listed companies essentially are made up of groups of people coming to work every day, putting in their best effort to bring a product or a service to the market, wanted and needed by consumers. If organised well, these people cooperate and support the mission, vision and goals set out by the management, governed by the owners through the board. On a very basic level, you could argue that shorting a stock (a corporation) is a form of a counteract or an obstruction-like action against that very effort towards prosperity, growth and value creation. However, we don't have to drill deep to see why the concept of shorting a stock is actually a long-term necessity and of high importance from a societal and ethical perspective, to everyone!"

A DEMOCRATIC PROCESS

"Shorting a stock to us is actually nothing different than the concept of having a democracy - letting diverged opinions through, and eventually let the majority elect their trusted leader and representatives – or decide the price of the stock," states Birkeland. "If opinions are one-sided and if there is no room for diverging opinions and meaningful debates, greed will lead and push the crowd too far out on one side, eventually resulting in misery and suffering for all. The Dutch Tulipmania in the 1630's, the Japanese Real Estate Crash at the end of the 1980's, the US Dot-Com Bubble early 2000, or the big meltdown in global asset prices in 2008/9 are known examples of imploding bubbles that had repercussions far broader than for the directly involved market participants. That is why we are in the camp supporting an open market debate where you got diverged asset class positioning, arguing it contributes long-term to less crash-prone markets with broad negative economic ripple effects."

"Shorting a stock to us is actually nothing different than the concept of having a democracy"

Jarle Birkeland

"So we need them all," Birkeland continues, "from the long-term holders of stocks to those buying and selling every day, those that only participate to the upside, to those that believe stocks are too expensive or mispriced and are willing to position for the downside. This symbiosis is to us what makes a market and contributes to the vital function the stock market represents in a modern economy – connecting innovative ideas with those having the capital to bring them forth, creating growth and jobs. From both a classical and neoclassical economic theory standpoint, we all try to maximise profits, the utility and thereby happiness, shorting is just a natural piece in that big puzzle."

"Wasted capital is as bad as wasted energy," proposes Tselentis, as he concurs on the idea that shorting is part of a democratic market. "We believe that shorting is ethical as it allows markets to perform efficiently. Ultimately the share price is nothing more than an indication, using a single number, of what the collective thinks the company is worth. The collective can hugely underestimate or overestimate this value. There is nothing unethical in deciding that the collective has overvalued a share and putting in place a strategy that will profit from the normalisation of such a price. Nobody would argue the contrary with an undervalued share, why the differentiation? Thus, short-sellers act as part of the price discovery mechanism. They enable prices to find their price equilibrium; they help capital flow efficiently to companies that deserve it, and they allow investors to pay a fair price."

For both Gavelin and Tselentis, the very process behind the implementation of short positions ensures a balance of interests. "When an investor wishes to short a share," says Tselentis, they must first receive permission from their broker, who in turn must find a shareholder willing to lend their share to the shorter," he explains. "Thus, if a company's shareholders felt that shorting was not in their best interests in terms of both the extra yield generated from the lender's fee and the efficient price discovery mechanism that the process creates, then they have the option of not lending the share. Because this process can only exist with a willing stock lender, it would suggest that shorting is acceptable to shareholders." Gavelin agrees but pushes the argument further: "We do not see any ethical issues. We agree with the owner of the shares to borrow their shares, and we pay them interest to compensate for this. In some situations, you could argue that it is unethical for the owner to lend the shares, but that is a different question."

Pragmatically, Clunie helps us quantify the issue: "I believe that shorting is ethical most the time as described earlier, but it can be abused. I'd guess that 90-95 percent of the time, it is helpful for markets; while 5-10 percent of the time it is unhelpful. I think that many financial regulators understand this too."

"Most of the academic evidence shows that short-selling in aggregate helps with price discovery and market liquidity"

James Clunie

CREATIVE DESTRUCTION

Our managers agree in general that shorting can be useful for both hedging and generating alpha, even if they come at it from slightly different angles, especially when it comes to integrating shorting into sustainable investment principles.

Clunie uses shorting primarily to express a negative opinion on a stock price. "I always aspire to make a profit for my clients," he says. "but this can be difficult to achieve. I certainly aim to add value in some way (relative out-performance, say, whilst reducing market exposure at the same time)."

At Adrigo: "The primary reason for shorting," says Gavelin, "is that it enables us to create strong risk-adjusted returns and that the short positions make it possible for us to create positive returns in bear market periods. For us, I would say it is a combination of hedging long positions and generate stock-picking alpha on the short side."

Tselentis gives us a practical example and tells us how shorting fits into the industry that he specialises in. "We fundamentally believe in cleantech," he says, "and will always have a positive outlook on the sector. However, we also need to protect the Investors' hard-earned capital from shocks and volatility. Regarding Alpha generation, we ascribe to the notion that there is a continuous process of creative destruction, as described by Joseph Schumpeter. This affects companies in both emerging industries and mature entrenched industries. Creative destruction describes a process where multiple companies in a new sector, such as mobile phones in the nineties, compete for dominance. Eventually, some companies dominate the sector whilst many others collapse or are bought out. The companies that collapse create Alpha that is uncorrelated. This uncorrelated Alpha, in turn, is used to hedge a portfolio and lower overall portfolio risk. In our case, we

lower the risk of cleantech investment from a beta of 1.5 to 0.4. We lower cyclical drawdowns from 65% to 15%. Thus, we see that shorting can make a very volatile sector such as cleantech far less risky."

Drilling down the investment process into sustainability principles, we see how putting longs and shorts in the same basket may lead to undesirable effects, but keeping things simple can also be helpful. Gavelin's approach is very straightforward: "We have decided to not invest in companies that base their revenue stream on production and sales of tobacco, weapons or alcohol and we also exclude betting companies. We apply the same principles to the short side as the long side."

"We have actually not encountered investors who believe shorting is unethical."

Stefan Gavelin

Clunie's view is more cautious regarding stock exclusions, and his style is more hands-on: "Most studies that I've read demonstrate that 'exclusions' should hurt the risk-adjusted returns of a portfolio, but often make little practical difference when compared to other active approaches. When I invest, I prefer to integrate governance and sustainability issues into my stock level analysis, rather than separate it and create top-down exclusions (but that's just my approach!)."

However, Tselentis takes the opposite view: "We believe in negative exclusion as the most efficient way of reflecting an investor's or society's ethics and values." He then offers some historical perspective and makes an important distinction between exclusion lists. "Initially 'first-generation' exclusion lists comprised companies whose conduct was so ethically severe that traditional financial metrics were immaterial (e.g. companies that have been excluded due to their use of child labour, breaking current environmental laws, human rights abuses, etc.). With the realisation that stranded asset risk was a real issue driven by the obsolescence of carbon energy sources, 'second-generation' lists appeared, with companies involved in coal mining, tar sand-based oil production and utilities that produce a significant amount of their energy from coal. These exclusions reflect financial risks as wells as environmental risks."

"The distinction between the two generations of lists hinges on the appreciation that shorting gives benefits to the owners of potentially unethical companies both monetarily, (paying the fee to the shareholder lender) and provides an increased price discovery mechanism (liquidity). It is for this reason that we do not short companies excluded in the 'first generation', whose practices we have identified as unethical. However, companies that are on the second-generation exclusionary list because they are on the wrong side of technological progress, and that are obsolete because of structural issues driven by technology, can be shorted because it is in our investor's interests."

In general, for Birkeland, sustainable investing, in the long run, should become a natural consequence of the democratic process he proposed earlier: "We recognise the hot topic of RSI and ESG investing and support its intentions," he says. "Looking further ahead, we think it should be unnecessary for investors or funds to apply extra filters like these to their listed stock universe, as the selection already should be made at a much earlier stage. If you get marked as unethical, why should you even have the right to life and deserve a listing? Over time we think this process will adjust itself. That's actually one of the great things about capitalism... if your vision, mission and objectives get more 'thumbs down' than 'thumbs up', it won't get funded and experience success. Only those that can demonstrate good-hearted ideas get a chance to evolve and prosper."

WHY UNDERPERFORMING STOCK PICKERS ARE BETTING ON DE-CORRELATION

by Eugeniu Guzun, – HedgeNordic

The need for benchmark-beating money managers has never been more pressing. Prices of investable assets are constantly increasing, and baby boomers need their retirement savings to last longer as life expectancy increases. Regrettably, the asset management industry has underperformed at times, and the average fund manager had long been the subject of harsh criticism from the media and investors. However, active managers are finally showing signs of life, with many market observers saying the de-correlation between individual stocks has put equity funds on track for their best year since 2013.

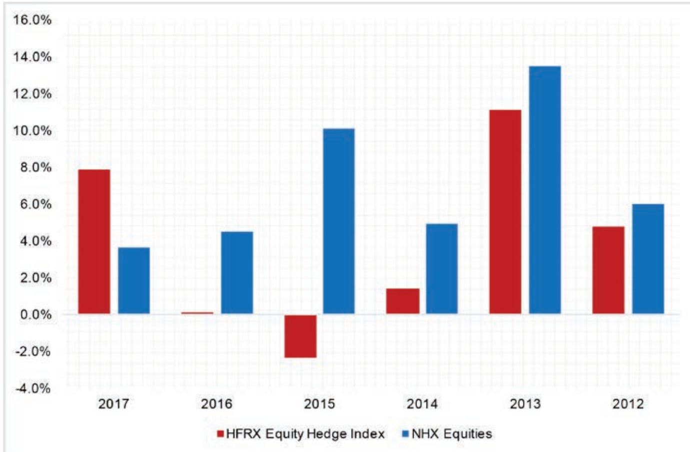
Increased correlation among stocks in the post-financial crisis era has attracted much attention. Several factors can help explain the phenomenon. The emergence of exchange-traded funds (ETFs), supposedly one the most significant events affecting financial markets in recent times, is one example. The impact of expansionary monetary policies is another, as well as the rise of benchmark-hugging fund managers seeking job security. This is no news to most people working in financial markets, but if one is wondering how increased performance correlations between individual stocks hurt active equity managers, the answer is simple. Even if competent active managers add the "best" stocks to their portfolios, these stocks make less of a difference when correlations are high.

Arguably, skilled stock pickers can generate more alpha in market environments that are less driven by systematic market risk and more driven by idiosyncratic risk. More importantly, some hold the view that active money managers tend to outperform in a so-called "stock picker's market," characterized by the following three features:

First, a stock pickers' market is one with low correlations between individual stocks. In other words, stock pickers prefer stocks driven by firm-level risks rather than by factors shared by other companies within the same sector, or geography.

Second, such a market requires high dispersion, described as the gap between equity winners and losers. The difference between the performance of winners and losers should offer more substantial rewards to those fund managers making the right bets.

Lastly, an ideal market also benefits from low market volatility, though some long-term-oriented managers do not necessarily perceive volatility as risk per se.

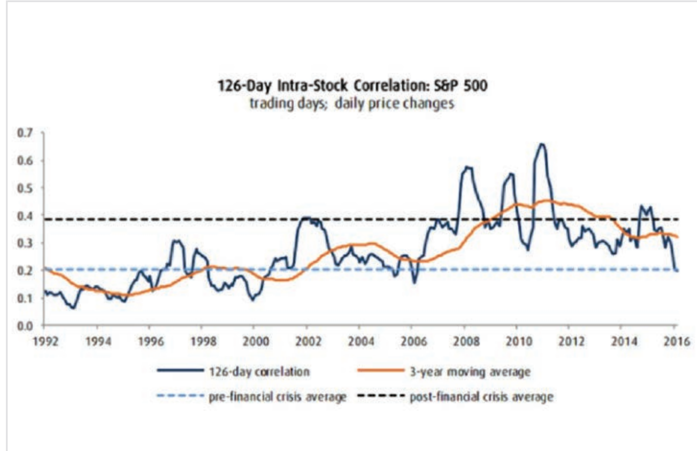


Source: HedgeNordic

Equity-focused hedge fund strategies worldwide, as measured by the HFRX Equity Hedge Index, are headed for their best year since 2013, primarily driven by gravity-defying equity markets. The HFRX Equity Hedge Index is up 7.9% year-to-date through October, which compares with 11.1% return recorded for 2013. One may wonder whether fund managers are benefiting from a stock pickers' market. We wanted to investigate this point further, especially given that the Nordic equity strategies, as measured by the NHX Equity Index do not seem to fare as well. In contrast, Nordic equity managers are up only 3.7% year-to-date, but they achieved better performance than the HFRX equity universe every year since 2013.

Inspecting intra-stock correlations

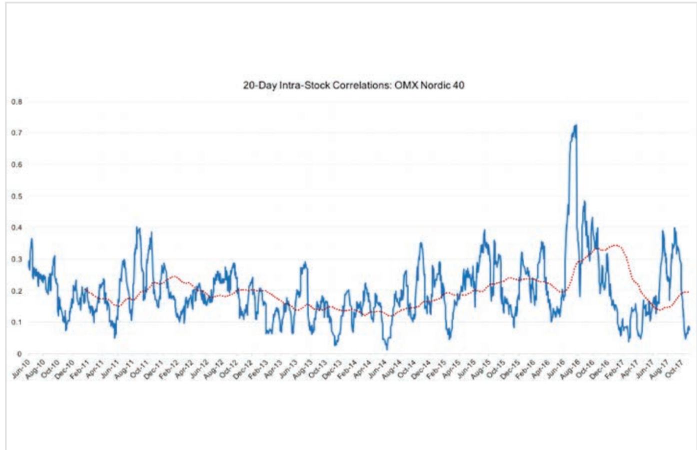
RORO, short for "risk on, risk off", was a dominant phenomenon in financial markets in the post-crisis era. As a result, all risky assets such as stocks, commodities, and non-government bonds were movting in lockstep regardless of direction, both in rising and falling markets.



Source: BMO Capital Markets Investment Strategy Group, Factset.
Link: https://pelletoncapital.com/good-stock-market-newswe-hope/

Within equity markets, high intra-stock correlations between individual stocks made it incrementally tricky for active managers to beat the market or their respective benchmarks. However, falling correlations seemed to have paved the way for active managers to battle away from the harsh criticism for overcharging and underdelivering.

As it so happens, rolling 126-day intra-stock correlations between S&P 500 components are below the post-financial crisis average. They have also crossed the pre-crisis average. The evident drop in correlations means that making the wrong calls in equity markets just got relatively



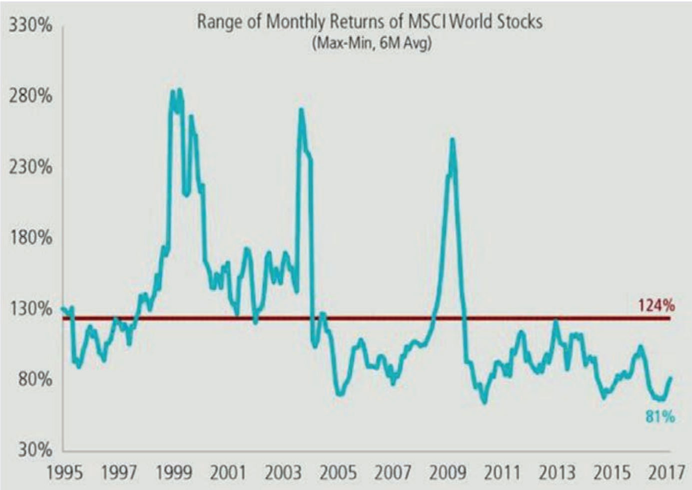
Source: HedgeNordic

more expensive. The graph shows that the market environment for active managers in 2017 fulfills the first criteria of a stock pickers' market. Nonetheless, some hold the view that the discussion of correlations has masked a much more significant characteristic, namely, dispersion.

Nordic equity-focused hedge funds performed much better than their international peers in the past couple of years, which could, arguably, be explained by the low level of intra-stock correlations in Nordic equity markets. Even more interestingly, the spike in intra-stock correlations in the middle of 2016, as well as during the summer of 2017, may also provide some explanation as to why Nordic equity funds slightly underperformed in 2016 and 2017.

Looking for high dispersion

The differences in the magnitude of single stock moves within an index create considerable disparities in the total returns of those stocks against the index. As a result, the degree of dispersion, not the degree of correlation, appears to create more opportunity for security selection. Without a doubt, the dispersion of stock return, particularly when driven by firm-specific fundamentals, is essential for the performance of active managers.

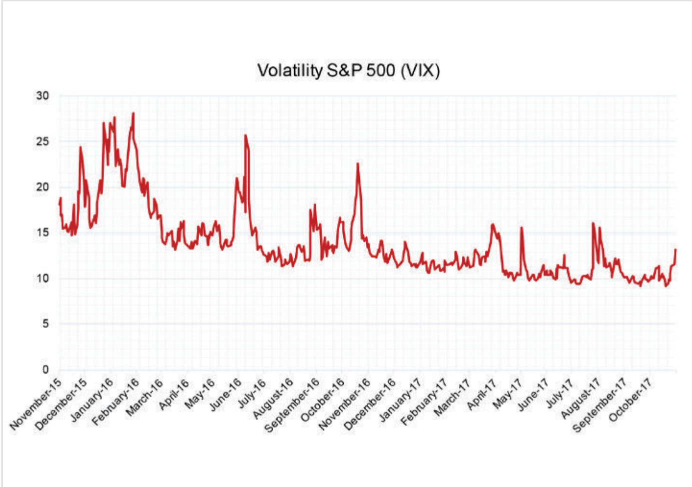


Source: Strategas Research Partners, MSCI. Data as of July 31, 2017.
Link: https://www.mfs.com/content/en_us/mfs-insights/when-time-is-on-your-side.html

We found that the dispersion of stocks has been lower than average for some years, but there are signs that the trend has turned. Not so long ago, the dispersion of weekly returns reached its highest level since 2008. Stock picking conditions for active managers may have thereby improved. While the market's expected return overall may be somewhat muted, active managers are likely to enjoy more action below the surface.

Muted volatility, the cherry on top

The lack of volatility in equity markets has been yet another hot topic of discussion in recent months. The CBOE Volatility Index, also known as the investor fear gauge, has been hovering around 10-11 in the past several months, significantly below the long-term average of around 20. The lack of swings in the VIX has been rather acute of late despite observing historically high equity valuations and mounting geopolitical worries on a global scale starting with the standoff between the United States and North Korea. Indeed, trading in U.S. equity markets has been among the quietest in history, which is the third characteristic defining the ideal stock pickers' market.



Source: HedgeNordic

To sum up, it looks like all criteria for the ideal stock picker's market are fulfilled, so one would reasonably expect active managers to deliver outperformance in the coming months, as alpha is again within reach of skilled stock pickers. Meanwhile, passive strategies, which dominated the investment landscape in the past couple of years, may conversely enter a period of relative underperformance.

2. Part

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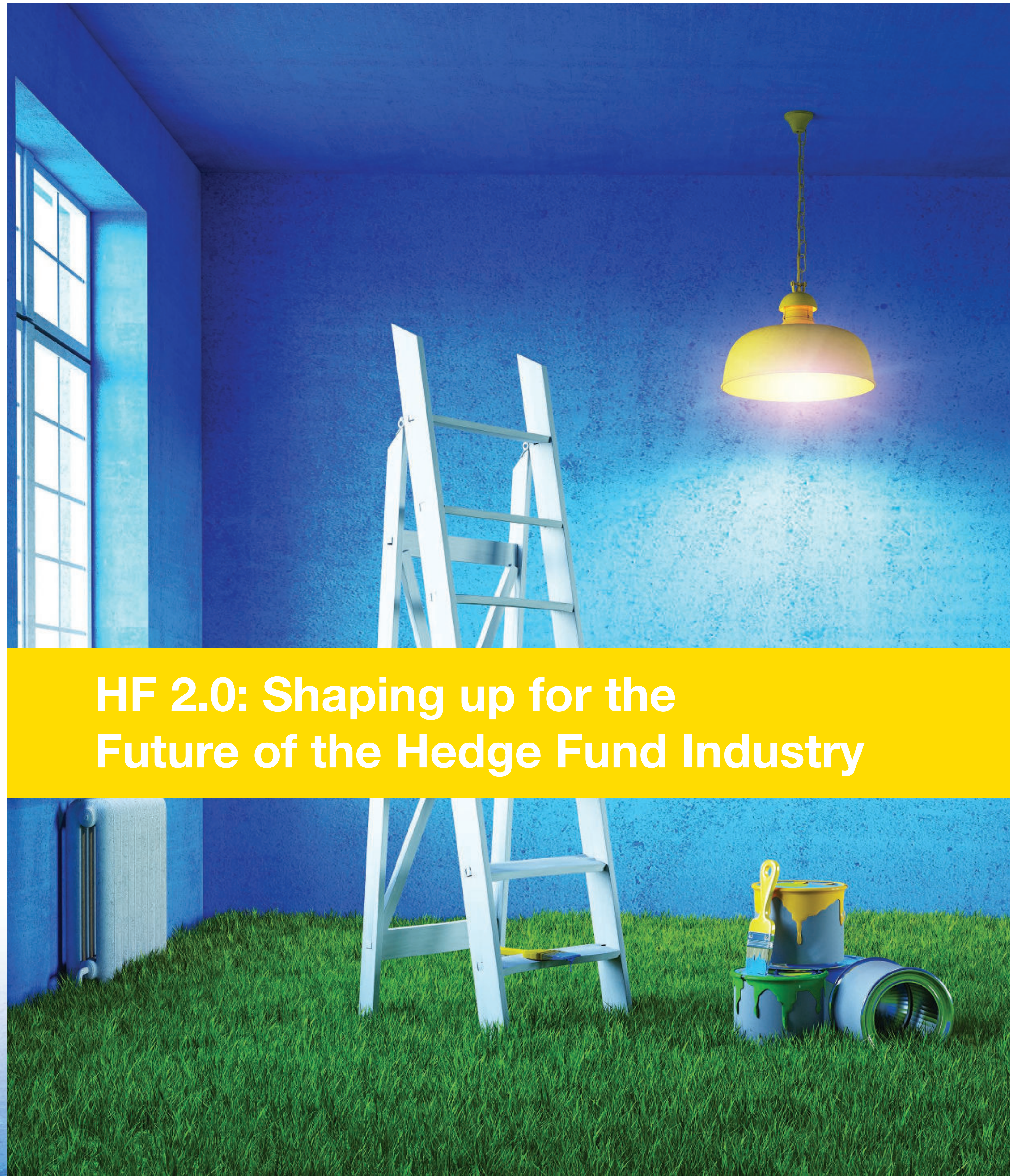

HF 2.0: Shaping up for the Future of the Hedge Fund Industry

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By Tom P. Davis, PhD, CFA - Factset

WHAT HAPPENED TO THE WHIZZ KIDS AFTER THE GLOBAL FINANCIAL CRISIS

Recently Dr. Gil Refael, a physicist from Caltech, wrote a note on a traditional course all physics majors have to take called "Modern Physics." Dr. Rafael discussed that what is being taught in a typical modern physics course is actually physics dating from the 1920s, and he called on other physicists to think about what actually constitutes modern physics in the 21st century. Earlier this year, I attended the pre-eminent derivatives conference, Global Derivatives Trading and Risk Management in Barcelona, and similar thoughts started ruminating in my brain. What constitutes "modern" quantitative finance?

Now, physics has a much longer history than quant finance, which arguably began in the 1960s with Ed Thorpe and did not become a full-fledged field until the 1970s with the derivation of the Black Scholes Merton equation and its generalization. Really, we've only had a few decades with the discipline, so perhaps it is a bit premature to think about "classic" versus "modern" quant finance. But nevertheless I will.

THE QUANTITATIVE FINANCE ARMS RACE

I like to describe quant finance as an arms race. Once a team of physicists hired by a bank had demonstrated the edge superior mathematics could provide, every bank started to hire its own team of physicists, known as quants (originally pejorative apparently, but now a sought-after job title). Banks developed more intricate and complex models, leading the way to quantitative insights into the risks of banks' balance sheets (which Alan Greenspan believed to be good for the economy). Unfortunately, this ended in crisis the same way that all arms races do; in this case the credit crisis and the global financial crisis (GFC).

There were many issues leading up to these of course, but overly complex models and the inability for senior decision makers to understand them (I'm looking at you, Gaussian copula) definitely seeded, or at least exacerbated, the issue. Greenspan later remarked, "I made a mistake in presuming that the self-interests of organizations, specifically banks and others, were such that they were best capable of protecting their own shareholders and their equity in the firms," in a 2008 testimony to Congress.

So here we are today, still dealing with the impacts of the GFC, with increased regulation, a push to clearing, and living with a multi-curve environment with negative rates. The GFC heralded the biggest change in quant finance since the introduction of the Black Scholes equation.

Before 2007, the best quants were in the front office of the largest institutions, gaining any edge they could using very complex mathematical models, where traders were the ultimate arbiter of truth. The GFC in 2008 saw many of these quants moving into the middle office, pouring over legal contracts once thought mundane. The reason was that "credit support annexes", attached to all International Swaps and Derivatives Association (ISDA) deals to describe how collateral was to be managed between the counterparties, contained a lot of optionality (such as the ability to post any currency as collateral), and any optionality needs to be valued. Another seismic shift saw the biggest institutions shutting down their quantitative desks, resulting in the best minds of our generation moving to the buy-side.

This shift was recognized by the Global Derivatives conference organizers. Prior to the conference there was a buy-side summit, and many of the talks were focused on the buy-side (like Riccardo Rebonato's Smart Beta for Fixed Income). Although there were talks on new models (such as A New Dynamic Model for CDOs, by Christian Fenger, Quant Researcher at Danske Bank), most of the conference tracks were focused on issues that were traditionally (pre-2008) thought of as outside the realm of quant finance:

- Software efficiency (automatic differentiation and GPUs)
- Regulation (What's next for xVA?)
- Clearing and Initial Margin (CVA and IMM)
- The "real world measure" (P versus Q)
- Machine learning
- Each of the above points deserves its own discussion, if not entire semester devoted to the subject.

THE NEXT QUANTITATIVE LEAP

The fact that quant finance has changed drastically was not lost on the conference organizers; we saw two talks specifically on this subject: The Future of Quant Finance and What Language Should a Quant Speak? (Strangely, the consensus for the latter was Danish).

In The Future of Quant Finance talk, John Hull, Professor of Derivatives and Risk Management at the Rotman School of Management at the University of Toronto and one of the founding fathers of quant finance, spoke about the necessity to embrace

> **"The GFC heralded the biggest change in quant finance since the introduction of the Black Scholes equation."**

change. What you will be working on five years from now will certainly be different from what you are working on today. This sage advice cannot be ignored and is one of the core reasons quant finance is such an interesting field. When I started in quant finance in 2006 after a PhD in theoretical physics, I was worried that it would be a boring application comprised entirely of solving known partial differential equations (PDE). I was happily mistaken.

Another point raised at the event was that today's universities now have programs devoted to quant finance, and within the curriculum many deep and interesting topics are taught. However, when the brightest from these programs enter the finance industry, they are not solving interesting problems. Jesper Andreason, Head of Quantitative Research at Danske Bank, had some advice for these grads: "No one is going to give you a PDE to solve on your first day. You must do the mundane stuff, or better yet have a computer automate the mundane stuff, and go seek out interesting problems to solve."

This shift away from heavy quantitative models to computational efficiency has had other ramifications as well. The types of university graduates now hired is shifting from math and physics and towards computer science. At the same time, large data firms such as Google and Facebook are hiring graduates who can solve PDEs to solve very interesting problems in big data.

My response to this is to tell all physics and math grads to learn software engineering skills such as design patterns, algorithms, and collaboration. These are tools that any modern quant needs in their toolkit.

Gone are the days where a quant writes equations and a software engineer implements in a production system. This archaic structure results in a low fidelity implementation (the math could be wrong) and a much slower time between inception and the development showing up in production. This is a double-edged sword, however, and a modern quant must know (intimately) the software engineering issues that arise in production code such as design patterns and best coding practices. The most important lesson that we learned from object-oriented software development is that the abstractions that represent the object model must reflect the relevant abstractions in the technical domain. This requires quants to be central to the architecting of a quantitative financial library. This is not to say that pure software engineers have no place in a quantitative codebase. The production system needs to be developed in such a way that the very detailed software engineering aspects (memory management, multi-threading, and parallelization) are taken away from the quant.

> **"Gone are the days where a quant writes equations and a software engineer implements in a production system."**

This year's Global Derivatives conference showed clear signs of a field in transition. Much higher focus on the buy-side, regulation, and computational techniques and less stress on new models and mathematical techniques. To paraphrase Hull, what will be presented on at Global Derivatives 2023 will be very different from the presentations from Global Derivatives 2017. Hopefully, the reader will agree that this insight into the derivatives field better outlines what defines modern quantitative finance.

Tom P. Davis

Vice President, Product Manager,
Fixed Income Research at Factset

Dr. Tom Davis joined FactSet in 2014 as the Global Head of Derivatives Research. In this capacity, Tom is focused on ensuring FactSet is providing the highest quality derivative analytics and growing the coverage across all asset classes. His team also conducts cutting edge research in the models and methods of quantitative finance. Tom has extensive experience with derivatives analytics, having worked for several of the industry's leading providers. Tom received a Doctor of Philosophy in theoretical physics from the University of British Columbia in Vancouver, Canada.

By **Duncan Higgins,** Investment Technology Group

MIFID II & LIQUIDITY: *Perfect Storm or Storm in a Teacup?*

With just over a few days to go until MiFID II takes effect, the impending rule changes have already affected the liquidity landscape. The new restrictions will curtail many segments of dark trading, but they will not eliminate the need for participants to minimise market impact when executing large orders. The onus is now on the industry to trade within the new rules, making use of exemptions from the double volume caps by trading within block trading venues, systematic internalisers and periodic auctions. While these new mechanisms are available for trading, regulatory changes to many venues are still to be formalised and most current dark trading would cease if the rules took effect today. An industrywide change effort is under way to ensure that investors can continue to benefit from low-impact trading approaches when the new rules kick in on 3 January 2018.

"MiFID II will affect all trading venues, all market participants and all asset classes, and one of the most fundamental changes will be the impact on dark liquidity."

MiFID II will affect all trading venues, all market participants and all asset classes, and one of the most fundamental changes will be the impact on dark liquidity. Multilateral trading facility (MTF) dark pools that use the reference price waiver will be subject to volume caps and restricted to trading at the midpoint only. Broker crossing networks (BCNs) will disappear due to the share trading obligation to trade on regulated markets (RMs), MTFs and systematic internalisers (SIs).

Firms operating BCNs will need to find a new approach to bring together liquidity. The available options are combinations of RM, MTF or SI. Setting up an RM or MTF is not a straightforward process. In addition, the RM and MTF frameworks are more restrictive than BCNs and, if operating under the reference price waiver (RPW), these venues will be affected by the double volume caps. Bringing orders together on external MTFs or RMs is technically feasible, but not as interesting from a commercial perspective because of the trading fees these venues charge. The most likely option for brokers looking to replace their BCNs will be to operate an SI although the rules will restrict brokers from crossing opposing client orders in their SIs. Such orders need to be taken onto MTFs or RMs. The choice of venues here will likely be driven by a combination of trading fees and the extent to which a venue can facilitate two matching orders from the same broker to cross against each other.

An unexpected result of MiFID II's restrictions is the intention of Electronic Liquidity Provider (ELPs) to set up their own SIs, effectively setting them in competition with the lit markets for whom they are also often the largest customers. Once ELPs set up their own SIs, traders know that if an ELP has opposing liquidity, the ELP's own SI is the best place to go to find it. The new SI regime forces a convergence of venues and their participants, giving buy-side traders unprecedented control and access to direct sources of liquidity, rather than these sources being bundled up in other venues. This liquidity unbundling, combined with increasing post-trade transparency and finer control of counterparties through fragmentation, results in a new landscape that empowers traders, more than ever before, to reduce their trading costs by sourcing and selecting appropriate liquidity for each order.

While the SI regime has dominated recent regulatory conversation, other developments have continued to help prepare the industry for the new pre-trade transparency rules coming next year. MiFID II will also affect RMs and MTFs by restricting the amount of dark trading taking place under two of the pre-trade transparency waivers: the reference price waiver and the negotiated trade waiver. Record levels of dark trading have occurred this year, with the majority of it still taking place under the reference price waiver. Under MiFID II, this will be capped at 8%, leading to significant changes in MTF venue activity. (The caps apply only to transactions taking place on a trading venue—an RM or MTF—and not to block trades or SI transactions.) However, one additional factor contributing to the importance of MTF venues is the inability of brokers to bring client flow from BCNs into their future SI structures, with MTFs being a good candidate for this trading activity.

"While the mechanics and regulatory status of venues and the way liquidity is being aggregated will change, the direct impact on buy-side traders should be limited."

The ability to make use of non-displayed liquidity is crucial to reducing implicit execution costs; the most significant tool in this regard is the large in scale waiver. Block trading refers to the execution of trades that are significantly larger than those that occur on pre-trade-transparent venues such as exchanges. The European Securities and Markets Authority (ESMA) has acknowledged the benefit to investors of being able to trade large quantities of stock without the associated market impact. While some platforms have operated under the soon-to-be-restricted reference price waiver, their block trades would be allowed under the use of MiFID II's LIS waiver, with minimal changes. This move would grant them exemption from both the calculation of the caps and any subsequent suspension of dark trading. To qualify for exemption under the LIS waiver, orders in these systems will need to be above the size defined by ESMA. This stock-specific threshold depends on the security's average daily turnover.

Many new solutions have been announced or launched to help the industry deal with the MTF rule changes. The ones that have received the most interest broadly fall into two categories: periodic auction books and electronic block trading systems.

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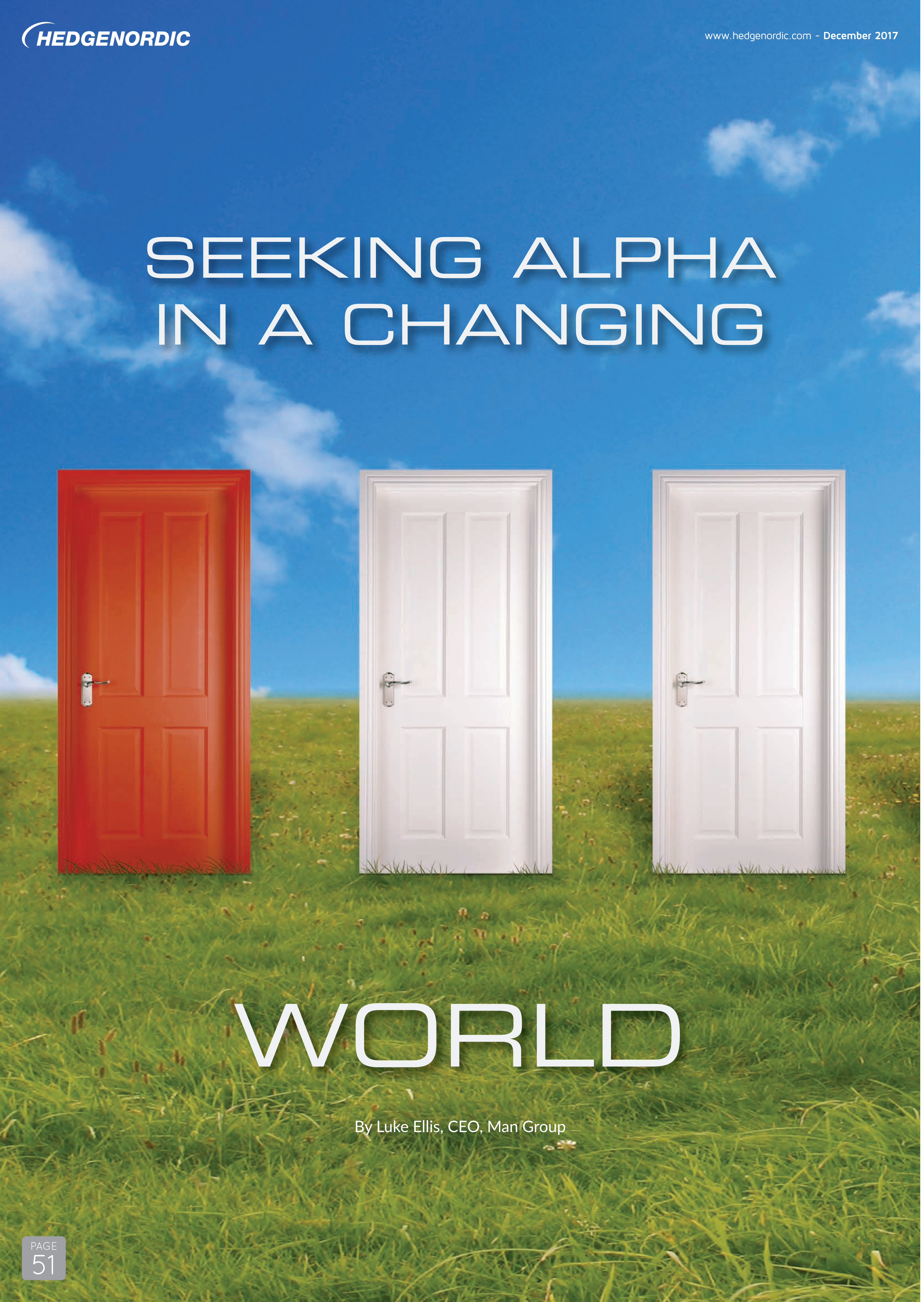
Investment Technology Group

Periodic auction books are pre-trade transparent venues where auctions take place throughout the day. During each auction call period, the indicative uncrossing price and volume are disseminated. These may be suitable for some order flow currently being routed to dark venues because the auctions last for extremely short durations, often on the order of 100 ms, limiting the amount of pre-trade information leakage. In addition, if an order is placed in a periodic auction without a counterparty being present, no information is disclosed to the market—just as in a dark pool. No waiver is required because there is pre-trade transparency, so these venues will not be subject to the double volume caps.

Electronic block trading systems provide mechanisms that allow market participants with large block-size orders to find similar orders with opposing trading intentions. While some of these venues are still trading under the reference price waiver, we expect they will all start using the LIS waiver by January, making them exempt from the double volume caps. The key mechanisms employed by electronic block trading tools to successfully bring together large orders while minimising opportunity cost involve either blotter-sweeping tools or algorithmic conditional orders.

On a positive note, while the mechanics and regulatory status of venues and the way liquidity is being aggregated will change, the direct impact on buy-side traders should be limited. Just as liquidity aggregation tools will deal with the additional complexity of suspensions due to volume caps, these tools will adapt to deal with whatever structure brokers implement for their liquidity. As the market gathers data and evaluates the new venues, the buy side (in cooperation with their brokers and analytics providers) should be able to leverage the new rules to employ the next generation of liquidity aggregation tools with unprecedented control and continue to access liquidity without undue impact.



SEEKING ALPHA IN A CHANGING WORLD

By Luke Ellis, CEO, Man Group

With no secret that the hedge fund industry is in the grip of substantial change. In recent years, we've seen huge advances in technology reducing barriers to entry, and increased investor cost consciousness sweating out weaker performers. Of course, the central task of hedge funds remains the same: to generate alpha, net of fees – a simple objective, but one much harder to achieve than the soundbite suggests, especially given the current interest rate and regulatory environments. At the same time, there is an increasing realisation that alpha is becoming more important in a world where institutional investors are struggling to fulfil their long-term return objectives.

In my view, the most important point for hedge funds over the coming years is that a growing number of institutional investors may require alpha on an industrial scale, when by definition, this is not an industrial commodity.

How will our industry face up to this challenge over the coming years? Hedge funds are continuing to attract attention from institutional asset allocators, but to cement future prospects, I believe our industry must undertake a threefold revolution: 'Hedge Funds 2.0' must be prepared to seek alpha in new hunting grounds, must be serious about developing their operational infrastructure and must properly harness the power of technology.

LIMITED CAPACITY FOR ALPHA MEANS THINKING OUTSIDE THE BOX

I think the most important requirement for our industry over the coming years will be the ability to search for alpha in ever wider opportunity sets, in terms of both asset classes and techniques. Hedge funds have always aimed to innovate: short selling, leverage and arbitrage are all areas in which the industry has built extensive expertise. But over the coming years, it will be important to cast the net more widely. The scarcity of alpha across markets means that any individual source tends to corrode quickly as investors rush to extract it. We expect the industry to grow its range of capabilities, moving more significantly into new markets – esoteric or private assets, for example. Beyond asset classes, this is also about developing new techniques to harness opportunities.

In this context, we believe there remains a firm place for both quantitative and discretionary approaches – indeed, the two can be complementary, and tomorrow's hedge funds must evolve to get the best of both from these approaches, for example, using quantitative techniques to support discretionary strategies.

"The scarcity of alpha across markets means that any individual source tends to corrode quickly as investors rush to extract it."

EXTRACTING ALPHA IS GOING TO REQUIRE BETTER OPERATIONAL EFFICIENCY

Given the central challenge of extracting alpha from an ever more efficient market, tomorrow's hedge funds are going to need better machinery. From execution, to risk management, to reporting and transparency – we believe a scalable investment infrastructure matters more than ever. This is partly a function of a sharpened focus on fees, as the costs of investment can make a material difference to performance, and the environment of generally lower long-term returns across major asset classes exacerbates this effect. In addition, as hedge funds expand into new areas, they will encounter new complexity which will require sophisticated operational mechanisms to be in place.

A robust infrastructure can also help enable clients to access lower-cost, liquid vehicles that aim to capture the risk premia of alternative approaches. We have already seen the rise of 'smart beta' strategies in traditional asset classes, and we expect demand to grow for some version of these in the hedge fund space. Of course, these strategies are not really 'beta' in any sense – given that alternative investments require so many active decisions – but the ability to harvest returns from the most liquid and efficient instruments of existing strategies (made possible only by sophisticated infrastructure) provides another potential source of value for clients.

BIG DATA DEMANDS INNOVATIVE TECHNOLOGY

The force underpinning the two points above – that investors must look for alpha in wider fields of opportunity, and that they need a robust infrastructure to do so – is the evolution of technology. In 1990, Cray 2 was one of the world's fastest supercomputers[1]. It could perform 1.9 billion floating point operations (or GFLOPs) per second, had 2GB of memory, weighed about as much as a white rhinoceros and cost $32m in current money. Today, the newest model of the iPhone offers nearly 179 GFLOPs and 256GB of memory, all for just 178g in weight and a cost of around $800[2]. This inexorable growth in computer power has transformed the way markets behave, meaning a faster spread of information and a much higher volume of data. To give an example from the hedge fund industry, our team at Man AHL collected 2.7 billion price updates in a single day on 9 November 2016, following the US election.

> "The whole purpose of hedge funds is to adapt their investment processes for the most effective extraction of alpha from markets as they change through time."

What does this mean for the future of hedge funds? It's no longer enough to be the smartest guys in the room, and we believe the ability to maintain a material informational edge is impossible. Instead, handling the increasing deluge of data in markets requires sophisticated technology. But the real leaders of tomorrow's hedge fund industry are likely to push this innovation even further, developing machine learning techniques to help identify patterns in markets. At Man Group, we believe that machine learning has clear applications to both systematic and discretionary investment. We have been using these techniques in systematic strategies for a number of years at Man AHL, where our team has worked closely with leading academics at the Oxford-Man Institute (OMI) on their development. Among discretionary strategies, we believe these techniques can support portfolio managers in analysing data, and our Head of Machine Learning at Man GLG is collaborating with others across the firm to put them into practice in discretionary approaches.

GENERATING ALPHA IS HARD – BUT INNOVATION IS IN HEDGE FUNDS' DNA

Over the coming years, I think a leaner and stronger set of hedge funds can capture opportunities in a growing number of markets, using innovative technology to support investment decisions and execution. Of course, while the changes to our industry have been significant, the response we're starting to see from hedge funds is exactly what we would expect – a natural and rapid evolution of the capabilities which made them attractive to investors in the first place. The whole purpose of hedge funds is to adapt their investment processes for the most effective extraction of alpha from markets as they change through time. In this sense, perhaps their evolution over the coming years should be seen less as 'hedge funds 2.0' and more 'hedge funds 101'.

[1] Source: ExtremeTech.com
[2] Source: Apple.com, as at September 2017.

Photo Credit: **Micha Theiner**

Luke Ellis
Chief Executive Officer, Man Group
September 2017

Luke Ellis is Chief Executive Officer (CEO) of Man Group, a global active investment firm. Man Group has five investment engines (Man AHL, Man Numeric, Man GLG, Man FRM and Man Global Private Markets), which manage $103.5bn (as at 30 September 2017) in a range of liquid and private markets. With a central objective to deliver alpha for clients through time, Man Group provides a wide range of alternative and long-only portfolio solutions for its client base. As CEO, Luke leads the firm's Executive Committee, working with teams across investment, distribution, technology and infrastructure while seeking to deliver the right outcomes for clients, and positioning Man Group to adapt to opportunities as markets evolve.

Luke joined Man Group in 2010, and was previously President of the firm, responsible for management across investment engines. Prior to this, he was Chairman of Man GLG's Multi-Manager activities, and was Managing Director of Man FRM from 1998 to 2008.

Luke was previously a Managing Director at JPMorgan in London, and Global Head of the firm's Equity Derivatives and Equity Proprietary Trading businesses.

He holds a BSc (Hons) in Mathematics and Economics from Bristol University.

ALTERNATIVE RISK PREMIA

A HEDGE FUND ALTERNATIVE?

by Christopher Reeve

Christopher Reeve is Aspect Capital’s Director of Investment Solutions. In this role he coordinates the company’s product design processes, ensuring that Aspect’s investment strategy capabilities are assembled into coherent investment portfolios which fit investor needs. Christopher is also a member of Aspect’s Portfolio Risk Group, a cross-department group of Board Members and Directors, responsible for reviewing portfolios, monitoring the final stages of the research process and assessing all facets of the investment process.

One of the most striking changes affecting the hedge fund industry in recent years has been the rise in popularity of so-called Alternative Risk Premia investing. This relatively new concept seems to be here to stay: it has undoubtedly captured the interest of both investors and managers who have approached it from a range of different angles.

On the investor side, a significant and growing amount of capital is being allocated to the space to fill a number of different roles in a portfolio. Some investors view Alternative Risk Premia as a way to get exposure to factors they previously would have accessed through a traditional hedge fund portfolio. In this way, the concept of Alternative Risk Premia is disrupting the traditional hedge fund industry: investors who might be disillusioned with the high fee levels and relatively disappointing returns from their portfolios of ‘first generation’ hedge funds are seeking to capture the key factors they want from that portfolio in a more transparent and lower-cost fashion.

Other investors are using it as a way to enter the alternatives space for the first time and to access diversifying sources of returns for their portfolios, which they previously would not have captured because of reluctance to use traditional ‘first generation’ hedge funds. In this way, the Alternative

Risk Premia concept is helping the hedge fund industry grow by making it more accessible to a wider range of investors.

Similarly, on the manager side, a large number of new products are being launched by a wide spectrum of different managers. These managers include traditional large asset managers with backgrounds in long only investing, specialist quantitative hedge fund managers, funds of hedge funds bringing their portfolio construction skills to create funds of individual risk premia and even new startups or new specialist teams operating within larger organisations. The result of this is a further blurring of the distinction between the hedge fund and traditional asset management spaces.

Against this backdrop of capital flowing into the space and many different new products being launched, it is not surprising that there is no single, universally accepted definition of the Alternative Risk Premia space - despite very few if any of the underlying strategies actually being new ideas. So what are the different factors to be considered when looking at the space and designing a product? Where should the guidelines and boundaries be set when managers decide what is and isn’t suitable for an Alternative Risk Premia product, and how should investors categorise and evaluate the disparate range of offerings? In the remainder of this article we list some of the key considerations and questions which arise, and outline Aspect’s philosophy for approaching each of them.

DIVERSIFICATION: what do we mean by alternative, and how should exposures to traditional asset classes be managed?

Firstly and perhaps least controversially, any Alternative Risk Premia product needs to provide returns that are diversifying or alternative to traditional asset class risk premia if it is to be valuable to an investor as a ‘hedge fund replacement’. This normally means that any structural long bias or beta to equities or fixed income is removed. However, in Aspect’s view this does not mean the portfolio must be strictly market neutral at all times: several well-known risk premia can only be exploited using directional exposure at times. For example, the trend or momentum premia can generate very diversifying returns by taking directional but dynamic exposures in traditional assets. Insisting on strict portfolio neutrality might mean missing out on some valuable and diversifying sources of return which can only be captured using directional exposures.

JUSTIFICATION: what is a risk premium in the first place, how well-known does it need to be and where is the dividing line between alternative risk premia strategies and hedge fund alpha strategies?

A literal interpretation of the term risk premium would imply that these are strategies where an investor receives a reward or premium over time for bearing a specific, non-diversifiable risk in the markets. Most suitable strategies therefore have a rational and intuitive justification for why they exist as a structural source of returns. These justifications tend to be rooted in investor behaviour, such as investors’ preference for lower volatility assets or the tendency for assets representing better value to outperform. This gives a very broad range of strategies which can be considered, including any strategy which seeks to exploit a clearly identifiable behavioural bias or persistent market anomaly. While most effects are well-known and backed by academic evidence, this need not be a pre-requisite for it to be considered - and indeed this may be a benefit as it may be a less crowded factor. Importantly however, one would need to be confident that if a factor became more widely-known its returns would not immediately disappear. This implies that risk premia factors should be persistent and scalable: most shorter-term strategies requiring faster trading are not

Christopher Reeve,
Director of Investment Solutions, Aspect Capital

suitable candidates, and nor are strategies whose edge lies in having access to data sources which are not widely available.

SYSTEMATIC: do all risk premia strategies need to be entirely rules-based, and to what extent are discretionary overlays or over-rides desirable?

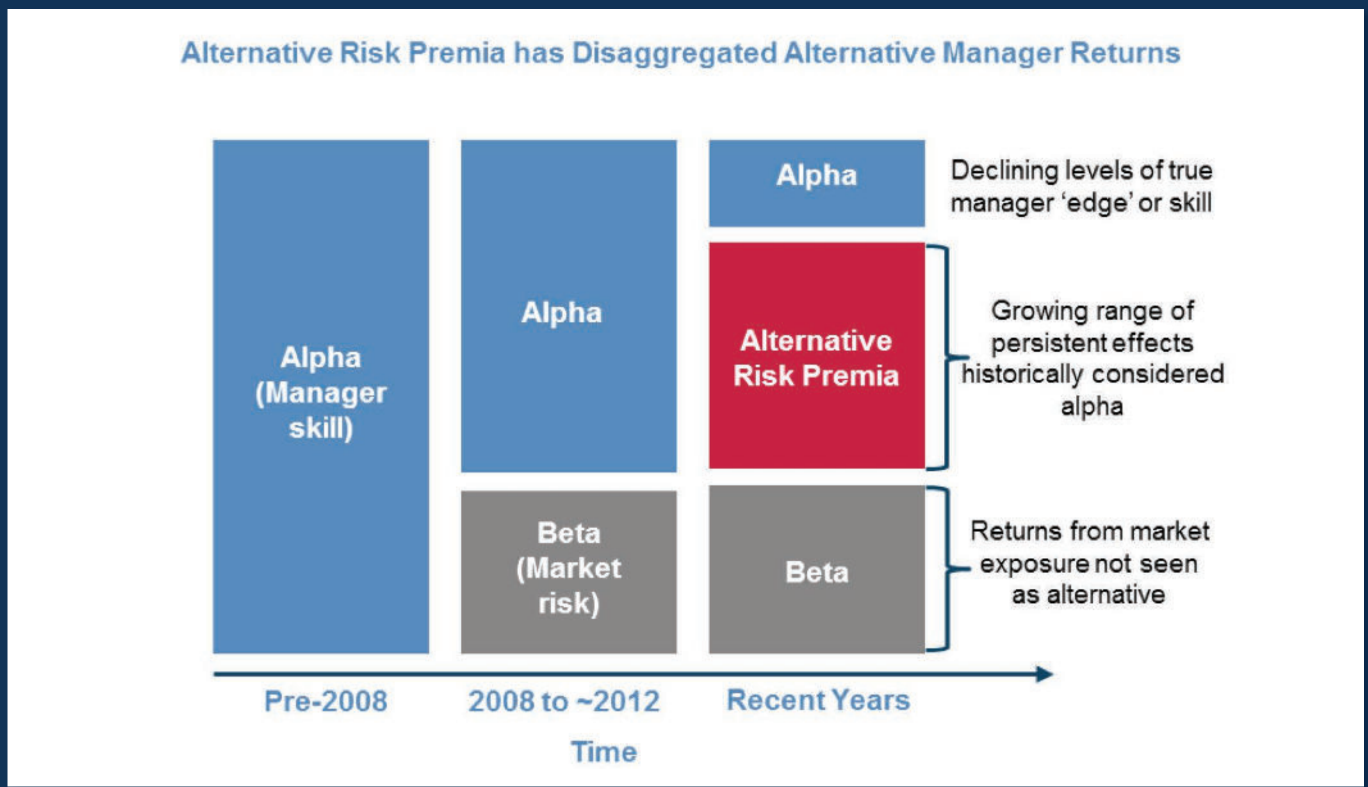
In Aspect's view, operating in a systematic fashion is the most reliable way to capture a broad market effect or risk premium which is persistent but intermittent in its operation and may only have a small edge in any individual trade. The disciplined and repeatable nature of a systematic strategy means that a small edge or premium can over time be exploited as efficiently as possible. Of course, operating systematically does not necessarily imply a fully-automated trading process, although in practice the vast majority of markets in an alternative risk premia programme should be highly liquid and can be executed automatically. This in turn implies that a manager's skill in execution is a vital part of assessing a product.

RESEARCH AND EVOLUTION: should the trading rules and algorithms of a strategy remain static, or is there benefit to be gained from enhancing and evolving the implementation of a particular risk premium?

Many of the more commonly-used alternative risk premia are very well documented and are supported by swathes of academic and empirical evidence to support their existence and persistence over very long time horizons. These factors therefore tend to have sets of rules which have become accepted in the academic community as the 'definition' of that risk premium factor. However, a well-structured research process can generate better ways of exploiting the effects and can react as the exact manifestation of a risk premium changes over time. As long as the underlying hypothesis is respected and enhanced versions of a factor remain correlated to the original simple implementation then significantly enhanced returns can be generated from more sophisticated signals and factor construction. This can provide excellent value for the fee-constrained investor.

TRANSPARENCY: should investors expect or even want to see full transparency on the trading rules and systematic methodologies used?

One potential benefit to investors of alternative risk premia investing is the ability to access strategies previously associated with traditional hedge funds which provide little or no transparency on their portfolios. And indeed many simpler products make a point of providing full transparency on the design of their models, even to the point of disclosing the "rule book" which would in theory enable the strategy to be replicated. While this may not be practical for more sophisticated strategies, investors should still expect a full



Source: Aspect Capital

Alternative Risk Premia are	Alternative Risk Premia are not
• Driven by explainable and intuitive market hypotheses - Often supported by academic evidence	• Formulated solely from empirical relationships in historic data without any rationale
• Rewards for bearing specific risks - Can be structural, economic or behavioural in nature	• Reliant on an 'informational' edge from better, quicker, more obscure or more esoteric data
• Effects which persist over long-term market cycles and through different environments - But can be intermittent: their capture can potentially be improved through timing	• Transient effects specific to one particular market environment or asset class - Which can often experience alpha-decay through time
• High capacity factors in liquid markets	• High frequency or capacity constrained strategies
• Able to be captured by systematic trading rules - But strategies need not be static: can be improved through research	• Reliant on human discretion
• Easy to explain in principle	• Easy to capture in practice

Source: Aspect Capital

understanding of what behaviour to expect from a strategy. This increased provision of transparency is a huge benefit to new investors, giving many the comfort to consider diversifying strategies for the first time.

HOW MANY: should products focus on providing individual risk premia in a pure form, or multiple different risk premia strategies in a diversified portfolio?

This is a matter of investor preference, and in Aspect's view there is a place for both variants. Just as in the traditional hedge fund space in the past, there will be single strategy and multi-strategy products. Some investors may want to focus on particular risk premia factors or construct their own portfolio of individual factors - while still wanting to choose the best possible implementations of those risk premia rather than relying on simplified indices to achieve each exposure. Others want to get the best combination of a diversified range of premia from a single manager, and perhaps in doing so benefit from any skill the manager may have in timing different premia or allocating between them in a more dynamic fashion.

TIMING / PORTFOLIO CONSTRUCTION: should managers provide static allocations to risk factors? Or is there value to be added from timing exposure to an individual factor, or having a very dynamic portfolio construction process to shift allocations between different premia in a multi-risk premia product?

All risk premia are by their very nature intermittent in their performance and have a certain level of volatility in that performance. As suggested by the name, there are times when a risk premium strategy will be earning that premium and times when the risk will dominate. So in principle if a systematic timing mechanism can be devised whereby the premium can be earnt in the good periods but the risk can be minimised or avoided at the appropriate times then this would improve overall returns significantly and would also be completely consistent with the principles of exploiting these market effects as efficiently as possible. In practice this is hard to do successfully: robust portfolio construction is definitely an area of differentiation between different risk premia products.

In summary, Alternative Risk Premia investing is here to stay. Its existence raises the threshold for traditional hedge funds to demonstrate they are providing value for their comparatively higher fees. But it also gives investors more opportunities to access diversifying returns and the skills and experience of hedge fund managers at a reasonable cost. The vast range of different risk premia strategies and implementation approaches implies that performance dispersion in the space will be very high, and therefore that manager selection will be critical.

Steps not Leaps

Attempts to mechanise thought go back millennia, despite the term artificial intelligence being a relatively recent coinage. Information processing has generally tended to advance in gradual steps rather than through sudden, dramatic breakthroughs.

Ancient Greeks used devices like the clockwork Antikythera mechanism to predict the motion of heavenly bodies. French and German innovators developed early mechanical calculators, built sophisticated automata, and pushed forward statistical prediction. Joseph Marie Jacquard's 1804 loom was controlled by punch cards — an early programmable machine. Recounting these developments shows that almost every advance was built on what came before.

Many histories of AI focus on the English-speaking world. As these examples highlight, however, continental Europe was also a source of computing innovation. That said, from the middle of the 19th century Britain and America produced key developments, from Babbage's Analytical Engine and Bush's Differential Analyser to the notion of a Turing machine and the Bletchley Park Colossus computer.

The reality of the gradualism evident in the history of AI has nonetheless failed to prevent episodic outbreaks of euphoria. This is perhaps best illustrated by the aftermath of two such manias, which resulted in the so-called First and Second AI Winters – periods from the 1970s to 1990s, when the US, UK and Japanese governments cut funding following disillusionment with progress.

Decoding AI's Role in Financial Services

By Nick Levine, Winton Group

What if "artificial intelligence" was instead known as "complex information processing"?

This is a historical rather than rhetorical question – and one of significance for the financial services industry generally, and investment management in particular, where hopes vested in AI capabilities have often run ahead of the reality.

The term artificial intelligence was first coined in 1956, when a group of researchers at a conference sought to "find out how to make machines use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves".

But two participants at the conference took issue with the phrase. For years, they insisted instead on the terminology of complex information processing, a less evocative but more exacting description of the discipline, which stands at the confluence of statistics, computational science and machine learning.

The connection between AI and financial services goes back to computing pioneer Charles Babbage. In his 1832 work, On the Economy of Machinery and Manufactures, Babbage described London's Bankers' Clearing House, where clerks from various institutions met to settle checking transactions. Babbage was struck by the efficiency of this complex information processing system, which handled, by his estimate, as much as 15 million pounds per day – or well over 1 billion pounds in today's money.

From the 19th century onwards, efforts to mechanise aspects of human thought in a financial context - from mechanical calculators and cash registers to mainframe computers and ATMs - proceeded in incremental steps. But it wasn't until English mathematician Alan Turing's work almost a century after Babbage that academics began to believe that generalised computer intelligence – that might equal or surpass that of mankind's - could actually be achieved.

One of the first Wall Street firms associated with AI was Lehman Brothers; the New York Times reported the firm's efforts to develop a system to evaluate prices of interest rate swaps in the mid-1980s.

Traders Seeking an Edge Try Artificial Intelligence

[WSJ, 1986]

At the same time as large Wall Street firms were turning to AI, so was an entrepreneurial group of new investment management companies. Renaissance Technologies and D.E. Shaw, two quantitative firms employing techniques from statistics and computer science, were founded in the US at either end of the 1980s. Meanwhile in London, the firm Adam, Harding & Lueck Limited, launched in 1987, was pioneering the application of computer simulation to systematic trading of futures markets. These firms and their progenies - including Winton Group and Two Sigma Investments – are today among the most successful quantitative investment firms in the world.

As a Wall Street Journal article explained, "systems based on artificial intelligence seek to anticipate market trends by identifying market signals that typically presage a change in prices. The computer then applies what it 'learns' from historical trading data to the actual market conditions of that moment, and the system supposedly adjusts its trading rules and strategies in response to changes in market conditions". The article noted that AI had taken longer to arrive in financial markets because of their non-stationary – or dynamically changing - nature, highlighting one system that returned 45% a year in simulations, but lost money in practice.

Higher Tech

Computer Researchers Find 'Neural Networks' Help Mimic the Brain

The Systems, a Building Block For Artificial Intelligence, May Analyze Loans, Radar

[WSJ, 1988]

By the early 1990s, companies were experimenting with AI across the full spectrum of financial services. An early application using neural networks – a type of machine learning - could recognise handwriting on cheques. Banks and credit card companies—including Security Pacific National Bank, Chase Manhattan, Barclays, and American Express--built expert systems and neural networks to identify credit card fraud. Insurance companies adopted expert systems to help evaluate risks and write policies.

Around the same time, mortgage lenders turned to expert systems and neural networks to expedite the underwriting process. In 1989, the Baltimore Sun asked it readers to "picture ordering up a cheeseburger, soft drink, fries and a $250,000 adjustable-rate mortgage on the side. And walking out with all of them." By 1993, Fannie Mae and Freddie Mac were testing automated underwriting.

Fund managers including Fidelity and LBS Capital Management were also trying to use neural networks to identify investment opportunities. US manufacturing company John Deere even used the technique to manage its pension. With returns proving disappointing, however, neural networks proved to be a passing fad. Still, throughout the 1990s, a growing number of quantitative investment managers were using statistical and computer science techniques to amass data, identify trends, and trade the global markets - even if the AI moniker fell out of fashion.

The current surge in interest in AI has once again centred on neural networks, which were part of a system developed by Alphabet subsidiary DeepMind that defeated the human Go champion in 2016. Yet games like Go or chess are what statisticians term "fully observable" – they have defined and constant rules, and a large but finite number of potential permutations. By contrast, the human institutions which are the global financial markets, with their ever-changing characteristics, provide a far harder challenge for computers to solve using these methods alone.

Financial services stands to gain from AI in the future, just as it has over the past 30 years. There has been substantial

Neural Networks are Making a Comeback

[Washington Post, 1998]

growth in both computing power and memory capacity over several decades - products of micro-processing efficiency gains described by Moore's Law. Advances in automatic data capture also hold out promise.

Yet caution with respect to the more sensational claims of "disruption" is warranted, since the history of AI is littered with over-promise and disillusion. The observation of philosopher Hubert Dreyfus in the mid-1960s probably holds true today, that "an overall pattern is taking shape: an early, dramatic success based on the easy performance of simple tasks, or low-quality work on complex tasks, and then diminishing returns, disenchantment, and, in some cases, pessimism".

In a world where the language of neuroscience has potent marketing appeal, the champions of complex information processing never stood much chance against artificial intelligence's cheerleaders. But the first camp's more sober term might have resulted in more dispassionate debate about the field, and its relevance for the world of investment management.

Bright Outlook for Artificial Intelligence Yields to Slow Growth and Big Cutbacks

[WSJ, 1990]

Timeline: First century BC – Greeks use devices like the clockwork Antikythera mechanism to predict the movements of heavenly bodies

1495 – Leonardo Da Vinci sketches an automaton of a knight that could, among other things, stand and sit

1600s – First mechanical calculators developed

1795 – German mathematician Carl Friedrich Gauss develops the least squares method for regression analysis

1804 – French inventor Joseph Marie Jacquard builds his programmable loom, controlled by punch cards

1809 – Napoleon plays chess against the Turk, a machine that could supposedly compete on its own, but was in fact controlled by a chess master

1820 – French inventor Thomas de Colmar patents an early version of the Arithmometer, which would become the first mass-produced mechanical calculator

1832 - Charles Babbage's book On the Economy of Machinery and Manufactures published

1890 – US government conducts the 1890 census using punch card tabulating machines

1936 – Alan Turing publishes paper with a proof that universal computing machines can perform any mathematical calculation given an appropriate algorithm

1940s – Electronic, stored-program computers developed

1956 – "Artificial intelligence" coined at a Dartmouth College conference

1957 – US psychologist Frank Rosenblatt develops early artificial neural network

1959 – Patent filed for the integrated circuit, and 'machine learning' coined

1970s – Stock exchanges begin to go electronic

1973 – A negative UK government report on the development of the field heralds the start of the first 'AI winter', when researchers saw funding slashed

1974 – MYCIN, an important early expert system, is developed

1983 – New US and Japanese funding initiatives mark the end of the first AI winter

1984 - Lehman Brothers develops a system to evaluate the terms of interest rate swaps

1982 – Mathematician James Simons founds quantitative investment firm Renaissance Technologies

1987 – Founding of Adam, Harding & Lueck Limited, a pioneer of systematic trading in futures markets

1987 – Funding cuts and disappointment with expert systems bring on the second AI winter

1988 – Former computer scientist David Shaw founds investment management firm D.E. Shaw

1989 – Bell Labs implements artificial neural network for reading handwritten digits

1990s – Investment managers including Fidelity and LBS Capital Management look to neural networks

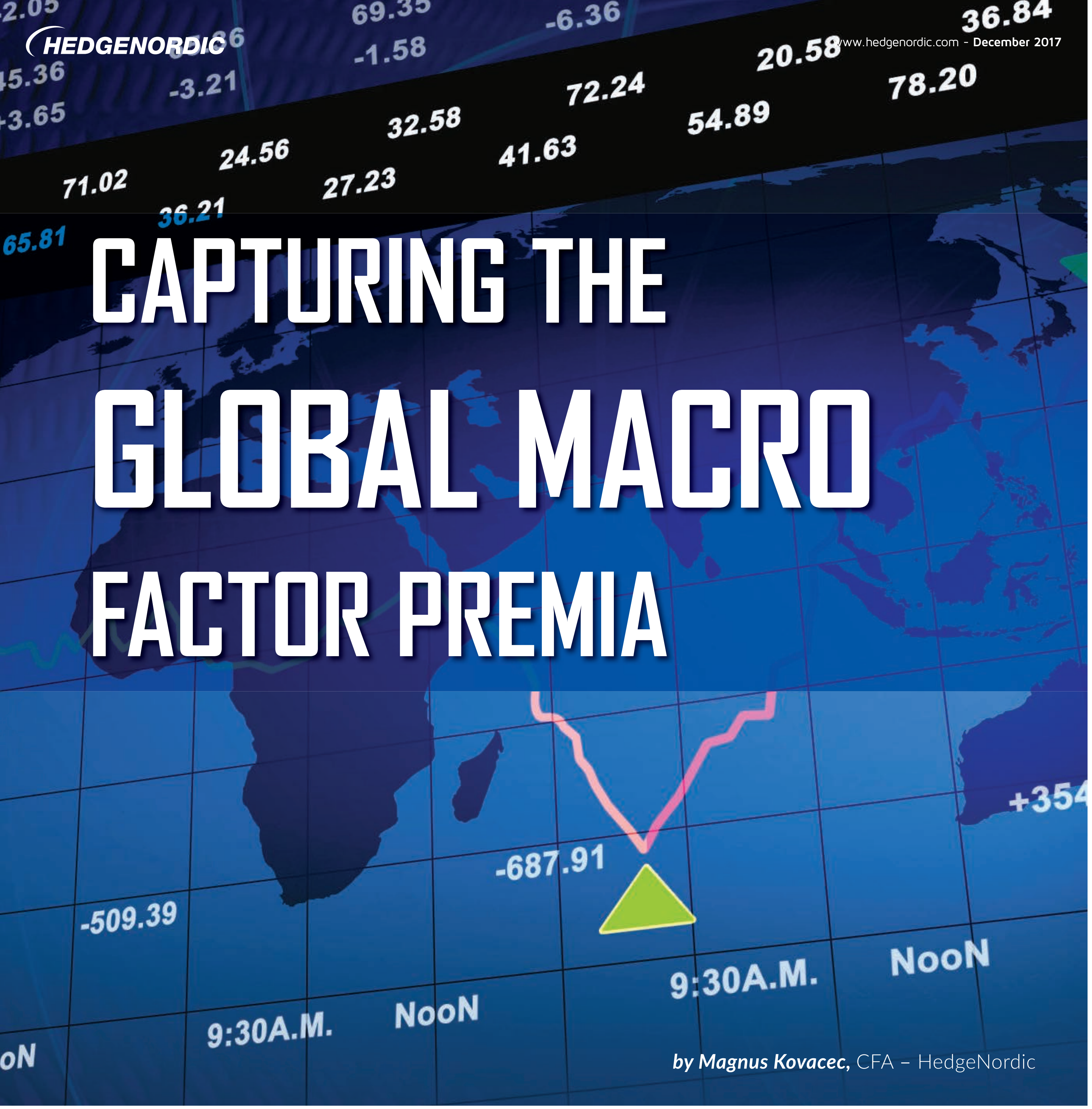
1993 – Fannie Mae and Freddie Mac begin testing automated underwriting systems after years of use by private sector mortgage providers and insurers

1997 – David Harding founds Winton Capital Management after leaving AHL

1997 – IBM's Deep Blue beats world chess champion Garry Kasparov

2005 - Sebastian Thrun's Stanford team wins DARPA's 130-mile driverless car race

2016 – Alphabet subsidiary DeepMind's AlphaGo computer program beats Go master Lee Sedol



CAPTURING THE GLOBAL MACRO FACTOR PREMIA

by ***Magnus Kovacec,*** CFA – HedgeNordic

Stockholm (HedgeNordic) – Using academic financial research on Factor investing, Timotheos Angelidis (University of Peloponnese) and Nikolaos Tessaromatis (EDHEC Business School and EDHEC Risk Institute) had the idea of using liquid country Exchange Traded Funds (ETFs) and index futures to build a global diversified portfolio with style funds to capture factor premia. This is presented as an alternative to the conventional equity tactical county allocation strategies based on forecast country returns. In a recent article entitled “Global Equity Country Allocation: An Application of Factor Investing” in the CFA Institute’s Financial Analysts Journal they explained how to implement such a global factor allocation strategy, and back tested the performance with positive results net of transaction costs.

Academic research suggests that stock portfolios with exposures to certain favourable investment factors provide

long term premia to investors. The authors decided to try this on a country stock market index rather than stock level, targeting exposures to four favourable factors: 1) Value, 2) Size (small capitalization), 3) High Momentum, and 4) Low Risk. The results suggest that this strategy outperforms the world market portfolio. It’s also argued that implementing this strategy makes the portfolio easier to manage, more liquid, has greater capacity, and lower transaction costs.

The authors: a) used non-market cap weighted portfolio construction methodologies to create portfolios that were factor tilted and well diversified, b) expanded the universe of countries to include Emerging Markets (boosting the “small cap” factor), c) combined single-factor portfolios to create a global multi-factor portfolio using alternative portfolio construction methodologies to control for estimation error, and d) the performance of the country based portfolios were compared with stock based factor portfolios of Fama and French (2012)[1] and investable factor indices used in practice by investors.

The data used was MSCI Total Return USD indices of 23 Developed and 21 Emerging Markets, monthly observations for the period of July 1980-December 2015 (35.5 years). The MSCI All-Country World Index (ACWI) was used as a benchmark proxy for the world market portfolio (or MSCI World Index for data prior to January 1988). Current spreads on BlackRock and Global X ETFs were used as an estimate for trading costs. They used a composite Value indicator consisting of a combination of a country’s composite: P/E, P/BV, P/CF and DY. The small cap portfolio consisted of the third of countries with the smallest total index stock market capitalizations. The global momentum portfolio consisted of the third of country indices with the highest cumulative returns for t-2 to t-12. The global low beta portfolio consisted of the third of country indices with the lowest beta to ACWI using rolling 60 monthly observations. Global value and small cap portfolios had annual rebalancing whilst high momentum and low beta portfolios had more frequent monthly rebalancing.

Countries with the highest factor exposures were selected to create mean-variance efficient factor portfolios in the presence of estimation risk, and also using different portfolio construction methodologies: cap weighted, equal weighted, inverse variance (IV), minimum variance (MinVar), and maximum diversification portfolio (MDP) weighted. Portfolio turnover refers to inter-country allocation between country indices, rather than intra-country allocation within indices as the latter is done by the ETF managers themselves.

In terms of the global single-factor portfolios, Value, Small Cap, High Momentum and Low Beta factor portfolios delivered the highest alphas and Sharpe ratios compared to the world market portfolio. Growth and Large Cap single factor portfolio returns were not very different from the global market portfolio. Interestingly different portfolio construction methodologies did not lead to statistically significantly different Sharpe ratios across a single factor, suggesting that selecting a favourable factor creates more value than choosing the methodology for weighting the assets. Another finding is that the bottom factor portfolios (bottom third country indices) underperform all top factor portfolios, which opens the possibility for long-short trading strategies.

> **“The authors then compared country based factors with the global stock factors of Fama and French, and found the alphas were economically but mostly not statistically significantly different.”**

Noticing the low correlation between the portfolios (average 0.05), the authors then combined global single factor portfolios to create a global multi-factor portfolio. It was found that most of the global multi-factor portfolios (using the different weighting methodologies above) had higher and statistically significantly different Sharpe ratios compared to the world market portfolio. The volatility was reduced without sacrificing returns. This represents the diversification benefits of investing in a portfolio using global factors. Again, differences in results using different weighting methods are insignificant; factor selection still rules. The high Tracking Errors of the global multi-factor funds (6.7-10.2% range) combined with the high alphas (2.5-6.0% range) resulted in Information Ratios in the range of 0.36-0.60.

When the risk of the global multi-factor funds was lowered further by imposing a 2% Tracking Error constraint (as sometimes practised by some institutional investors), the new sub-optimal portfolios had lower returns as expected but still beat the world market portfolio and the Sharpe ratios were statistically significantly different.

The Information Ratios were still economically significant. The authors conclude that the combination of superior absolute risk-adjusted performance, strong active returns, low tracking error, and reasonable turnover makes global factor portfolios "very attractive to institutional investors."

> "Academic research suggests that stock portfolios with exposures to certain favourable investment factors provide long term premia to investors."

When Emerging Markets were excluded from the global factor portfolios, they still outperformed statistically significantly and consistently, but the Sharpe ratios of the global multi-factor portfolios were mostly not statistically significantly different from the world market portfolio. Including Emerging Markets in the global multi-factor portfolios increases the Sharpe ratio, as average returns rise by more than volatilities. Adding Emerging Markets to the investor's opportunity set further improves the risk-return trade-off offered by Developed Markets country multi-factor portfolios.

The authors then compared country based factors with the global stock factors of Fama and French, and found the alphas were economically but mostly not statistically significantly different. The similar Sharpe ratios for equal weighted portfolios suggest that country based factor portfolios are good proxies for Fama-French factor portfolios, and offer an alternative way to access global factor premia through a smaller number of more liquid assets (dozens rather than thousands of holdings).

Comparing the global multi-factor country based portfolios' performances with MSCI investable global multi-factor indices portfolios, equally weighted portfolios outperform on relative and risk-adjusted basis but alphas are not statistically significantly different from zero.

In conclusion, Angelidis and Tessaromatis's article suggests that a global factor allocation strategy implemented using country ETFs and index futures can be an alternative to the more typical equity tactical country allocation strategy implemented with individual stocks. They show that global factor portfolios with favourable exposure to Value, Small Cap, High Momentum, and Low Risk factors outperform the global market capitalization portfolio. The global multi-factor portfolio provides a better risk-reward, both economically and statistically, than the world market portfolio. An equal weighted global multi-factor portfolio subject to a 2% Tracking Error against the world market portfolio produced an annual alpha of 1%. Selecting the right factors is more important than deciding on the portfolio construction methodology. Including Emerging Markets in the portfolio significantly improves the performance of factor portfolios. Although the country based factor portfolios have a similar risk-return performance to stock based factor portfolios, they are arguably more liquid, facilitate greater capacity, are more easily hedged, and have lower turnover and transaction costs.

Magnus Kovacec is passionate about investing and writing, but chooses to as much as possible be dispassionate about investments. He has extensive international experience from working with both direct equity investments and fund selection in Developed as well as Emerging Markets. After studying and working abroad for many years, he decided to return to his native Sweden and the city where he was born. Magnus holds a BSc. from the London School of Economics and a MSc. from University College London, and is a CFA charter holder. Since the summer of 2017, Magnus is a contributing editor for HedgeNordic.

[1] Eugene F. Fama and Kenneth R. French, "Size, Value, and Momentum in International Stock Returns," Journal of Financial Economics, vol.105, no.3, March 2012.

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TABLE OF ALL NHX EQUITY SUB INDEX CONSTITUENTS BY STRATEGY

Strategy	Year-to-date return	36-month return	Maximum drawdown
Event-driven activist fund			
Accendo	23,37	140,85	-18,96
Average	**23,37**	**140,85**	**-18,96**
Hedge fund equity-related derivatives			
Atlant Edge	9,82	15,19	-47,38
Atlant Sharp	10,01	-2,22	-43,56
Atlant Sharp Europe	14,78	-	-19,32
ALFA XO	-14,14	-	-24,84
Average	**5,12**	**6,49**	**-33,78**
Hedge fund long/short			
AAM Absolute Return Fund	0,24	86,48	-16,84
Adrigo Fund	2,48	10,14	-9,14
Alcur	-0,77	7,39	-4,2
Alchemy Trading AS	-4,3	22,78	-7,79
Arcturus A	-0,02	-	-3,46
Bodenholm	11,62	-	-2,87
Borea Global Equities	15,24	47,78	-12,35
Carnegie WorldWide Long/Short Fund	4,67	9,75	-34,56
Catella Nordic Long Short Equity	4,83	33,2	-8,8
Elementa	0,48	-	-2,42
Foghorn	-0,95	4,32	-13,36
Gladiator Fond	5,95	40,48	-45,48
Graal	1,37	5,41	-8,63
Graal Aktiehedge	1,28	5,31	-8,88
Inside Hedge	5,42	23,85	-17,79
KLP Alfa Global Energi	8,09	34,84	-15,93
Madrague Equity Long/Short	-5,28	14,24	-9,12
Nordea 1 - Stable Equity Long/Short Fund	-7,29	-10,4	-19,09
Nordic Alpha plc	8,55	25,57	-32,36
Nordic Omega plc	11,25	43,23	-32,67
Norron Select	3,14	29,9	-7,45
Origo Quest 1	1,89	58,69	-6,15
Peak Equity Alpha	-2,24	8,11	-3,68
PriorNilsson Yield	1,21	5,7	-9,25
PriorNilsson Idea	11,69	57,19	-46,09
RAM ONE	1,69	12,66	-27,56
Rhenman Global Opportunities L/S	2,42	-	-5,75
Rhenman Healthcare Equity L/S	25,75	43,6	-31,67
Sector Global Investments	-10,12	-	-19,41
Sector Sigma Nordic Fund	-2,95	11,2	-8,18
Sector Zen Fund	7,82	18,63	-25,64
Solidar SmartBeta	7,83	22,56	-26,41
Thyra Hedge	0,95	3,06	-14,4
Mjeltevik Invest	10,11	38,26	-24,36
HCP Quant	11,16	16,59	-29,18
Average	**3,81**	**24,35**	**-16,88**
Equity-focused hedge fund multi-strategy			
10Ten Kvanthedge	1,56	-	-0,61
Gramont Equity Opportunities	-22,72	-11	-27,23
Norron Target	3,39	11,35	-5,02
Average	-5,92	0,18	-10,95
Market-neutral fund			
Danske Invest Europe Long-Short Dynamic	0,23	5,88	-9,33
DNB ECO Absolute Return	-0,03	-10,39	-32,43
DNB TMT Absolute Return	3,19	17,18	-15,41
Handelsbanken Global Selektiv Hedge	0,58	-0,4	-5,67
Sector Healthcare Fund	1,46	27,55	-3,99
Zmart Alfa	1,32	-	-2,73
Coeli Norrsken	-0,72	5,07	-10,31
QQM Equity Hedge	6,08	7,85	-11,9
Average	1,51	7,53	-11,47
Value-oriented hedge fund			
HCP Focus Fund	20,87	74,56	-13,82
Pandium Global	4,39	37,57	-10,24
Incentive Active Value Fund	6,38	37	-8,65
Taiga Fund	1,86	53,88	-12,62
Average	**8,38**	**50,75**	**-11,33**

Source: HedgeNordic

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