DECEMBER 2020

HEDGENORDIC

Promotion. For Investment Professionals Only. Not for public Distribution

SPECIAL REPORT TRUE DIVERSIFIERS

SPECIAL REPORT
TRUE DIVERSIFIERS

Contents

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.

PUBLICATION PLAN 2021:

February:	Quant Strategies
March:	Nordic Hedge Fund Industry Report
April:	Finding Alpha in Equities
May:	Illiquid Strategies
June:	Multi Asset
September:	Value Investing / Quality Investing
October:	Private Markets
November:	Alternative Fixed Income
December:	ESG and Alternatives

CONTACT:

Kamran George Ghalitschi
Nordic Business Media AB
Kungsgatan 8
SE-103 89 Stockholm, Sweden
Corporate Number: 556838-6170
VAT Number: SE-556838617001

Direct: +46 (0) 8 5333 8688
Mobile: +46 (0) 706566688
Email: kamran@hedgenordic.com
www.hedgenordic.com

Picture Index: Von Ruth Black---shutterstock, Von ST.art---shutterstock, William Potter---shutterstock, photo-1521268875244-13b6e2b31e30, RessCapital – Erikbergsfoto

Design & Layout: Sara Ahlström

www.hedgenordic.com – December 2020
HEDGENORDIC

Editor´s Note...

Zooming Diversification

I have grown quite fond of this video-conferencing thing. It does not substitute the personal, face to face engagement, of course. It is hard to substitute shaking hands, sharing a laugh or enjoying a good meal in a nice restaurant, but what an amazing time we live in! We can actually engage face to face and stay in touch with our relations. Probably most of us appreciate the efficiency of the time saved not travelling, hanging around airports or in traffic jams. It is so much easier to "get the meeting." You are not tied to that Monday-Wednesday slot you had previously spent in a specific city, and your counterparty had to be squeezed into those days, or you missed out on the meeting. You can talk to someone in Helsinki in the morning, a quick touch-base to your broker in Frankfurt, some lead in London and then some of your relations in the US that same afternoon.

That's all great. For me though, it is something else that sticks out. And oddly, it is the intimacy. Some of my business relations, even those that feel like becoming friends, I have regularly met in a business environment, for many years in some shape or form. It could have been the company meeting room, a lunch or dinner, maybe even an after-work beer. Typically though, we were both in business attire and also in a business mode to some extent.

These days, by video-conferencing, I am virtually invited to people's homes, to their living rooms, studies or kitchens. And I enjoy that! I like the human touch this social-distancing has brought to our industry. Your counterparty may be cooking for the family while on the call, one of the kids is practicing the piano in the background, or just casually sits on mum's or dad's lap with an iPad during the call. The spouse walks by in the background or gives a friendly wave into the webcam, the cat hops onto the desk, the dog barks for attention (never took you for a dog person!). You get to know, even to "feel" people in a very new and different way. One client I zoomed with sat in his man-cave and the entire room looked like a Manchester United shrine. I have done business with the guy for years and had no idea he was into football, none the less such a fanatic for a particular club. The business suit and talk just never gave it away in that depth.

Others, I have maybe talked to over the phone for years, or we email a lot, but have never seen another face to face.

We are a small company, but have stocked up using Zoom, MS Teams, Webex, Facetime, Skype etc. for video chats. Clients and teammates communicate through email, phone, SMS, WhatsApp, we have Trello boards, CRM tools, project tools such as Monday.com or HubSpot and push files around on Dropbox, Google Drive and WeTransfer. It is really a wealth of channels one needs to cover to meet various persons' and companies' requirements. Certainly, our communication channels are much more diversified than prior to the measures to contain the Covid-pandemic took over daily life. (So, this whole intro was a prologue to span a bridge towards diversification.)

Working in asset management, we are well aware of the benefits of diversification, especially in times of crisis. In simplest terms, diversification involves investing your portfolio in a variety of different assets like stocks, bonds, real estate, commodities, real assets, precious metals, private markets, cash, etc. The benefits of diversification often come into question when correlations are high and different assets classes are moving in tandem. Further questions arise when there is an extreme disparity of returns between different assets or asset classes.

"Diversification is the only free lunch" in investing, says a quote attributed to Nobel Prize laureate Harry Markowitz. In fact, I hear this claim surprisingly often. I never really managed to wrap my head around that claim. I don't even understand what it means, or is trying to say. (Beyond the obvious, diversify your portfolio!)

Why would something as complex and burdensome as truly diversifying a portfolio (or installing, managing, maintaining, familiarizing, keeping up to date 10 different communications apps) be described as "free lunch." Diversifying portfolios requires a huge amount of research, data, access to markets and instruments, brokers, dealers, asset managers, understanding of complex correlations and dependencies and so much more. In addition, especially when managing OPM (other people's money) in an environment as we have seen for two decades now, with major bond and stock markets clearly moving in one direction, being diversified takes some guts. Being broadly diversified by definition means a sizeable part of your exposure is not with the most successful highfliers, but potentially with some real dogs that drag for years and years, potentially making you look like a fool.

This is especially true when FOMO (fear of missing out) kicks in with investors, or beneficial owners of such investments, and express disappointment. The cost of being diversified may be losing your job or your fund going under as it fails to compete and attract assets.

While, again, the underlying advice if you want to take it as such, to diversify, is noble, the claim that it was free and effortless I simply find lacking respect to those striving to truly diversify their portfolio.

KAMRAN GHALITSCHI
CEO & PUBLISHER HEDGENORDIC

www.hedgenordic.com – December 2020 HEDGENORDIC

Portfolio Protection Strategies: A One Trick Pony or an Eight-Armed Buddha?

By Hamlin Lovell – HedgeNordic

Jean François Bacmann
Head of Research Systematic Strategies
LGT Capital Partners

Pascal Spielmann
Head of Alpha Generix Investment Team
LGT Capital Partners

Every crash, crisis and recovery is different in terms of its origins, duration, path, and pattern. This means that some crisis offset strategies may work in certain crises but fail to protect capital - or even lose money - in others. Some of the simplest approaches are akin to a "one trick pony", which may only deliver under a narrowly defined scenario. LGT's Dynamic Protection strategy is more like an eight-armed Buddha: it contains eight strategies that are explicitly, or implicitly, long of volatility; it also dynamically varies its risk budget.

It comes under the umbrella of LGT's Alpha Generix range, which includes systematic alternative risk premia/style premia strategies harvesting carry, value, momentum, trend, quality and size premia. LGT Dynamic Protection is also entirely systematic, but it is "the antithesis of risk premia", says Pascal Spielmann, Head of Alpha Generix Investment Team at LGT Capital Partners. "The objective is not tail risk protection per se, but rather to generate positive returns during an extended equity market drawdown, while producing flat or only slightly negative numbers during flat or rising equity markets", he says.

VOLATILITY INSTRUMENTS

The most obvious portfolio protection strategy - being directly long of equity market volatility - is one of the eight LGT Dynamic Protection strategies, but LGT's execution of the idea differs from many other popular approaches in terms of the instruments used, and the trading strategy.

Spielmann argues that, "buying put options can work well for big gap or tail risk moves, but the time decay is expensive in terms of the cost of carry, and the payoff is also sensitive to timing entry points and monetization times". Variance swaps are also widely used in volatility strategies, but he argues that, "we do not want to be at the mercy of OTC counterparties who may widen out bid/offer spreads when we want to exit the trade". Counterparty failure was another risk in 2008, though this may now be mitigated through clearing. LGT prefer VIX futures, for their liquidity and low transaction costs.

Across various volatility instruments, a widely employed method of reducing time decay costs is

www.hedgenordic.com – December 2020
HEDGENORDIC

"We do not want to be at the mercy of OTC counterparts who may widen out bid/offer spreads when we want to exit the trade"

to construct a calendar spread, owning long-term volatility and shorting near term volatility. "This approach is however sensitive to sizing the ratio between the two legs, and it does not always protect from crises when front month volatility jumps faster than more distant volatilities", says Jean-Francois Bacmann, Portfolio Manager and Co-Head of Research, who previously worked for Man Group.

LGT Dynamic Protection can trade different maturities of the VIX but only from the long side, and they dynamically resize exposure, not only for the VIX but also for the other asset classes.

OTHER VOLATILITY RELATED STRATEGIES

The debate over different volatility instruments and strategies is anyway of limited relevance to the LGT strategy, since the VIX only makes up a maximum of 12.5% of the risk budget. The three other "long volatility" strategies are tactical short equity indices, contrarian short-biased equity indices, and crisis-sensitive commodities, all based on multi-factor signals. There are also four other "safe haven" strategies that are implicitly long of volatility: Gold, Government Bonds, Money Markets and FX, also driven by a range of mainly fundamental signals.

This diversification can profit under different crisis scenarios. For instance, gold could gain from an inflationary shock and, despite very low yields, government bonds could provide further upside under a deflationary shock.

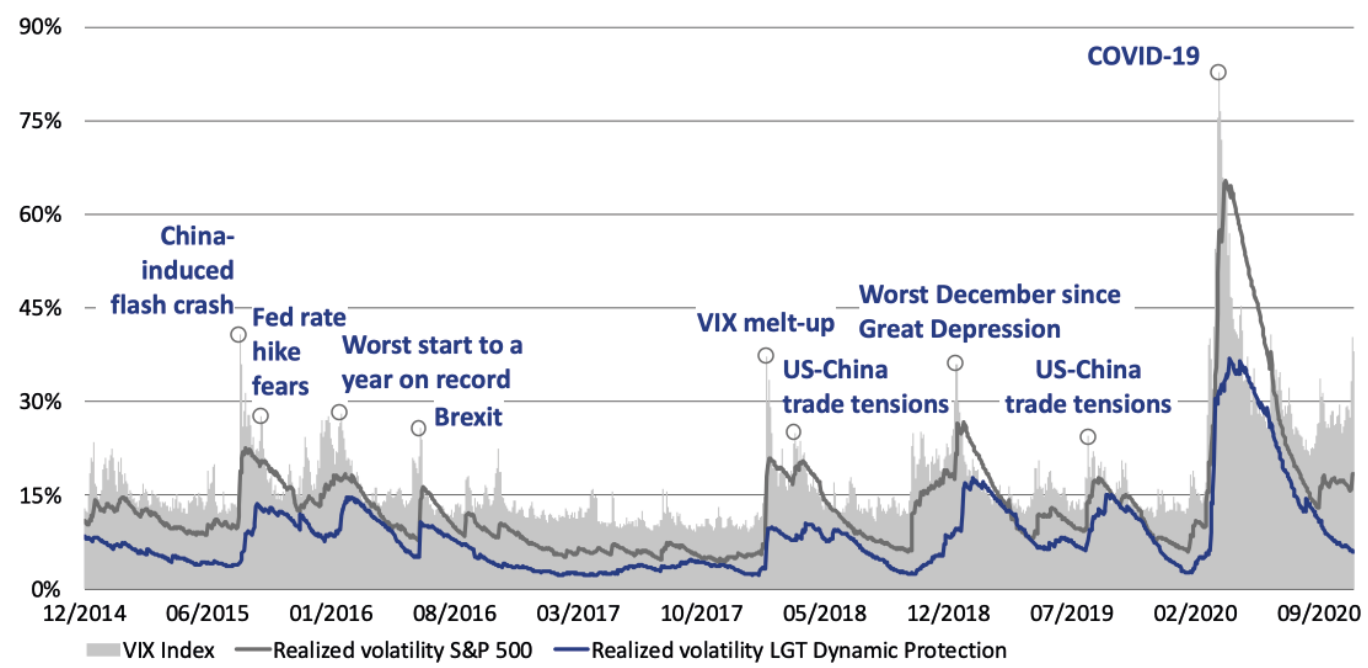
Gold and government bonds are longs, but the asset classes include a mix of long, short and long/short exposures. For instance, the commodity hedge strategies can trade long or short positions in other precious metals such as palladium and platinum, base metals and energies, partly based on a correlation filter to screen out high equity market correlations.

DYNAMIC RISK BUDGETING AND COSTS OF CARRY

The eight long volatility and safe haven strategies are equally weighted with daily rebalancing. "This provides an equal chance to perform and mitigates model risk", says Bacmann.

Risk taking – adapting to changing conditions on a daily basis

Realized volatility of LGT Dynamic Protection vs. S&P 500 and VIX index



Source: LGT Capital Partners, Bloomberg, BNP. LGT Dynamic Protection was renamed from LGT Alpha Generix Long Volatility as of 3 December 2018 and is managed according to the same investment policy and strategy. Data from 2 September 2014 to 31 October 2020, in USD. Performance data net of operations fee and all costs, gross of LGT management fees. Fees and other costs will reduce the performance to the investor. Actual performance of the LGT Dynamic Protection SF, Class A (USD). CLASS A USD SHARES, GROSS, BEAR NO MANAGEMENT OR PERFORMANCE FEES: INVESTMENTS ARE RESTRICTED TO LGT, NO DIRECT INVESTMENTS ARE POSSIBLE. Realized volatilities are exponentially smoothed over a span of 66 trading days.
Past performance is not a guarantee, nor an indication of current or future performance. Returns may increase or decrease as a result of currency fluctuations.

www.hedgenordic.com – **December 2020**
HEDGENORDIC

But overall risk exposure is not fixed; dynamically varying the risk budget is central to the strategy, and is designed to opportunistically capitalize on higher volatility periods while avoiding or minimizing costs of carry in calmer markets. Fund exposure is sized in proportion to S&P 500 volatility, and other signals such as volatility of volatility and the term structure. This has worked well: the fund's own volatility has tracked that of the S&P 500 very closely, as shown below.

The beta of the strategy has also fluctuated. It has been close to -2 in the most negative periods of the S&P 500 index (losing 3% or more) and fluctuating around 0 in more benign periods.

Just as the overall exposure and risk budget is variable, so too is the overall cost of carry. "We cannot define in advance how high the costs would be in the way that we could for an option buying strategy. Costs of carry vary over time and between the strategies. For instance, the VIX futures have the highest cost of carry, but also the greatest convexity. US Treasury bonds still have small positive carry", explains Bacmann.

Costs of carry can also be mitigated by the ninth strategy, a dynamic equity overlay, which is the "odd one out" for two reasons: goes tactically long of equities (up to a maximum of 30%) in order to reduce the fund's carry costs, and it sizes positions inversely to S&P 500 index volatility.

DIMENSIONS OF DIVERSIFICATION

"The strategy is diversified from many angles: asset classes, term structures for some markets, trading time periods, and signal types: a blend of backward-looking, coincident and forward-looking indicators are used. Signal types also range from breakout, to concordant and digital types. The strategy has been designed to avoid over-optimising or over-fitting. We would rather be approximately right than precisely wrong", says Bacmann.

> "The strategy is diversified from many angles: asset classes, term structures for some markets, trading time periods, and signal types."

PERFORMANCE UNDER DIFFERENT MARKET REGIMES AND SCENARIOS

The suite of strategies have, thus far, generated a high hit rate. The fund then had its best ever month in March 2020, making 19%, and in the generally low volatility bull market regime between launch in 2014 and early 2020, it maintained positive returns for several reasons. "There were some opportunities to monetise volatility spikes before scaling back exposures to reduce bleed during calmer markets, and the long holdings in government bonds and gold were also profitable", says Spielmann.

During substantial equity market corrections since 2014, at least five of the eight strategies have been profitable and there have been episodes – such as the fourth quarter of 2018 - when all eight strategies benefitted from market turbulence.

Equally, there could be adverse market scenarios under which the strategy might not make much or any profit, such as a "bolt out of the blue" market correction. "An event such as the September 11th 2001 terrorist attacks, may be difficult for a systematic strategy to capture", says Spielmann. The LGT strategy would probably have had relatively low exposure immediately before the attacks. Somewhat similarly, the VIX spike in February 2018 came without much warning, so returns from the strategy were rather subdued. An endogenous market event, such as the technology stock swoon on September 3rd 2020 can also be challenging because this originated from mega cap tech stocks rather than being foreshadowed by any uptick in overall market volatility.

Therefore, the strategy is not a perfect hedge for every possible equity market correction, but given its daily rebalancing in response to various signals, it is likely to protect against most of those that become multi-day, multi-week or multi-month pullbacks.

It has also preserved capital during market conditions that could be very challenging for some short-biased or long volatility strategies. The summer of 2020 has seen a relatively unusual combination of a "melt up" in equities combined with high implied volatility, possibly related to large volumes of call option buying. This would have been an expensive time to either be short of equities or to own options. Over this period the LGT strategy has been roughly flat, making money in some months and losing in others.

The strategy has clearly performed far better than buying puts or a long VIX strategy. It has also outperformed other liquid volatility strategies: both the flagship AIF version of the strategy as well as the UCITS version of the strategy won two renowned industry awards, including the HFM European Quant Performance Awards 2020 and The Hedge Fund Journal's "UCITS Hedge" award 2019 in the tail risk and volatility categories respectively.

The strategy looks more like a systematic macro approach engineered for negative equity correlation, than a traditional volatility strategy, but it has delivered better equity drawdown mitigation over the past 6 years than have many more typical approaches that are labelled as "tail risk" or "crisis risk" hedges.

Allianz Strategic Bond Fund: Controlled Risk Taking

JUDICIOUS WAGERS DRIVE OUTSIZED OUTPERFORMANCE

By Hamlin Lovell – HedgeNordic

Allianz Strategic Bond Fund is a relatively unconstrained global bond fund that aims to beat its benchmark – the Bloomberg Barclays Aggregate Global Total Return– by an average of 2% per year, but has done so by much larger margins: 2.8% in 2018, 5.1% in 2019 and 25.4% in 2020 up to November 17th, net of fees of 0.42%. Manager Mike Riddell, who has run the strategy since June 2016, would appear to be "shooting the lights out" in performance terms, but there are many areas where he is not making wagers either relative to the benchmark, or indeed the peer group (the fund sits in the UK Investment Association's "Strategic Bond" category, and in Morningstar's "Flexible Global Bond" category) - and also some areas of the benchmark he is not invested in.

In terms of credit ratings, the fund's average of A- is, and always has been, pretty close to the benchmark. Though the fund can allocate up to 50% into high yield debt, this includes "crossover" paper at the higher end of the high yield spectrum or the lower reaches of investment grade, and the benchmark will anchor the fund to higher quality paper. Therefore, yield has not been a significant driver of returns this year. Investment grade debt yields are, on average, near

www.hedgenordic.com – December 2020
HEDGENORDIC

Mike Riddell
Head of Fixed Income
Macro Unconstrained
Allianz Global Investors

zero in October 2020, though for this substantially currency hedged strategy, the currency share class is more relevant: "nearly everything we own has a positive yield when hedge back to British Pounds, and a negative yield when hedge back to Swiss Francs", he says.

YIELD CURVES AND RATES

In any case, Riddell is targeting total return and in the current climate yield curve shape is more important than yield for investment grade. Riddell forms a view on what expectations are priced into curves and how outcomes could differ. For instance, he owns 15-year German Bunds, because the curve is very steep at that point and he expects it to flatten, and also owns some longer dated Norwegian government bonds.

As well as pinpointing his favourite spots on the yield curve for long positions, Riddell can construct yield curve steepeners and flatteners, which are short one part of the curve and long another section. "In 2018-2019, a US steepener and a European flattener were important contributors", he says.

www.hedgenordic.com – December 2020 HEDGENORDIC

In 2020 the collapse in interest rates post-Covid means that an aggressive interest rate duration bet would have been the most obvious way to outperform, but the fund is constrained to overall duration of between 0 and 12 years versus the benchmark at just over 7 years.

COUNTRIES

But within this framework, Riddell can take long or short duration bets relative to the benchmark in individual countries, of plus or minus 2 years, or up to 3 years if there are hedges elsewhere. For example, Italian sovereign debt was a notable contributor from the third quarter of 2018 to the third quarter of 2019, based on its wider spread and confidence in the politics of Matteo Salvini and the ECB actions. Notably, this was not a broad bet on peripheral Europe as the risk of a replay of the 2011 Eurozone crisis was hedged in two ways. Riddell was short of ten-year Spanish sovereigns, and was also long of tail risk protection through out of the money put options on the Euro versus the Japanese Yen, which tends to rise during phases of risk aversion. In October 2020, he is slightly net short of Eurozone duration, including a short in Italy, and also has shorts in Poland, Czech Republic in Eastern Europe, as well as a short New Zealand position.

Riddell is selective over where he wants to take emerging market country risk. "A huge consensus trade this year that we have avoided has been owning Chinese government bonds and hedging the currency risk. This has been a disaster as the Renminbi has done very well but government bond yields have steadily risen as the economy recovered". In previous years, he has sometimes taken a more sanguine view of Chinese risks: "In late 2018, around 8% of the fund was allocated to Chinese real estate developers, with credit ratings between B and BBB, which were yielding as much as 10% even as house prices were accelerating. This trade was exited by the summer of 2019 as macro stimulus from the Chinese central bank helped to fuel a recovery in the paper", he recalls. This was USD denominated debt (he can also access local currency paper through Bond Connect).

CONTRARIAN POSITIONING

Tactical and contrarian positioning have also been important drivers of returns. The fund naturally calculates Value at Risk (VaR) but does not target constant volatility or VaR because Riddell finds this would force him to take too much risk in calm market conditions and might prevent him from taking advantage of market selloffs. In early 2020, Riddell judged that, "markets were complacent with high yield spreads the lowest since 2007 and currency volatility at all-time lows. We accumulated long option positions in both while keeping nearly 100% of the fund in investment grade sovereign debt". In contrast in early 2019 and in March 2020, he took the view that "risk assets were cheap and bought some single name corporate debt, including long dated investment grade names in the second quarter of 2020. We are more defensive when risk premiums are low and take more risk when most investors panic".

OFF BENCHMARK BETS

The main areas where Riddell has invested outside the benchmark are currencies and inflation linked debt, which are part of an overlay strategy. He has in 2020 been long of US and European inflation, and short of UK inflation. The long US inflation position was partly based on US policy changes that allow future inflation to overshoot in compensation for historical undershoots. "This was cheap when we bought it but has richened considerably. The short UK inflation position was based on the UK being a massive outlier pricing inflation well above target that we think is unlikely. The reason is a technical demand/supply imbalance as a consultation about a possible adverse changes to the inflation measure used for UK index linked gilts has led to a dearth of issuance, artificially restricting supply". Riddell does not expect a 1970s style inflation spike, and points out that Japan's very aggressive QE programmes have not managed to re-ignite inflation. The inflation views have sometimes been expressed through inflation linked bonds, and sometimes via inflation swaps, which isolate the market implied inflation rate and eliminate the real interest rate risk.

> "We accumulated long option positions in both while keeping nearly 100% of the fund in investment grade sovereign debt."

OFF LIMITS BETS

Riddell is cautious on liquidity risk and cognizant of the potential for liquidity mismatch risks in daily dealing vehicles. He has never held more than 5% in single name high yield corporate debt, preferring to use indices for larger exposures. He has also avoided asset backed securities – a significant part of the benchmark – altogether. "ABS was very cheap in the second quarter, but we were concerned about liquidity risk", he says. He has also never held leveraged loans, which have in 2020 been deemed ineligible for UCITS by the Luxembourg regulator. Riddell is of the opinion that, "some funds would have had difficulty meeting redemptions in March 2020 if central banks had not flooded the markets with liquidity. We could barely sell government bonds let along investment grade or high yield corporate debt then". If he wants to express a more risk on view, he is happy to own investment grade corporates or peripheral Eurozone bonds, which have been somewhat correlated with other spread products anyway.

LATE 2020 OUTLOOK

Having pivoted to a somewhat more risk on stance in the second quarter of 2020, Riddell is now taking

www.hedgenordic.com – December 2020
HEDGENORDIC

“We are more defensive when risk premiums are low and take more risk when most investors panic.”

a more circumspect view of risk in general, with the exception of emerging markets. After the US Presidential election, he has taken some profits on credit. “Our general macro outlook is that global economic momentum should start falling. We are particularly worried about Europe, though there are also growing US lockdowns. However high yield is now tighter than the past 10 years, which is very complacent about recession risk, while government bonds are priced for a great depression. These two markets are pricing in very different outcomes and the truth is probably somewhere in between”.

“Yet Asia is a bright spot and we have positions in local currency interest rates and currencies, which are also undervalued. Emerging markets have lagged the global reflation trade and though the carry is not so appealing after rate cuts, EM assets are too cheap to ignore. Having been short of EM FX in the second quarter, we have now started rotating into EM assets”. The credit exposure is mainly sovereign though Riddell has identified a quasi-sovereign, stated owned Columbian oil company Ecopetrol, that offers some yield pickup. All of this is within limits however: a maximum 25% net exposure to EM currencies, within the overall currency risk constraint of between 80% and 120% of the benchmark currency exposure.

TEAM STRATEGIES

Riddell’s team run around EUR 8 billion across four strategies: UK government debt, UK inflation linked debt, the Strategic Bond fund and the Fixed Income Macro fund. The last of these is a pure hedge fund strategy that is not subject to the constraints applying to the Strategic Bond fund. All of the strategies have access to an extensive toolbox of derivatives – including futures, interest rate swaps and swaptions - to express views more precisely both for hedges and alpha positions, though Riddell does not sell volatility nor options. The strategic bond strategy started in June 2016 in a UK OEIC and launched a Luxembourg SICAV in November 2019. Allianz is now opening SEK and NOK currency share classes in response to demand.

Ulf Strömsten
Portfolio Manager - Nordic Cross Asset Management

Diversification is in the DNA

By Eugeniu Guzun – HedgeNordic

Achieving true diversification along with better risk-adjusted returns requires a strong pursuit of uncorrelation. Yet truly uncorrelated investments are hard to find. The entire investment team at Nordic Cross Asset Management contribute their individual thoughts and expertise in the fulfilment of the team's objective to offer a truly uncorrelated multi-strategy hedge fund, which makes up the DNA of Nordic Cross Stable Return.

"For us, it is important to be able to create stable returns at a risk with limited correlation to the market," explains founding partner and portfolio manager Ulf Strömsten, who is in charge of managing Nordic Cross Stable Return. One of the fund's three main objectives is keeping the correlation with equity markets below 0.3. "We have a return target, a correlation target and a risk target," says Strömsten. "We use them to explain to investors what they should expect."

To emphasize the importance of uncorrelation, Strömsten says that "we are having a phenomenal year with the fund now up over 21 percent. Still, I am very pleased with last year when the performance was a more modest 5.4 percent." Last year's return was achieved with a negative correlation to the broader equity market. "This means that we created that return on days when the stock market was down," points out Strömsten. "From the perspective of investors, we added quite a lot of diversification to their portfolios and we brought their portfolio risk down by having low correlation."

In addition to targeting a correlation below 0.3, Nordic Cross Stable Return also aims to deliver an average annual return of four to five percent over a rolling three-year period and exhibit an annual standard deviation in returns of three percent. To achieve its threefold objective, Nordic Cross Stable Return

> "By allowing the fund to allocate between different strategies and to be flexible in that allocation, we can adopt a strategy which is adequate to the kind of market that we are experiencing."

www.hedgenordic.com – December 2020 HEDGENORDIC

employs a multi-strategy approach to investing featuring different equity sub-strategies, as well as fixed-income and derivatives mandates. "We are aiming to have flexibility both in terms of allocation and in terms of how we use different asset classes," says Strömsten. "By allowing the fund to allocate between different strategies and to be flexible in that allocation, we can adopt a strategy which is adequate to the kind of market that we are experiencing."

ACTIVE MULTI-ASSET, MULTI-STRATEGY APPROACH

The equity and fixed-income strategy buckets can each represent between 30 percent to 70 percent of Nordic Cross Stable Return's entire portfolio. The equity bucket is composed of three additional sub-strategies: market-neutral, long/short and event. The equity market-neutral sub-strategy can account for up to 70 percent of the fund's entire portfolio, while the long/short and event sub-strategies can represent up to 40 percent and 15 percent of the portfolio, respectively. "We could, in fact, do the entire equity strategy as market-neutral, while we only allow long/short to account for 40 percent of the entire fund," says Strömsten. "The reason for that is that we perceive the long/short strategy to be riskier than the market-neutral strategy."

"The bulk of the return comes from the equity part of the portfolio, predominantly from the event and long/short mandates," says Strömsten. "While the contribution that you get from the market-neutral and fixed-income strategies is pretty low, we use these to diversify the portfolio," he emphasizes. "We need the market-neutral and fixed-income parts to bring the entire risk of the portfolio down and make sure that the correlations are kept low." Strömsten goes on to say that "you get an additional return even if the main reason for having them in the portfolio is to bring the risk down."

> "It is not the stock market that is going to create performance here, what is going to create performance is the companies that we pick."

In addition to equity investments, Nordic Cross Stable Return also makes used of fixed-income and derivative instruments. "We take a low-risk approach to build the fixed-income part of the portfolio," points out Strömsten. "We have a lot of AAA-rated covered bonds and have a small share of high-yield exposure that mainly goes to BB+ bonds." The derivatives mandate, meanwhile, is used to neutralize unwanted risk, either company-specific risk, sector-specific risk or market risk.

The allocation process across asset classes sub-strategies relies on a top-down macro-based approach. "We continuously change the allocations, with input from the entire team. To get the call right, you have to have a dynamic discussion going behind that decision. We meet on a regular basis to discuss and share our views on the market," explains Strömsten.

RETURN CONTRIBUTIONS FROM EQUITY SUB-STRATEGIES

"We aim for a contribution of one percentage point per year from the market-neutral strategy when it accounts for 20 percent of the total portfolio to get to our return target of five percent," explains Strömsten. The market-neutral portfolio is usually comprised of between ten and 20 pairs. The long/short portfolio, which generally houses a combined 20 long and short positions and maintains a net market exposure between minus 30 to plus 30 percent, "is expected to double up in terms of contribution given the same allocation to the total portfolio." The event-driven strategy, meanwhile, runs a more concentrated portfolio of five to six positions. "We also expect the event portfolio to contribute to two percent at a level of ten percent of the portfolio."

The stock selection process for all three equity sub-strategies relies on a fundamental bottom-up approach. "We go long in the companies that we believe are fundamentally the most attractive ones and go short the ones that are the least attractive," explains Strömsten. For the event portfolio, "the event can be an IPO itself or a longer-term process such as a megatrend or a structural trend." Event-driven investments "represent binary, zero-one kind of investments," according to Strömsten. "What we do in the event-driven part is that we look for companies with a high share of company-specific risk."

According to Strömsten, "there are different perspectives that we take when building the market-neutral, long/short and event-driven portfolios." But one characteristic that unites them all is that "they tend to work in different kinds of environments." The entire bucket of equity strategies generally maintains a net equity market exposure between minus and plus ten percent. "It is not the stock market that is going to create performance here, what is going to create performance is the companies that we pick," emphasizes Strömsten.

Nordic Cross Stable Return advanced 21.6 percent year-to-date through the end of October, handily outperforming its long-term return target of four to five percent. "We are having a phenomenal year this year, we are happy with a number of investments that have gone well, particularly in the event-driven portfolio," says Strömsten. "There is a pretty large number of stocks that contributed to returns this year, so we do not depend on one individual investment for the return," he continues. "We have a very good year in terms of stock picking, which has resulted in great performance in both the long/short and the event-driven mandates."

www.hedgenordic.com – December 2020 HEDGENORDIC

Infrastructure as a True Portfolio Diversifier

By Eugeniu Guzun – HedgeNordic

Pekka Niemelä
Portfolio Manager
United Bankers

Investors searching for genuine diversification may need to venture out beyond traditional assets to more alternative asset classes such as infrastructure. Infrastructure describes the physical assets providing essential services to our modern world, including, among others, water, electricity, transportation and communication. These assets represent the skeleton holding up of a well-functioning economy and society.

Low business risk and high dividend payments endow infrastructure investments. But with direct investments in toll roads, airports and other unlisted infrastructure assets out of reach for most investors, publicly-listed companies that own or operate infrastructure assets – may represent an attractive avenue for exposure to this growing asset class.

In an environment of low yields, investing in listed infrastructure can be an attractive source of returns for income-focused investors, which partly explains the growing investor demand for this asset class.

"In the current environment where we have zero interest rates, fundamentally-sound infrastructure businesses that are still yielding between three to four percent are attractive to investors," says Pekka Niemelä, the portfolio manager of three infrastructure funds at Finnish asset manager United Bankers. "More and more institutional and private investors are looking for stable, yield-generating investments and there is a general trend towards this type of investments, whether they are real estate or infrastructure investments."

"Fixed-income investments have been an important allocation in the portfolios of many income-seeking investors such as large institutions, but investors are currently getting nothing from investing in fixed income," points out Niemelä. As a result, "there is a fundamental interest in all kinds of businesses offering dividend yields or some cash component in returns," he continues. "The main forces and drivers of the growing demand for infrastructure investments stems from what is happening in general economies, namely slow growth and very low interest rates."

IMPACT OF COVID-19 ON INFRASTRUCTURE

The coronavirus pandemic has shaken up economies around the globe, leaving its mark on infrastructure sectors too, predominantly on GDP-correlated assets such as airports, ports and toll roads. Other infrastructure segments such as water utilities, electric utilities, renewables, or telecom infrastructure have seen less of an impact from the pandemic. "Given the current level of disruption among businesses and business models further enhanced by the pandemic, investors really appreciate infrastructure businesses that are less prone to disruption," highlights Niemelä. However, Niemelä considers that "businesses in the infrastructure sphere have been more susceptible to changing consumer behaviors, which have longer-lasting implications, rather than short-term pandemic-driven interruptions."

> "More and more institutional and private investors are looking for stable, yield-generating investments and there is a general trend towards this type of investments, whether they are real estate or infrastructure investments."

> "Our approach is more about diversification, building and maintaining portfolios that are diversified across geographies, sectors, and companies."

Whereas the coronavirus-induced market turmoil in March impacted most listed equities with roughly the same intensity, the pace of recovery has varied across different segments. "If we look at what happened in March, almost all companies and industries came down when the pandemic-related shock hit the markets, and then gradually different industries have been recovering from that first shock," says Niemelä. "Looking at the infrastructure side, different industries have performed differently, too," he points out.

Traditional segments such as water and electricity utilities are back up to the pre-Covid levels. "The core utilities have performed as expected even under very difficult circumstances," says Niemelä. "These are businesses with business models that are not easily disrupted," he emphasizes. "The consumers have been able to pay electricity bills, and the companies have paid their dividends to investors. The shock was more about the way the market reacted, and share prices have gradually been picking up."

User-based transportation infrastructure assets have been most impacted due to the coronavirus pandemic, most notably airports, toll roads and ports. "If we look at the other end of the performance spectrum, we can see that, for example, airports are one of the worst-hit areas in the infrastructure space," says Niemelä. "There are some sectors such as airports that will need a year or two to be back to where we started the year." Whereas Niemelä acknowledges that "the recovery won't be that fast," he considers that "the recovery could be faster than people expect."

UNITED BANKERS' EXPERTISE

Instead of playing the "stock picking and market timing" game, Pekka Niemelä predominantly relies on a buy-and-hold approach to build well-diversified portfolios for the three infrastructure funds at United Bankers. Niemelä mostly focuses on monopoly-like infrastructure businesses, which "leaves not that much room for stock picking," he argues. "Our approach is more about diversification, building and maintaining portfolios that are diversified across geographies, sectors, and companies," says Niemelä.

One common characteristic of all holdings across the three UB infrastructure funds is the focus on near-monopoly infrastructure. "Not all infrastructure businesses are regulated, but we focus on finding natural monopolies," says Niemelä. "The competition is limited for these types of businesses and, therefore, the pressures on profitability and business volumes are less than in normal competitive markets." The focus, therefore, is on traditional utilities such as water, gas and electricity, as well as toll roads, airports, and ports. "These are the core of our universe."

As the UB infrastructure funds avoid a benchmark-hugging approach, Niemelä chooses sector weights to build portfolios with attractive risk-return profiles. "Whereas water utilities are a really small slice of the total infrastructure markets, we like the profile of water utilities very much and we have maintained a much bigger share of water utilities in our portfolio compared to respective benchmarks," says Niemelä. "Water utilities are known for being the least risky part of the market."

United Bankers currently managers three infrastructure focused-funds: UB Infra, which invests in OECD countries; UN EM Infra, which invests in emerging markets; and UB EM Frontier Real Assets, which makes investments in both infrastructure and real estate assets. The geographic focus shapes the risk-return profile of the UB infrastructure funds. "Investing in emerging markets is associated with more risk," acknowledges Niemelä. "OECD countries exhibit low growth prospects and thereby low growth expectations, whereas companies in emerging markets enjoyed higher growth rates and had higher growth expectations reflected in valuations, so valuations in emerging markets came down more sharply during the pandemic." Over longer periods of time, emerging market-focused vehicles are expected to perform more strongly than developed market-focused funds due to higher growth rates.

Since launching in early 2006, UN EM Infra delivered an annualized return of 6.3 percent through the end of October this year. Going forward, Niemelä expects that 50 percent of the return will come from dividends, contributing between three to four percent annually. "Then there a small capital appreciation on top of that, so we anticipate a six to seven percent return range going forward, which is what we actually managed to achieve over the years."

RUNWAY FOR GROWTH

Infrastructure and listed infrastructure in particular "is still a young asset class," according to Niemelä. "But we proved that the performance of the asset class can be consistent, that the risk level is lower than in the general stock market and the returns are competitive," he continues. "It can give some reassurance for investors that these infrastructure companies can deliver attractive returns over long-term despite going through difficult periods." More importantly, the infrastructure asset class has a "bright future in both developed and emerging markets, as the need for infrastructure investments is huge."

www.hedgenordic.com – December 2020 HEDGENORDIC

Can Higher Leverage be Consistent With Lower Risk?


Søren Astrup
Managing Director
Formuepleje A/S

By Hamlin Lovell – HedgeNordic

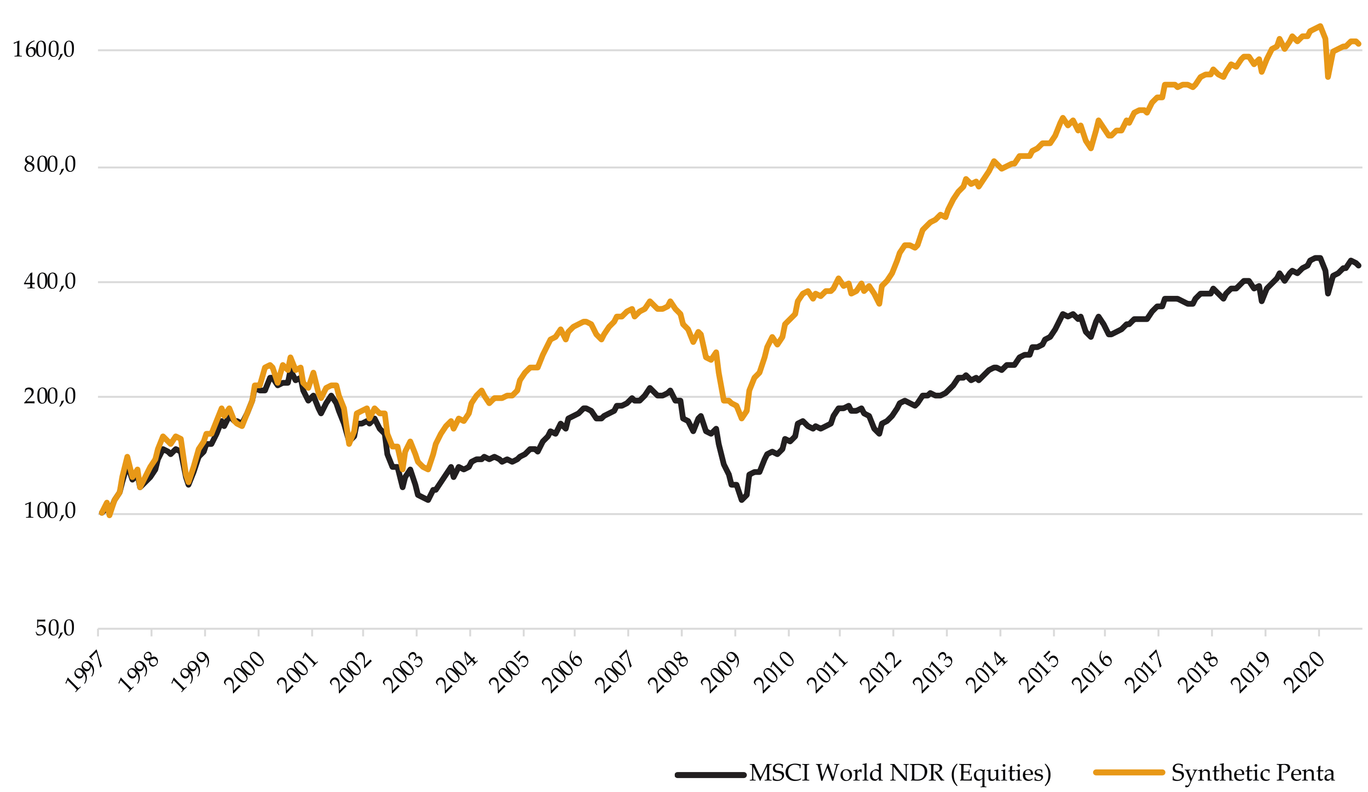
Formuepleje's Penta strategy, incepted in 1995, can leverage up to 500% and typically has around 400% gross exposure. The portfolio was comprised of 332% bonds, 127% global equities, and 12% equity market neutral, as of October 2020.

Yet its volatility, drawdown, and value at risk metrics are below that of an unleveraged portfolio 100% invested in global equities, and this is by design. "One of the risk management constraints is that forecast risk measures over 36 months indicate a probability of loss no higher than they would be for an unleveraged global equity portfolio. The simulation is based on a standard methodology of normalized statistical distributions, assuming a normal distribution", says Søren Astrup, Director.

Historically, Penta has generated higher returns and Sharpe ratio than its benchmark of global equities. The simulated performance since 1997 would have been up by over 1500%, compared with global equities up by around 300% over the same period. This demonstrates the magic of compounding over 23 years. Global equities have annualized at around 6.4% while the synthetic Penta profile has annualised at 12.6%. Penta has also provided a smoother ride: the Sharpe ratio over this period has been 0.52 for synthetic Penta, versus 0.26 for global equities. (A

> "The market neutral allocation does not change the volatility much, but at the margin it stabilizes the risk and enhances the Sharpe ratio."

Total Returns since strategy inception



> "One of the risk management constraints is that forecast risk measures over 36 months indicate a probability of loss no higher than they would be for an unleveraged global equity portfolio."

simulation is used due to a change of approach after 2008, when Swiss Franc leverage caused some losses. The risk model has since been modified).

Volatility on Penta has been slightly higher than on unleveraged equities, but importantly downside risk, as measured by Value at Risk and Conditional Value at Risk are lower.

DIVERSIFICATION

One reason why Penta has lower downside risk than unleveraged equities is the low correlation between the equity and bond strategies - and their near zero correlation with the market neutral sleeve.

Historically the correlations have ranged between roughly +25% and -25% though they can sometimes be outside this range. "During the Coronavirus crisis, in March 2020, there were periods when correlations spiked up to 0.7. Recently in October 2020, correlations between the two have been slightly negative. We take a quarterly look at correlations and form a view on their future behaviour", says Astrup.

SKEWNESS

Another reason for Penta showing lower downside risk has been its pattern of returns, which has more positive periods and fewer negative periods than do global equities, as shown below.

HEDGING AND CONSTRAINTS

The concept of leveraging relatively low volatility bonds may sound similar to risk parity, but whereas risk parity tends to be long only this strategy has some long/short exposures.

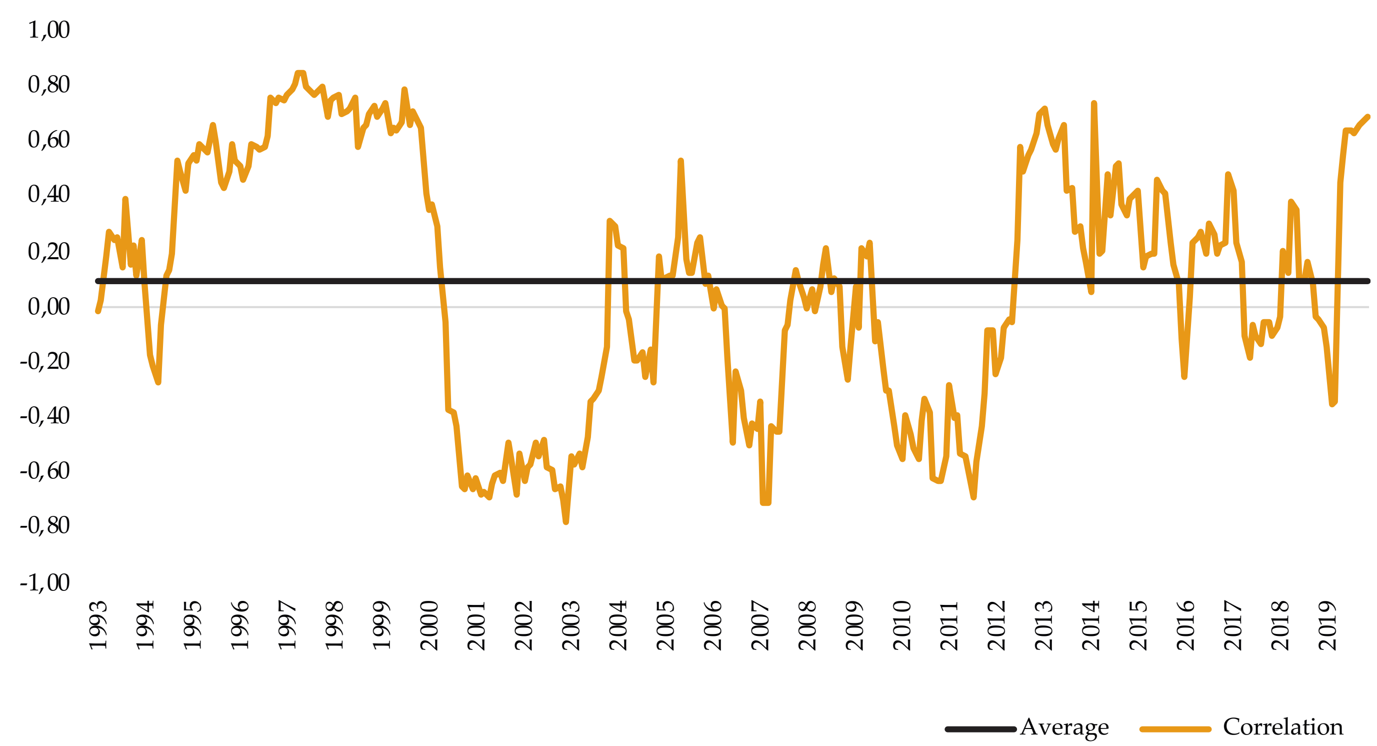
Interest rate duration on the bonds, which are mainly mainly government and mortgage bonds in Sweden and Denmark, has averaged around 2.47, and this is multiplied by portfolio leverage of 3.25 to get overall duration of near 8. Penta does however have freedom to run slightly negative interest rate duration, but is not doing so in 2020. Though shorting bonds with negative yields might generate some degree of positive carry, Formuepleje's ability to borrow at repo rates below the negative yields on bonds, means that it can extract positive carry from leveraged long exposure to bonds with negative yields.

There is also an equity market neutral allocation, which is no more than 13% of the overall equity exposure, which maxxes out beta-adjusted equity exposure of 130%. "The market neutral allocation does not change the volatility much, but at the margin it stabilizes the risk and enhances the Sharpe ratio", says Astrup. The market neutral strategy is a systematic, two times levered approach.

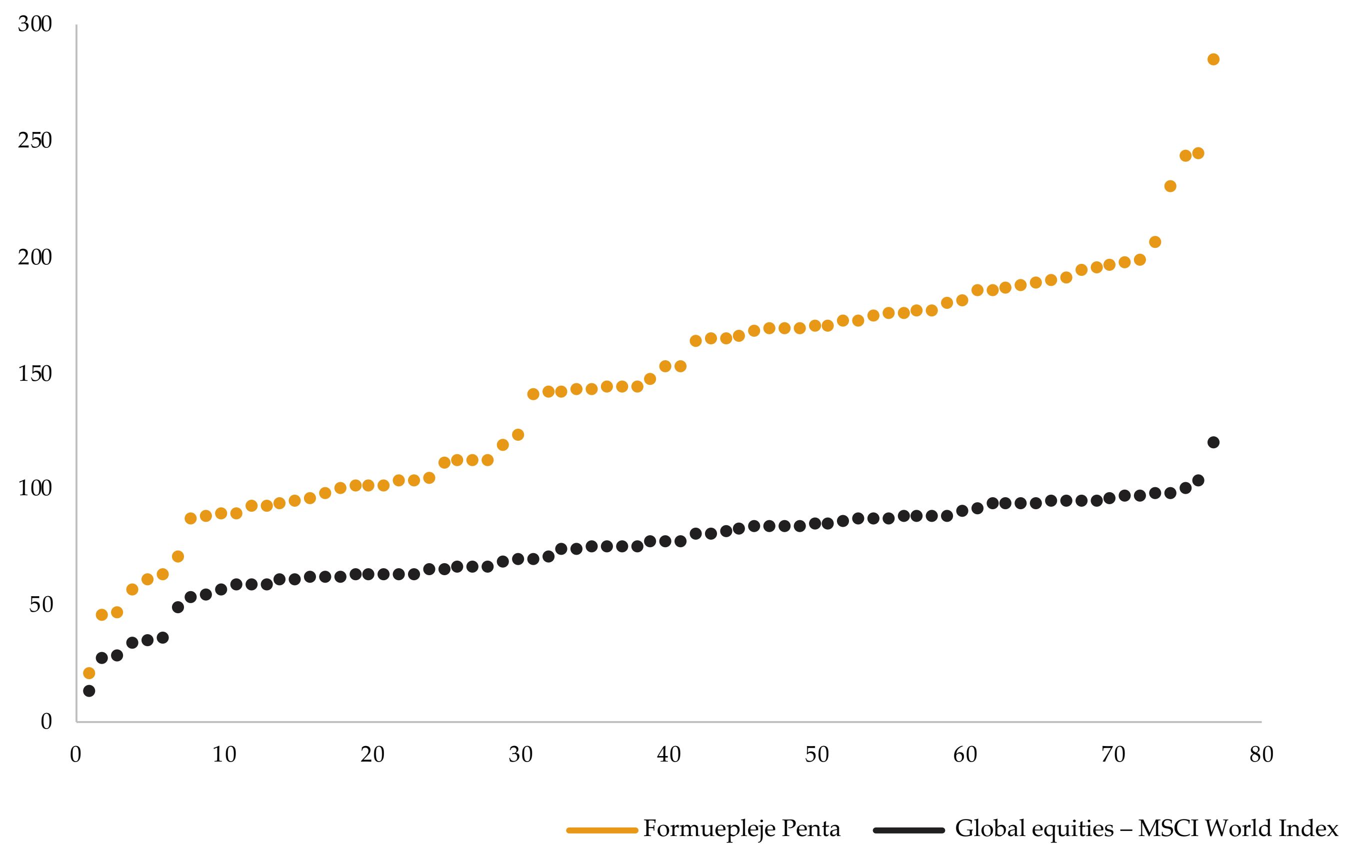
A VALUE TILT IN EQUITY FACTOR EXPOSURES

Equity beta has tended to be close to 1, though it is slightly below that in October 2020 because Formuepleje is somewhat underweight of growth stocks and overweight of value stocks. "We do expect some sector rotation when conditions normalize, so we may miss out on momentum stocks. Valuations for technology stocks seem too high, but we are not making an aggressive tilt towards any factor. It is broadly factor neutral. Back in the year 2000, we

Total Returns since strategy inception



36 Month Rolling Return



missed out on some of the last leg of the bull market because we could not live with the high valuations", explains Astrup.

It seems that Formuepleje has accurately judged that the growth versus value divergence was extremely extended. In the week of November 9th, 2020, equity markets saw some of the most violent factor rotation from momentum to value ever recorded, with a performance gap as high as 20% between the two.

ACADEMIC FOUNDATIONS

Behavioural finance might go some way towards explaining the extreme enthusiasm for growth and hatred of value in equity markets, but the core academic foundations for the Penta strategy date back to the 1950s, specifically Harry Markowitz's 1952 paper in the Journal of Finance. His Modern Portfolio Theory made the basic case for combining lowly correlated assets, and he received the Nobel Memorial Prize for Economic Sciences for this in 1990. Markowitz argued investors should optimize returns relative to volatility, and let the efficient frontier be their guiding star.

Tobin's risk separation theory built on this foundation, and argued that the optimal portfolio decision should be separated from the decision about how much cash to hold or borrow. Investors' appetite for leverage depends on their degree of risk aversion.

These theories provide the top down arguments for diversification and careful use of leverage, but the academics assumed that investors would be buying the entire market. Formuepleje is not simply combining betas but is seeking to add alpha through its extensive experience of forming macro views on government bonds, interest rate moves, yield curves, and mortgage prepayment rates, primarily for Danish and Swedish government and mortgage bonds. And Formuepleje is also seeking to add alpha to equity markets. The purest form of this is the equity market neutral strategy, while the long global equities strategy also aims to outperform a passive approach.

www.hedgenordic.com – December 2020 HEDGENORDIC

One Replacement for Fixed Income

By Eugeniu Guzun – HedgeNordic

Fixed income has long been serving as an essential asset allocation component within most diversified portfolios. Amid historically low interest rates, buy-and-hold investors though are almost guaranteed to collect microscopic returns from this asset class over the years to come. A well-diversified portfolio of U.S. life insurance policies may provide investors with a better risk-reward alternative to fixed income, able to offer equity-like returns with volatility below that of investment-grade bonds.

"A well-diversified portfolio of life settlements that can achieve seven to eight percent net in U.S. dollars is a really attractive alternative fixed-income proposition," believes Jonas Mårtenson, the founder of an alternative asset manager running a fund focused on U.S. life insurance policies. "We will likely never generate 20 percent in one single year and will probably not generate negative returns in a calendar year either," continues Mårtenson. "For us, this is a long-term investment that acts as an alternative to buying private debt or other asset classes that have to go for lower credit ratings in order to achieve higher returns."

Ress Life Investments, Resscapital's vehicle that was recognized as the Best Nordic Hedge Fund of 2019 by HedgeNordic, screens for unwanted life insurance policies from healthy and wealthy policy owners in their seventies with an average life expectancy of ten years. "The secondary market offers an alternative to policy owners to sell their policies at a higher cash value than the surrender value offered by the issuing insurance companies," explains Mårtenson. After buying a life insurance policy in the U.S. secondary market for these policies, funds such as Ress Life Investments step in and continue to pay the due premiums until the death of the insured, resulting in the contract's payoff.

The purchase of a life insurance policy generates a return if the discounted value of the expected future

From left to right: Jonas Mårtenson, Sales Director and Founder, Cristina Lugaro, Institutional Sales, Anton Pozine, Head of Portfolio Management – Resscapital benefits of the policy exceeds the present value of all expected premium payments to be made and the cost of acquiring the policy. "The key risk we take, of course, is the longevity risk," emphasizes Mårtenson. "The fact that people are living longer in the Western world is a well-known fact, we know that, everyone knows that," he continues. To mitigate the longevity risk, the investment team at Ress Life Investments led by Anton Pozine predominantly seek to buy policies from people with longer life expectancies.

"We buy policies from people who are very healthy, because we think that long life expectancies are more accurate," points out Mårtenson. "The only thing we care about is having accurate life expectancies." Ress Life Investments also seeks to mitigate the impact of longevity risk by buying single policies. "We are cherry picking, only having bought approximately 400 policies since inception having reviewed over 10,000 policies," says Mårtenson. "We are buying very selectively, trying to buy policies where we feel the risk is lower for our investors and by lower risk, we mean lower sensitivity to an increase in life expectancies."

Because longevity – the main risk factor in a portfolio of life insurance policies – is mostly uncorrelated to economic cycles and traditional asset classes, Ress Life Investments not only acts as an alternative to fixed income but also as a true diversifier within a portfolio. "This is a very interesting asset class that offers completely uncorrelated returns, which is difficult to find for investors in these days," says Mårtenson. "The low volatility and predictable cash flows of a well-diversified life insurance portfolio offer a highly attractive, asymmetric risk profile, well-suited to fixed-income investors prioritizing capital preservation."

AN EXAMPLE OF SOCIALLY RESPONSIBLE INVESTING

There are rational economic reasons for policyholders to sell their life insurance policies. "Our life settlements transactions start with policy owners who no longer want or need their policies," says Cristina Lugaro of Resscapital. Some policy owners see no need for their life insurance policies and decide to stop paying the premiums. "This is actually the most common alternative, people just stop paying the premiums and the policies lapse within 60 days," says Mårtenson. "Nine out of ten policies in the U.S. will lapse without paying out. For life insurance companies, this is a very profitable product since most policies never pay out."

It is financially beneficial to policy owners to sell their policies to a third party rather than surrender them to life insurance companies. "We really think that buying life settlements is a sustainable investment, which provides value to both the sellers and also the buyers in this case," argues Lugaro. "Policy owners are getting value by having the opportunity to sell policies on the secondary market."

Without a secondary market for life settlements, policy owners could either let their policies lapse and get nothing, or get a symbolic surrender value from insurance companies. "The strategy of buying unwanted life insurance policies is very positive and sustainable because it is adding value to consumers," says Lugaro. "The secondary market is also disrupting a market where the insurance companies have the absolute pricing power over the policies," she continues. "Owning a policy is like owning financial assets such as equities, bonds, or real estate," adds Lugaro. "You have the right to sell it if you don't need this protection anymore, and maybe put the money into something you need now, in other things like long-term healthcare, for example."

IS COVID-19 MAKING POLICIES MORE PROFITABLE?

One ethical consideration raised by investors includes the impact of the coronavirus pandemic on policy owners and the possible premature payouts from the most unfortunate victims of the pandemic. "One would think that the coronavirus will increase the mortality rates and trigger faster payouts, which would be unethical because it is taking advantage of these people who are dying," says Lugaro. "But that is not the case in our portfolio," she claims. "We tend to acquire policies from quite healthy and wealthy individuals who have access to healthcare, who are quite well-informed and likely to embrace social distancing measures," says Lugaro. "We have not seen a major impact of the COVID-19 pandemic on our portfolio."

> "A well-diversified portfolio of life settlements that can achieve seven to eight percent net in U.S. dollars is a really attractive alternative fixed-income proposition,"

HIGH BARRIERS TO ENTRY

Life settlements investing may sound simple and lucrative for investors, but this approach to investing is not quite that simple. According to Mårtenson, the secondary market for life insurance policies is associated with high barriers to entry. "The secondary market is very much an OTC market where you are relying on finding good policies through brokers," says Mårtenson. "If you are an unknown market participant, you don't know the brokers and you don't know which brokers have access to attractive policies, you may find yourself in a rather difficult position."

A new portfolio of single life insurance policies is also associated with a so-called J-curve effect, which describes the initial loss-making period that precedes the first policies paying out. "You own zero policies when launching, so your portfolio is not very diversified at the beginning," says Mårtenson. "You do not expect any policies to pay off in the early years, so there is a J-curve effect as it takes time to build a diversified portfolio," he continues.

"The fund was started in 2011 and only had $10 million in assets under management," says Lugaro. "It took some time for the first policies to pay out and building that portfolio, which currently oversees $223 million, contains 335 policies and is well-diversified by different parameters." Other barriers to entry, less visible to the naked eye, include the expertise and experience required to operate in this secondary market for life settlements. "It is a lot of admin work and a lot of knowledge required to operate," points out Mårtenson. "The market is associated with high barriers of entry, and not easy for newcomers to join."

"This secondary market is still quite a small niche," says Mårtenson, enabling Ress Life Investments to defend against larger players with significantly higher amounts of dry powder. "The annual volume is approximately $5 billion and it is growing steadily," he continues. "More participants, more buyers, and lots of new funds are being set up. But since the market is still quite niche, it is very difficult for large players to buy single policies."

www.hedgenordic.com – December 2020 HEDGENORDIC

Commentary: The value of Diversification in CTA Investments

By Michael R. Marcey and Marat Molyboga – Efficient Capital Management

Dr. Marat Molyboga, Chief Risk Officer & Director Of Research
Efficient Capital

Mike Marcey, Managing Director, Business Development
Efficient Capital

Institutional investors looking to add non-correlating strategies that have historically done well when markets are in turmoil often choose to invest in commodity trading adviser strategies, particularly in what is known as trend followers, because of the historic diversification benefits.

But having decided to invest in CTA strategies, it is not unusual for investors to choose to allocate to only one or two managers. It is our observation that even experienced and savvy institutional investors frequently overlook the value of diversification when it comes to investing in managed futures. Some of the reasons for this approach include:

Performance of the largest trend-following managers must be similar since they are highly correlated.

It is not hard to predict which managers will perform well. The best-performing large CTAs will continue to outperform because they constantly invest in research to increase their edge in strategy development and execution.

The cost of underdiversification is low. Diversification may seem to be a good idea, but it yields little tangible benefit in the case of traditional trend followers.

While the above explanations are very intuitive, our research indicates that the empirical data demonstrates the value of diversification, even among trend followers.

> "Even experienced and savvy institutional investors frequently overlook the value of diversification when it comes to investing in managed futures."

HIGH CORRELATION DOES NOT IMPLY SIMILAR PERFORMANCE

It is well known that long-term trend followers exhibit high correlation to each other. To examine the dispersion in annual returns among these managers, we considered Societe Generale's SG Trend index constituents for the period 2005-2019. The SG Trend index is designed to track the largest trend-following CTAs and be representative of the trend followers in the managed futures space. The average correlation

www.hedgenordic.com – December 2020
HEDGENORDIC

of these managers to each other is generally greater than 0.7. The distribution of these managers for the past 15 years is shown in Exhibit 1.

Note that these managers trade in similar ways, in similar markets, have a high correlation to each other, and are some of the largest, best known and most skilled CTAs that exist. One might assume that their returns in a given year would be very similar. In fact, as the box-and-whisker plots show, these managers have a high dispersion, with a 40% to 50% dispersion around the mean for a given year being normal. As an example, consider the year 2008, a year known for the "crisis alpha" benefits of CTAs. Although the mean return for these managers was about 20%, an investor that was "unlucky" in manager selection could have been flat for that year, a potentially disastrous outcome. In other words, the success of a "one-and-done" approach in a given year or two is highly dependent on luck rather than the skill of either the manager or the allocator.

> "The success of a "one-and-done" approach in a given year or two is highly dependent on luck rather than the skill of either the manager or the allocator."

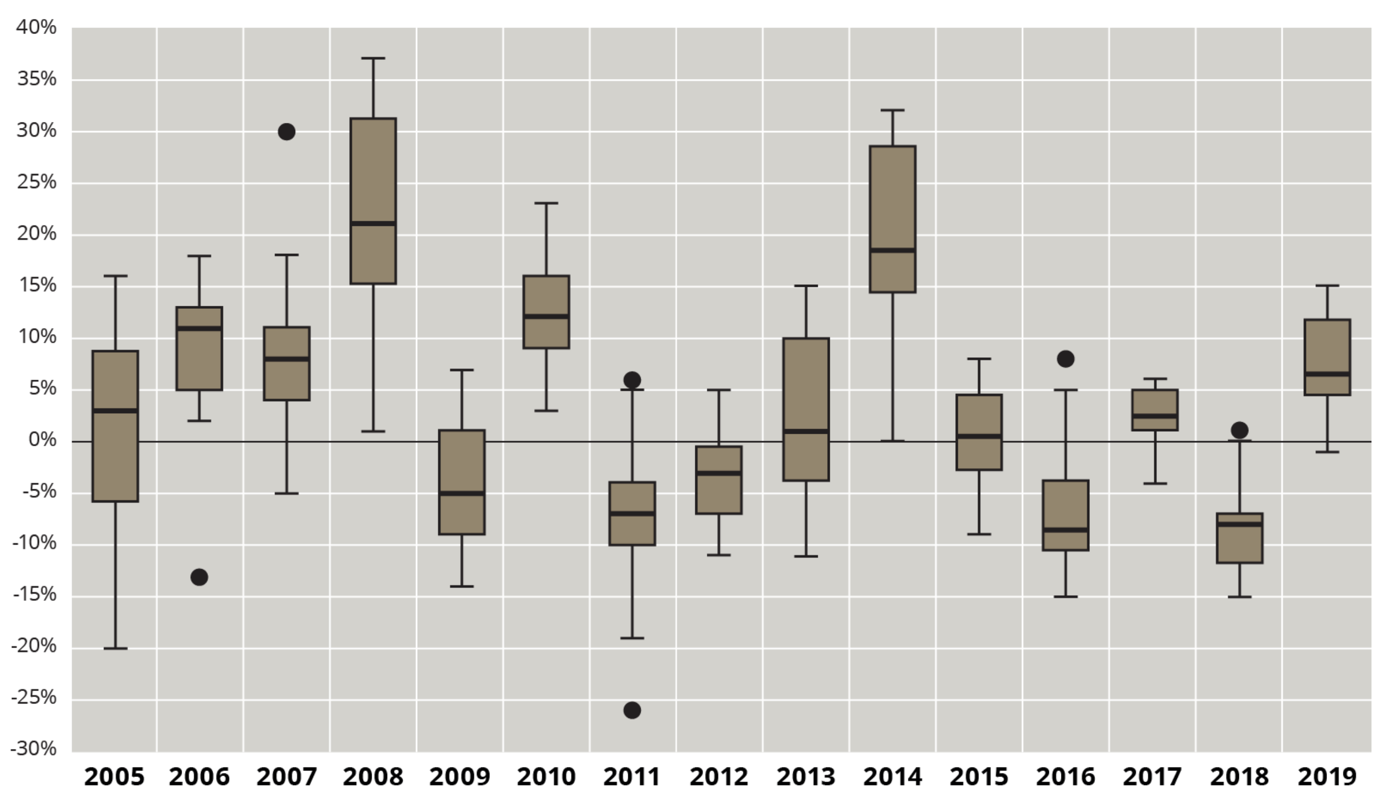
IT IS VERY DIFFICULT TO PREDICT WHICH MANAGERS WILL PERFORM WELL

We have demonstrated that there is often large dispersion of returns in a given year among trend followers, and that it is difficult to identify which manager will outperform in a given year. But perhaps there are a handful of managers who consistently are excellent and whose performance persists from year to year. Exhibit 2 displays the SG Trend constituent rank and return for the years 2005-2018. As an example, Campbell & Co. (in dark brown) was the best performer in 2005 but the fifth in 2006; Aspect Capital (in green) was the best-performing manager in both 2014 and 2015. This "periodic chart" view makes it clear that performance does not normally persist from year to year and even large, well-performing managers can go through periods of underperformance. It is worth noting that low-performance persistence is not only limited to the largest trend followers.

HIGH COST OF UNDERDIVERSIFICATION

To estimate the cost of underdiversification, we measured the difference in performance of CTA portfolios that have between one and 10 managers. We rely on the simulation framework developed in

EXHIBIT 1 **Distribution of annual returns of SocGen Trend Index constituents: 2005-2019**



Sources: Societe Generale Group; SG Prime Services indexes. 2019 performance is estimated through June 2019. Each constituent must be broadly diversified, an industry recognized trend follower, exhibit significant correlation to trend following peers and be open to new investment.

EXHIBIT 2 **SG Trend constituent Periodic Table**

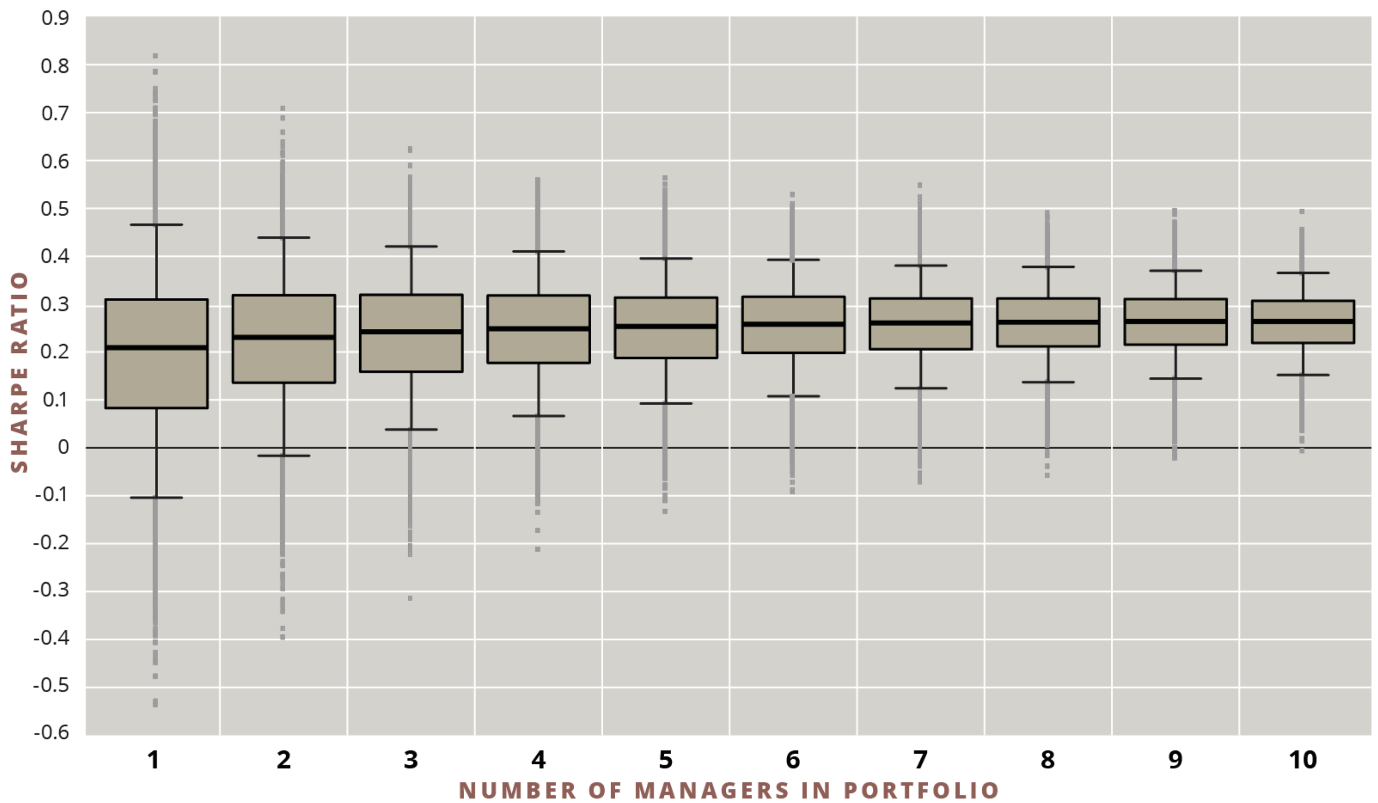
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
16.07%	17.65%	29.50%	36.76%	6.98%	23.31%	6.48%	5.14%	15.24%	32.02%	7.89%	7.65%	6.48%	0.68%	15.11%
11.78%	16.07%	17.96%	34.29%	2.69%	19.15%	4.51%	0.72%	11.11%	31.63%	6.22%	5.27%	5.46%	0.35%	14.56%
8.83%	12.54%	10.72%	32.91%	1.00%	15.87%	-3.81%	-2.31%	10.39%	29.48%	4.84%	-3.29%	5.33%	-6.54%	11.76%
7.60%	11.93%	9.80%	25.50%	0.91%	15.36%	-4.80%	-3.43%	9.78%	27.29%	2.60%	-6.02%	5.00%	-7.15%	11.04%
6.63%	10.91%	8.23%	21.06%	-4.62%	12.30%	-6.96%	-6.73%	2.61%	19.73%	2.17%	-7.55%	3.50%	-7.40%	6.51%
-1.48%	10.70%	6.69%	20.82%	-4.64%	11.85%	-8.64%	-7.35%	-0.60%	17.45%	-1.40%	-9.00%	1.54%	-9.26%	5.51%
-2.37%	4.83%	3.60%	18.59%	-8.76%	9.20%	-10.31%	-10.66%	-3.05%	15.93%	-2.46%	-9.17%	1.09%	-11.23%	5.50%
-7.50%	2.13%	-0.67%	13.63%	-9.29%	5.66%	-19.09%		-3.56%	14.21%	-2.74%	-10.96%	0.75%	-12.35%	3.72%
-12.04%	-13.43%	-4.76%	2.99%	-9.41%	3.40%	-25.66%		-4.43%	10.59%	-8.01%	-13.38%	-3.09%	-13.53%	1.64%
-19.59%			1.45%	-11.24%				-10.75%	-0.35%	-8.73%	-14.92%	-4.05%	-14.62%	-1.05%
				-14.18%										

- AlphaSimplex Group (Managed Futures)
- Altis Partners (GFP Composite)
- AQR Managed Futures
- Aspect Capital (Div. Fund)
- Brevan Howard Systematic Trading (B)
- Brummer & Partners (Lynx)
- Campbell & Co. (CMF)
- Campbell & Co. (Gl. Diversified Large)
- Chesapeake Capital
- Eagle Trading Systems (Global)
- Graham Capital Mgmt. (Divers.)
- Graham Capital Mgmt. (K4)
- Graham Capital Mgmt. (Tactical Trend A)
- Graham Capital Mgmt. (Abs. Ret.)
- GSA Capital Partners (Trend)
- John W. Henry & Co. (SAP)
- ISAM Systematic Trend - USD
- Man (AHL Alpha)
- Man Investments (Man AHL Div. plc)
- Millburn Ridgefield (Divers.)
- Nestor Partners (Private Client)
- Rotella Capital Mgmt. (High Yield)
- Skandinaviska Enskilda (SEB Asset Sel)
- Sunrise Capital Partners(Exp. Divers.)
- Systematica (BlueTrend Fund)
- Transtrend (Admiralty Fund Basis)
- Transtrend (DTP/Enhanced Risk - USD)
- Tudor Tensor Fund Ltd
- Winton Capital Mgmt. (Div.) thru 03/2015

Sources: Societe Generale Group; SG Prime Services Indexes. Each year the index constituents are ranked vertically from best to worst based on that years' returns.

EXHIBIT 3 **Distribution of Sharpe ratios as a function of portfolio size**

Based on 10,000 simulations per level from January 2005 through December 2017.



Source: Barclayhedge CTA and Graveyard database

collaboration with Christophe L'Ahelec from Ontario Teachers' Pension Plan. The methodology is designed to evaluate portfolio decisions subject to the realistic constraints of institutional investors. Exhibit 3 shows the Sharpe distribution for portfolios from one to 10 managers.

In particular, note that as the number of managers increases to six from one, the Sharpe ratio increases by more than 30%, on average, and the distribution of the Sharpe ratios becomes tighter. In addition, the bottom 5% quantile changes from -0.1 for one manager to +0.1 for a six-manager portfolio, which can be seen as the chance of "getting unlucky." Both areas of improvement are substantial. To quantify the real costs involved, for an investor that targets a portfolio volatility of 15%, the average Sharpe improvements translates into a return improvement of almost 1 percentage point per year and the cost of getting unlucky goes down by about 3 percentage points per year, which is particularly meaningful because CTA investments tend to perform well during periods of market turmoil. The cost of underdiversification is real. Diversification of CTA portfolios has tangible benefits of improving performance and reducing risk.

www.hedgenordic.com – December 2020
HEDGENORDIC

From left to right: Anna Svahn, CEO and Portfolio Manager, Martin Sandquist, CIO and Portfolio Manager, and Karl-Mikael Syding, Portfolio Manager – Antiloop Hedge

The Beauty of a Multi-Strategy Approach

By Eugeniu Guzun – HedgeNordic

Many investments products are giving investors more of what they already have – long exposure equities or bonds. In a world where equities and bonds are not expected to offer particularly attractive returns, investors are looking for diversified sources of return that exhibit low correlation with traditional assets and potential for alpha without significant beta exposure.

As the CEO of A-L Hedge, Anna Svahn assembled an experienced team of five to launch and run a multi-strategy hedge fund – Antiloop Hedge – that caters to the diversification-seeking investor. The team includes Martin Sandquist, one of the co-founders of Lynx Asset Management, and Karl-Mikael Syding, former partner and portfolio manager at Brummer & Partners-backed hedge fund Futuris. "We assembled all these people together to form a unique team with different approaches, but who share the same ideas about the future," Svahn tells HedgeNordic.

> "We assembled all these people together to form a unique team with different approaches, but who share the same ideas about the future."

www.hedgenordic.com – December 2020
HEDGENORDIC

In full-blown running mode, Antiloop Hedge is designed to run eight different strategies that exhibit low correlation between each other and the broader traditional asset classes. "It might look that we only picked eight without any thought behind it, but the real idea was to offer different strategies with low correlation to each other by investing in low correlated assets," explains Svahn. Each of the eight strategies reflects the "bottom-up approach from each individual portfolio manager who used a similar strategy before," says Martin Sandquist.

"The different, individual strategies are stemming from the portfolio managers themselves," explains Sandquist. The multi-strategy investment approach was born out of each portfolio manager's experience rather than the team's top-down view of which strategies would perform better or worse in a given market environment. "We have eight different strategies, but they have no correlation to each other," emphasizes Svahn. "We realized that it would be a good fit to put them all in one multi-strategy approach," adds Sandquist.

"We do that by investing in different assets, different markets and focusing on different time horizons," says Svahn. She goes on to emphasize that "the overall correlation between all of these strategies are basically zero." The low correlation between the individual strategies not only enhances the risk-mitigation properties of Antiloop Hedge, but also ensures that the fund produces attractive risk-adjusted returns in all types of market environments.

SOFT LAUNCH

Antiloop Hedge had a soft launch at the beginning of November and is currently running two strategies before the full roll-out of the entire range of strategies. "We really see this as a marathon," Svahn points out. "The whole point with the soft launch and not raising more money in the beginning was to make sure that we actually grow into it and that all the strategies are working together as they should," she continues. "It could have been a big mistake to roll out everything at once without really testing to see what works and what doesn't work."

> "It is a good combination to have both experience and a new perspective on things from the younger team members who can contribute with a new line of thought, which is useful in the current paradigm shift going on in the markets."

The two up and running strategies include the "Cygnus" tactical asset allocation strategy run by Anna Svahn and the long/short equity fundamental strategy managed by Karl-Mikael Syding. "It was a good start with Anna's and Mike's strategies because they are very long-term and not very trading intensive," explains Sandquist. "We had the chance to try out everything, all the connections with the brokers and other service providers to see that everything is working," he continues. "It was nice to start with these two strategies because the rest are more trading intensive."

Syding's long/short equity fundamental strategy focuses on the most liquid and attractive-valued U.S. and European public companies based on traditional value-based methods. Syding aims to build and maintain a market-neutral portfolio that contains about 20 positions, equally divided among long and short positions. The strategy relies on a thematic approach across sectors, with Syding aiming to capitalize on sector spreads by going long two to four sectors and shorting a similar number of sectors. Each sector bet reflects between two to four stocks, with each individual stock given an equal weighting.

Cygnus, meanwhile, is an asset allocation strategy trading U.S. equities, soft commodities and gold using exchange-traded funds (ETFs), futures and single securities. Anna Svahn expects commodities and gold to play a more significant role in well-diversified portfolios going forward. "We have zero interest rates, which are not going to go up anytime soon, and we are printing a lot of money," says Svahn. "The average expansion of the monetary base since 1971 has been around ten percent, this year it has been 25 percent and I expect that to continue in the coming years," she elaborates. "The constant printing of money is, of course, a very good signal for commodity prices to rise."

Svahn also views soft commodities as a downside hedge because "they are so cheap that there is no real downside to them anymore." Institutional investors such as pension funds are looking for alternatives to bonds, "which are guaranteeing investors to lose money," to hedge equity risk and volatility. "That is going to be in commodities and gold," argues Svahn.

"It is really a forgotten asset class," says Svahn. "The population is growing, we have climate change, we have less space to grow the crops on, quality demands are going up, all of these will definitely push commodity prices up. There's no question about it."

Martin Sandquist, meanwhile, expects the U.S. dollar and other currencies to devalue over time. "The dollar and fiat currencies will de-base over time because of all the money printing," says Sandquist. "Commodities are supposed to do best in this environment," he continues. The team's positive outlook on emerging markets and precious metals are "all themes based on the U.S. dollar going down and fiat currencies going down."

A MIX OF EXPERIENCE AND YOUNG TALENT

The five-member team running Antiloop Hedge has a combination of youth and experience that creates an edge in the ever-changing market environment. "Mike and I are very old school, we have been in business for a long time," says Sandquist. "Our experience is a good mix with Anna and the younger team," he continues. "It is a good combination to have both experience and a new perspective on things from the younger team members who can contribute with a new line of thought, which is useful in the current paradigm shift going on in the markets."

In addition to the currently-running long/short equity fundamental and tactical allocation strategies, the team at Antiloop Hedge aims to roll out other strategies such as global macro, short-term futures, short-term equity, among others. "We have a multi-strategy approach because we just don't know which strategies will perform better at any given point in time," says Sandquist. "These strategies tend to perform well at different times, and tend to work together to achieve our aim of delivering stable returns." The aim, in the end, is to deliver double-digit returns between ten to 15 percent with annual volatility between five and seven percent. "A Sharpe ratio of 1.5 would be our target, but we are happy with a Sharpe ratio of one as well."

www.hedgenordic.com – December 2020
HEDGENORDIC

Correlation and Beta – Searching for Diversification

By Linus Nilsson – NilssonHedge

While the oft-repeated mantra that correlation is not causation, it is often a starting point for further discussions about the static and dynamic exposure of hedge fund strategies. It can indicate how a strategy has been positioned, or if there are static exposures within a strategy. NilssonHedge, a hedge fund database, and index provider provide continuously updated correlation and beta estimates for our daily performance indicators. These will help you to form and update your expectations on the likely future performance of a strategy given a market development. For instance, is your diversification benefit static or dynamic?

The mathematics of correlation and beta calculations are remarkably similar but give slightly different information. A manager may be highly correlated to a market, but if the beta is low, then the impact on your portfolio will likely be low in financial terms. It may also reveal differences in volatility. Both are linear measures, and as Anscombe's quartet illustrates and to paraphrase him: while the numerical calculations are exact, always look at the data to find any non-linearities in it.

For our analysis, we use rolling 21-days (roughly equal to the number of trading days in a month) correlation and beta for three out of the five daily hedge fund indices that we calculate. These measures give an indication of exposure and how the underlying managers have been positioned.

We will go through the three different liquid style and will discuss specific features of each strategy, and how they can contribute to diversification in your portfolio. Note that our indices represent aggregates of managers and any individual strategy in your portfolio could behave substantially differently.

These calculations give you a clue, not only about contemporary exposures but also about the trading style. The charts should be interpreted with some skepticism as they do not necessarily reflect the underlying exposures but may only be a mathematical mirage and a high or low correlation may not be related to the market selected. For this article we will focus on the main risk in diversified portfolios, equity markets.

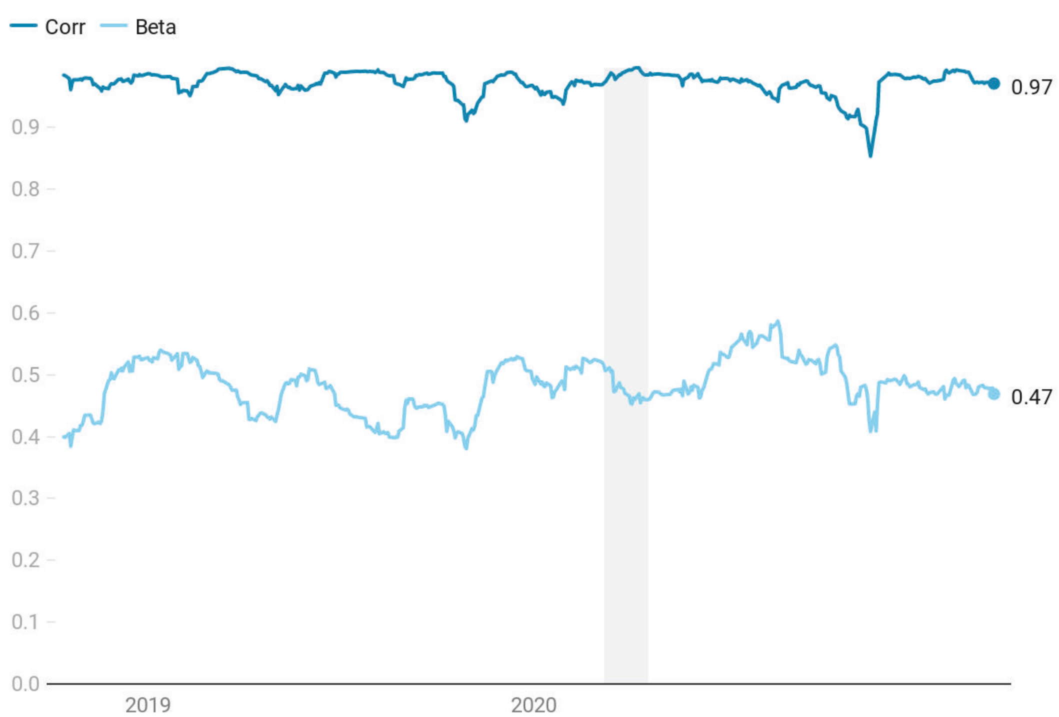
Our full report shows Beta and Correlation against US Equity markets, US Bonds (10-year), Currencies (as short exposure to the US Dollar), Energy (US Crude Oil), Precious Metals (Gold), and Crypto Currencies (Bitcoins). We use a basket of large ETFs to calculate the statistics. For portfolios where the underlying portfolio consists of international exposure, please be aware that for instance differences in closing times may create a perception of lower than actual correlation. In addition to the indices covered here, we also calculate Market Neutral and Event Driven indices.

Being the largest style in the hedge fund space, Equity Long/Short managers comes in different flavors; but when looking at the combined manager behavior, we find a remarkable consistency in terms of beta and correlations. For our indices, we find a high and stable correlation of near one with equity markets, but with a lower beta of approximately one half. The implications are that you should expect half the drawdowns, but they are almost assured to hit at the same time as the rest of your portfolio is suffering.

Plain vanilla Equity L/S fund may thus not be the expected diversifier, but rather as a potential risk reduction in an asset portfolio. Diversification can certainly be found here, but you should ensure that the funds you are looking for do something differently than your average fund.

Market Neutral and Event Driven strategies have interesting properties from a diversification perspective. Both have a low beta to the major risk factor but have time-varying correlations which may

Equity LS Correlation/Beta with Equities (21-day)



Updated: 2020-11-25
Source: NilssonHedge

“When looking at the combined manager behavior, we find a remarkable consistency in terms of beta and correlations.”

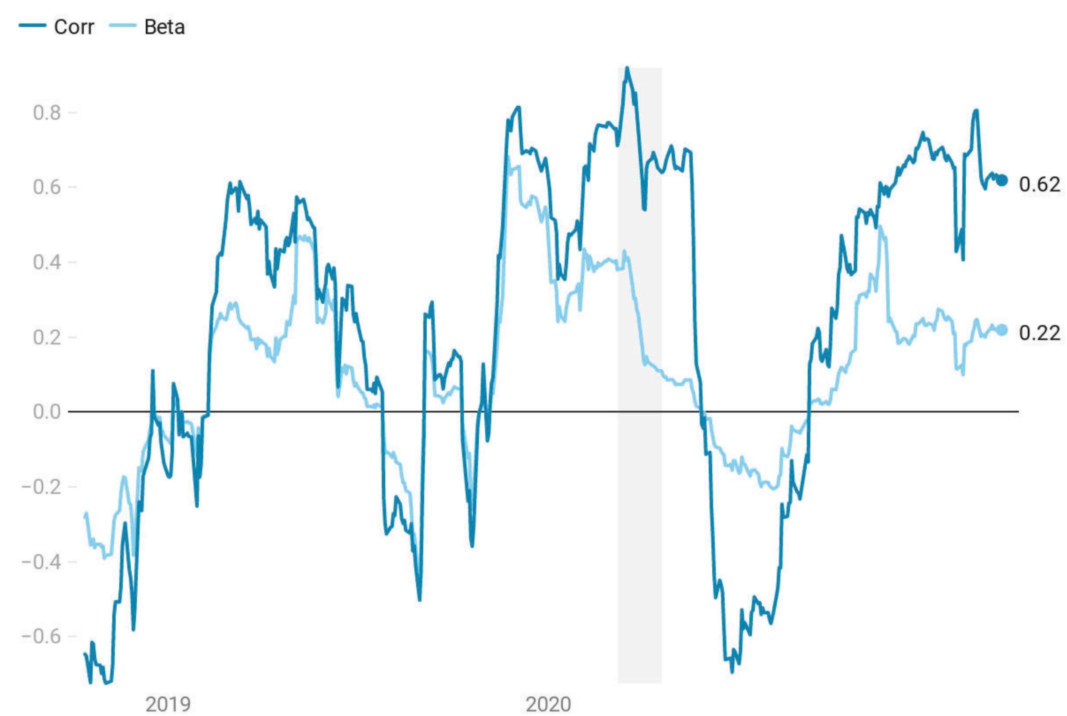
result in less than optimal portfolios. Event Driven strategies do also have a dependency on financing conditions, which may lead to increased beta at the wrong time.

MANAGED FUTURES

CTAs generally do have time-varying exposures to all the Global Macro markets. As the NilssonHedge index mostly consists of Trend Following managers implying that the co-movement data will largely be a factor of how markets have behaved in the recent past. Long exposures to markets will generally be taken once a positive trend has been established, resulting in positive correlation. Short exposures to markets will generally be taken once a negative trend has been established, resulting in negative correlation.

Effectively, this means that you cannot be sure how CTAs will behave during a correction or a market

CTA Correlation/Beta with Equities (21-day)



Updated: 2020-11-25
Source: NilssonHedge

www.hedgenordic.com – December 2020
HEDGENORDIC

move as their exposure is dependent on what has happened recently. You are much more likely to get equity market diversification in a secular bear market rather than during a long-term upward move. That also implies that the hedging capabilities of CTAs against equity markets is far from assured but depends on how markets have moved prior to a correction.

CRYPTO MANAGERS

Crypto trading is the new kid on the block, representing managers that have exposure to a diverse range of digital assets. The asset class is small, lacks established funds, and comes with a variety of interesting issues. Several of the managers are far from institutional quality and Due Diligence requires exceptional understanding of the asset class and the risk within. However, correlation and beta sensitivity do not seem to be one of them.

The strategy, perhaps given its small size, is rather decoupled from financial assets. The index we maintain is not even correlated with Bitcoins, the largest digital asset out there. While trading strategies in Digital Assets are novel, managers in this strategy could offer some interesting properties. The high beta reveals that Crypto Managers are (much) more volatile than other markets.

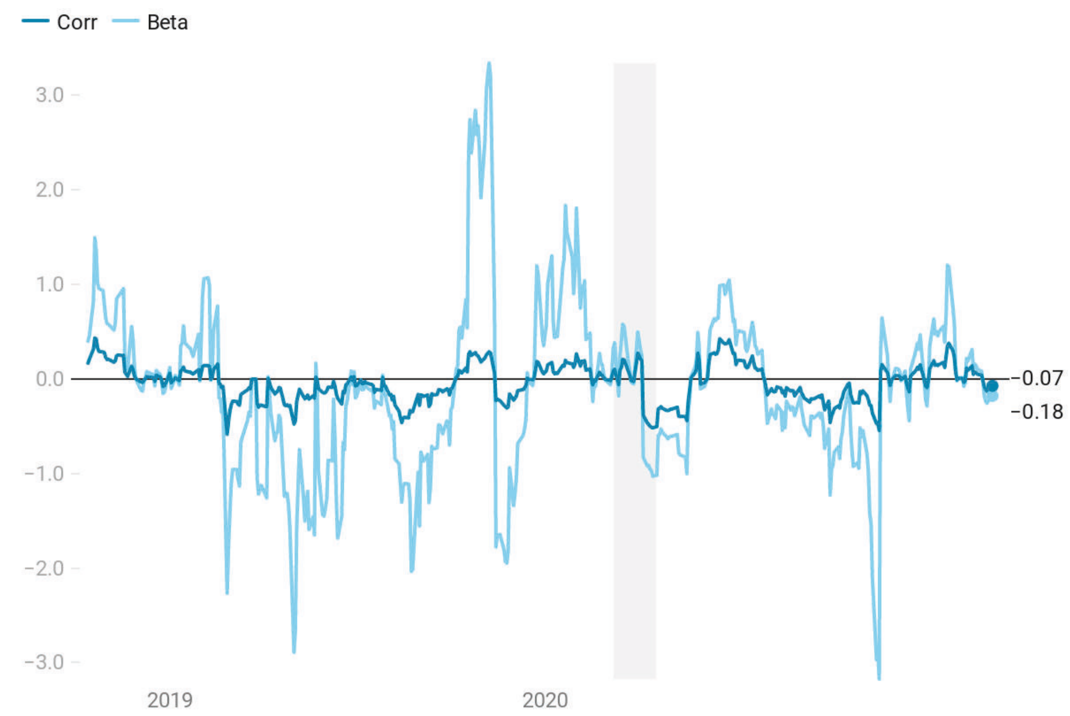
ENDING WORDS

Searching for truly diversifying alternatives is never easy and many investors are, given the preponderance of evidence by asset allocated to certain strategies, looking in the wrong areas. We have demonstrated that stock picking strategies have a high correlation to equity indices and that other strategies, such as Event Driven, may have unfavorable stress risk behavior as demonstrated during the spring of 2020.

We find that CTAs have semi-predictable correlation characteristics driven by medium-term trends. Amongst our indices, the most promising candidate for finding diversification is trading done by manager trading in digital assets. The novelty of the asset class may lead to low correlation although could increase in the future if there are additional linkages between real and digital assets. For the time being, we struggle to find any major market that this index is correlated to.

> “Amongst our indices, the most promising candidate for finding diversification is trading done by manager trading in digital assets.”

Crypto5d Correlation/Beta with Equities (21-day)



Updated: 2020-11-25
Source: NilssonHedge

Our database is limited to relatively liquid strategies and there may be segments of the markets that could offer interesting diversifiers, such as alternative credit or strategies that invest in other types of securities.

If you are searching for non-persistent correlation and beta, be prepared to take uncomfortable decisions and you should be willing to deploy capital to markets that are functionally unconnected to financial assets. Daily updates of the charts in this article are available at https://nilssonhedge.com/reports/hedge-fund-correlation-and-beta/.

Bio: Linus Nilsson founded NilssonHedge, a public hedge fund database, as an initiative to bring transparency to the hedge fund universe. The database uses an innovative way of aggregating public performance data and offers access to hedge fund returns. Access the database at www.nilssonhedge.com.

Disclaimer: Mr. Nilsson wrote this article in his capacity as founder of NilssonHedge. The views expressed in the article do not necessarily represent the views of any current, past, or future employers.

Evolving Concepts of Diversification

By Hamlin Lovell – HedgeNordic

For some large institutional investors, asset allocation remains dominated by the classic 60/40 model of approximately 60% equities and 40% bonds. From a portfolio diversification perspective, this could make sense if correlations between the two are low or negative. But this assumption may be too heavily dependent on recent history. Correlations between equities and bonds have, on average, been negative for nearly 20 years since the early 2000s, but a longer lookback period of 100 or 150 years also includes extended periods when the two asset classes were positively correlated. One study, "Equity-Bond Correlation: A Historical Perspective", by Graham Capital, found that the correlation has actually been positive more often than negative, stating that: "Since the 1870s, equity-bond five-year correlation has been negative in 635 months compared to 1,063 months when it was positive".

When and why might equities and bonds both lose money? One scenario is inflation leading to higher interest rates, and therefore raising the discount rate for valuing both asset classes.

COMMODITIES AND REAL ASSETS

Commodities are seen as one inflation hedge, which has been lowly correlated with conventional asset classes. "Diversification benefits of commodities: A stochastic dominance efficiency approach", by Daskalaki, Skiadopoulous, and Topaloglou, argues that the diversification "benefits accrue because commodities are segmented from the equity and bond markets".

In the Netherlands, some pension funds have been allocating to commodities since the 1970s. The largest Dutch fund, APG, has 4.8% in commodities as per its 2019 report. However, some investors, including the Swedish National Pension Insurance Funds (AP Funds) cannot invest into commodities. They can instead allocate to other real assets, such as real estate, infrastructure, and forestry, which may also offer some inflation protection.

"The largest Dutch fund, APG, has 4.8% in commodities as per its 2019 report. However, some investors, including the Swedish National Pension Insurance Funds (AP Funds) cannot invest into commodities."

www.hedgenordic.com – December 2020 HEDGENORDIC

SOPHISTICATED BOND STRATEGIES

Many pension funds are required to maintain heavy weightings in high grade fixed income, but even here there is scope to be more creative. While major bond indices could be dominated by government bonds offering little or no yield, defining bonds more broadly can open up scope for diversification through different types of fixed and floating rate corporate credit; asset-backed securities based on mortgages, credit cards, student loans or auto loans; and various types of emerging markets.

A more sophisticated portfolio management approach can also provide diversification against inflation or interest rate risk. For instance, broad bond indices may not contain inflation linked government or corporate bonds, or inflation swaps, which could hedge against inflation.

And some bond strategies, including those employed by a number of Danish managers, have shown near zero correlation to government bonds because they use derivatives to hedge out interest rate risk in order to focus on other risks such as prepayment.

LONG/SHORT STRATEGIES

All of the above assumes investors are constrained to long only strategies. A long/short or market neutral strategy in equities, bonds, credit or commodities can be completely uncorrelated with the long only indices for each asset class.

A long/short strategy also maximises the informational value of active management, which is partly wasted if managers cannot profit from active short positions.

However, alpha is scarce and follows its own cycles. It can be more difficult to extract alpha from security selection in markets when correlations are high, which means that investors need to keep on searching for new sources of diversification. Markets off the beaten track may offer more potential for alpha generation from informational inefficiencies.

EMERGING AND FRONTIER MARKETS

Nordic investors have often been the earliest movers into emerging markets and frontier markets, where equity, local currency debt, hard currency sovereign debt, corporate debt and currencies can offer not only higher yields, but also more mispricing as there is less research coverage. These markets are not always suitable for long/short strategies however, as they do not all have any or well-developed securities lending, repo and credit default swap markets. The largest developed market today, the US, was of course an emerging market in the 19th century but in a global village diversification need not be based on geographic borders.

VOLATILITY AND CORRELATION

Volatility and correlation are derivatives of price action, but they can also be directly traded across all asset classes. Volatility strategies are relatively new. For instance, the equity VIX volatility index future started trading in 2004, though volatility was traded earlier over the counter. A long volatility strategy can offer portfolio insurance as was the case around the Covid-19 pandemic in March 2020, though as with any insurance, it can be expensive to pay the premiums in normal market conditions. More sophisticated volatility strategies may be able to mitigate this premium cost through a variety of strategies trading both volatility instruments and other markets indirectly related to volatility.

Correlation is one example of a more exotic derivative that can itself show some correlation with volatility – since correlations tend to spike when volatility does – but also has its own dynamics. For instance, the split between "Covid winners" and "Covid losers" in equity and credit markets created new patterns of correlation in 2020. Historical assumptions that airlines effectively short of oil should hedge oil producers proved wrong since both industries suffered from lockdowns.

> "Nordic investors have often been the earliest movers into emerging markets and frontier markets."

EXOTIC MARKETS

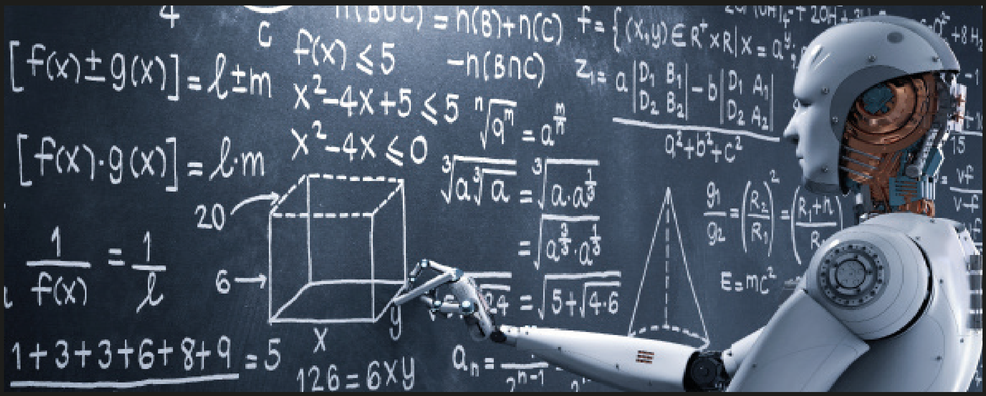
In the 1970s currency and commodity futures were relatively new as easily investable derivatives, and they contributed to strong CTA performance in that decade. Cryptocurrencies may be a new market to watch over the 2020s.

There has been some debate amongst regulators over whether Bitcoin should be defined as a currency or a commodity, though growing acceptance of the unit by payment processors, such as Paypal, shows that it is being used as a currency. It is also garnering wider acceptance from both hedge fund managers, and institutional investors, according to a survey from Fidelity Investments, which found that as many as 36% of institutional investors in the United States and Europe already own crypto assets, of which Bitcoin is the most popular. Bitcoin has in November 2020 regained the highs last seen in 2017.

More broadly, the science underlying Bitcoin - distributed ledger technology (DLT)- could disrupt financial and other markets. Companies in the payments space and other ecosystems could be compelling private equity or venture capital investments. Tokenisation could also democratize these illiquid asset classes, making it easier to securitise them so that more investors can access the potential diversification benefits.

HEDGENORDIC

"Your single access point to the Nordic Hedge Fund Industry"



www.hedgenordic.com

GENERAL TERMS AND CONDITIONS

These are the terms and conditions which govern the use of „HedgeNordic Industry Report", an online magazine edited and distributed by electronical means and owned, operated and provided by Nordic Business Media AB (the "Editor"), Corporate Number: 556838-6170, BOX 7285, SE-103 89 Stockholm, Sweden.

DISCLAIMERS AND LIMITATIONS OF LIABILITY

1. The Content may include inaccuracies or typographical errors. Despite taking care with regard to procurement and provision, the Editor shall not accept any liability for the correctness, completeness, or accuracy of the fund-related and economic information, share prices, indices, prices, messages, general market data, and other content of „HedgeNordic Industry Report" ("Content"). The Content is provided "as is" and the Editor does not accept any warranty for the Content.

2. The Content provided in „HedgeNordic Industry Report" may in some cases contain elements of advertising. The editor may have received some compensation for the articles. The Editor is not in any way liable for any inaccuracies or errors. The Content can in no way be seen as any investment advice or any other kind of recommendation.

3. Any and all information provided in „HedgeNordic Industry Report" is aimed for professional, sophisticated industry participants only and does not represent advice on investment or any other form of recommendation.

4. The Content that is provided and displayed is intended exclusively to inform any reader and does not represent advice on investment or any other form of recommendation.

5. The Editor is not liable for any damage, losses, or consequential damage that may arise from the use of the Content. This includes any loss in earnings (regardless of whether direct or indirect), reductions in goodwill or damage to corporate.

6. Whenever this Content contains advertisements including trademarks and logos, solely the mandator of such advertisements and not the Editor will be liable for this advertisements. The Editor refuses any kind of legal responsibility for such kind of Content.

YOUR USE OF CONTENT AND TRADE MARKS

1. All rights in and to the Content belong to the Editor and are protected by copyright, trademarks, and/or other intellectual property rights. The Editor may license third parties to use the Content at our sole discretion.

2. The reader may use the Content solely for his own personal use and benefit and not for resale or other transfer or disposition to any other person or entity. Any sale of Contents is expressly forbidden, unless with the prior, explicit consent of the Editor in writing.

3. Any duplication, transmission, distribution, data transfer, reproduction and publication is only permitted by
   i. expressly mentioning Nordic Business Media AB as the sole copyright-holder of the Content and by
   ii. referring to the Website www.hedgenordic.com as the source of the information.

   provided that such duplication, transmission, distribution, data transfer, reproduction or publication does not modify or alter the relevant Content.

4. Subject to the limitations in Clause 2 and 3 above, the reader may retrieve and display Content on a computer screen, print individual pages on paper and store such pages in electronic form on disc.

5. If it is brought to the Editor's attention that the reader has sold, published, distributed, re-transmitted or otherwise provided access to Content to anyone against this general terms and conditions without the Editor's express prior written permission, the Editor will invoice the reader for copyright abuse damages per article/data unless the reader can show that he has not infringed any copyright, which will be payable immediately on receipt of the invoice. Such payment shall be without prejudice to any other rights and remedies which the Editor may have under these Terms or applicable laws.

MISCELLANEOUS

1. These conditions do not impair the statutory rights granted to the readers of the Content at all times as a consumer in the respective country of the reader and that cannot be altered or modified on a contractual basis.

2. All legal relations of the parties shall be subject to Swedish law, under the exclusion of the UN Convention of Contracts for the international sale of goods and the rules of conflicts of laws of international private law. Stockholm is hereby agreed as the place of performance and the exclusive court of jurisdiction, insofar as there is no compulsory court of jurisdiction.

3. Insofar as any individual provisions of these General Terms and Conditions contradict mandatory, statutory regulations or are invalid, the remaining provisions shall remain valid. Such provisions shall be replaced by valid and enforceable provisions that achieve the intended purpose as closely as possible. This shall also apply in the event of any loopholes.