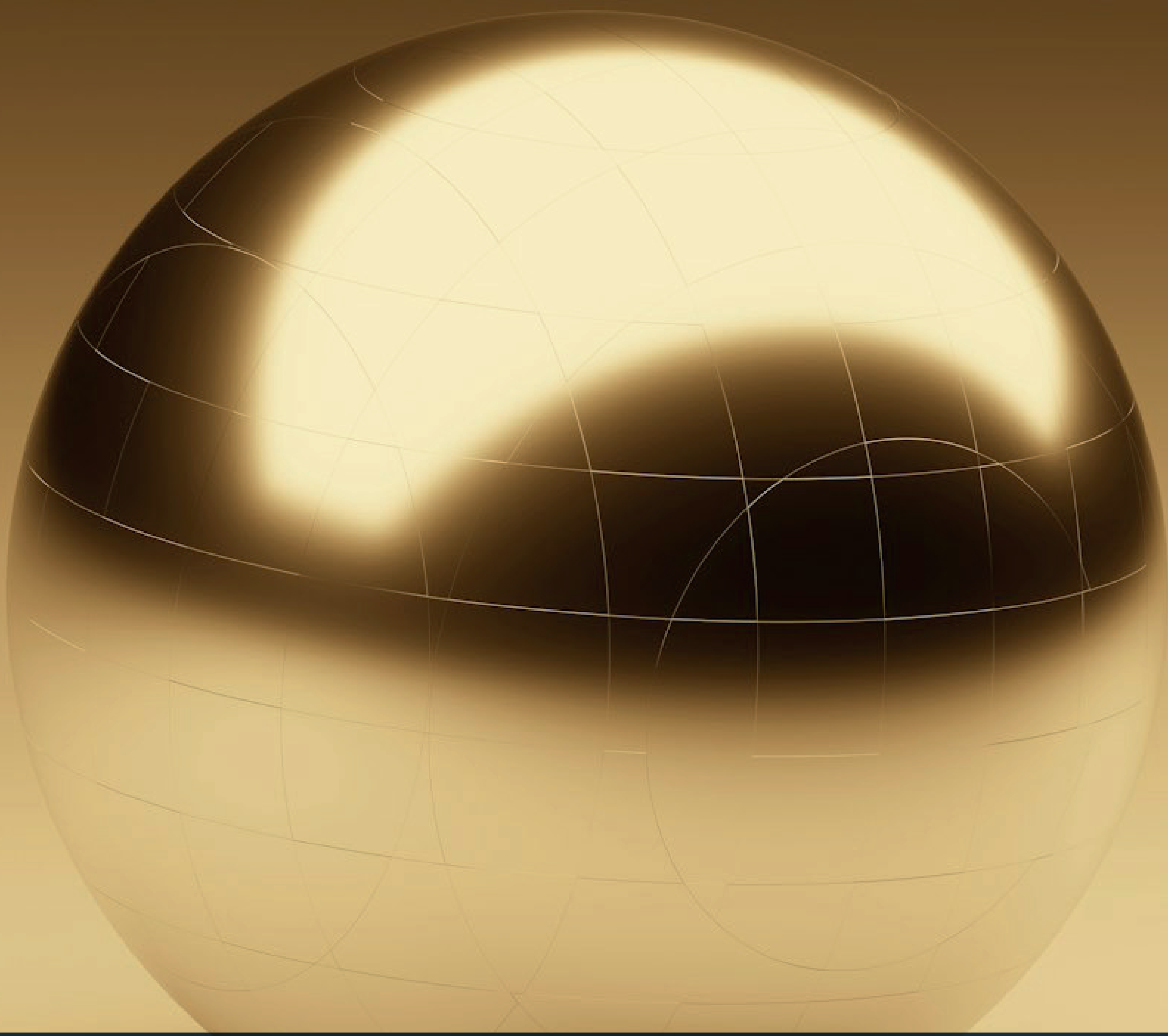
MAY 2024

HEDGENORDIC



SYTEMATIC STRATEGIES / QUANT TRADING

SYTEMATIC STRATEGIES / QUANT TRADING

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.

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: Phonlamai Photo---shutterstock, ©-flyfisher---Fotolia.com, Mikael Damkier---shutterstock, Tashatuvango---shutterstock, dan-v-S5x5rrsDixk-unsplash, rareclub-studios-iEyiw73kfDo-unsplash, Andreas Gradin---shutterstock_52937086, rayisa---shutterstock_111320741

Editor´s Note ...

The Quantitative Edge

In an era where financial markets are complex and volatile, the methods traders use to navigate these turbulent waters can make all the difference to success or failure of a trading strategy.

The debate between systematic and discretionary trading has long been a focal point in the trading community. Each approach has its proponents, merits, and challenges, and understanding these can help traders and investors make informed decisions about their strategies.

THE RISE OF SYSTEMATIC TRADING

Systematic trading involves the use of algorithms and mathematical models to make trading decisions. These strategies are grounded in rigorous statistical analysis and historical data, enabling traders to identify patterns and opportunities that might be invisible to the human eye. By leveraging computer power and advanced software, systematic traders can process vast amounts of information at speeds unattainable by human traders, allowing for rapid, and efficient execution of trades.

One of the merits of systematic trading is its objectivity. Algorithms operate without the influence of emotions, which can often cloud judgment and lead to bad investment decisions. Systematic strategies are designed to follow predetermined rules and criteria, ensuring consistency and discipline in execution.

Moreover, systematic trading allows for backtesting strategies on historical data. This process enables traders to evaluate the potential performance of their models before risking investors' capital. By analyzing how a strategy would have performed in the past, traders can refine and optimize their approaches, reducing the likelihood of unforeseen losses. This empirical validation is a cornerstone of the quantitative approach, providing a level of confidence that is difficult to achieve with discretionary methods. For a human, it is a lot more difficult to mentally go

www.hedgenordic.com – May 2024 HEDGENORDIC

back in time and then determine "in this situation I would have decided to do this or that in a given situation."

THE ART OF DISCRETIONARY TRADING

Discretionary trading relies on the intuition, experience, and judgment of individual traders. Discretionary traders analyze market conditions, economic indicators, and other qualitative factors to make their decisions. This approach is arguably somewhat more flexible, allowing traders to adapt quickly to changing market dynamics and unforeseen events.

One of the key merits of discretionary trading then, too, is its adaptability. Human traders can synthesize a wide range of information and consider context in ways that algorithms may not be able to (yet). For instance, during times of market turmoil or geopolitical crises, discretionary traders can incorporate qualitative insights and make nuanced decisions that might elude a purely systematic approach.

Additionally, discretionary trading can capitalize on the subtleties of market sentiment and behavior. Experienced traders can often sense shifts in market psychology and react accordingly, exploiting opportunities that systematic models might overlook. The human touch, therefore, in discretionary trading can be a significant advantage in navigating markets that are often influenced by irrational factors. It is surprising however how much human DNA and personality can be found in systematic models. After all, the rules such models follow, the markets they trade or don't, the approach to risk, position sizing were all coded and set by humans, who have their view of the world and opinions which inevitably leak into what may be seen as sober code.

THE INTERSECTION OF TWO WORLDS

While the debate between systematic and discretionary trading continues, the reality for many traders and firms is a blend of both approaches. Hybrid strategies that combine the strengths of quantitative models with human oversight and discretion are increasingly common. This synergy allows for the objectivity and efficiency of algorithms while retaining the flexibility and adaptability of human judgment.

We are challenged to explore this intersection, providing insights into how traders can leverage the best of both worlds. We dive into the latest advancements in algorithmic trading, machine learning, and artificial intelligence, while also highlighting the value of human intuition and expertise. Our goal is to equip you with the knowledge and tools to navigate the ever changing landscape of trading, whether you lean towards systematic methods, discretionary approaches, or a combination of both.

On this journey as we uncover the strategies, innovations, and thought leaders shaping the future of systematic trading. In HedgeNordic's report on systematic trading, we try to find the "Quantitative Edge," where the art and science of trading converge. The publication starts off an exploration of "Investing in an Age of Data Overload" by Amadeo Alentorn, Lead Investment Manager specializing in Systematic Equities at Jupiter Asset Management. In "Transtrend's Commodity DNA Shines," Transtrend's Head of Portfolio Management, Toni Budimir, sheds light on the significance of commodities as an important source of returns and diversification, offering a differentiating perspective on a range of topics, including responsible investing.

Kathryn Kaminski and Scott Sample from AlphaSimplex explore "Innovation in Managed Futures," focusing on the adoption of Managed Futures ETFs and their advantages. Subsequently, Joseph Waldstein and Christophorus Lehmann from Austrian CTA manager SMN delve deeper into "SMN's Blend of Continuity and Change."

Bjarne Graven Larsen, former CIO at both the Danish pension fund ATP and the Canadian Ontario Teachers' Pension Plan (OTPP), addresses a common shortfall in most pension fund portfolios and introduces "Qblue's Systematic Solutions to Investor Needs." Andrew Beer, co-founder of Dynamic Beta investments (DBi) – a partner of iM Global Partner, examines the "Pros and Cons of Replicating "All-Stars" Trend-Followers."

Michael Hayes from MSCI discusses "The Systematic Revolution and 'Equification' of Fixed Income," noting that "a systematic revolution is brewing in fixed-income credit, and systematic credit will resemble systematic equity both in approach and in scale in the next five to ten years." Joakim Stenberg, co-founder of the now-closed hedge fund boutique Nordic Cross Asset Management, presents a "Systematic Index-Enhanced Avenue to Swedish Micro Caps."

Första AP-fonden (AP1), the First Swedish National Pension Fund, has devoted more resources over time to develop and expand its own quant team to leverage the advantages of systematic strategies. Patrik Nyman and Dmytro Sheludchenko from AP1's Asset Allocation and Quantitative Strategies team share more insights into "Systematic Strategies in Action at AP1."

In "Where Next for Commodities, as Quants Take Over," Tor Svelland, founder and CEO/CIO of commodity-focused hedge fund manager Svelland Capital, engages in a discussion with Alan Dunne on a Global Macro edition of Top Traders Unplugged about the dynamic forces shaping the global commodity markets. The publication concludes with Linus Nilsson's discussion on "Building a Robust Portfolio – A New Heuristic for Portfolio Diversification."

We hope you enjoy the read and find some interesting insights and food for though.

Sincerly yours,

Kamran Ghalitschi
PUBLISHER, HEDGENORDIC

"Good Judgment Comes from Experience. And Experience? Well, that Comes from Bad Judgment."

Turns out, this quote is not actuall from Dean Martin. But we will leave it at that, as it leaves so much more room for phantasy and speculation.

www.hedgenordic.com – May 2024
HEDGENORDIC

Investing in an Age of Data Overload

By Amadeo Alentorn – Jupiter Asset Management


Herding behaviour can often be found in nature … and in markets too.

"Stories often confirm group beliefs, are memorable, and convincing, but they can lead us into making mistakes. Our love of narrative can make us susceptible to behavioural biases."

Having evolved from arboreal primates who relied on their senses and instincts to survive, most humans now occupy a highly sophisticated artificial environment that is at least as much data as nature. Data is everywhere: in phones, cars, homes, workplaces, and media. Data shapes our decisions, beliefs, behaviours, emotions, and identities. According to some estimates, several quintillion bytes of data are created daily[1]. A quintillion is 1 with 18 zeros after it. A DVD holds about 5 Gb, and a Gigabyte is a 1 with 9 zeros, so every day humans create of the order of 1,000,000,000 DVDs-worth of data.

Information overload is the difficulty the human mind has in understanding an issue when swamped by too much data. According to a 2023 paper published by the US Federal Reserve, information overload can increase both information risk and estimation risk[2]. Its authors argue that "information overload [may be] increasing information and estimation risk and deteriorating investors' decision accuracy because of their limited attention."

BEHAVIOURAL BIASES

How can we cope with so much data? Our brains are not computers, they work differently. We simplify. We tell stories. We fall in love with a narrative.

Trusting stories may be hard wired into our genes, because humans evolved the ability to create and comprehend stories as a survival strategy. Storytelling helped our ancestors to communicate vital information, to cooperate and coordinate with others, to enhance social bonding and group identity, and to simulate and plan future scenarios. Stories provided meaning and purpose, emotional regulation and coping skills.

Believing in stories may have conferred an adaptive advantage to early humans. While this worked well in the wild, it can disadvantage us when it comes to investing in the modern world. Stories often confirm group beliefs, are memorable, and convincing, but they can lead us into making mistakes. Our love of narrative can make us susceptible to behavioural biases, such as the following:

Firstly, it can make us prone to confirmation bias, the tendency to seek out and interpret information that confirms our existing beliefs, while ignoring or discounting evidence that contradicts them. Confirmation bias can lead us to overestimate the validity and reliability of our own opinions, and disregard alternative explanations or perspectives.

Second, it can make us susceptible to the availability heuristic, the tendency to judge the likelihood or frequency of an event based on how easily we can recall examples of it from memory. The availability heuristic can cause us to overestimate the probability of rare or dramatic events and underestimate the probability of common or mundane events.

Third, it can make us vulnerable to the framing effect, the tendency to be influenced by the way information is presented, rather than by the information itself. The framing effect can affect our decisions and preferences depending on how the options are worded, ordered, or emphasised. For example, we may be more willing to accept a gamble if it is framed as a potential gain rather than a potential loss, even if the expected value is the same.

These and other behavioural biases affect many investors, and, in our view, their effects can be detected in markets. For example, herding occurs when investors mimic the behaviour of others, which they may do especially when faced by highly uncertain outcomes. Herding behaviour may part of the reason for boom-and-bust cycles.

ARE MARKETS HERDING?

Are behavioural biases present in current markets? Global equity markets have generally been very strong over the past few months, as investors have become more optimistic about the US economy and about the technology sector in particular. The promise of Artificial Intelligence (AI) has grabbed the headlines. Chat GPT has not only been the world's faster-ever growing application but has spurred people's imaginations about what may lie ahead.

The first powered aircraft was built in 1903. Before that kites and balloons were in use, but it might have seemed crazy that objects with metal wings and a gasoline engine could fly. Until recently, it might have seemed crazy that other objects made of metal and silicon – computers – could think intelligently. But now many believe that to be possible in the near future.

ChatGPT was released in 2022, almost 120 years after the Wright brothers first flew their plane. ChatGPT, and other Large Language Models, do not exhibit artificial general intelligence (AGI). In essence, they make predictions of, and can generate, words that probabilistically follow next in a sentence. Large Language Models are essentially brilliant mimics of human language and lack the ability to perceive or reason about the world. They certainly are not conscious, although their skill in language generation can sometimes give the illusion that they are.

Excitement over AI is partly why the technology sector has dominated stockmarkets over recent months. The price of shares in Nvidia, whose chips are widely used in AI, has quadrupled since early 2023. The Magnificent Seven (Apple, Nvidia, Microsoft, Amazon, Google, Meta, Tesla) now account for 28% of the S&P 500 by market cap. An example of herding behaviour?

"In order to mitigate behavioural biases, we have developed a highly rigorous, systematic investment process. Rather than employing traditional techniques, such as manually scrutinising company annual reports, meeting management teams, and studying by hand third-party analysis, we prefer to use computer-based techniques to analyse huge volumes of publicly available information."

Investing in a passive fund tracking a market cap weighted index (such as the S&P 500) is not allocating an equal amount of money to each stock in that index but allocating more to the large cap stocks in the index. This is fine if they maintain their leadership, but historically this has not always been the case. The largest cap stocks in the S&P 500 in 1990 were Exxon, IBM, Loews, Raytheon, and Bristol-Myers Squibb. Which will they be in 2035? Perhaps not the same as they are today.

Largest stocks in S&P 500

Market cap of largest in brackets.

1990: Exxon ($63bn), IBM, Loews, Raytheon, Bristol-Myers Squibb

2000: Microsoft ($604bn), General Electric, Cisco, Walmart, Exxon

2010: Exxon ($322bn), Microsoft, Walmart, Google, Apple

2020: Apple ($1.3tr), Microsoft, Google, Amazon, Meta

2024: Apple ($3tr), Microsoft, Google, Amazon, Nvidia

The recent divergence of the Magnificent Seven shows the need to analyse each company individually in depth, and not be caught up in the herd.

We would suggest caution. The economic outlook still remains very uncertain. As data from the US Federal Reserve shows, the Global Economic Policy Uncertainty Index is well above its 20-year average.

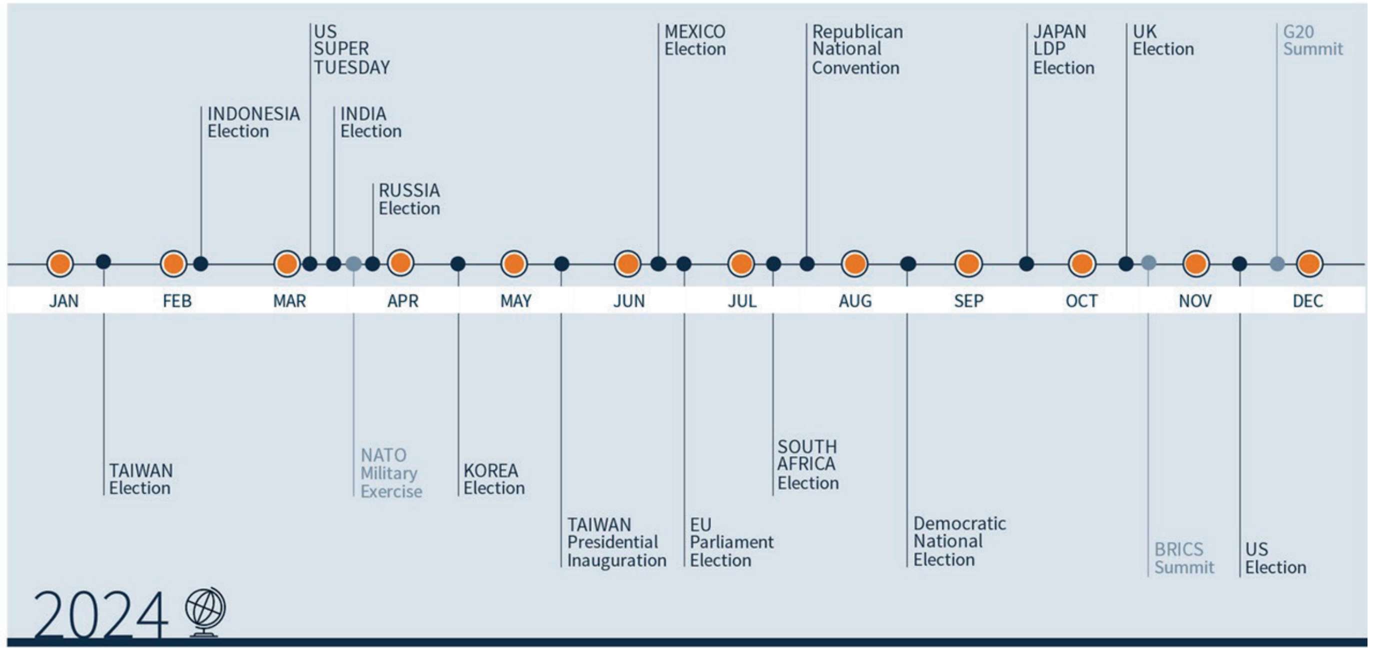
There is great uncertainty over the number and timing of rate cuts. The US Federal Reserve is looking for greater confidence that inflation is on a sustainable downward path, before cutting interest rates, but job growth remains strong, and services prices are still increasing. It is unclear where rates will be by the end of 2024.

Amadeo Alentorn, Lead Investment Manager, Systematic Equities – Jupiter Asset Management

Part of the uncertainty is geopolitical, with wars in Ukraine and Gaza. In 2024, countries representing more than half the world's GDP will have elections. The list of elections shown on the next page cumulates in the US election. That will probably be between Biden and Trump, but the result could easily be tipped either way by how many votes the main candidates lose to an outsider, such as Robert F Kennedy Jr.

Will there be a resurgence in populism? If so, there could be important consequences for global trade and stability. Potential risks include continued Russian expansionism and China's designs on Taiwan.

Amidst all this uncertainty, we think the pursuit of diversification make sense. Our market neutral strategy is designed to provide genuine diversification, with returns not correlated to either equity or bonds. It is based on a large opportunity set and a repeatable, dispassionate approach. We don't put much faith in stories. We prefer hard data.



In order to mitigate behavioural biases, we have developed a highly rigorous, systematic investment process. Rather than employing traditional techniques, such as manually scrutinising company annual reports, meeting management teams, and studying by hand third-party analysis, we prefer to use computer-based techniques to analyse huge volumes of publicly available information. This allows us to scrutinise a large universe of global stocks against our diverse set of proprietary stock selection criteria, which we have developed, scientifically researched and refined over years.

1 https://financesonline.com/how-much-data-is-created-every-day/

2 Alejandro Bernales, Marcela Valenzuela, and Ilknur Zer (March 2023), Effects of Information Overload on Financial Markets: How Much Is Too Much? Board of Governors of the Federal Reserve System, International Finance Discussion Papers, Number 1372. Available at https://www.federalreserve.gov/econres/ifdp/files/ifdp1372.pdf

The value of active minds – independent thinking: A key feature of Jupiter's investment approach is that we eschew the adoption of a house view, instead preferring to allow our specialist fund managers to formulate their own opinions on their asset class. As a result, it should be noted that any views expressed – including on matters relating to environmental, social and governance considerations – are those of the author(s), and may differ from views held by other Jupiter investment professionals.

Important Information: This document is intended for investment professionals and is not for the use or benefit of other persons. This document is for informational purposes only and is not investment advice. Market and exchange rate movements can cause the value of an investment to fall as well as rise, and you may get back less than originally invested. The views expressed are those of the individuals mentioned at the time of writing, are not necessarily those of Jupiter as a whole, and may be subject to change. This is particularly true during periods of rapidly changing market circumstances. Every effort is made to ensure the accuracy of the information, but no assurance or warranties are given. Holding examples are for illustrative purposes only and are not a recommendation to buy or sell. Issued in the UK by Jupiter Asset Management Limited (JAM), registered address: The Zig Zag Building, 70 Victoria Street, London, SW1E 6SQ is authorised and regulated by the Financial Conduct Authority. Issued in the EU by Jupiter Asset Management International S.A. (JAMI), registered address: 5, Rue Heienhaff, Senningerberg L-1736, Luxembourg which is authorised and regulated by the Commission de Surveillance du Secteur Financier. No part of this document may be reproduced in any manner without the prior permission of JAM/JAMI.

Transtrend's Commodity DNA Shines

By Hamlin Lovell – HedgeNordic

HedgeNordic interviewed Transtrend's Head of Portfolio Management, Toni Budimir, for the first time since he assumed the role in January 2020. Budimir works closely with Harold de Boer, Head of R&D, and the rest of the team. They find commodities are an important source of returns and diversification. We also explored Transtrend's views on commodity market ecosystems, which underly their often differentiating view on a range of topics, including responsible investing.

Budimir studied Applied Mathematics at Delft University of Technology and started as a research analyst in Transtrend's portfolio management team in 2014. "Many in our team have studied Mathematics, Physics or Engineering, and share a love of applying Mathematics to practical financial problems. Researchers need more than strong quantitative skills – they also need to show potential for creativity and innovation," says Budimir, who just marked his tenth year at the firm.

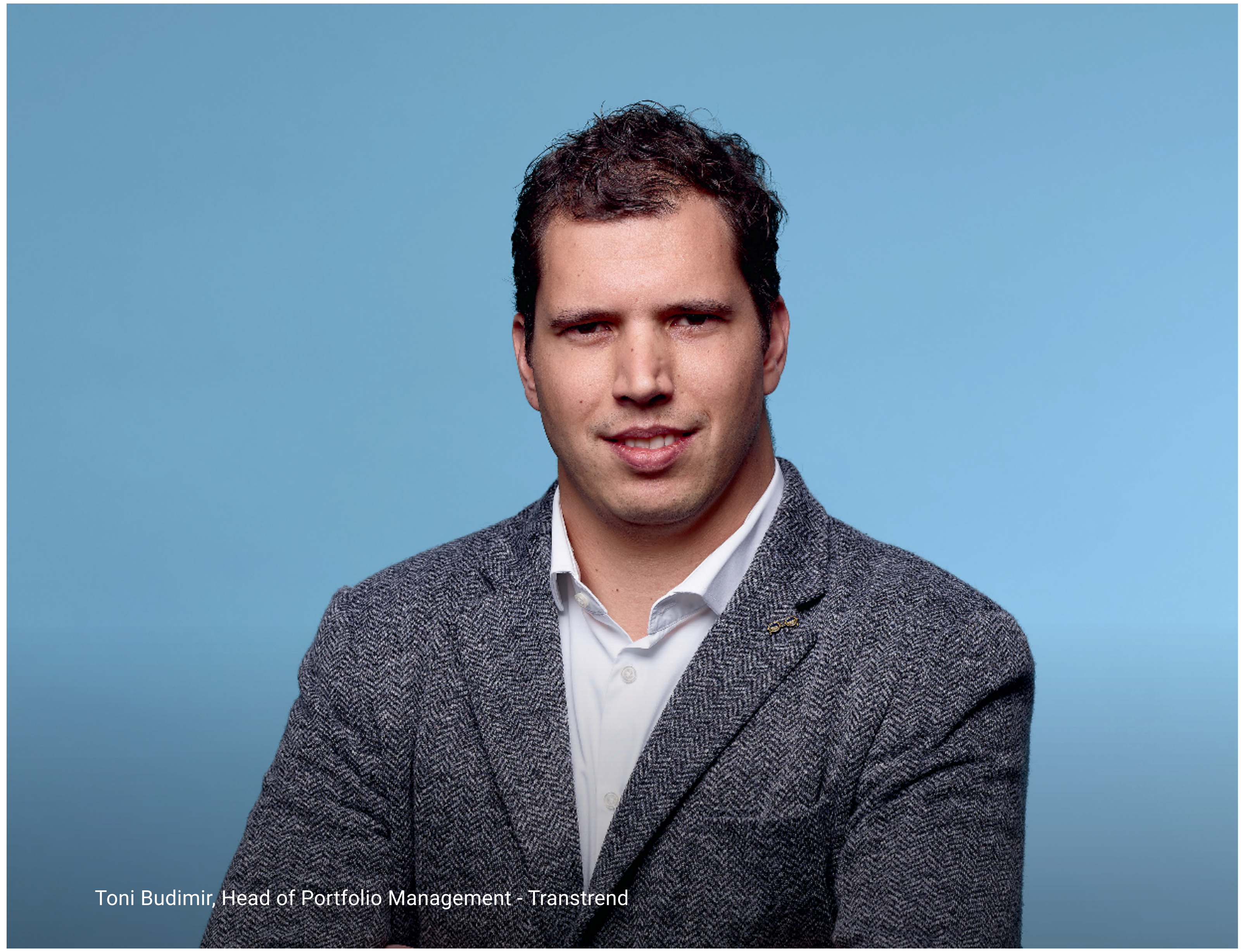
The 78 staff have on average been with Transtrend for close to 12 years and all are either native Dutch speakers or have learnt Dutch. Transtrend trades globally but has only one office, in Rotterdam, near the central train station. Staff spends at least 3 or 4 days per week in the office, which is almost open plan, so that researchers can share and compare ideas with IT, electronic trading and operational groups.

"In portfolio management we have our own desks, but also sit regularly on the trading desk to discuss how things are going," says Budimir.

Transtrend was born out of an oilseeds and grains trading company, and thus its trading of markets such as oats and palm oil predated the June 1992 launch of the Diversified Trend Program (DTP), its one and only strategy. While Transtrend also trades a broad range of equity, interest rate and currency markets, commodity markets are their home ground.

COMMODITY EXPOSURE

The commodity exposure within DTP is dynamic rather than fixed as the strategy aims to capture trends wherever they occur. "In 2021, commodities and especially energy made a big contribution. In



Toni Budimir, Head of Portfolio Management - Transtrend

2022, there was more financial markets exposure. In 2023, returns would have been negative without the agricultural markets and so far in 2024 commodities, especially cocoa, have played a big role in the positive return year-to-date," says Budimir.

Exposure to commodities has on average been between 20-25% of risk and has been close to 40% as well in periods of strong trends in commodity markets. Including all synthetic markets, where Transtrend combines two outright markets to effectively create a new market, can lift the average allocation another 5-10%, again depending on prevailing trends.

"And of course, developments in commodity markets at times also drive related companies like mining stocks and commodity-rich currencies like the Norwegian kroner. Not to mention what has been happening to interest rates because of the commodity-driven rise in inflation. While it's clear that commodities are very important in our program, we don't treat them as a separate asset class; they are actually a very diverse group of markets with very different dynamics, precisely the reason why we like them", Budimir carefully explains.

Any perception that CTAs, like Transtrend, are accentuating commodity price trends is wrong, according to Budimir. "We tend to size positions inversely to recent volatility and this leads to regular selling in a strong uptrend and buying in a reaction." During the strong rally for cocoa in the last 12 months, Transtrend has actually sold some 90% of their position. "We are natural sellers rather than buyers in a long-lasting uptrend," explains Budimir.

"ALTERNATIVE" AND "TRADITIONAL" MARKETS

Transtrend trades most markets on exchange (through futures), some currencies over the counter, and single stocks through total return swaps. Within futures, Transtrend trades a variety of exchange traded commodity futures, including energy, metal and agricultural markets.

A number of these markets are sometimes described as "alternative markets". Transtrend finds the common distinction between "alternative" and "traditional" markets artificial and unhelpful. Many criteria can be used to define what is alternative and what is traditional, but none of the criteria are consistent across all markets defined as alternative. There are always some traditional and alternative markets that do, and do not, meet the criteria.

"In any case, it is not possible to predict what trends will appear and when. After the Russian invasion into Ukraine, there were strong trends in grains, often defined as "traditional", as well as in electricity markets, often defined as "alternative". So alternative markets can anyway become correlated with traditional markets from time to time," observes Budimir.

INCLUSION OF MARKETS

Transtrend's general approach in terms of what markets to trade is to prefer inclusion rather than exclusion of markets. "The energy transition adds a lot of risk to the parties involved and not all are willing or able to bear these risks. Futures markets are designed to transfer these risks and active traders like CTAs are well equipped to take on that risk. At the same time, we do not want to exaggerate our role. Futures traders have a role to play but in the end it depends on consumers, producers and governments' decisions on how the energy transition will unfold," says Budimir.

Carbon trading also plays an important role in the

> "We tend to size positions inversely to recent volatility and this leads to regular selling in a strong uptrend and buying in a reaction."

energy transition. Transtrend has been trading carbon futures markets since 2006, profiting for example from the tripling of EUA carbon credit prices in 2021.

ENGAGEMENT

One important element of responsible investing is engagement. Given Transtrend's role in markets and the instruments they trade, their engagement is not as a shareholder aimed at the management of listed companies but instead primarily focused on the well-functioning of markets, for example on observed trading activity that undermines the well-functioning of markets.

As an example, Transtrend ceased trading with the LME after the exchange cancelled $12 billion of nickel trades on 8 March 2022, when nickel prices tripled, but has recently resumed trading with the LME.

"This cancellation of prices impacted our trust in that exchange. We decided against litigation that some hedge funds have pursued and instead have actively engaged with the LME for the required changes in order to regain the trust to trade these markets. We joined their user committee and continue to engage with them to discuss our understanding of well-functioning markets and the role of exchanges" says Budimir.

PRICE DISCOVERY IN FUTURES MARKETS

As part of managing their Diversified Trend Program, Transtrend strives to contribute to well-functioning, stable markets. For that reason, they do not use price-insensitive orders such as "market-on-open" or "trade-at-settlement" orders; active participation in markets is one of the key components of their underlying investment strategy.

The presence of price-sensitive buyers and sellers is required for price discovery, an important aspect of futures markets as they provide important signals in the ecosystem of commodity markets.

"If you are a producer or consumer of materials, your behaviour may change depending on the futures price. High prices for example may encourage more mining of metals or planting of crops. We have recently seen high cocoa prices encouraging farmers in South America to switch their crops to cocoa."

In 2021 and 2022, the tenfold increase in natural gas prices in Europe impacted the physical natural gas markets, both from the perspective of producers and consumers.

"Well-functioning futures markets inform real world decisions through these sorts of feedback loops and help to balance physical supply and demand," points out Budimir.

CAPTURING FUTURE TRENDS

Looking forward, real-world challenges like the return of inflation, more extreme weather, the energy transition and geopolitical developments are likely drivers of change in the world around us. Change that is often characterized by trends in markets transcending asset classes.

Given their broad market universe across asset classes and with commodity markets being part of their DNA, Transtrend looks well positioned to be able to pick up and benefit from these trends.

> "The energy transition adds a lot of risk to the parties involved and not all are willing or able to bear these risks. Futures markets are designed to transfer these risks and active traders like CTAs are well equipped to take on that risk."

Innovation in Managed Futures

By Kathryn M. Kaminski, Ph.D., CAIA and Scott M. Sample, CFA – AlphaSimplex

> "In the five years ending December 31, 2023, the number of ETFs within Morningstar's Alternative and Non-Traditional Equity category groups grew from seventy-seven ETFs representing $5.7 billion in assets to three hundred eighty representing just under $140 billion in assets."

THE RISE OF MANAGED FUTURES ETFS

Renewed interest in managed futures has been stoked by a series of disruptive events beginning with the COVID-19 pandemic, subsequent rising inflation, and geopolitical tensions, to name a few. Additional proof points for systematic trend funds' diversification potential were particularly clear in 2022. During this period, increasingly seasoned track records were punctuated by a +17% average return as stock and bond indices declined by double digits. Product development and innovation have continued to accelerate alongside demand aided by regulatory tailwinds set in motion just a few years prior. Assets within systematic trend ETFs rose more than six-fold to just under $1.5 billion in the three years ending 12/31/23.[1]

Critical to the recent innovation and accelerated adoption of alternative ETFs are two SEC rules, often referred to as the "ETF rule" and the "Derivatives rule", which lowered the barriers of entry for bringing new ETFs to market.[2] These rules created a more consistent and transparent regulatory framework, particularly as it relates to the utilization of derivatives within ETFs.

www.hedgenordic.com – May 2024
HEDGENORDIC

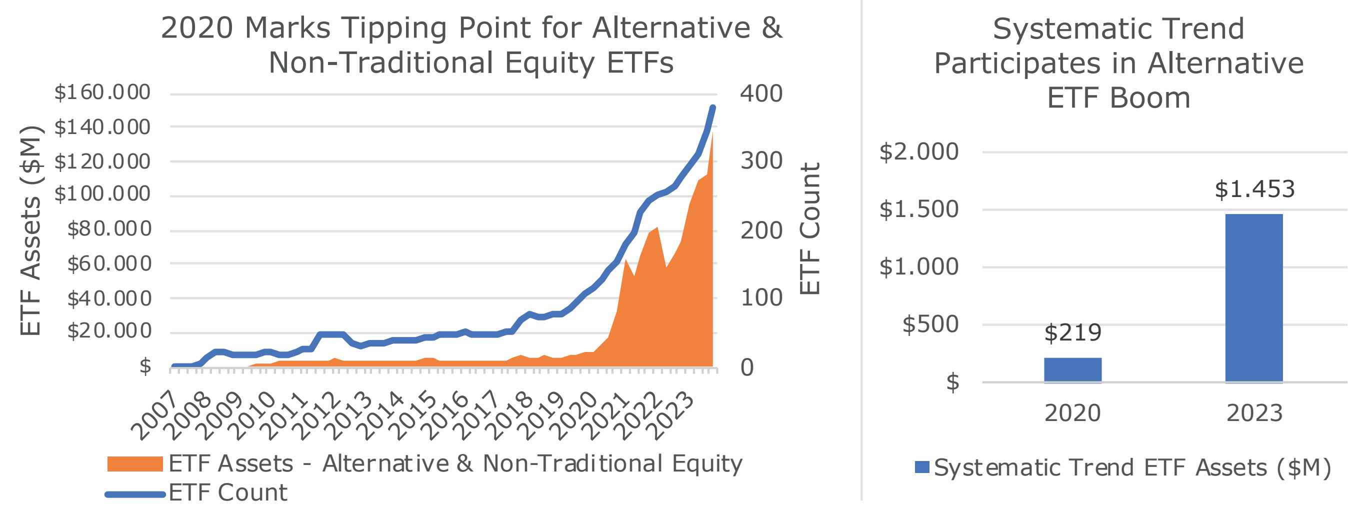


Figure 1: Left: ETF assets within Morningstar's Alternative and Non-Traditional Equity category groups from January 1, 2007 to December 31, 2023. Right: ETF assets within Morningstar's Systematic Trend category as of December 31, 2020 and December 31, 2023. Source: Morningstar Direct, AlphaSimplex.

The "ETF rule" and "Derivatives rule" were passed to help facilitate greater competition and innovation within the industry and the corresponding impact on the alternative ETF market since has been profound. In the five years ending December 31, 2023, the number of ETFs within Morningstar's Alternative and Non-Traditional Equity category groups grew from seventy-seven ETFs representing $5.7 billion in assets to three hundred eighty representing just under $140 billion in assets.

MANAGED FUTURES ETFS: THE NEXT PHASE

One of the key advantages of public funds is their transparency, regulation, and access to a wider range of investors. ETFs provide a convenient access point for accessing fund investments in a daily liquid vehicle similar to a mutual fund. As a result they have several common use cases for both retail and institutional investors. Common use cases for Managed Futures ETFs are described below.

DIRECT INVESTMENT IN MANAGED FUTURES

Similar to Managed Futures mutual funds, ETFs provide comparable returns with an often simplified approach. Daily liquidity and ease of trading in ETFs provide a simple method to access Managed Futures returns and index tracking or replication strategies are one emergent trend amongst recent ETF launches within the liquid alternatives space.

When investing in managed futures products, it is important to recognize the dispersion of returns, which suggests potential benefits to taking a targeted approach to single-manager selection. Simply tracking the index or peer group may prove more appealing for those looking to target the broad characteristics of the space while seeking to limit the risk of a single manager failing to deliver upon expectations.

Interestingly, managed futures index replication may be particularly well suited to the ETF vehicle structure because of the simplified set of markets typically utilized in the approach.[3] Flagship mutual funds or LP offerings of prominent managers in the space often feature dozens or even hundreds of markets. Replication strategies, on the other hand, more commonly feature only one or two dozen markets across the core asset classes. A highly differentiated opportunity set is a potential source of alpha and return dispersion amongst the private fund managers, but the more modest basket of instruments associated with index tracking can help ETF market makers keep spreads tight and reduce

www.hedgenordic.com – May 2024
HEDGENORDIC

> “While the average net expense ratio for the Systematic Trend category (which includes mutual funds and ETFs) has declined to 1.62%, the average ETF expense ratio is 0.85%.”

transaction costs for investors, particularly in the formative stages of an ETF as it seeks to increase in size and trading volume.

MODEL PORTFOLIOS: DIVERSIFICATION WITH LOWER FEES

Model portfolios represent an important source of asset growth for alternative ETFs. Looking at the U.S. model portfolio universe under Morningstar's coverage, AUM recently increased to $424 billion as of June 2023, up from $286 billion in June 2021. In addition to streamlining the investment process and providing a more consistent client experience, reduced costs are a sometimes-overlooked benefit for advisors that choose to adopt model portfolios. According to Morningstar, the average allocation model was 17bps less per annum than the cheapest share class of allocation category mutual funds.[4]

ETFs tend to have lower fees than mutual funds and provide index-like returns which can easily be incorporated into model portfolios that have an allocation to alternative investment categories. For example, while the average net expense ratio for the Systematic Trend category (which includes mutual funds and ETFs) has declined to 1.62%, the average ETF expense ratio is 0.85%. Alongside the industry trend of increasing model portfolio adoption so too has the opportunity set increased for alternatives within models for advisors looking to outsource this more complex corner of the portfolio construction process.

LIQUIDITY AND PORTFOLIO COMPLETION

Although many think that ETFs are a retail-specific product, there are a surprising number of institutions who are adopting the use of ETFs in their portfolios. Why is this the case? For many institutional investors, mutual fund investment is not a common access point due to their fee structures and approval processes. In addition, many institutions are already accessing the space via funds of one, co-mingled funds, or separately managed accounts. These access points are fee efficient, but they require more complex subscription and redemption processes for changing allocations with individual managers. As a result, a liquid ETF product can provide a method for building a liquidity buffer that can easily be adjusted daily. This can be a method for portfolio completion and allow a full allocation of capital with flexibility. This specific use case demonstrates why ETFs are also of interest to institutions as a portfolio completion and liquidity tool in addition to their uptake by retail investors.

Kathryn M. Kaminski, Chief Research Strategist, Portfolio Manager – AlphaSimplex

Scott M. Sample, Client Portfolio Manager – Alpha Simplex

THE EVOLVING MANAGED FUTURES ECOSYSTEM

Kaminski and Sample (2024) highlights the growth of the managed futures space as new products and vehicles begin to expand outside the private fund space. The U.S. '40 Act space also provides a roadmap of possibilities for evolution in the newly growing managed futures ETF space. As more investors have access to diversifying returns, they will also have more tools and access points for building portfolios that include an allocation to alternative investments such as managed futures.

1) This article is an excerpt from the paper “The Managed Futures Ecosystem: The Rise of the Managed Futures ETF” by Kaminski and Sample (2024), which provides a more comprehensive discussion of the Managed Futures Ecosystem leading to Managed Futures ETFs.

2) “ETF rule” and “Derivatives rule” refer to rules 6c-11 and 18f-4, respectively, under the Investment Company Act of 1940.

3) A closer examination of approaches to index tracking or replication strategies is a subject of a forthcoming paper.

4) Millson and Kephart 2024; data as of December 31, 2023.

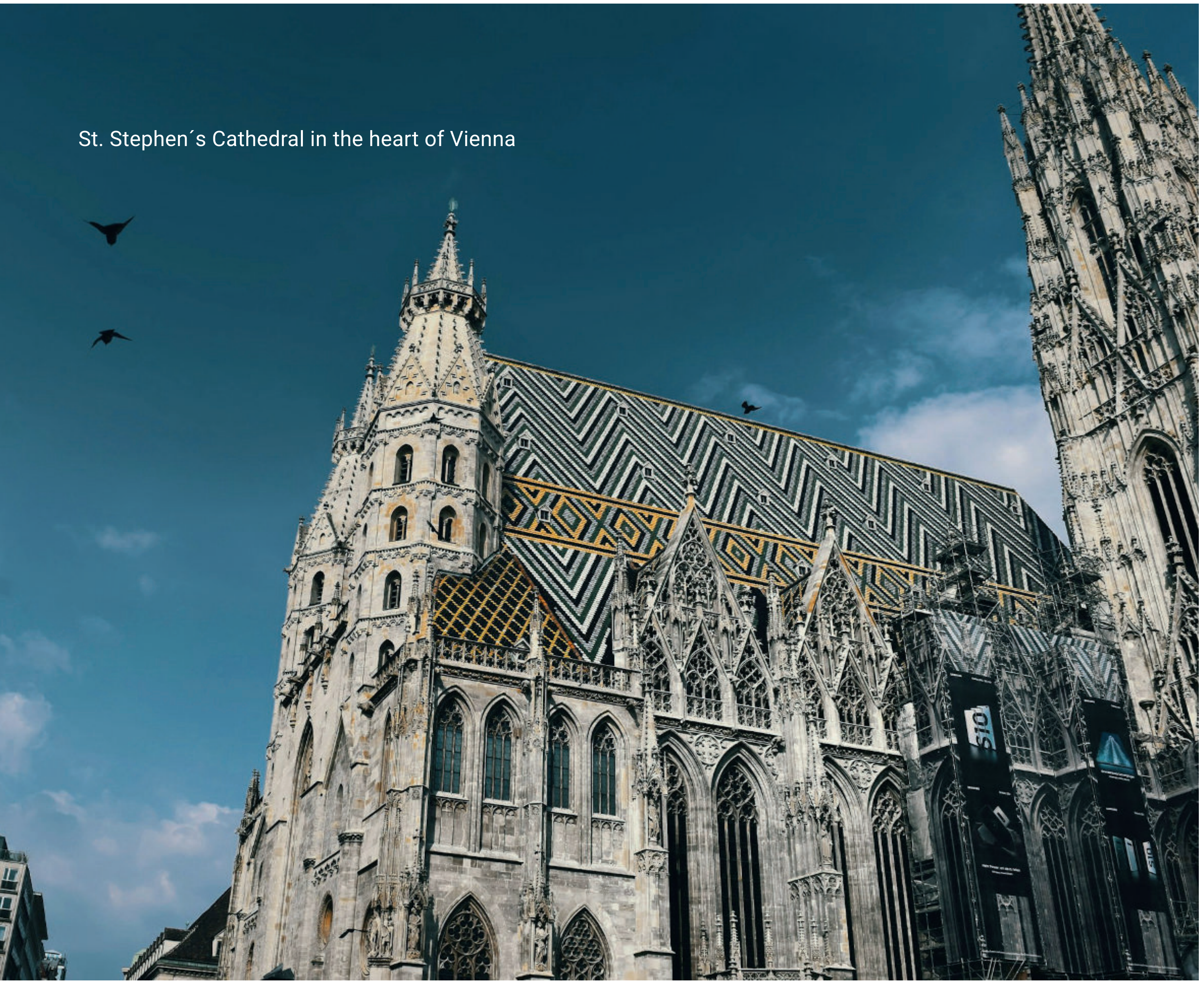
References

Millson, Adam and Jason Kephart. 2024. “U.S. Model Portfolio Landscape: 2023 in Review.” Morningstar Manager Research. https://www.morningstar.com/lp/model-portfolio-landscape.

Kaminski, Kathryn and Scott Sample. 2024. “The Managed Futures Ecosystem: The Rise of the Managed Futures ETF.” AlphaSimplex Insights. https://www.alphasimplex.com/education.

Kaminski, Kathryn and Yingshan Zhao. Forthcoming. “Tracking Trend: A Closer Look at Managed Futures Index Replication.” AlphaSimplex Insights.

Disclosures



St. Stephen´s Cathedral in the heart of Vienna

> “Our front office signal generation, order management and execution management are all proprietary systems.”

Austrian CTA manager SMN, located just a few meters from St. Stephen's Cathedral in Vienna, is committed to its style of trend following. The manager utilizes distinctive risk management overlays that have operated for over a decade, and their IT systems have always been built in house. The main area of recent innovation has been trading more markets.

MEDIUM TO LONG TERM

In its first decade SMN tried some shorter term trading models but since 2006 it has been firmly in the medium to long term trend follower category.

SMN’s Blend of Continuity and Change

By Hamlin Lovell – HedgeNordic

“Lookback periods used to determine trend signals range from 80 to 750 trading days, which means from four months to three years. Meanwhile, holding periods average 100 days but naturally tend to be longer at 160-180 days for winning trades, than the 50-60 day average for losing trades, which hit their stop loss level,” says Managing Director, Joseph Waldstein, who has been with SMN for 17 years and leads the Research & Development team of seven people.

Some positive trades have even been held for over a year. “We have been long cocoa since March 2023 and have been cutting the position due to risk management inputs from our system. These inputs were based on our sizing methodology and overlays,” he pointed out in early May 2024.

RISK AND CORRELATION OVERLAYS

SMN’s risk management algorithm is mainly driven by its two risk management overlays. In 2008 the risk on/risk off overlay was introduced, and in 2010 the correlation overlay was added. “They have increased our Sharpe ratio by ca. 20%,” says Waldstein.

Joseph Waldstein, Head of Research & Development – SMN

As markets move between risk on and risk off the system automatically reacts. The top down measure of risk on or risk off regimes can lead to a reduction of position sizes for each instrument.

The correlation overlay flags up concentrations of risk when markets become more correlated. This

“Backtesting shows that the risk adjusted returns would have been considerably lower without the extra markets, especially over the past 10 years and after 2009.”

can lead to risk reduction, and was recently helpful in March 2023 when interest rates reversed in response to the mini banking crisis.

“The mechanics behind the risk-management overlays add robustness in every layer,” sums up Waldstein.

IN HOUSE IT

Austria boasts the highest percentage of organic food production in Europe, and SMN's models and operations are very much organically grown in a different sense, within the company. Though some hedge fund managers use various third party software packages for front, mid and back office functions, SMN's IT systems have always been in house. “Our front office signal generation, order management and execution management are all proprietary systems, coded in C Sharp language. We maintain our competence and are not reliant on any outside vendors, besides Bloomberg for execution instructions. But Bloomberg is just the interface, we manage the information ourselves,” explains Waldstein.

ADDING MARKETS

The key area of recent innovation has been trading more markets. The reason for this is simple. Trend following is a relatively weak signal with a hit rate below 50%, but the win loss ratio is better than 50/50. Therefore a wider universe increases the chances of capturing some trends - even in periods when most markets are not trending.

“Recently the Japanese Yen, cocoa and sugar have been some of the biggest winners as they were unexpected outliers,” points out Waldstein. The Japanese currency keeps making new lows against the US dollar. Sugar roughly tripled from Covid to early 2024 and has recently reversed by one third. Cocoa quadrupled in less than a year, and has also seen a 40% pullback this year.

SMN can also trade less well known agricultural markets listed on exchanges in several countries, which are not being accessed by many other CTAs, or indeed by alternative risk premia trend strategies that

Christophorus Lehmann, Alternative Investment Specialist – SMN

tend to trade a much smaller investment universe of major markets.

Since inception the SMN universe has grown from 70 to 200 markets and 300 different instruments, in several stages. “The first synthetic markets were added in 2008, and there are now 50 synthetic markets traded. Structural alpha markets were added in 2016, taking the total to 200 markets including some alternative commodities. The 300 instruments figure also includes multiple maturities in the same market, both for trading trends beyond the front month, and for constructing calendar spreads,” says Waldstein.

There has not however been any innovation in instruments traded: apart from OTC currency forwards, all markets traded are listed futures. SMN has chosen its markets carefully and rejected far more than were added. “We place great emphasis on our due diligence of adding new areas of investment. More than 90% of our research leads to no changes,” reveals Waldstein.

The investment universe expansion has proved its worth. “Backtesting shows that the risk adjusted returns would have been considerably lower without the extra markets, especially over the past 10 years and after 2009,” says Waldstein.

SMN has profited in and around all major crisis years we can recall over the past 27 years: the 1998 Russia crisis, the 2000-2003 TMT bubble bursting, the GFC of 2007-2008, the European sovereign debt crisis of 2010, Covid in 2020, and inflation and quantitative tightening in 2021 and 2022.

“We can profit from a wide variety of macroeconomic and market regimes, including high or low inflation, growth or recession, and bull or bear markets in all of the asset classes traded,” says investment specialist, Christophorus Lehmann.

The sorts of market regimes that are challenging for the strategy could occur within any broader macro or market environment. “The biggest risks for the strategy are a sudden reversal of trends that occurs too fast for the models to change direction, or a lack of trends in commodity markets that have always made up over half of the investment universe,” says Waldstein. In some cases, the risk and correlation overlays may reduce or even avoid losses under these scenarios. In other cases, there will be a performance drawdown but this will often also sow the seeds for the next phase of positive performance, as the models will reverse positions in some markets, and find new trends in other markets. Over 28 years, SMN has adapted to all sorts of market surprises that nobody could have easily predicted, but in many instances the price action provided the clues that the models latched onto.

www.hedgenordic.com – May 2024
HEDGENORDIC

Bjarne Graven Larsen, Founder and Chief Executive Officer – Qblue Balanced

Qblue's Systematic Solutions to Investor Needs

By Eugeniu Guzun – HedgeNordic

> "They [institutional investors] might have diversified into alternative assets, but they haven't truly diversified into liquid alternative return drivers."

After serving as the CIO of the Danish pension fund ATP and in a similar role at Ontario Teachers' Pension Plan (OTPP), one of the world's largest and most sophisticated pension plans, Bjarne Graven Larsen identified a common shortfall in most pension fund portfolios: a lack of diversification into genuine alternatives. This realization inspired the creation of Qblue Balanced, a fundamentally based systematic asset manager. The founding team of seven included former ATP colleagues, notably ATP's CIO of investments, Fredrik Martinsson.

After many years in the role of CIO, "I had started to feel that I was becoming more of an administrator and moving further away from investments and from what I enjoy, which is solving tough problems and helping investors achieve their risk-return objectives," recalls Graven Larsen. After leaving Ontario Teachers' Pension Plan, Graven Larsen had a discussion with Fredrik Martinsson, former CIO of investments at ATP, that laid the foundation for Qblue Balanced.

"One of the reasons we formed Qblue was because we observed that many institutional clients are not well diversified in their portfolios," says Graven Larsen. "While they may have a lot of different assets, both private and public, most are still heavily dependent on equity market performance and interest rate fluctuations. They might have diversified into alternative assets, but they haven't truly diversified into liquid alternative return drivers," he emphasizes. As a result, Qblue Balanced launched a market-neutral, multi-strategy liquid asset fund in 2019, followed by several products utilizing its equity factor toolbox with a strong sustainability overlay.

Qblue Balanced positions itself as "a trusted long-term partner that helps investors solve problems," according to Graven Larsen. "It's in our DNA to sit down with clients, understand what they are trying to achieve, and leverage our experience to come up with a solution that might involve Qblue's products."

QBLUE ALTERNATIVE RISK PREMIA FUND

Despite describing Qblue Balanced as a systematic asset manager, "we are fundamentally based in the core of what we do," emphasizes Bjarne Graven Larsen. "We always start with a fundamental meaning backed by solid research or a well-founded hypothesis that we can test and understand," he elaborates, suggesting that logical economic relationships or behavioral patterns can be tested and modeled. Grounded in research and fundamental drivers, the Qblue Alternative Risk Premia fund operates as a liquid multi-strategy, multi-asset vehicle harvesting risk premia in several asset classes using a range of different strategies. However, this fund is more than a traditional alternative risk premia vehicle.

"When we launched Qblue, we implemented five market-neutral ARP-type of equity strategies. However, the product differs from what most investors typically think of as alternative risk premia funds," says Graven Larsen. For instance, the Qblue Alternative Risk Premia fund seeks to capture a "harvest season spread" in commodity markets and employs two systematic macro strategies in the fixed-income/currency space: one focused on capturing monetary policy changes and another on capturing purchasing power trends in G-10 fixed-income instruments. "The fund is more diversified than most ARP vehicles, incorporates build-in tail risk protection, and serves as a diversifier to equity and bond-dominated portfolios."

The product is designed to fulfill two primary objectives for investors: diversification and built-in tail risk protection. "It's built to serve as a strong diversifier within an institutional portfolio, so we have spent a lot of time making sure it remains uncorrelated with both equity and bond portfolios," notes Graven Larsen. The year 2022 provided a perfect illustration of the fund's properties. Despite simultaneous downturns in both equities and bonds, the Qblue Alternative Risk Premia fund closed the year with a positive return of six percent. "We had to make sure that the strategy delivers on its own merits during challenging periods in equity markets, bond markets, or both."

EQUITY FACTOR-BASED APPROACHES WITH A SUSTAINABILITY OVERLAY

After introducing its first fund in 2019, Qblue Balanced forged partnerships with Navigera, the fund management arm of Swedish insurance broker Max Matthiessen, in 2021 and later with London-based asset manager Heptagon Capital. These collaborations led to the launch of several new funds, all anchored in Qblue's factor-based approach and complemented by a proprietary sustainability overlay. "These products use a systematic approach that relies on our five equity factors and our Sustainability CubeTM model," says Graven Larsen. This combination enables us "to screen out some companies that we don't like by favoring equity factors such as value, momentum, profitability, yield, and low risk, and selecting companies with a strong sustainability profile," he explains.

> "The fund is more diversified than most ARP vehicles, incorporates build-in tail risk protection, and serves as a diversifier to equity and bond-dominated portfolios."

Reflecting on his involvement with sustainability since 1999 when he joined ATP, Bjarne Graven Larsen underscores a critical observation from his career: "Many investors do not stand on a solid and well-defined platform for discussing sustainability." Recognizing that sustainability creates potential value – rather than serving as a risk-mitigation tool, Qblue Balanced subsequently developed its proprietary Sustainability CubeTM framework that evaluates companies based on their contributions to societal value creation. "It's an idea that the generation of societal benefits is what creates potential value from being sustainable," explains Graven Larsen.

In addition to viewing sustainability as a risk consideration, the team at Qblue sought to uncover "alpha or potential investment ideas hidden in the sustainability space," according to Graven Larsen. "Our approach was to identify proxies across a broad spectrum of sustainability factors that serve as indicators of societal value creation," he elaborates. "We started exploring with the notion that companies demonstrating a strong profile in societal value creation are well-positioned to do well. Often, this aspect is not fully reflected in equity prices."

By integrating various sub-measures belonging to three dimensions: Climate Transition, ESG Industry Leaders, and UN Sustainable Development Goals, Qblue Balanced derives a Sustainability CubeTM Score. This structure offers insights into each company's sustainability profile, facilitating comparisons both within and across industries and regions. However, Graven Larsen emphasizes the importance of considering companies with strong fundamental economic factors.

"We want to be cautious when investing in companies lacking strong fundamental economic considerations," he explains and adds "to be sustainable, you need to be around for the long term, and only profitable companies will be around for the long term. Profitability is therefore a necessary prerequisite for being sustainable." Consequently, the investment strategy ensures a focus on selecting companies with robust sustainability profiles while also maintaining exposure to the five factors Qblue prioritizes.

EXPANDING INTO CREDIT

Drawing from its experience managing both cross-asset alternative premia strategies and equity-focused strategies, Qblue Balanced is currently gearing up to launch a climate transition-focused investment grade bond fund during the summer. Explaining the rationale behind this move, Bjarne Graven Larsen states, "Many investors are seeking ways to align with corporate net-zero goals while managing significant fixed-income portfolios. The only real or common option available to them is investing in green bonds." However, Graven Larsen highlights potential drawbacks of green bond investing, noting, "This approach isn't always ideal as it may from time to time lead to greenwashing and might not offer the desired returns as investors often pay a premium for access to green bonds."

Hence, Qblue Balanced has devoted considerable effort to devising a capable of generating alpha, while simultaneously aligning with Article Nine climate transition principles in the fixed-income space, primarily through a systematic approach. "The systematic aspect in fixed income differs significantly from equity investments, as the factors considered are different," explains Graven Larsen. "We are using a systematic approach to identify the factors that drive outperformance."

However, recognizing the specialized nature of bond investments, Qblue Balanced has hired a manager with an extensive track record spanning seven and a half years in Denmark to "conduct thorough bottom-up assessments of each issuance, meticulously reviewing prospectuses to make sure there's nothing we don't like and to mitigate risks such as subordination." Graven Larsen has observed a growing need for products that not only deliver additional returns but also contribute to environmental objectives, such as achieving net-zero emissions. "This product is a good example of being systematic in developing new products that can address investor preferences and priorities."

Andrew Beer, Managing Member and Co-Portfolio Manager – Dynamic Beta investments (DBi)

Pros and Cons of Replicating "All-Stars" Trend-Followers

By Eugeniu Guzun – HedgeNordic

Andrew Beer and his team at Dynamic Beta investments (DBi), which is part of asset management network iM Global Partner, believe that trend-following managed futures are the most valuable diversifier for a portfolio of stocks and bonds. Since 2000, the SG CTA Index has demonstrated strong relative returns, low correlation to equities and bonds, and the ability to deliver positive returns during periods of market stress. Attracted by these return properties, Beer and Mathias Mamou-Mani have designed a strategy – available via both a U.S.-listed ETF and a Europe-domiciled UCITS structure – that replicates the performance of the world's leading trend-following managers in a more cost-efficient and accessible manner, while also addressing the issue of single-manager risk.

"We're not traditional managed futures guys, but we fell in love with the space back in 2015,"

> "Despite the fees that hedge funds charge, trend-following managed futures remain a great asset class, even with those high fees."

says Andrew Beer, reflecting on their search for a strategy to complement a long-only equity portfolio in a challenging market environment. "We looked at the managed futures space and we loved the diversification benefits on two dimensions," he notes. First, its zero correlation with both stocks and bonds. Second, the presence of 'crisis alpha,' which implies that "the strategy tends to do best when you need it most."

Trend-following managers demonstrated solid performance during significant market downturns such as the dotcom crash in the early 2000s and the global financial crisis of 2008. Particularly noteworthy was their resilience during the market downturn in 2022, when both equities and bonds suffered losses simultaneously. "2022 was not a just bad bear market for equities, but it was a terrible bear market for bonds and equities at the same time," recalls Beer. "In turn, trend-followers had their best year ever," potentially solidifying their role as portfolio diversifiers. Despite their proven value, Beer highlights several challenges investors encounter when attempting to access this market.

SINGLE-MANAGER RISK, DRAWBACKS OF LIQUID ALTS, AND COST STRUCTURE

"The first major issue when considering investing in this space is single-manager risk," cautions Beer. This challenge, often described by allocators as 'soul-destroying,' stems from the variability in performance among trend-following managers. "You want to believe that AQR, Man Group, or Winton can do no wrong," he notes, yet the constituents of the SG CTA Index exhibit significant dispersion in their performance. One approach for large asset allocators to address this challenge is to invest in two to three prominent trend-following managers to achieve diversification. However, this strategy is primarily feasible for larger allocators with the capital to invest in traditional fund structures. Simpler structures like mutual funds or UCITS may not offer the same advantages due to inherent constraints.

The more liquid alternatives in a mutual fund or UCITS structure tend to underperform compared to the original structures, observes Beer. "If you are a wealth manager enthusiastic about the return stream and characteristics of the SG CTA Index, but you are restricted to investing through a mutual fund or UCITS fund, you won't achieve the desired returns," says Beer. To illustrate, the SG CTA index posted gains of approximately 26 percent before fees in 2022, whereas mutual fund versions in the US lagged by ten percentage points. "The constraints are a bit tougher in the UCITS land," Beer explains.

"These ten contracts account for the majority, around 90 percent or more, of the pre-fee returns over time. Our research process tends to be the most simple and straightforward to avoid fooling ourselves."

Lastly, and equally important, traditional trend-following managers have high fee structures, which, as Beer observes, "often seem secondary in good years." However, their impact can be substantial for long-term allocators. In choppy markets, the asset class may generate annual pre-fee returns of 3-5 percent over cash, but these gains are eroded by fees and expenses, leaving returns no better than cash. "Despite the fees that hedge funds charge, trend-following managed futures remain a great asset class, even with those high fees," argues Beer. Consequently, Beer and his co-partner Mathias Mamou-Mani posed the question, "How can we achieve the pre-fee performance of the group, charge less, maintain the same return profile as the group, and perhaps even enhance alpha?" The answer lies in replication.

REPLICATION: MIRRORING THE "ALL-STARS"

In essence, managed futures funds seek out trends in futures contracts across four asset classes: rates, currencies, commodities, and equities. These funds analyze historical price data to predict whether certain instruments will keep going up or down. "You can think of them as "wave detectors:" they constantly monitor 50, 70 or more individual futures contracts across the market sea," explains Beer. "The rationale is that greater diversification increases the likelihood of catching trends in cocoa or any other lucrative trend out there. Waves are unpredictable; they come, and no one wants to miss them."

The replication strategy involves identifying the core positions of a representative basket of top trend-following managers and then investing in the most liquid futures contracts to achieve comparable exposure. "We are not building our own models to compete with these experts because they are all incredibly smart," contends Andrew Beer. "Yet, when you look at the space statistically, none of them is consistently smarter than everybody else." Therefore, DBi's replication approach aims to mirror the positions of the 20 "all-stars" in the SG CTA index by analyzing approximately four weeks of average daily net returns.

KEEP IT SIMPLE

After making an adjustment to reach the pre-fee returns of the SG CTA index, the team at DBi employs a quantitative technique known as quadratic optimization to extract the approximate positioning, both long and short, of those trend-followers across ten major futures contracts. "These ten contracts account for the majority, around 90 percent or more, of the pre-fee returns over time," emphasizes Beer. "Our research process tends to be the most simple and straightforward to avoid fooling ourselves."

"We essentially picked the ten futures contracts that we thought were the most significant, most important, and liquid," says Beer. In currencies, DBi focuses on the USD-EUR pair, and on the S&P 500 in equities. In treasuries, they target two-year, ten-year, and 30-year treasuries, and in commodities, their focus lies on gold and oil. Although DBi may be avoiding 90 out of the 100 instruments that most other trend-followers are exposed to at any given time, the long-term significance of capturing trends in more esoteric futures markets is limited," according to Beer.

PARTIAL LIMITATIONS

The concentration on a select few futures contracts introduces a partial limitation of replication. "There is a limitation in that occasionally we won't replicate as much of their returns as we'd like," Beer acknowledges. "We experienced this in January and February of 2023 and we know exactly what we were missing." DBi's replication strategy lacked exposure to the Mexican peso and did not hold positions in the front end of the Canadian interest rate curve. "When managers think about these other positions, they often frame them as opportunities to generate more alpha due to the less liquid nature of these markets. However, these markets can be detrimental at the wrong time, leading to larger whipsaws and increased difficulty in unwinding positions," considers Beer. DBi's lack of exposure to the softs and other markets in 2024 resulted in a cost of only 200 basis points.

> "Our return profile resembles medium- to long-term trend following, which tends to be more stable and slower moving. We argue that this is the true source of alpha generation in this space."

"When you miss, you don't miss by much. Sometimes it hurts us, but in other periods such as this year, it works in our favour," says Beer, highlighting that some trend-following managers have been "getting whipsawed on cocoa or facing challenging due to shorter-term models." While the replication strategy may miss some trends in niche markets and there may be some noise in the strategy relative to the broader industry, Beer argues that "the hundreds of basis points gained in terms of fee and expense efficiency over time compensate for missing a few hundred basis points in rare market conditions."

Another limitation of replication, as noted by Beer, is that DBi's replication strategy tends to capture slower-moving trends. "This is a legitimate concern, especially in today's market environment, which has witnessed some extremely sharp and vicious inflection points," acknowledges Beer. "Many trend-following funds incorporate trip wires: volatility controls, stop losses, and other mechanisms to exit trend reversals early." However, "these mechanisms assist certain funds during sharp inflection points about half the time. Just as some strategies may be de-risking, markets can quickly go through a very sharp U-turn," Beer explains.

"Our return profile resembles medium- to long-term trend following, which tends to be more stable and slower moving," concludes Beer. "We argue that this is the true source of alpha generation in this space," he continues. The shorter-term models and the volume controls may convey the message "Don't worry, if we see the train coming down the track, we're going to hop off before everybody else." However, "we believe this approach often comes at the cost of long-term returns."

www.hedgenordic.com – May 2024
HEDGENORDIC

The Systematic Revolution and 'Equification' of Fixed Income


Michael Hayes, Executive Director, Analytics Research – MSCI

By Eugeniu Guzun – HedgeNordic

"A systematic revolution is brewing in fixed-income credit, and systematic credit will resemble systematic equity both in approach and in scale in the next five to ten years."

Systematic trading has historically thrived in the domain of exchange-traded securities such as equities, listed futures, and other highly liquid instruments. These markets, with their deep liquidity, high-quality data, and advanced electronic trading infrastructure, offer fertile ground for systematic models. However, the over-the-counter (OTC) nature of credit instruments, combined with the lack of quality data and transparency, has posed challenges for the adoption of systematic models in credit trading. Michael Hayes, Executive Director, Analytics Research at MSCI, believes that "a systematic revolution is brewing in fixed-income credit, and systematic credit will resemble systematic equity both in approach and in scale in the next five to ten years."

'EQUIFICATION' OF FIXED INCOME

MSCI has discussed extensively "the equification of fixed income," reflecting a long-anticipated and slow-to-materialize trend of convergence between equity and fixed income markets, driven by advances in liquidity, electronic trading, and data accessibility. "Early pioneers in systematic credit started investing in the early 2000s, but this revolution has been slow to materialize," says Hayes. In his role as Analytics Researcher at MSCI, he works with various systematic fixed-income teams across asset managers and hedge funds, helping streamline investment processes and discover new sources of alpha. "The advancements in liquidity and electronic trading, along with the vast amount of readily available data and tools, have dramatically lowered the barriers to entry. The convergence between equity and fixed income is starting to take off and becoming mainstream."

Fully automating a systematic credit strategy was once deemed impossible before the advent of electronic trading in fixed-income markets. "Increased electronic trading has definitely made automation possible," says Hayes. Although electronic trading has been around for a while, he attributes the slow adoption to inertia. "There are many discretionary portfolio managers in fixed income, but relatively few systematic portfolio managers. This means newcomers have fewer mentors and need to be more entrepreneurial and innovative," he continues. However, he sees a huge opportunity: "The opportunity will never be larger than it is right now."

www.hedgenordic.com – May 2024
HEDGENORDIC

> "As equity quants move into fixed income, they bring their decades of experience with multi-factor models, which is starting to really change the way that fixed-income portfolios are managed."

Hayes and his team at MSCI, "synonymous with quantitative equity investing since the 1970s," have observed a significant influx of equity quants into the fixed-income space, bringing their ideas and toolkits with them. "This is revolutionary because equity and fixed income have historically been so different. But this migration of equity quants into fixed income brings an instant injection of a new perspective to the whole fixed-income world," notes Hayes. Fixed-income portfolio managers approach factors differently compared to their equity counterparts. "As equity quants move into fixed income, they bring their decades of experience with multi-factor models, which is starting to really change the way that fixed-income portfolios are managed."

While credit and equity markets may be moving towards convergence, Hayes emphasizes that they will never fully converge due to fundamental differences between the two. "The two markets are never going to converge 100 percent, because there are fundamental differences between equity and fixed income," emphasizes Hayes. "But these equity quants have all the skills required to succeed in systematic credit. They are adept at uncovering alpha, utilizing factor models, optimization techniques, electronic trading, and integrating these elements into a fully automated process," he argues. Equity quants will continue to revolutionize the systematic credit investment process, according to Hayes.

BUY VERSUS BUILD

Many fixed-income managers already integrate systematic approaches into certain parts of their investment processes. With the trend of systematic credit investing gaining momentum, managers grapple with the question of whether to develop in-house capabilities or procure existing building blocks. MSCI has been building equity factor models since the 1970s and fixed-income models since the late 1980s. "We have had a succession of large quantitative research teams building those models initially and then improving them based on their own ideas and based on client feedback."

"Some funds however opt to start from scratch, which involves hiring talent similar to what we have at MSCI and building something highly specialized," explains Hayes. "With decades of collective effort from various teams, coupled with ongoing client feedback, MSCI has made substantial investments in our models compared to a fund starting from scratch," he elaborates. While he acknowledges that for a highly unique or idiosyncratic investment universe, "off-the-shelf tools may not suffice for managers," which could justify in-house development, "buying is typically a more cost-effective option" when considering a like-for-like comparison.

EXTENDING MSCI'S EQUITY QUANT LEADERSHIP

Hayes views systematic investment strategies as a four-stage process: "First, generate an alpha idea. Second, assemble the data and systems to implement it. Third, backtest the idea, and fourth, run the strategy using the same machinery as in step three." While MSCI does not provide the idea for alpha generation, "we offer numerous building blocks that can feed into your idea," says Hayes. These include tools offering insights into issuer curves, liquidity data, Merton implied spreads, equity factor descriptors, and a database linking equity and debt instruments at the issuer level.

MSCI also supports backtesting and implementation with a comprehensive multi-asset class factor model that covers fixed income in detail. "We have an optimizer custom-built for fixed income and a long history of liquidity data covering all transaction cost dimensions," says Hayes. He also emphasizes MSCI's strengths in equity factor modeling, which is relevant to systematic credit because of the fundamental connection between equity and credit, as formulated by Merton's structural credit model. Empirical correlations reveal a connection between credit and equity in the most liquid segments of each market, notes Hayes.

However, these correlations tend to break down at a more granular level. This phenomenon can be interpreted as either a breakdown of the Merton framework or as market inefficiency. Hayes leans towards the latter interpretation, believing that these markets will increasingly interconnect over time. What this implies is that "the wealth of equity data available to MSCI and the industry at large can be leveraged in the systematic credit process," presenting a significant, yet largely untapped, source of value.

"This is the most untapped source of value in the industry," reiterates Hayes. Equity factor descriptors, issuer characteristics, ESG scores, thematic scores, and peer similarity scores – all these elements can be integrated into the credit space, particularly within corporate credit. Moreover, this relationship works both ways, according to Hayes, who points out that this represents "a two-way street, where MSCI also has a wealth of fixed-income data, both at the issuer and the security level."

www.hedgenordic.com – May 2024 HEDGENORDIC


Joakim Stenberg, Fund Manager – Finserve Micro Cap

Systematic Index-Enhanced Avenue to Swedish Micro Caps

By Eugeniu Guzun – HedgeNordic

> "It's essentially an enhanced index approach with a couple of twists."

Consistently beating the stock market through stock picking is notoriously difficult. Recognizing this difficulty, Joakim Stenberg, co-founder of the now-closed hedge fund boutique Nordic Cross Asset Management, developed a systematic index-enhanced approach to access an attractive source of long-term returns: Swedish micro-cap stocks.

Despite various definitions of "micro-cap," Stenberg's long-only equity portfolio of around 120 companies has an average market capitalization of approximately SEK 3 billion. This is significantly below the fund industry's current threshold for micro-cap, which includes companies with market values up to approximately SEK 14 billion (0.1 percent of the total market capitalization).

Joakim Stenberg asserts that the portfolio of his equity fund, Finserve Micro Cap, boasts one of the lowest average market capitalizations by focusing on companies on the main list of the NASDAQ OMX Stockholm Stock Exchange. "No actively managed funds come close to that average market value in the portfolio," notes Stenberg. However, "the downside of investing in genuine small companies is that the portfolio cannot become particularly large," he emphasizes. "We estimate that we will hit the ceiling in many companies at SEK 2 billion in managed capital."

Small- and mid-sized enterprises (SMEs) are the lifeblood of every nation's economy, accounting for most of the economic activity in the European Union. Sweden's robust ecosystem, depth, and booming IPO market enable investors to finance growth and innovation, and in turn, reap the rewards through stock market returns. "Atlas Copco had a market cap of SEK 5 billion in 2003, compared to today's cap of SEK 947 billion," highlights Stenberg. Investing in Sweden's micro-caps presents the chance to uncover the next "Atlas Copcos" of the region.

"There are a lot of industrial and technology companies, along with other businesses with global expansion ambitions," says Stenberg. "If you are a portfolio manager covering such a wide range of stocks, which one are you going to pick as the next decade's winners?" asks Stenberg. Therefore, Stenberg opted to employ a systematic approach to get exposure to Sweden's entire micro-cap space listed on the main Nasdaq Stockholm Stock Exchange. "It's essentially an enhanced index approach with a couple of twists," Stenberg explains.

ENHANCED INDEX APPROACH WITH A COUPLE OF TWISTS

Before deploying the systematic strategy to the space, Joakim Stenberg conducts a thorough screening process from a pool of nearly 200 micro-cap stocks listed on Nasdaq Stockholm Stock Exchange main market. He eliminates the "A" shares due to their low liquidity, excludes certain stocks associated with controversial and harmful sectors such as the non-renewable energy and gaming sectors, and weeds out highly volatile stocks. "Our systematic model is designed to prioritize low-volatility stocks, as our strategy incorporates a trend-following twist and highly volatile stocks rarely tend to trend over the long term," elaborates Stenberg. This screening process results in an optimal investable universe of approximately 120 stocks for Finserve Micro Cap.

Relying on research indicating that equal weighting outperforms market-cap-weighted portfolios, Stenberg has chosen to allocate capital evenly across the 120 stocks, ensuring each stock carries equal significance within the portfolio. "In an equal weight portfolio, the smallest company receives the same exposure as the largest company," notes Stenberg. "Studies have consistently shown that equal-weighted portfolios tend to perform better over time," he emphasizes. Nonetheless, recognizing that equal-weighted strategies often entail higher stock turnover and subsequent trading costs compared to market-cap-weighted approaches, Stenberg has opted to rebalance the portfolio semi-annually, once in May and again in October to handle historical and known season stock market fluctuations.

Any uninvested capital resulting from investor inflows, or dividends received before the bi-annual rebalancing points, is allocated to a group of approximately 25 stocks that are trending upward. "When we receive a subscription well before the rebalancing period, we cannot equally distribute the capital across the whole portfolio, as it would be too expansive each time," explains Stenberg. "Therefore, we decided to use momentum strategies to allocate to low-volatility trending stocks," he elaborates. Finserve Micro Fund relies on several indicators or measures of trendiness to reach a consensus on the stocks that will receive the uninvested capital.

The investing process for uninvested capital follows a two-step approach: any net subscriptions during a month are initially invested in an ETF that provides exposure to small-cap stocks until the end of the month. Subsequently, the capital is reallocated to the group of trending stocks. During the rebalancing period in May or October the entire portfolio is readjusted to equal weights. However, if significant net redemptions compel Stenberg to divest holdings

"Studies have consistently shown that equal-weighted portfolios tend to perform better over time."

at an unfavorable time, Finserve Micro Cap can rely on a lending facility with a bank. This facility allows the fund to borrow up to ten percent of its assets under management to fulfil redemption requests and offer a high level of investment by holding a small cash position.

Stenberg has also opted to lend out stocks from the portfolio to receive compensation that can cover the costs associated with trading and potentially offset the fund's fixed management fee. The fee is 1.8 percent for the 'A''share class with a minimum investment of SEK 100, and 0.9 percent for the 'B' share class with a minimum investment of SEK 1 million. "The compensation that accrues to the fund after fees currently range between 0.5 to 4 percent of the loaned stock value," says Stenberg. "The interest earned from this lending activity can be seen as a counterbalance to the fixed fee."

RISK-RETURN PROFILE

Micro-cap stocks, particularly within Sweden's dynamic stock market environment, present investors with the potential for high returns, diversification, and undervalued opportunities. While small stocks are often more volatile than their larger counterparts and are subject to increased downside risk during risk-off periods, Stenberg notes that smaller-sized stocks in Sweden have historically "outperformed larger-cap stocks during bear markets."

"When Russia started the war in Ukraine, the OMX30 index, large cap index and the mid-cap index experienced a significant decline, while the small-cap index saw a comparatively modest drop," recalls Stenberg. This data underscores the resilience of small-cap stocks during bearish market conditions, according to the fund manager. "However, their performance is not as strong during bull markets," he adds, pointing out that during bullish periods, there tends to be more crowd-driven and flow-driven buying in the 'larger-sized company' market segment.

Stenberg elaborates that unlike larger stocks influenced by capital flows, smaller-sized segments of the market are more sensitive to interest rates. "I believe the potential here is significant, particularly if interest rates come down slightly," concludes Stenberg. "In such scenarios, small-cap stocks may be in a better position to finance their businesses and growth," he notes. "Given their sensitivity to interest rates, fluctuations in interest rates can significantly change the market dynamics."

"The spread between the small-cap index and the mid-cap index has never been greater, which indicates significant potential going forward," adds Stenberg. Back-testing has shown that by excluding the 20 largest companies from the mid-cap index, the index has performed similarly to the small-cap index over the past two years. "This indicates that companies with a market cap under approximately SEK 8 billion are undervalued, as evidenced by key financial ratios."

"When we receive a subscription well before the rebalancing period, we cannot equally distribute the capital across the whole portfolio… We use momentum strategies to allocate to low-volatility trending stocks."

Patrik Nyman, Head of Asset Allocation, and Dmytro Sheludchenko, a Senior Portfolio Manager within Systematic Strategies and Asset Allocation – Första AP-fonden (AP1)

Systematic Strategies in Action at AP1

By Eugeniu Guzun – HedgeNordic

> "Trend-following is a relatively low risk-return strategy and therefore contributes very little to the overall risk of the fund, but offers very interesting properties and features that complement the overall allocation really well."
>
> Patrik Nyman

Systematic strategies represent a consistent, disciplined, and transparent approach to investing, significantly reducing the risk of human error and emotional decision-making. These quant-based strategies can be cost-efficient and scalable, making them particularly beneficial for large allocators managing sizeable investment portfolios. The First Swedish National Pension Fund, Första AP-fonden (AP1), has committed more resources over the years to developing and growing its own quant team to capitalize on the advantages of systematic strategies.

A team of six led by Patrik Nyman, Head of Asset Allocation and Quantitative Strategies and an employee at AP1 since 1992, is responsible for two mandates. The first mandate focuses on global tactical asset allocation, while the second involves managing a portfolio of developed market equities using a factor-based approach. The tactical allocation mandate is divided into two components. The first component, as Nyman explains, focuses on "managing the overall risk balancing in the portfolio and ensuring that the strategic risk profile is upheld." The second component allows the team to "utilize the overall risk mandate for tactical allocation to take more model-driven exposure."

IN-HOUSE TREND-FOLLOWING

According to Nyman, this second component utilizes a basket of systematic, model-driven strategies with a strong emphasis on trend-following, including directional, non-directional, and systematic macro-type strategies. Having previously allocated to external trend-following managers, AP1 has opted to implement these strategies in-house. "Trend-following is an integral part of the overall risk-taking within the tactical asset allocation," explains Nyman. "It serves as a pure risk-based overlay that consumes part of the overall risk allocated towards tactical asset allocation."

"Trend-following is a relatively low risk-return strategy, we see Sharpe ratios sub 0.5, but the contribution to the total portfolio's risk level is limited and offers very interesting properties and features that complement the overall portfolio really well," notes Nyman. As a result, trend-following has become an integral part of the tactical asset allocation mandate. "We are running different types of trend-following implementations today," he mentions. "We have complementary strategies in different areas, but trend-following remains at the core."

According to Dmytro Sheludchenko, a Senior Portfolio Manager within Asset Allocation and Systematic Strategies at AP1 with ten years of experience at the pension fund, the decision to bring trend-following strategies in-house was driven by the need for greater flexibility, efficiency, and scalability. "We previously had external hedge funds in the portfolio that were very good, so no criticism towards them, but we realized it was much easier for an investor

www.hedgenordic.com – May 2024 HEDGENORDIC

"We implement a more traditional multi-factor equity strategy. Rather than simply blending factors, our goal is to construct a portfolio of equities with specific properties that we believe will be most advantageous in the long run."

Dmytro Sheludchenko

of our size to manage trend-following strategies in-house," explains Sheludchenko.

"We are aware we are not going to be among the top trend-following specialists, but our goal is to capture what we call trend-beta. This beta-like exposure captures the characteristics of trend-following, which we believe is a valuable allocation for the fund, almost alpha-like, in the long run," he emphasizes. "Having the flexibility and ability to scale it as we wish is highly beneficial to us, which is one of the main reasons behind bringing everything in-house."

THE MULTI-FACTOR ALLOCATION IN DEVELOPED MARKET EQUITIES

In addition to participating in AP1's tactical and strategic allocation process, the quant team at AP1 also oversees a mandate to run a systematic multi-factor strategy within developed markets equities, including a small-cap-focused portfolio added last year. This quantitative approach dates back to 2012 when, before Sheludchenko joined, AP1 started its first internal equity strategies with exposure to 'risk-adjusted' low volatility as a factor. "Later on, we partnered with certain investment banks to invest in alternative risk premia strategies, long/short strategies," recalls Sheludchenko. Although AP1 valued these strategies, the costs were too high for scaling. Consequently, the basket of alternative risk premia strategies has also been integrated into what we do in-house.

Having initially invested in external long/short alternative beta strategies, AP1 has gradually moved to running long-only multi-factor strategies internally. "We implement a more traditional multi-factor equity strategy," Sheludchenko begins to describe the approach. Instead of "just blending in factors and creating a multi-factor exposure," the quant team at AP1 selects relevant factors, rates them, and relies on them to determine the types of companies to be included in the portfolio. "Rather than simply blending factors, our goal is to construct a portfolio of equities with specific properties that we believe will be most advantageous in the long run," explains Sheludchenko.

THE USE OF MACHINE LEARNING

The team's approach involves adjusting factor weights based on the market conditions and risk level at a given time. Additionally, they have implemented machine learning models to help identify the most optimal exposure to different factors. "We explored various machine learning techniques before the recent surge in popularity of artificial intelligence," says Sheludchenko.

"I prefer not to refer to these techniques as artificial intelligence because they are not. It's machine learning." Recently, a new colleague with expertise in machine learning joined the team, leading AP1 to launch its first entirely data-driven machine-learning process about eight months ago. However, this strategy is still based on the same type of data that is used in the construction of traditional factor strategies.

While some managers may completely overhaul their strategies with the implementation of machine learning techniques, Sheludchenko believes in a gradual introduction of these methods into existing models. "We view machine learning as an extension of all factor models, more like a factor rotational input," explains Sheludchenko. Instead of blending everything with equal allocations, "it's a risk-based allocation that involves tilting and overlaying with the use of machine learning models to ensure we are not stuck with the same factor exposures over time," elaborates the portfolio manager. "If things change and we don't observe them, machine learning techniques are designed to help us avoid allocating to factors that no longer work."

THE ESG FACTOR

As responsible investing gains traction among investors, incorporating ESG (Environmental, Social, and Governance) principles into systematic investing strategies has become essential. "ESG is a very important consideration for us at AP1 and all Swedish national pension funds. By law, we are required to be prominent investors in sustainability," says Sheludchenko. When AP1 first started running factor strategies in-house, the team introduced a simplistic ESG filter that excluded certain companies based on their ESG ratings.

With AP1 having developed its own internal infrastructure, factor models, and strategies, the team also decided to introduce its own ESG factor. "Within our multi-factor portfolio, we have a dedicated factor that reflects a company's comprehensive ESG profile," explains Sheludchenko. This ESG project was developed in collaboration with AP1's sustainability team, with the objective of identifying "specific features that we believe align best with the fund's overall strategy in the long run." This ESG factor has become one of the many company aspects considered when constructing the portfolio.

"We view ESG characteristics as an integral part of a company's attractiveness," elaborates Sheludchenko. The team considers the ESG factor along with value, momentum, and other factors, but when all else equal, "the ESG factor will tilt the portfolio to more sustainable companies, at least how we define them," he explains. "In this way, we transitioned from using a simple filter to a more integrated approach by introducing the ESG factor in 2020."

The decision to develop their own ESG factor was driven by issues such as limited data, data accuracy, low data frequency, and the lack of a clear definition of ESG. "We are personally very positive about ESG and sustainability, but there are still issues for us as a quantitative investor," notes Sheludchenko. "Data is a significant issue. You can now get ten years of good data, but it's still not enough data," he points out. "Data frequency is still quite low, and the biggest challenge is the lack of clear definition of what constitutes ESG," continues Sheludchenko. "We define it in our way, which we feel is the best way, but for us, as a quantitative investor, this will be a challenge unless there is a more standardized way to define ESG across the industry."

www.hedgenordic.com – May 2024
HEDGENORDIC


Tor Svelland, CEO/CIO - Svelland Capital

Where Next for Commodities, as Quants take Over

By Niels Kaastrup-Larsen. TopTradersUnplugged

DID SOMEBODY SAY "SUPERCYCLE"?

Some economists simply label today's rollercoaster commodities markets as merely volatile. Granted, after several years of pandemic-driven upheaval, markets like oil and copper seem to have settled down a bit. But we're a long way from stability.

"I believe we are in a supercycle," says Tor Svelland, explaining that under-investments in the oil market in the mid-2010s became an unintentional backdrop for the volatility of 2020 and 2021. He compares those tumultuous years to the dot-com bubble bust of the late 1990s.

"It was completely out of control," he says of the pandemic era. "During that period, the shipping, metals and oil markets were even more out of favor. And that's the reason why we are now in a supercycle."

With over 30 years of experience investing in commodities, Tor has seen plenty of market cycles. The founder and CEO/CIO of Svelland Capital says that for the last decade-plus, the copper market has been "trading sideways — we haven't seen a spike in copper since the early 2010s."

"What is going to happen in a month's time or three or six months? I'm not sure," he adds. "But I'm fairly confident that the supply side will slowly be telling us the situation, and then we'll have the spike."

Tor joined host Alan Dunne on a Global Macro edition of Top Traders Unplugged to explore the dynamic forces shaping the global commodity markets. Read on for highlights of their conversation, including Tor's take on precious metals, oil and renewable energy.

From 'anything goes' to a new attitude

Alan notes that in the '70s and '80s, the mood in commodity markets was very much "anything goes" — shady deal-making and all. He wonders: Has that atmosphere dramatically changed over the course of Tor's decades-long career?

Well, yes and no.

When Tor began working in finance back in the '90s, the commodities space was "very much a people-to-people business," he says. "And the price setting [took place] thereafter."

Today, banks like Goldman Sachs and J.P. Morgan aren't nearly as involved in commodities as they once were, so "the structure of the markets has changed quite a lot," he adds.

The banks "did a very important job — they were the market makers, they were always there to show liquidity, introducing new players to the market," he explains. But after the 2010 passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the top banks "decided to reduce their exposure," Tor explains, noting a significant portion of elite financial talent left those banks for trading houses — think firms like Cargill, Vitol and Glencore. Trading houses have a "different attitude" on the market that's "more about moving cargo from [point] A to B, and actually doing the transaction," he adds. "Then on top [of that], you have this trade component. It works very differently."

Tor points out that today, futures trading is particularly susceptible to the whims of the market, "moving on headline news." In the longer term, "the fiscal market will always be right," he says. "And all of us will be the

www.hedgenordic.com – May 2024
HEDGENORDIC

final price setters. But before you get to the fiscal delivery, we sometimes have moves that we didn't have in the past."

POWER PLAYS

Economists point to a number of structural factors that should support certain commodities markets, metals in particular, over time: defense spending, deglobalization, nearshoring and most of all, the transition between fossil fuels and renewable energy. Alan asks Tor what has been the most significant geopolitical force on commodity markets in recent years.

"I'm a big fan of the renewable market," Tor replies. "You just have to also be realistic … [about] how much you can expect [in regard to] return on capital."

Of hydropower, he thinks that although the market is "struggling," we'll soon see promising companies in the space. But the "people owning hydropower are just using the market to their advantage, holding back," he argues. "[They] will try to sell into spikes in the market, like everyone else."

The solar energy market "has been a fantastic investment case for many," Tor says. "The price keeps dropping and [technology is] getting better and better usage on electricity." Wind power is a mixed bag. Offshore facilities are "obviously not working the way people expected," he points out. "The overrun on cost [as well as] operational problems [have] been more than expected." But onshore wind power so far has been a great success, particularly in southern Europe. Tor thinks it will be "very exciting to follow" how wind technology develops in Northern Europe and Scandinavia.

"But it all comes down to when they're producing electricity, when the power grids really need that electricity and when we will have what I call the 'energy storage batteries' — the large ones," he says.

TRANSITIONAL TACTICS

Alan asks: "When identifying investment opportunities, are you looking for the equity stocks that will benefit from the energy transition? Or do you see it more [as] impacting the commodity futures — or how do you tend to take those broad trends and translate that into trades?"

"We have had this unbelievable rally in the tech companies. When that takes a breather, we will immediately see capital flow back into the commodity space."

Commodities investment decisions always begin with an examination of the supply/demand dynamics, "whether it's on natural gas, oil, etc. — then it's all about how much can they produce, who's buying it, who's selling it," Tor replies. "And then the political landscape, as you can clearly see in Europe, was completely against using natural gas at all. Then after a lot of back and forth, they accepted natural gas to be a transition fuel." He thinks that is "all wrong" — and we should accept that natural gas pollutes the atmosphere at a rate 50% less than coal.

When it comes to renewable energy companies, Svelland prefers those with a proven track record that are successful and mature enough to pay dividends; they tend to be low volatility stocks that offer a high return. Tor endorses these investments "as long as the management is not being overly keen to expand … and [knows] when to expand and in which countries," because it's "always been challenging" in more than a few places for renewable projects to thrive.

A COPPER SUNRISE

While the future of petroleum is arguably finite, some commodities markets will clearly benefit from the global energy transition.

For Svelland Capital, the most promising one is copper. It's necessary for the power grid, batteries and much more. The lithium market has been more balanced, although "part of the market has also been oversupplied," Tor says. "We are more in favor of using copper futures than other companies."

Down the road, he thinks maybe aluminium will become more sought after for use in electrical applications. "We're following that closely — and obviously, following the aluminium companies and what they are communicating," he notes.

From a macro perspective, Alan wonders whether the energy transition will continue to push up demand for commodities and push up commodity prices.

Tor thinks we have been "spoiled with low energy prices" over the last few years. "People take that for granted," he says. "We will [begin to] slowly face … some spikes. When we see the spikes, then the politicians will start [asking], Why is this happening? … and start doing whatever they can to 'help out.'" Whether they're American or European, politicians are "constantly behind the curve," Tor adds. And that is especially pernicious when we consider that opening a new copper mine takes anywhere from 10 to 20 years.

Long-horizon investments, such as funding new mines, are what's needed to keep up with the demand for metals like copper. But companies on the NASDAQ (for instance) are "all focusing on the tech side and the capital flow," he says.

Tor points out that as more capital is invested in technology companies, less investment capital is available for other markets, including commodities. That means less trading volume, lower investments and potentially lower prices. And as we know, the flow of capital between technology and commodities is not a one-way or permanent shift. Instead, it tends to fluctuate over time based on various factors including market trends, economic conditions and investor sentiment.

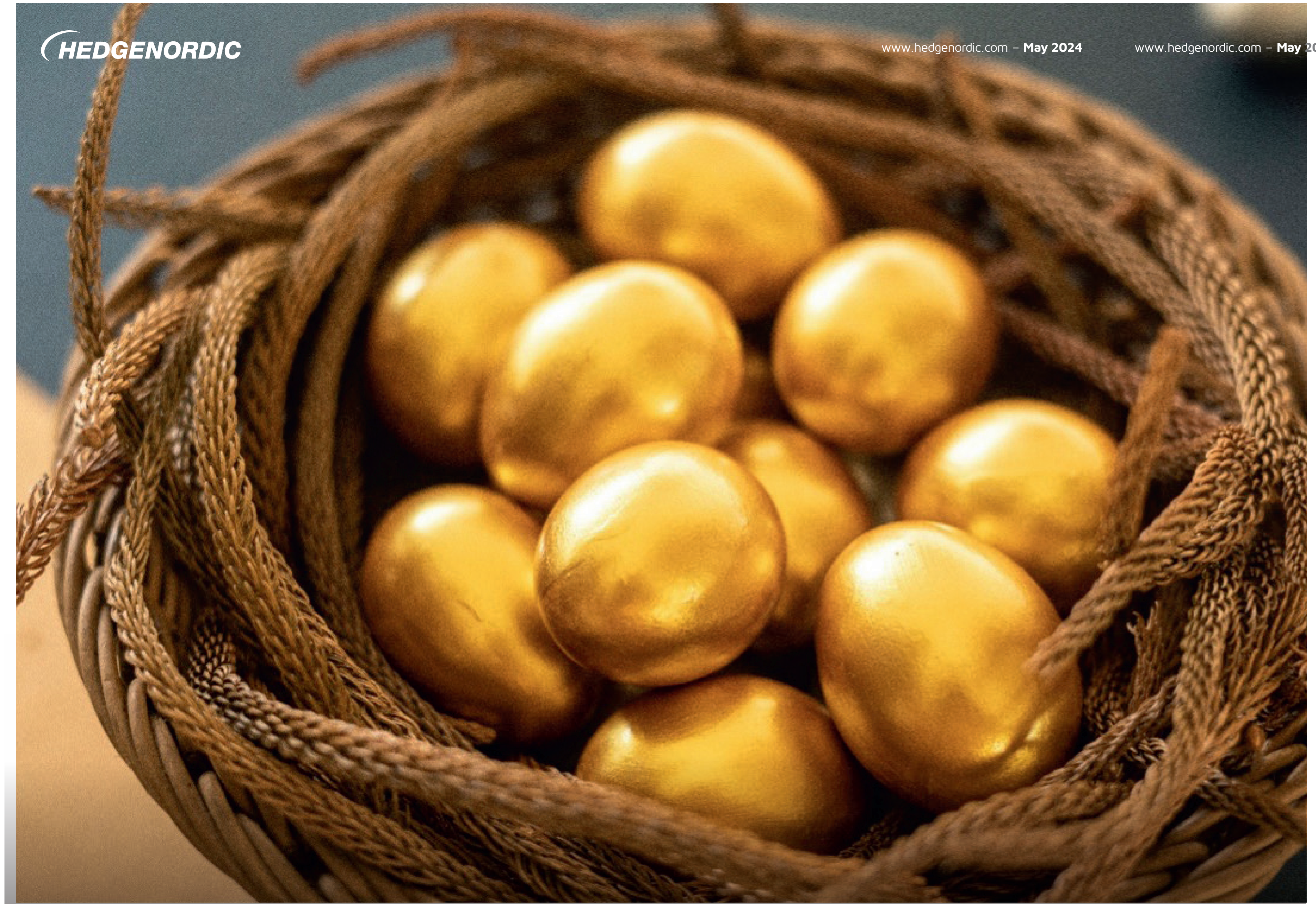
"But for now, we have had this unbelievable rally in the tech companies. When that takes a breather, we will immediately see capital flow back into the commodity space."

Once the investment frenzy in technology companies dies down (or at least stabilizes), will commodities make a comeback? All signs point to yes.

If that's the case, the time to step up commodities investments — including copper — is now. But if you're a Top Traders Unplugged fan, you already know that.

This article is based on an episode of Top Traders Unplugged, a bi-weekly podcast with the most interesting and experienced investors, economists, traders and thought leaders in the world.

www.hedgenordic.com – May 2024 HEDGENORDIC



Building a Robust Portfolio – A New Heuristic for Portfolio Diversification

By Linus Nilsson – NilssonHedge

"Diversification is a mentally costly problem, especially regarding portfolios managed by human portfolio managers."

As portfolio managers, we strive to create the most robust portfolio, with the highest efficiency, be it the Sharpe ratio, the Information ratio, or any other metric that we find useful. We pack risk in the most optimal way possible by utilizing heuristics, mathematical formulas, or simply our judgment to solve a difficult multidimensional puzzle.

In Finance, this is done under uncertainty, which typically results in two kinds of solutions: Complex solutions relying on viewing the portfolio as a mathematical problem or practical solutions based on experience such as the 1/N concept. "All models are wrong - but some are useful".

Heuristics or mental models should not be underestimated when it comes to putting together all the pieces. Even Harry Markowitz, the inventor of Modern Portfolio Theory, applied a much more naïve method than full optimization. He later updated his viewpoint to include a more well-diversified portfolio.

"I should have computed the historical covariances of the asset classes and drawn an efficient frontier. Instead, I visualized my grief if the stock market went way up, and I wasn't in it—or if it went way down and I was completely in it. My intention was to minimize my future regret. So, I split my contributions fifty-fifty between bonds and equities." – Harry Markowitz ("Your Money and Your Brain" - Jason Zweig)

We want to introduce another heuristic, the 'Tipping Stability Index' ("TSI"). The 50/50 portfolio is not a stable solution when viewed from the TSI viewpoint. In 2022, a bond/equity portfolio was anything but stable.

THE PERCEIVED COST OF DIVERSIFICATION

Diversification is a mentally costly problem, especially regarding portfolios managed by human portfolio managers. Homo Sapiens have limited cognitive capacity, the average individual can handle four different items in 'working memory'.

The number of ideas in a portfolio that needs monitoring is thus limited. The proverb 'put all your eggs in one basket and then watch that basket' rings particularly true.

Skilled individuals can handle additional themes, but even those have limits. So, be skeptical about Portfolio Managers, claiming to have hundreds of trades simultaneously. Discretionary portfolio managers operate their 'concentrated' / 'high conviction' portfolios with great pride.

For a systematic portfolio, diversification is not cognitively costly, a computer does not have the same limitations as a human being. But clients and individual researchers do. Systematic portfolios can contain several thousands of stocks and hundreds of macro markets and those ideas still must be managed, understood, and communicated to the clients.

Most systematic strategies focus on one theme, e.g. Trend Following, Value, Momentum, Statistical Arbitrage, Short Term Trading, etc. Not because it is right, but because it is the path of the least resistance.

Quantitative strategies are structured this way, not because of a lack of creativity, but because it becomes progressively more difficult to explain a complex concept to the end investor or understand it yourself.

THE TIPPING STABILITY INDEX

We design a measure that is both easy to understand and tries to answer the question, how many themes/ concepts/strategies should be in a portfolio? What should N be?

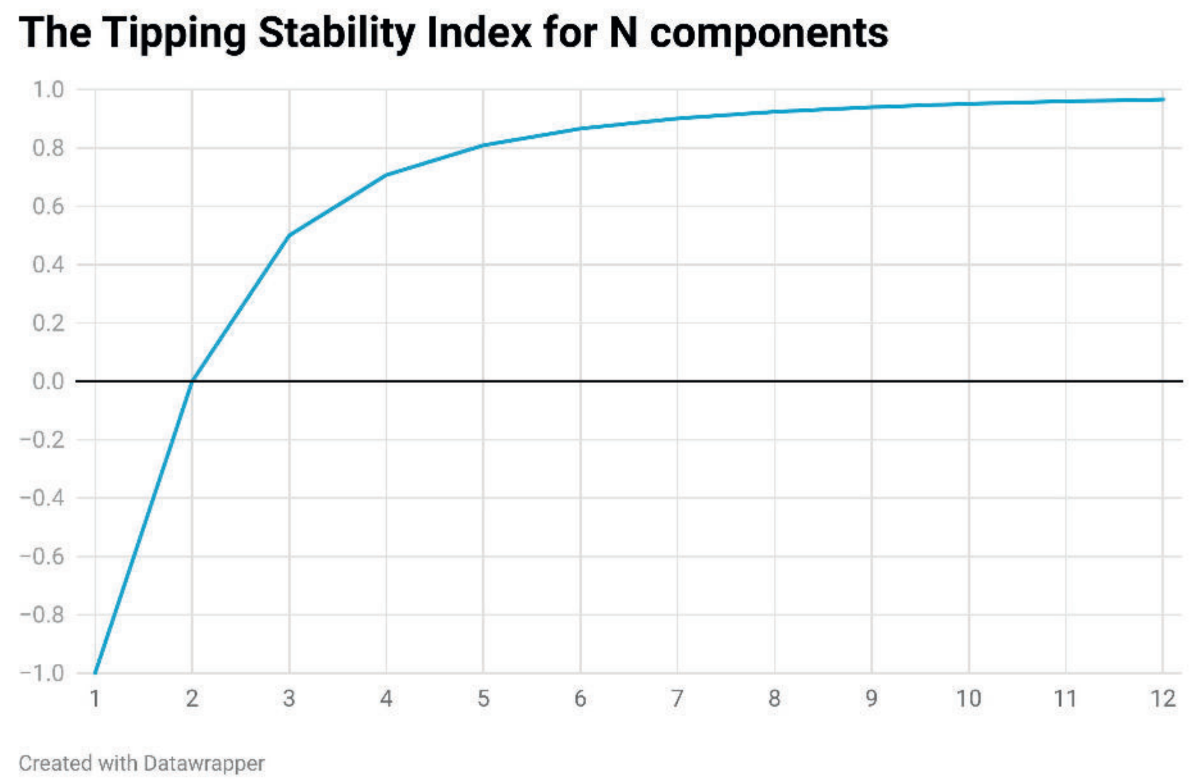
The TSI is an observable measure of robustness and borrows from the design of an everyday common item – the chair. A chair with one leg is not stable but cheap to make, a chair with an infinite number of legs would be rock solid, but not economical.

As it turns out, five is a number that balances the incremental stability of an additional leg, combined with production costs. Almost all office chairs have five different legs. An office chair is largely impossible to tip over [do not try this] and would probably remain stable even if one leg broke.

As it turns out there is a simple formula for calculating the stability of a chair with equidistant legs: $\cos(\pi/N)$.

For any N, this function is increasing, but at a declining rate. In the chart, we see that a portfolio with one strategy has negative stability, "anything that can go wrong will go wrong". A chair with three legs has stability but is sensitive to losing a component and

> "While the TSI is a simplification of how portfolios are constructed, it offers a minimum threshold to the number of independent themes in a portfolio."



ending up in a state with no stability (N=2).

An office chair with five legs is stable and can lose one leg without crashing or coming close to being dangerously unstable. Adding additional legs improves stability, but the marginal benefit is lower.

From a financial perspective, the number of legs is the cross-correlation between different strategies (groups) and an assumption here is that they are perfectly uncorrelated. Otherwise, the legs of a chair will concentrate on one side of the chair. Naturally, this is not a stable chair.

The height can be viewed as an analog to portfolio risk. The higher the chair and lighter the base, the less stable the chair is.

1/N WHAT IS N?

Any reasonable portfolio solution should contain at least three independent assets/strategies. This

number also comfortably fits into the working memory of most humans. A natural progression is that any theme can consist of sub-themes, which further improves the stability of the solution (ensure that those strategies are also uncorrelated).

Equal Risk ensures that the legs are the same length. The leverage needs to be adjusted for the center of mass of the portfolio. Too much leverage and it does not matter how stable your asset mix is.

The 'failure' of the traditional bond/equity portfolios in 2022 was partly driven by the fact that the market changed. As the correlation shifted positive, the portfolio effectively turned into a one-legged chair. A TSI-based solution consisting of bonds, equities, and for instance, Managed Futures fared much better as seen in the chart. Substitute Managed Futures with your favorite uncorrelated strategy for similar results.

SUMMARY

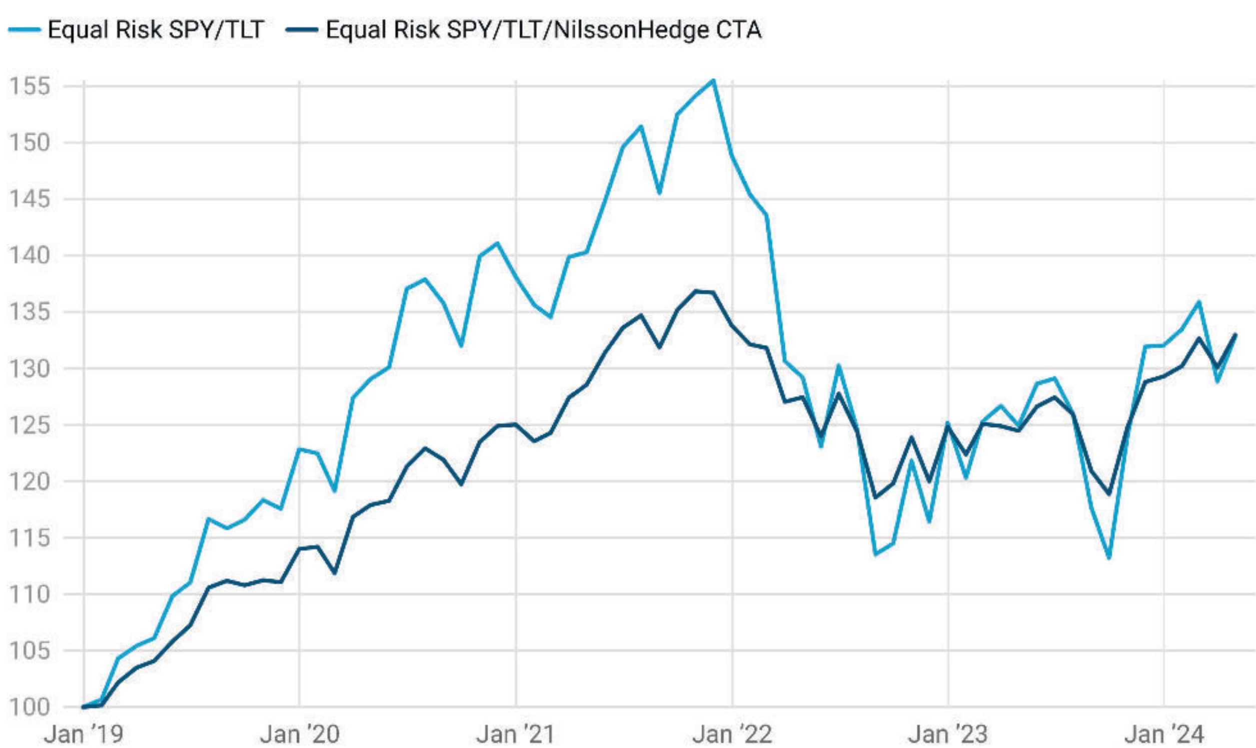
While the TSI is a simplification of how portfolios are constructed, it offers a minimum threshold to the number of independent themes in a portfolio. Run a concentrated portfolio of three individual bets, you better have good backup ideas if one of them fails. If you are running a portfolio of three uncorrelated active sub-portfolios, you are likely in a better place.

A systematic strategy consisting of tens of uncorrelated strategies is in a better position to deliver a TSI-stable outcome. If nothing else, we hope that you checked the number of legs on your chair (we are almost certain it is five) but did not stress test the stability of your chair. Perhaps it is time to test the assumption in your 'broadly' diversified portfolio?

As with your chair, the key to a stable portfolio is finding truly uncorrelated strategies.

Bio: Linus Nilsson is the founder of NilssonHedge. He has served as the CIO and partner for a hedge fund, founded an emerging hedge fund, and worked as a hedge fund analyst for several international investors, and as a risk specialist for a major bank. He founded NilssonHedge, a database focusing on CTAs and other Liquid Alternatives. Nilsson has lived in six countries, published articles in industry journals, and appeared as a speaker and moderator at industry conferences. In academic terms, he holds two master's degrees from the Chalmers University of Technology and Gothenburg University."

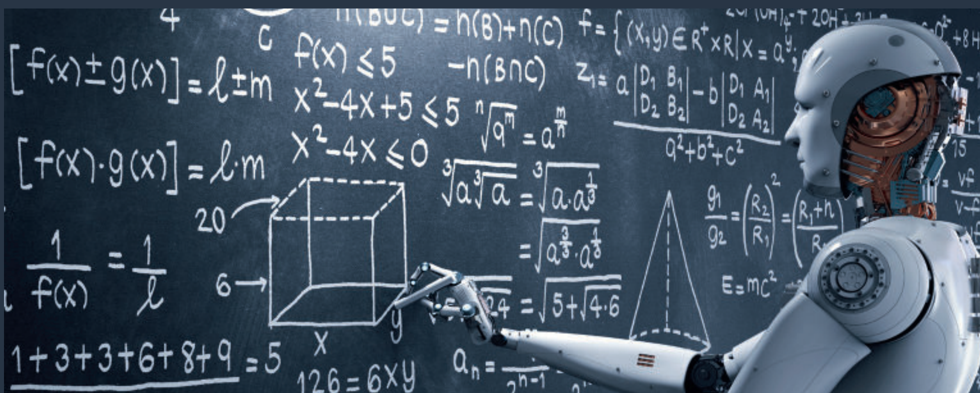
Three Components - A more efficient portfolio



Created with Datawrapper

HEDGENORDIC

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



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.