



Contents

4	Editor's Note when one door closes
6	Portfolio Diversification Through Private Assets
10	Allianz Private Equity Diversification and Spice
14	Zooming in on Retail Investors
18	Positively Skewed Fixed-Income Alternative
22	Unique Portfolio as a Source of Diversification

26	Great Times for Tech Start-Ups
30	Gold – Hedge, Safe Haven, or Diversifier?
36	The Role of Cryptos in a Diversified Portfolio
42	An Alternative to the Classic 60/40 Portfolio
48	Nordic Institutions Embracing Private Markets



INTRODUCTION

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

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

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

PUBLICATION PLAN 2021:

November: Alternative Fixed Income
December: ESG in Alternatives

CONTACT:

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

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

Picture Index: Andreas Gradin—shutterstock, Antony McAulay—shutterstock, By motghnit - Envato Elements, By Phonlamai Photo—shutterstock, Fotolia_13318501_@-flyfisher--Fotolia.com, Mikael Damkier---shutterstock, Tashatuvango---shutterstock, Tatyana Vyc--shutterstock





Editor's Note...

when one door closes...

e are probably all familiar with the saying "when one door closes, another door opens." It is generally seen as quite an optimistic encouragement not to give up or feel beat down about a setback as other opportunities become available after one has been eliminated. When you're no longer able to pursue one possibility, your mind is free to pursue a different one.

The phrase is typically credited to Alexander Graham Bell, who did make it popular. In actuality, the first written mention of the phrase is in a Spanish novella published in 1554 by an anonymous author. Miguel de Cervantes used it too in "Don Ouixote" in 1605.

The full quote by Alexander Graham Bell is more extensive: "When one door closes another door opens; but we often look so long and so regretfully upon the closed door that we do not see the one which has opened for us."

The over-optimist in me would go a step further. The existence of a door in a solid brick wall is already a great relief! It means there actually is a designed way through the obstacle that would otherwise be impossible to overcome. And if the door is locked, it only means that there IS a lock, and somewhere there IS a key to unlock it!

The "closed door" metaphor is quite easily transferable to the world of finance. If one market,

stock, one currency swap or one straddle does not work out for you, there are plenty other doors to pass through that may grant the opportunities you were seeking. The hedge fund space then has the additional advantage that doors are no one-way passage, but you can use them to go in and out – or, long and short in financial lingo.

While publicly traded markets offer ever-increasing possibilities, markets and instruments, including private markets to the scope opens an entirely new universe. Until not too long ago, such markets generally were exclusively reserved for very large institutional investors who had the deep pockets and could also handle to illiquidity that often comes along with such transactions. An ever-increasing democratization is taking place and now assets such as private equity, private debt, infrastructure, agricultural land and forestry, to name a few, are opening up to smaller institutions and, indeed, the private investor.

Next to giving opportunities for additional return drivers, the most important argument for such investments certainly is that these are typically uncorrelated assets that allow for further portfolio diversification.

In this special report, we will look at various doorways that may lead to opportunities to generate returns, but mainly the various paths and instruments that should contribute to diversifying portfolios.

Hamlin Lovell's editorial "Portfolio Diversification Through Private Assets" gives us a nice introduction into the matter. Michael Lindauer, CIO of Private Equity - Allianz Capital Partners (ACP), talks about the "Diversification and Spice" an allocation to private equity can bring.

Luis García Álvarez, Portfolio Manager of the MAPFRE AM Behavioral Fund, describes how he aims for a "Unique Portfolio as a Source of Diversification" through his investments in listed football clubs, while Jonas Mårtenson of Ress Capital is convinced their strategy investing is US life settlements creates a "Positively Skewed Fixed-Income Alternative."

Dirk Holz, the head of private capital services at RBC Investor & Treasury Services, is "Zooming in on Retail Investors" and Thomas Raaschou, the CEO of NOMA

Capital, and Christian Björkman, the CEO at Nordic Tech Fund Group, highlight why they believe we are in "Great Times for Tech Start-Ups."

Looking into the merits of investment and diversification potential from the oldest asset – gold – to the newest – cryptocurrencies, we have lined up two editorials. Ned Naylor-Leyland, Head of Strategy, Gold & Silver at Jupiter Asset Management, along with Anna Svahn, the founder and CEO of Antiloop Hedge, along with precious metals specialist Eric Strand, the founder of AuAg Funds, discuss "Gold – Hedge, Safe Haven, or Diversifier?"

"The Role of Cryptos in a Diversified Portfolio" is analyzed by hedge fund veteran Martin Estlander of Estlander & Partners and Niclas Sandstrom, the CEO of Hilbert Group and Anna Svahn of Antiloop Hedge, along with Mikkel Morch from ARK36. Niels Kaastrup-Larsen from TopTradersUnplugged and Richard Brennan from ATS Trading Solutions elaborate on "An Alternative to the Classic 60/40 Portfolio." The paper is rounded off by looking into "Nordic Institutions Embracing Private Markets."

We do hope you enjoy the paper and discover some interesting reads.

KAMRAN GHALITSCHI

CEO & PUBLISHER HEDGENORDIC





















Portfolio Diversification Through Private Assets

By Hamlin Lovell – HedgeNordic

has been easy - and perhaps too easy. The classic equity and bonds mix has delivered exceptionally strong returns, some of the highest in a century, and bonds have often helped to smooth out the volatility of equities. Applying super cheap leverage to the blend has further multiplied returns. But on a longer lookback period, sticking to a plain vanilla approach could have led to large drawdowns eg in the 1970s when inflation inflicted losses on both equities and bonds.

Greed and Fear of Missing Out (FOMO) may have overwhelmed fear and driven investors into long only, long-biased and leveraged long positions, concentrated into one or two liquid asset classes, but investors with long memories or some degree of imagination will want more diversification by asset class and strategy. Many fund managers and analysts today have never lived through an extended crash (besides the Covid crash which was recovered very fast) and some even seem to think that policymakers have succeeded in ending the economic cycle, and creating a climate of eternal steady growth.

"Private investments can help to balance out sector weights and fill gaps where public markets might not offer any exposure."



"With some infrastructure assets, there is a clear formula linking returns to inflation, which offers clearer and more predictable protection than equity markets."

SMOOTHER VALUATIONS

Private assets offer different angles of diversification. Since they are valued less often than public markets, they will smooth out portfolio volatility due to only being valued quarterly or annually. But this is a weak argument because some allocators, such as Danish pension funds, are required to carry out more frequent valuation estimates for illiquids and the "stale pricing" phenomenon only delays the evil moment of recognizing losses, if the wrong decisions have been made.

A stronger argument for reducing volatility is that private assets bring more dimensions of diversification to the portfolio, which reduces volatility by virtue of lower correlations, regardless of how often assets are valued.

INDUSTRIAL DIVERSITY

Private markets help investors to achieve more industrial diversity within and between countries and regions. Public capital markets can have heavy weights in particular sectors. European public equity markets offer limited exposure to technology and have a bias to old economy cyclical sectors. The US equity market is heavy on healthcare and technology, which many private equity investors might also find desirable, but US high yield corporate debt has a high weight in energy and gambling, which investors may want to avoid both for cyclicality and ESG reasons. The largest Asian credit market, Chinese corporate debt, has a huge property weighting, where Evergrande has defaulted this year.

Therefore, a passive or index constrained investment into public markets is actually making a big active bet on particular sectors which results in a concentration into certain risk factors. Private investments can help to balance out sector weights and fill gaps where public markets might not offer any exposure. This could even include new sectors that have not even yet been defined in traditional industrial classifications. Social media started out in private companies

before they were floated. Cryptocurrencies have only become accessible through publicly listed exchange traded funds over the past few years, and originally would need to be invested in privately.

INNOVATION

The number of public companies in the US and Europe has been declining over the past two decades, so private equity and venture capital may offer access to earlier stage and more innovative companies that may stay private for much longer that in former times.

As well as investing into companies, with potentially volatile growth paths and valuations, it is possible to buy portfolios of patents or royalties on technologies or drugs, which can provide a more steady flow of income.

Millions of private companies are too small for most public capital markets, but they -or carve outs of their income streams from intellectual property - could offer interesting returns for both equity and debt investors.

YIELD PICKUPS

Private debt and credit can offer higher yields than publicly listed debt of comparable quality and credit ratings. This is partly an illiquidity premium, which makes sense for investors who can hold for longer periods. The level of yield pickup has in some cases come down as more capital is chasing deals in areas such as mainstream European direct lending, but it is nonetheless a spread. For some investors who are constrained to very high credit ratings of AAA in some currencies, private debt might be more or less the only way of avoiding a negative yield. The top slice of a structured credit collateralized loan obligation still offers some positive yield, while the highest rated governments and companies and - even some mortgages - issuing in Euros, Swiss Francs, Swedish Krona, or Danish Krone, will often have a negative yield.

INFLATION

Of course, with inflation accelerating and threatening to be more than transitory, the yields on investment grade credits are still negative in real terms, which means that they may fall short of liabilities for pension funds, insurance companies and anybody else who is worried about their purchasing power. Private assets can provide inflation protection. With some infrastructure assets, there is a clear formula linking returns to inflation, which offers clearer and more predictable protection than equity markets. With equities some companies may raise prices faster than their costs, while others will see cost pressures reducing margins.

Real estate faces opposing forces: rents should rise in line with inflation, and can often be indexed to inflation, but if inflation leads to higher interest rates, that could reduce the valuation multiple applied to the stream of future rents. That said, the same would then apply to liquid assets, so in terms of relative value, there is still a benefit in owning real assets.

IMPACT

Diversification nowadays is not only about investment returns. Investors also want to demonstrate a positive impact in terms of contributions towards the United Nations Sustainable Development Goals (SDGs). Private assets can offer more ways to achieve this, through specific projects focused on renewable energy, water, recycling, and also education and health in developing countries. A few banks may offer limited exposure to microfinance in some countries, but this is generally done on a smaller scale and private strategies are needed to have the maximum impact across the largest number of emerging and frontier markets, in some countries that do not yet have any developed banking system or capital markets. Investors with an appetite for long term economic growth and positive ESG impact will need to pursue private strategies to access many frontier markets.

 $_{9}$



ALLIANZ PRIVATE EQUITY DIVERSIFICATION AND SPICE

By Hamlin Lovell - HedgeNordic



"Allianz has been allocating to private equity for 25 years. We have 22 investment professionals in three hubs in New York, Munich and Singapore and we form long-term relationships with over 90 managers, often investing in

multiple vintages.," says co-head of private equity, Michael Lindauer.

The long-term view means that money multiples matter a little more than internal rate of return. Nonetheless, the IRR return target range of 10-13% through a full cycle is mid-range for private equity. Allianz aims to diversify by vintages, but past performance is only one criterion used in making a bottom up assessment of managers. The return target is a weighted average across a broadly diversified range of private equity and a small amount of venture capital; individual managers might have return targets ranging from high single digit to above 20%.



"The spice bucket of 40% seeks higher risk and return from sector funds, emerging strategies, and somewhat smaller funds." "Some 60% of the book is in "base" strategies, which invest in mid to large cap companies with more predictable returns, capped upside and limited downside in more efficient market segments. The spice bucket of 40% seeks higher risk and return from sector funds, emerging strategies, and somewhat smaller funds but certainly not the smallest in the space. They are medium to large size funds running at least EUR 150 million because Allianz's typical ticket sizes is between EUR 40 million and EUR 200 million and neither Allianz nor its managers want one investor to be more than 25% of a fund," describes Lindauer the investment strategy.



"Higher interest rates could pose a threat to valuations, but we judge that rates are starting from such a low base that this is not a short term worry."

STYLES, SECTORS AND COUNTRIES

Most of the managers blend growth and buyout investment styles, though buyouts probably make up the majority.

In the current portfolio, there is a sector bias in favour of healthcare and technology, which have profited from digitization and held up well in the Corona crisis thus far. Sector specialist managers are often used, especially in the United States, focused on dynamic sectors such as industrial services, digitization, internet, and new business services.

In Europe, country specialists are more likely to be found in the spice bucket, where Northern Europe and the Nordics are important exposures.

Overall the aim is for even weightings between North America, Europe and Asia, with a significant focus on China. Venture capital is capped at 10% and is only pursued in Asia, where Allianz Capital Partners sees more scope for rapid ramp ups in China's vast market. Managers are invested in innovative B2B strategies, FinTech, and healthcare services.

There is some appetite for distressed and special situations strategies, and of course some funds will unintentionally land in this category. If funds underperform, they can sometimes be sold on the secondary market or as a last resort Allianz Capital Partners has sometimes restructured funds.

SECONDARIES AND CO-INVESTMENTS

Primary funds are the bread and butter of the strategy.

Secondaries are rather opportunistic, ranging from 0% to 10%, and were highest in 2009-2010 when valuations were lowest. "We are constantly monitoring all investments to decide whether to hold them, or sell on the secondary market," says Lindauer.

Co-investments follow a well diversified approach. The allocation is up to 20% and helps to reduce average fees, but beyond this Allianz sees limited scope for fee savings. "We would not invest in a bad fund with a good fee structure," affirms Lindauer

Allianz Capital Partners charges fees on its fund of funds' commitments to underlying managers but not on investors' commitments to the fund of funds. The Luxembourg closed end has an investment period of four years and has a total fund period of 14 years, with no automatic exit routes before then.

LEVERAGE, VALUATIONS AND STAGFLATION?

Exposure is unleveraged at the Allianz level, while underlying managers on average use a 50% debt to equity ratio for their underlying transactions.

Some investors are becoming worried about leverage, valuations, the macroeconomic outlook and stagflationary scenarios, but Allianz's low double digit return targets for private equity have not been reduced in recent years. "We expect that companies with strong pricing power should fare well under inflation. Higher interest rates could pose a threat to valuations, but we judge that rates are starting from such a low base that this is not a short term worry," says Lindauer.

GROWING ESG AMBITIONS

Allianz has been a UNPRI signatory since 2007 and integrates ESG into all stages of the investment process. ESG starts with some exclusions and Allianz has excuse rights over areas such as coal, weapons and firms subject to sanctions (though in practice Lindauer expects most funds will avoid these anyway).

The manager has big ambitions to improve data quality and move from a case-study based approach

to science-based targets for carbon reduction. Allianz belongs to the Net Zero Asset Owner Alliance, and has recently joined forces with other private equity investors at IC International, which is supporting the transition to a low carbon economy.

Lindauer sits on the ESG Advisory Council of the International Limited Partners Association and is helping to develop standards and processes for KPI reporting and targets.

Allianz Capital Partners is not yet confident enough to label its private equity fund of funds as category 8 under SFDR (though it has other illiquid strategies that are both category 8 and category 9). This cautious stance is partly because Allianz are making indirect investments which limits the influence on underlying managers' – and ultimately investee companies' data and reporting. "Currently, the quality of data will vary considerably between funds and underlying companies. The long term aspiration is to become category 8 under SFDR, but the SFDR itself is at an evolving stage. The technical standards are being honed and refined," explains Lindauer.

For more information visit: www.allianzcapitalpartners.com

Important information

Private equity investments are highly illiquid and designed for professional investors pursuing a long-term investment strategy only. Investing involves risk. The value of an investment and the income from it may fall as well as rise and investors might not get back the full amount invested. Past performance is not a reliable indicator of future results. If the currency in which the past performance is displayed differs from the currency of the country in which the investor resides, then the investor should be aware that due to the exchange rate fluctuations the performance shown may be higher or lower if converted into the investor's local currency. The views and opinions expressed herein, which are subject to change without notice, are those of the issuer companies at the time of publication. The data used is derived from various sources, and assumed to be correct and reliable at the time of publication. The conditions of any underlying offer or contract that may have been, or will be, made or concluded, shall prevail. This is a marketing communication issued by Allianz Global Investors GmbH, www.allianzgi.com, an investment company with limited liability, incorporated in Germany, with its registered office at Bockenheimer Landstrasse 42-44, 60323 Frankfurt/M. registered with the local court Frankfurt/M under HRB 9340, authorised by BaFin (www.bafin.de). The duplication, publication, or transmission of the contents, irrespective of the form, is not permitted; except for the case of explicit permission by Allianz Global Investors GmbH.

AdMaster 1892736



HEDGENORDIC

Zooming in on Retail Investors

By Eugeniu Guzun – HedgeNordic

he Asset Management Advisory Committee of the US SEC unanimously approved a report in late September recommending the increase of retail investor access to private investments such as private equity, private debt and real estate vehicles. Managers of private real estate funds, so far effectively limited to institutions and wealthy individuals, have increasingly been turning their attention to the under-served retail investor market.

"Historically, real estate, private equity and infrastructure managers have primarily raised money from institutions and wealth managers," says Dirk Holz, director of product management, head of private capital services at RBC Investor & Treasury Services. "We have seen significant growth in real estate managers' assets under management over the past decade or so, mainly stemming from institutional investors. However, we have seen a lot of big managers starting to approach retail investors

over the past two years," he continues. "Private real estate managers have largely ignored the retail space, a large part of the world's overall assets and wealth."

So-called retail investors, who do not meet the wealth or professional requirements to qualify as professional investors, generally cannot access private real estate funds as these funds require investors to meet certain qualification requirements. According to Holz, the definition of a retail investor is broad and can capture both individuals investing as little as \$50 a month on one end and high-networth investors who can allocate several hundreds of thousands or more to a single investment. "New funds have been designed to entice retail investors. This is a significant trend, which is likely to provide a new investor base for private investment funds going forward."





Aside from smaller direct investments in properties, retail investors usually access retail estate investments primarily through real estate investment trusts (REITs). "Few retail investors have the possibility of investing private funds," says Holz. It is estimated that around 13 percent of US households meet the "accredited investor" threshold and only two percent meet the "qualified purchaser" threshold that enables access to private investments. However, returns from private real estate investments generally generate similar to better returns relative to comparable public market REIT indices.

(HEDGENORDIC

"The exposure and the returns retail investors can get through investments in real estate investment trusts are not the same as those non-retail investors can get in closed-ended structures," emphasizes Holz. "With retail investors seeking exposure to institutional-quality real estate, managers are increasingly looking to roll out suitable products into the retail market."

CHALLENGES IN THE PURSUIT OF RETAIL MONEY

The managers of private real estate funds are encountering challenges as they seek to tap into the under-exploited retail investor market. "Traditional real estate funds predominantly have a closed-ended structure, which requires investor commitment the whole life cycle of the fund," says Holz. "This is not what the average retail investor is looking for. Retail investors always want a little bit of flexibility, which creates a challenge for real estate managers," Holz describes. "Real estate is a rather illiquid asset class after all."

"The real estate managers opening up towards retail investors need to design a model that offers redemption possibilities," he argues. "Daily redemptions may not necessarily be an option for this illiquid asset class. However, one could design a product that allocates a portion of the portfolio to more liquid assets, such as real estate investment trust units or other real estate-linked liquid products, elaborates Holz. "This design automatically takes away a bit of the performance, particularly when those liquid assets include cash and cash equivalents," warns Holz. Increased liquidity can come at a cost, usually in the form of lower returns.

"Private real estate managers have largely ignored the retail space, a large part of the world's overall assets and wealth." Holz and his team at RBC Investor & Treasury Services are observing some managers opting for so-called semi open-ended funds, which require a notice period and some lock-up periods, thereby giving managers more flexibility in case of redemptions. "While these structures work in most market environments, they are vulnerable in a downturn," argues Holz. There was a run on some funds during the financial crisis of 2008, as investors wanted to liquidate their holdings and get all their money out. "These are the limitations of this asset class. One cannot just sell off a building overnight, and sales are even more difficult to execute when everybody else is fire selling."

There are mechanisms such as lock-up periods and investor queues to get around these obstacles, according to Holz. "Managing the mismatch between the illiquidity of a long-term real estate investment and the liquidity preference of investors is the greatest challenge for managers." In addition to liquidity management, "reporting and the feedback from investors will also be different," according to Holz. "The world of private real estate has been quite a closed niche, an under-the-radar universe not facing any public discussions and noise about performance or transparency."

"Retail investors will require more visibility of funds, which managers need to be prepared for," points out Holz. "If retail investors go into these fund structures, real estate managers will have more presence on social media and that presence may not always benefit managers. This will require a completely different kind of perspective, which some managers have not yet fully assessed or even understood."

LARGE MANAGERS IN POLE POSITION

Dirk Holz believes that large real estate managers are better positioned to benefit from the industry's shift towards retail money. "The leading large managers will have a big advantage in the retail space," says Holz. "The largest managers have the needed infrastructure to raise and invest a lot of capital," he continues. "This gives them a completely different kind of investment power. Institutional investors love mega-funds and the diversification they bring. This will appeal to retail investors too," concludes Holz.

"New funds have been designed to entice retail investors. This is a significant trend, which is likely to provide a new investor base for private investment funds going forward."





Positively Skewed Fixed-Income Alternative

By Eugeniu Guzun – HedgeNordic

any Americans rely on life insurance policies as a critical safety net to ensure the economic security of their families through the loss of a loved one, and most often, the primary breadwinner. However, most policies never pay out since policy owners stop paying premiums and allow their policies to lapse.

Older policy owners that have kept their policies have been increasingly opting to sell their policies to third parties in the secondary market for life insurance policies for an amount greater than the policy's cash surrender value but less than the expected payout to the beneficiary upon the policy owner's death. This secondary market exploits an inefficiency that enables both policy owners and third parties to achieve a mutual economic benefit. An alternative investment fund, Ress Life Investments, run by Resscapital's Stockholm-based team has been snapping up such policies in the U.S. secondary market for life settlements since 2011.

The success of a life settlements strategy requires accurate estimates of longevity. "In our view, long longevity in itself is not a risk, the biggest risk comes from how our fund managers are able to estimate and control longevity risk," explains Jonas Mårtenson, the founder of Resscapital. "We have to make sure that our portfolio managers actually understand longevity and understand how to mitigate the risk by selecting lower-risk policies that still provide an attractive return."

Resscapital's approach to mitigating longevity risk involves buying policies from healthy retirees with long life expectancies and choosing conservative estimates of life expectancies. "For us, the name of the game is to buy policies with long life expectancies, based conservative estimates," Mårtenson tells HedgeNordic. "We require at least two estimates of life expectancies when buying policies, and we try to be very cautious by working with niche medical underwriters that tend to provide somewhat conservative, longer life expectancies," he continues. Resscapital's risk-aversion has resulted in more policies paying out than expected in recent years, providing a boost to the fund's performance.

"In our view, long longevity in itself is not a risk, the biggest risk comes from how our fund managers are able to estimate and control longevity risk."





21

POSITIVELY SKEWED FIXED-INCOME ALTERNATIVE

Ress Life Investments has generated an annualized return of 7 percent in the past five years, just in line with its return target of 7 percent net of fees in U.S. dollars. "The fund is completely uncorrelated from equities, fixed income and other asset classes, because the main risk we take is longevity," explains Mårtenson. Over the past five years, Ress Life Investments has exhibited a correlation of 0.07 with the MSCI World and 0.04 with the S&P 500. "It is very difficult to find investments that are quite uncorrelated to the major asset classes." With an annualized return of 7 percent in the past five years, Mårtenson views Ress Life Investments as a perfect alternative for fixed-income investments.

"This is a high-yielding fixed-income replacement with a very high credit quality," says the Resscapital founder. "We have policies issued by close to 60 different U.S. life insurance companies with a minimum rating of A-," he continues. "Although the credit risk that we take on U.S. life insurance companies is real, there are no known cases in the United States when policy beneficiaries did not receive death benefits," says Mårtenson. "A life insurance policy will pay out even if the life insurance company goes bankrupt. Bankruptcies have happened many times in the past, but the actual portfolio of life insurance policies from a bankrupted insurance company may then be sold to another life insurance company. The death benefits have always been paid out."

Although Ress Life Investments represents an alternative to fixed-income allocations, its return characteristics differ from those of equity, fixed-income or other investments. "Ress Life investments is not only uncorrelated, but also exhibits return characteristics that are very different," argues Mårtenson. The fund tends to exhibit a distribution of returns that is positively skewed. "About 70 percent of monthly returns are positive and 30 percent are negative. But if you look at the way our performance is derived, we have periods of very flat performance just like this year where nothing much happens," says Mårtenson. "But when the policy

pays out, the net asset value will increase quite a lot, which is an interesting and somewhat unique return characteristic. From a diversifying point of view, this is a great counter-cyclical allocation to most other investments."

INFLATION

With inflation dominating investing conversations so far this year, Mårtenson still views his team's life settlements strategy as an attractive alternative in an inflationary environment. "Since we are delivering a nominal return, increasing inflation does have a negative effect because our returns may become less attractive. Also, of course, the big policy payouts in many years to come would also be affected by inflation," acknowledges Mårtenson. "On the other hand, we would also pay less relatively speaking in premiums. We have the cash outflows in the form of premiums, which are becoming worth less and less because of inflation."

"Compared to a bond strategy, we are less affected by interest rates shifts," argues Mårtenson. "We are picking up quite a lot of extra yield if we buy policies at an expected IRR of 12 percent in U.S. dollars in spite of inflation. There is quite a big cushion here," he adds. "If we can deliver on our target return of 7 percent or even higher, that is still attractive versus many other fixed-income strategies even in an inflationary environment."

IDEAL PORTFOLIO SIZE

Ress Life Investments gained 2.8 percent in the first nine months of 2021 after booking a gain of 7.2 percent last year, about 8.0 percent in 2019 and a record 9.9 percent in 2018. "The performance is lower than expected so far because we only had a few policies paying out this year," explains Mårtenson. "The portfolio is still rather small with approximately 400 policies, so we still see periods of time when fewer policies pay out," he continues. "Even a 12-month period is quite a short timeframe."

"A portfolio of 1,000 policies could provide a much more stable and less volatile performance," argues Mårtenson. Its \$282 million in assets under management are currently invested in over 400 policies with a total face value exceeding \$1 billion. "We have had record buying in the last 12 months, with the team buying probably around 100 new policies in the last year. So our aim is to continue to increase the portfolio and generate similar but more stable performance for our investors."

TERTIARY MARKET JOURNEY

In addition to the mature and growing secondary market for life insurance policies, the so-called tertiary life settlement market, which enables the purchase and sale of larger portfolios of life policies, has also become more active. Resscapital is now planning the launch of a "closed-end fund investing in the tertiary market for larger institutional investors in 2022." According to Mårtenson, "the fund is going to be much more like a private equity fund, a 10-year closed-end fund with minimum ticket sizes probably around \$25 million."

Stockholm-based Resscapital has all the ingredients needed for successfully navigating and investing in the tertiary market. "We have built a great tenyear track record, we understand and have deep knowledge of the asset class, and we are a well-established player," says Mårtenson, who is the only non-U.S. board member at the Institutional Life Markets Association (ILMA). "We have also developed our own internal portfolio management systems that enable us to filter and review large quantities of data. All our systems and portfolio management are well adapted for the launch."

"The fund is completely uncorrelated from equities, fixed income and other asset classes, because the main risk we take is longevity."





Unique Portfolio as a Source of Diversification

By Eugeniu Guzun - HedgeNordic

Photo by Waldemar Brandt on Unsplash

he investment industry has investors convinced that true portfolio diversification is achieved through exposure to a variety of asset classes. However, a differentiated stock picking approach can serve as another source of diversification. With one-fourth of its equity portfolio invested in the sports industry and 10 percent in public football clubs, stock picking represents a source of diversification for the Behavioral Fund of Spanish asset manager MAPFRE AM.

"We are really trying to find diversification and decorrelation with broader markets," says Luis García Álvarez, the Portfolio Manager of the MAPFRE AM Behavioral Fund. "There are many funds in Europe that follow an investment philosophy similar to ours, but our portfolio is probably quite different from theirs," he continues. "Our portfolio is a result of that search

for decorrelation. We have 25 percent invested in the sports industry and 10 percent invested in football clubs. These are not the kind of stocks you often see in other fund managers' portfolios."

PHILOSOPHY

"We define ourselves as value investors and that is not because we buy stocks at low multiples," García Álvarez explains his team's approach to investing. "Buying at low multiple is not value investing for us. We do not consider value as an accounting or a statistical factor," he continues. "We consider value investing as a working or even as a living philosophy. We are patient investors who have a long-term investment horizon, we do not pay a lot of attention to short-term market movements, and our focus is

more on understanding the businesses and having a long-term mindset as if we were the entrepreneurs looking at our own business."

García Álvarez and his team predominantly look for three main characteristics when selecting stocks for the MAPFRE AM Behavioral Fund. "First, we look for good businesses that are simple enough that we can understand them," starts García Álvarez. "By good businesses, we mean businesses that have the capacity to grow and can grow in a profitable manner," he explains. "Second, we try to find companies with solid balance sheets. Most of the companies that we have in the portfolio have little net debt or even positive net debt."

"We know that the financial literature and academia says that debt is probably good for the return of equity investors," elaborates García Álvarez. "But given that we are long-term investors, we know that there will be good times and bad times in these longer periods. So we prefer to sleep well at night when the crisis comes," he adds. "The third one is good people running the businesses," says García Álvarez. "Not only good people from the ethical point of view, but also good capital allocators. We are looking for people with a track record of allocating capital well that can create value for their companies."

INVESTING IN FOOTBALL CLUBS

The MAPFRE AM Behavioral Fund, a Europeanfocused equity fund with a bias towards small- and mid-cap stocks, has about 10 percent of its portfolio invested in three public football clubs: Olympique

 \sim 23



Lyonnais in France, AFC Ajax in the Netherlands, and Borussia Dortmund in Germany. "The substantial emotional component causes many analysts and investors to keep their distance from the football industry. However, in our opinion, they are missing out on the interesting historical changes taking place in this industry."

"When you go to the data, one can see that the football industry nowadays is a profitable and lucrative industry. There was a clear game-changer in 2011, which was the introduction of Financial Fair Play Regulations by UEFA, the European association of clubs," says García Álvarez. In 2011, European football clubs as a group lost about €1.7-1.8 billion, according to the fund manager. "From that year on, the industry began to self-regulate and then we came to a situation in 2017 and 2018 where European football clubs as a group were already making a positive net profit of €700 million. That was a complete gamechanger."

The structural change in the football industry is not only reflected in the underlying numbers, argues García Álvarez, "but also in the kind of people approaching and entering the industry." According to García Álvarez, "more sophisticated investors started investing into clubs, but there were also visible changes in the corporate requirements on the clubs." He goes on to add that new professional profiles started joining football clubs across their management, finance and marketing teams, among others. "The industry is changing, but not many analysts and investors are paying attention."

COUNTER-CYCLICAL INVESTMENT

Every football club has its own ever-evolving story, so each investment in this industry is a story-driven investment. "Each investment in football clubs is a story by itself, which means that we do not need the broader market to rally in the coming months or years to see positive returns in football clubs," says García Álvarez. "Each investment is an ongoing, changing story. The intrinsic value of a football club is coming from a changing story," he continues. "People tend to see the football industry as cyclical, but data shows the contrary. The industry is counter-cyclical."

"There are many funds in Europe that follow an investment philosophy similar to ours, but our portfolio is probably quite different from theirs. Our portfolio is a result of that search for decorrelation."



Luis García Álvarez, Portfolio Manager of the MAPFRE AM Behavioral Fund

"In the last quarter of 2018, for instance, the STOXX Europe Football Index was up around 10 percent when the broader market was down about 30 percent," recalls García Álvarez. "We have seen that football clubs are clearly decorrelated in these times of crisis and that investments in football clubs can do well when markets are down," he adds. "Obviously excluding the last few months of the pandemic, revenues generated by football clubs have been growing for the last 30 years. We only have data for this period, so the industry mostly likely has been growing for the past 100 years."

CAREFUL STOCK SELECTION

"We analyze football clubs like any other company: we look for a good business, a good management team and a healthy balance sheet," explains Luis García Álvarez. From the pool of 22 public football clubs in Europe, including top clubs such as Manchester United and Juventus, the MAPFRE AM Behavioral Fund has only invested in Olympique Lyonnais, AFC Ajax, and Borussia Dortmund. "We struggle to see these characteristics in bigger clubs, which explains

why we are not investing in tier one teams, but we are more inclined to invest in tier two teams."

(HEDGENORDIC

"When a team wins or loses a major tournament or its star player is injured, or when a new player is signed, the market often reacts very sharply," says García Álvarez. "However, we make our investment decisions by applying a long term perspective. We try to filter out the short term noise, and we think this gives us a significant advantage when decisions are being made." For that reason, García Álvarez and his team "are mostly looking at the capacity of football clubs to generate profits on a recurring basis."

"The three clubs we have invested in make money in the transfer market over time, these clubs are able to buy talent cheaply and sell it more expensively on a recurring basis," elaborates García Álvarez. "These clubs also have success in European competitions on a recurrent basis, but we do not worry about them having success on the pitch every single season," he adds. "Many people tend to believe that if you focus on the financial side, then you forget about the fans and the sporting side. However, the financial and sporting side always go hand in hand."



Great Times for Tech Start-Ups



Thomas Raaschou, CEO - NOMA Capital



Christian Björkman, CEO - Nordic Tech Fund Group

By Eugeniu Guzun – HedgeNordic

t is a great time to be at the helm of a technology start-up. Investors in start-ups are channeling capital into private tech companies more than ever. Nordic start-ups are receiving the same love from investors. Swedish fund management firm AIFM Capital, for instance, has partnered up with Nordic Tech Fund Group to launch a listed alternative investment fund that invests in unlisted Swedish technology companies at an early stage. Across the border in Norway, Oslo-based asset manager NOMA Capital has launched a closed-end actively managed alternative investment fund that invests in Norwegian early-stage tech-focused private companies.

The opportunity to invest in unlisted technology companies at an early stage has usually been reserved for wealthy individuals or venture capital firms. Actively managed venture capital fund Nordic Tech Fund aims to make the venture capital universe available to the broader public. "It has been difficult as an individual to invest in unlisted growth companies. It often requires a lot of capital, and given the relatively high risk, investors want to spread risk by taking positions in several different companies at the same time," says Christian Björkman, the CEO of Nordic Tech Fund Group. "Even though we have venture capital funds in Sweden, by and large, they have so far been inaccessible to the public. We want

to change that. We want to give investors access to an asset class that is usually untapped, hot Swedish unlisted tech companies."

Through the first of a series of planned fund launches focused on early-stage companies, NOMA Capital is pursuing a somewhat different objective: keeping Norwegian-born private tech companies in the hands of Norwegian owners. "The biggest challenge is not that we lack competent entrepreneurs who are willing to invest everything they own to succeed," says Thomas Raaschou, the CEO of NOMA Capital. "On the contrary, a great number of Norwegian "inventions" are leaders in their respective global markets today. But historically, we did not have a culture and framework conditions to remain owners all the way," emphasizes Raaschou. "The foreigners have all too often taken over the ownership and run away with the majority of the value creation."

"But we are experiencing a change in investor behavior. The positive value development in the capital markets in recent years has meant that many Norwegian investors have become very wealthy," argues Raaschou. "Both the ability and patience to remain owners are increasing, even with a special Norwegian wealth tax as a handicap. The competence among investors for early-stage

"The Swedish startup scene has been hot for several years and is constantly evolving."

Christian Björkman

HEDGENORDIC

HEDGENORDIC

"Many of the world's challenges can be solved in completely different ways in the future thanks to an accelerating technological development."

Thomas Raaschou

companies is also clearly rising," he continues. "The establishment of Euronext Growth, as part of the Oslo Stock Exchange, has also made a positive contribution. This intermediate station has meant that many early-stage companies have been able to raise capital to further develop the companies here in Norway. They are no longer sold out of the country at the first opportunity, as we have experienced before."

Explaining the rationale behind his focus on Swedish private companies, Christian Björkman of Nordic Tech Fund Group says that "the conditions are good for successful investments in Swedish tech companies." Sweden ranks second in last year's Global Innovation Index, coming in behind Switzerland and ahead of the United States, Japan, and all other countries. In fact, Sweden has been among the top three most innovative countries for more than a decade, according to the Global Innovation Index. "The Swedish start-up scene has been hot for several years and is constantly evolving," says Björkman. "A prominent strength is Swedish companies' ability to build systems that can scale up and generate growth globally for a long time and often breed spinoff companies. This tradition was started early by companies like IKEA, SKF, Autoliv and Tetrapak, and has been continued with Swedish tech stars such as Skype, Spotify, iZettle, Neo4 and Klarna."

TECH FOCUS

Both NOMA Vekst I and Nordic Tech Fund predominantly invest in technology-focused early-stage companies. Nordic Tech Fund, for instance, focuses on tech companies involved with the Internet of Things (IoT), artificial intelligence (AI), computer games and companies with Software as a Service (SaaS) as a business model. NOMA Vekst I, meanwhile, seeks to invest in tech-focused private companies with scalable business models with potential for global expansion. Nordic Tech Fund already has nine companies in its portfolio at the moment, while NOMA Vekst I has invested in four Norwegian companies – Marketer, Wheel.me, 3D Radar and ODI Medical.

"Overall, many of the world's challenges can be solved in completely different ways in the future thanks to an accelerating technological development," Thomas Raaschou explains the technology focus. "The use of artificial intelligence and machine learning, which are processing large amounts of data, the Internet of Things (IoT), blockchain, data storage in the cloud and intelligent robots are just some of the innovations that create many opportunities."

"From an investment point of view, the supply of early-stage technology-focused companies, often with scalable and capital-light business models, is increasing," continues Raaschou. "Paradoxically, the Covid-19 pandemic has been a catalyst for the development of Norwegian expertise in areas that have lived in the shadow of traditional Norwegian industries, such as oil and gas, energy-intensive processing industry and salmon farming."

ACTIVE MANAGEMENT

The teams at both NOMA Capital and Nordic Tech Fund Group rely on an active approach to investing in early-stage private tech companies. "We see ourselves as long-term investors who, through active ownership, want to contribute expertise to entrepreneurs and the companies in which they invest," says Thomas Raaschou, the CEO of NOMA Capital. "As active owners and supporters, we want the entrepreneurs and management to build their companies as if capital is not a constraint. It is important, however, that the owners and supporters feel there are in the same boat as the entrepreneurs. The incentives of the entrepreneurs must therefore coincide with the ones of investors."

"The team behind the Nordic Tech Fund has extensive experience of the process of finding the right company, making investments and building value in unlisted tech companies," points out Christian Björkman. "Nordic Tech Fund will be active owners towards the underlying investment companies and transparent managers towards the investors," he continues. The end goal after all is to "contribute to cultivating a number of new Swedish and Nordic technology companies and at the same time generate a high return for investors. With the help of our experience and strength as a fund, we want to help the companies grow and become visible."





Ned Naylor-Leyland, Head of Strategy, Gold & Silver – Jupiter Asset Management Anna Svahn, Founder and CEO of Antiloop Hedge

Eric Strand, Founder of AuAg Funds

Gold – Hedge, Safe Haven, or Diversifier?

By Eugeniu Guzun - HedgeNordic

he role of gold in an investment portfolio as a diversifier or a hedge has been debated thoroughly over many years and decades. And yet, there is still no consensus on what role the yellow metal truly plays in a portfolio. Gold's role as a hedge or diversifier may really depend on the risk one is trying to protect against.

Ned Naylor-Leyland, the Head of Strategy, Gold & Silver, at Jupiter Asset Management, argues that gold, above all else, serves as protection against the loss of purchasing power - reflected in real interest rates - rather than against inflation per se. "Gold is the risk-free instrument in the system, not treasuries," asserts Naylor-Leyland. When real yields - the nominal yield on a security after accounting for inflation - turn lower or even negative, money will flow into the yellow metal to preserve purchasing power. "Bear in mind that gold does not go up or down at all. Gold is just gold."

Eric Strand, the founder of precious metals-focused AuAg Funds, corroborates Naylor-Leyland's "Gold is just gold" statement. "We like to see gold as the constant and then measure the currencies in gold," says Strand. "The Euro, the world's second-largest currency, has lost over 83 percent of its value measured in gold since its inception back in 1999." Anna Svahn, the founder of Antiloop Hedge and a

long-time advocate for having gold as a dynamic part of one's portfolio, brings the US Dollar to the same discussion.

"This year marks the 50th year anniversary since the U.S. was the last country to abandon the gold standard," says Svahn. "Since then, the US Dollar has lost almost 84 percent of its purchasing power and for some reason, it is widely accepted that gold has never outperformed the stock market," she continues. "That is not true. Gold has on average returned 10.51 percent every year since 1971, while S&P 500 annual average return was 9.16 percent." Strand has similar observations, saying that "over the past 50 years, since the price of gold was set free, the average annual return for gold has been 11 percent in US Dollars." In years when inflation was higher than three percent, the price of gold increased 15 percent per year on average.

DRIVEN BY REAL INTEREST RATE **EXPECTATIONS**

According to Naylor-Leyland of Jupiter Asset Management, monetary metals such as gold and silver are driven by changes in real interest rate expectations. "The bond market creates price discovery for the metals through real interest rates,"

HEDGENORDIC

3.3

"Gold is the risk-free instrument in the system, not treasuries."

(HEDGENORDIC

Ned Naylor-Leyland

says Naylor-Leyland. Eric Strand follows the same line of thought. "Real rates are already negative and will just go ever more into negative territory, which of course, is an environment where gold thrives," explains Strand. "The central banks are growing their balance sheets and will continue to be behind the curve as they are raising rates slower than the inflation rises. The macro cocktail does not really become brighter as so many countries and companies have ballooned their balance sheets with debt, reaching unprecedented levels."

At the moment, gold and silver are priced off three observations in the real interest rate world, according to Naylor-Leyland. "First, market participants are assuming inflation is transitory," starts the fund manager. "Second, we are assuming that central bank tapering is coming in November, it will be the size that we expect and it will not be withdrawn," he continues. "Third, we are getting rate hikes starting next year. That is what is priced in. I would say though that it is much more likely that all three are wrong than all three are right," says Naylor-Leyland. "Only one of the three observations needs to be wrong for gold and silver to be going way higher," he adds. "But I do think it is very likely all three of those assumptions are wrong."

"Gold is a long-term hedge against inflation, against the loss of purchasing power," agrees Anna Svahn. "Since the United States left the gold standard, the gold price has gone up on average as much as the Federal Reserve has expanded the monetary base every year," she continues. "This, however, does not mean that gold, or any other asset, works as perfect day-to-day, or even a quarter-to-quarter hedge against money printing."

OTHER DIVERSIFICATION BENEFITS

"Gold is diversification that works," asserts Eric Strand. "Many assets become increasingly correlated as market uncertainty rises and volatility is more pronounced, driven in part by risk-on/risk-off investment decisions," he elaborates. "During the great financial crisis, equities and other risk assets tumbled in value, as did hedge funds, real estate

and most commodities. Gold, however, increased in price, rising 21 percent in US Dollars from December 2007 to February 2009. And in the most recent sharp equity market pullbacks of 2018 and 2020, gold performance remained positive."

"With few exceptions, gold has been particularly effective during times of systemic risk, delivering positive returns and reducing overall portfolio losses," points out Strand. The gold market's average daily trading volume is almost equal to the volume of all the companies on the S&P500 together. Therefore, the very liquid gold market offers an additional great property, allowing investors to meet liabilities when less liquid assets in their portfolio are difficult to sell or possibly mispriced," he emphasizes. "Gold's favorablee low correlation properties do not just work for investors during periods of turmoil. It can also deliver a positive correlation with equities and other risk assets in positive markets, making gold a very efficient hedge."

Gold's role as a diversifier does really depend on the risk one is trying to protect against. For Anna Svahn, in addition to acting as a hedge against the loss of purchasing power, gold also acts as a diversifier for a stock portfolio. "To appreciate the case for gold, one must understand the reason for owning a yellow pet rock in the first place," begins Anna Svahn. "Although many economists call gold a "safe haven," it's not the real reason to own gold," she emphasizes. "Even if the gold price tends to rise short term during times of uncertainty, it almost always falls back to the same levels shortly after. Meaning buying gold on one of those price spikes is usually not a profitable affair in the short run"

"The main reason, however, to why you should want to hold at least some gold, is to be able to sell when the stock market is plummeting so that you can buy equities at a lower price, as gold tends to be contra cyclical to stocks over time," argues Svahn. "The long-term focus in a portfolio should always be to find ways to maximize the amount of producing assets. Owning assets with low correlation to stocks can help you achieve that."

"We like to see gold as the constant and then measure the currencies in gold."

Eric Strand



"Gold is a long-term hedge against inflation, against the loss of purchasing power. Since the United States left the gold standard, the gold price has gone up on average as much as the Federal Reserve has expanded the monetary base every year."

Anna Svahn

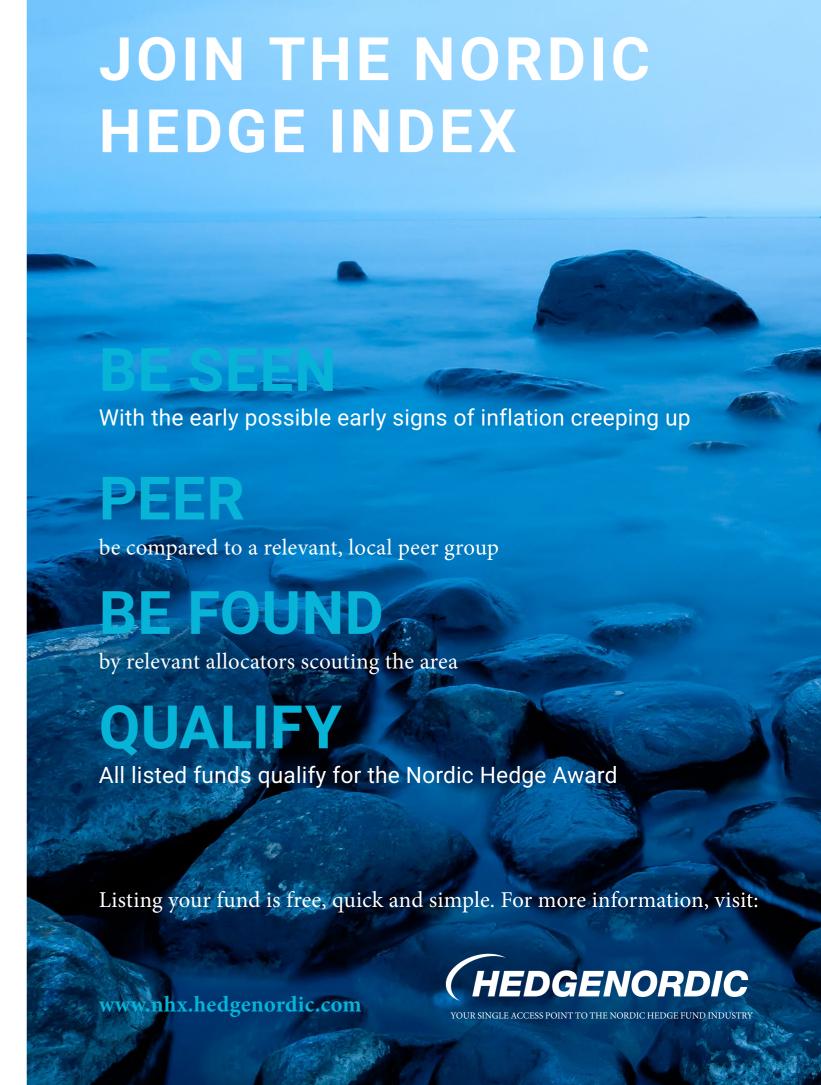
GOLD – THE MONEY OF THE FUTURE

"For thousands of years, gold has played an important role as money – a medium of exchange, store of value, and a unit of account," says Anna Svahn. "When we introduced "paper money," backed only by trust in a centralized entity, with the promise of keeping the value stable, gold lost parts of this original role," she explains. "In 50 years of unbacked paper money, central banks have proved that the one thing they are capable of, is in fact not to maintain the value of the currency, but to devalue it to almost nothing while keeping its users in the dark."

However, gold will likely have a different and more important role in the future monetary system than today. "The assumption that we will be continually bailed out with fresh credit money is a powerful negative on fiat currencies right here," argues Ned Naylor-Leyland. "But bear in mind, central banks have large gold reserves, so they know full well there is no problem for them," he continues. "All central bankers who ever lived have been gold bugs."

"Central banks have been big buyers of gold since the great financial crisis, and they know how important gold will be in the future," agrees Eric Strand. "Fiat currencies are based on trust and backed by "the right of every state to tax its citizens indefinitely." History tells us a lot about fiat currencies, just watching the Roman and other great Empires rise and fall," he elaborates.

All this history repeating itself over the centuries led to Voltaire's famous quote – "Fiat currency always eventually returns to its intrinsic value – zero," according to Strand. "Gold[Au] is the only currency, along with Silver[Ag], that does not require a counterparty signature. No one refuses gold as payment to discharge an obligation, while credit instruments and fiat currency depend on a counterparty's creditworthiness."







"The supply of cryptocurrencies is rule-based, hence the supply is transparent and in many cases limited, which makes them a good store of value."

Martin Estlander

The Role of Cryptos in a Diversified Portfolio

By Eugeniu Guzun – HedgeNordic

nstitutional investors are increasingly pondering about the addition of cryptocurrencies to a diversified portfolio. Back in October of 2021, hedge fund manager Paul Tudor Jones said that Bitcoin, just like gold, is a great way to protect wealth over the long run. "I like Bitcoin as a portfolio diversifier," Jones said on CNBC's Squawk Box. "Over time it's a great diversifier. Again, I look at Bitcoin as a store of wealth."

Martin Estlander, the founder of Finnish systematic manager Estlander & Partners has been closely studying the crypto asset space in recent years. He also views cryptocurrencies as a store of value. "The supply of cryptocurrencies is rule-based, hence the supply is transparent and in many cases limited, which makes them a good store of value," he argues. "This is in contrast to fiat currencies, which are being printed at a discretionary basis and are currently printed a lot, thus devaluing the value of these currencies," he adds. "Being a true store of value is one of the prime qualities of a currency."



Martin Estlander, Founder – Estlander & Partners





Niclas Sandstrom, CEO - Hilbert Group



Anna Svahn, Founder and CEO – Antiloop Hedge



Mikkel Morch, Executive Director and Risk Management - ARK36

UNCCORELATED ASSET

The essence of modern portfolio theory involves moving beyond simple diversification and reducing overall risk by building a portfolio of assets that exhibit low correlation of returns. "Crypto assets offer proven advantages in that regard due to their exotic nature and a unique set of drivers," explains Mikkel Morch, Executive Director and Risk Management at digital assets-focused hedge fund ARK36. "Thanks to these characteristics, they can act as a diversifier in normal market conditions."

"The crypto market has a market cap of nearly \$2.5 trillion and has long surpassed being just a "fly," says Anna Svahn, the founder and CEO of Antiloop Hedge. "Although the asset class is still young, it is clear that digital assets work and will continue to work as a diversifier in portfolios due to their low correlation to traditional markets." Niclas Sandstrom, CEO digital assets-focused firm Hilbert Group, and Mikkel Morch agree that the lack of correlation to other asset classes warrants the inclusion of cryptocurrencies in a portfolio. "Digital assets definitely provide a very sensible diversification option as data suggest low or at times even negative - correlation with traditional assets," according to Morch.

"Historically, if you look at longer-term correlation, either based on daily returns, or monthly and quarterly returns, cryptos still have a very low correlation to traditional assets," adds Sandstrom. "That is a good thing for portfolio diversification." Sandstrom goes on to argue that cryptocurrencies can serve as both a diversification tool and a growth engine for a portfolio. "Cryptocurrencies also serve as return drivers for a portfolio," says the CEO of Hilbert Group, which went public on Nasdaq First North Growth Market in late October.

"You are looking at an asset class that has generated an annualized return of more than one hundred percent in the past four years," Sandstrom tells HedgeNordic. "Having low correlation and a high expected return is ideal for inclusion in a traditional portfolio," he continues. Calculations computed by the Hilbert team on market data spanning over the last four years show that a ten percent allocation to Bitcoin to an all-equity portfolio would have doubled the portfolio's return without dramatically increasing

its volatility profile. "A portfolio with a crypto allocation could generate a much higher return without changing the risk level," says Sandstrom. "That is going to be the case for the next decade as this area grows and until it matures to become similar to traditional assets in terms of volatility and expected return."

"Digital assets, which include but are not limited to cryptocurrencies, can serve both purposes depending on the specifics of a given portfolio, including asset selection and position sizing," argues Morch, one of the four Danish co-founders of ARK36. "These specifics would vary according to the investor's objectives, profile risk, and a number of other factors," he continues. "It could be both or either depending on the portfolio strategy," agrees Svahn. "One could argue that Bitcoin as a "digital gold" or Ether (or another platform token) could be considered a diversifier, while single projects built on one of the platforms rather would be seen as a growth engine with higher risk."

"A small allocation to a basket of carefully selected digital assets could serve as a good diversifier," considers Morch. Digital assets could also serve as a growth engine for a portfolio, argues Morch. "Digital assets can still be reasonably expected to grow as an asset class. In comparison with other traditional assets, they still have a relatively small market cap," he explains. "If Bitcoin does eventually displace gold as the institutionally preferred inflation hedge, its price could still rise multiple folds. So there is definitely a case for seeing BTC as a growth asset as well."

"The same is true for the market cap of digital assets as a whole," continues Morch. "The growing adoption rates of these assets as well as their integration into traditional finance, the exceptional rate of innovation seen within this space, and the highly disruptive potential of crypto as technology all suggest there is plenty of room for growth that translates well into significant upside potential."

"Any asset which has a strong bull case can be both a diversifier and a growth engine," concurs Martin Estlander. "The correlation between stocks and cryptocurrencies is low (often below 0.3), which would qualify cryptocurrencies as a good diversifier." "Crypto assets offer proven advantages in that regard due to their exotic nature and a unique set of drivers."

Mikkel Morch

"Although the asset class is still young, it is clear that digital assets work and will continue to work as a diversifier in portfolios due to their low correlation to traditional markets."

Anna Svahn

However, cryptocurrencies do not always serve as a hedge against broader market sell-offs. "Following the market turbulences caused by the initial Covid shock, cryptocurrencies took a beating in the same way as equities did, so it is not necessarily a hedge against sell-offs," acknowledges Estlander.

"Again, the main case as I see it is that cryptocurrencies are a store of value, while fiat currencies are being devalued," argues the founder of the first hedge fund in the Nordics. "In the US, the balance sheet of the FED has increased around 100 percent since the start of the year 2020. Equities have risen about 50 percent. How much wealthier has the equity investor become?" ponders Estlander. "Bitcoin has increased 750 percent. What if the investor values his equity position in a non-devaluing currency such as Bitcoin instead of in US Dollars?"

THE SURVIVAL OF THE FITTEST

With more than 10,000 different cryptocurrencies in circulation at the moment, the survival of the fittest remains the indisputable truth and the jungle law of the cryptocurrency universe. "We are still early in the era of digital assets, meaning many projects existing today won't be here in the future," argues Anna Svahn. "There are so many cryptocurrencies at the moment, so not all are going to be valuable," agrees Sandstrom. "The majority of these are actually going to zero."

Sandstrom believes the survival of the fittest in the cryptocurrency space is an analog to the tech boom and bust in the 2000s. "There were lots of internet companies at the time, but maybe only ten percent of them are around today," says Sandstrom. "We see the same development for crypto." For that reason, Sandstrom opts for building a well-diversified portfolio of carefully selected cryptocurrencies to gain exposure to the space. "The total market cap is what one should be focused on. That will go up," emphasizes Sandstrom. "One could identify some winners or some high probability cases. We certainly think Bitcoin as digital gold is among those winners, and Ethereum is there as one of the biggest operating systems on which other cryptocurrencies run. But beyond that, it is very hard to predict the future winners. The main thing is to have a broadbased exposure."

THE ROLE OF CRYPTOS

Although Bitcoin and other cryptocurrencies may indeed have a home in a diversified portfolio, investors are also increasingly asking about the role of cryptocurrencies in our daily lives, societies, and monetary systems. "I believe that the whole banking and financial industry will see huge change as a result of not just the increased adoption of digital currencies, but from the introduction of smart contracts and decentralized finance, which, in the long run, will dismantle the huge cost of financial infrastructure," argues Martin Estlander. "Several corners of the industry will be disrupted. I think banks are beginning to see the threat concretely."

"Cryptocurrencies are going to completely revolutionize the monetary system, but it depends on which way the regulation will go," argues Niclas Sandstrom. "There will be huge disintermediation, which is really enabled by the smart contract. A lot of the cumbersome administrative processes are going to be largely eliminated and reshaped," he continues. "Retail banks will find it harder to make fees. But everything where you keep track, such as in the insurance industry, logistics, supply chain management, medical records, land registry, you name it, everything is going to be governed by blockchains. We think smart contracts and blockchains will change industries, including the banking industry."

"We are seeing a strong trend towards greater mainstream adoption of Bitcoin and cryptocurrencies, which is already resulting in their integration into the traditional financial systems," says Mikkel Morch of ARK36. "Crypto transactions are fast and convenient to execute both locally and globally and are often cheaper than bank transfers because no intermediary entities are involved. Additionally, highly decentralized cryptocurrencies such as Bitcoin are censorship-resistant. No governmental authority can feasibly manipulate or control the design features of Bitcoin such as its supply cap," continues Morch.

"While these features make cryptocurrencies attractive to both individuals and businesses, they have also given rise to a new set of challenges for governments and financial regulators," points out Morch. "The approach they have taken so far has varied considerably around the world with some

governments going as far as to declare Bitcoin the legal tender and others banning it or strictly limiting its use." According to Morch, "the mainstream adoption of cryptocurrencies will certainly hasten the advent of government-issued cryptocurrencies known as Central Bank Digital Currencies of CBDCs."

"Supposedly, these are to offer the best of both worlds, combining the speed and other benefits of cryptocurrencies without the associated risks," adds Morch. "Whether that scenario will materialize remains to be seen. However, with many other countries moving ahead with their own CBDC programs, it is nearly certain that CBDCs will become an important part of the future of money, supplementing physical cash and bank reserves. Monetary policy could benefit remarkably from this technology."

"Having low correlation and a high expected return is ideal for inclusion in a traditional portfolio."

Niclas Sandstrom

HEDGENORDIC

An Alternative to the Classic 60/40 Portfolio

By Niels Kaastrup-Larsen, TopTradersUnplugged & Richard Brennan, ATS Trading Solutions

he historic hedging property of fixed income seen over the last 40 years has helped make the long only 60% Equity /40% Fixed Income portfolio a popular portfolio allocation method given the negatively correlated performance nature of so-called risky Equity assets against lower risk Bonds.

The equities boom post 2000 and the tail risk cushioning afforded by Bonds has significantly contributed to the popularity of this simple method of investment allocation.

A popular example of the 60/40 method is a 60% investment in an Index offering wide US stock market exposure such as

the Standard & Poor's 500 Index with a 40% investment that seeks to track the performance of a broad, market weighted bond index.

In this article we will use the very popular 'Vanguard Balanced Index Fund (VBIAX) as a proxy for this classic method of Buy and Hold investment allocation.

A 100% buy and hold allocation in the S&P500 Index would have delivered the following performance returns since 1st January 2000 to 31st July 2021.

Figure 1 shows a Compound Annual Growth Rate (CAGR) of 7.21% per annum however

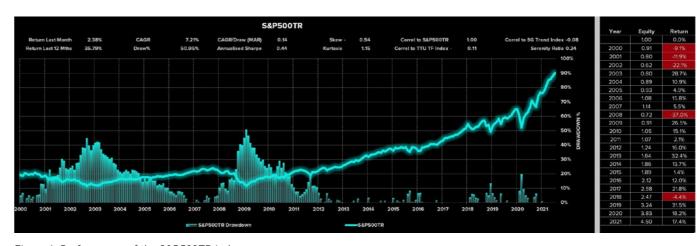


Figure 1: Performance of the S&P500TR Index

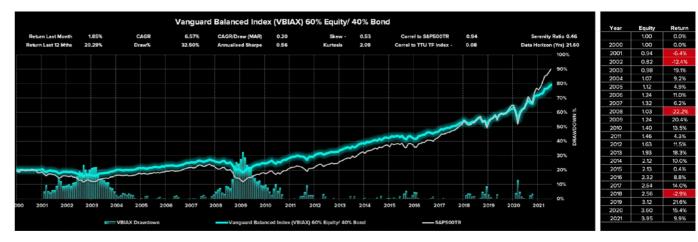


Figure 2: Performance of the VBIAX Index

we note two significant plus 45% Drawdowns in 2003 and 2009 associated with equity crisis periods. Such extreme drawdowns during unfavourable equity regimes make a 100% allocation towards this style of Buy and Hold investment:

- difficult to psychologically tolerate;
- contingent on optimal timing of investment entry that may take months or years to recover; and
- dilutes the impact of compounded returns over the long term which impedes wealth generation.

The relationship between the CAGR and the Maximum Drawdown provides a path dependent risk adjusted ratio referred to as the MAR ratio (CAGR%/

Max Draw%). Low ratios reflect volatile returns for an investor. In the example of Figure 1, the MAR ratio is a low 0.14.

In contrast VBIAX has significantly cushioned this volatility impact without severely compromising CAGR. Figure 2 shows a 6.57% CAGR which is slightly lower than a 100% allocation in the S&P500, but with far lower drawdowns that range between 25% to 32.5% over the same period. This less volatile 'smoother ride' leads to a higher risk adjusted return with a MAR ratio of 0.20.

Strong performance results of Figure 2 support the popularity of the 60/40 Equity/Bond Portfolio since 2000 to current day.



"Prudent investors should consider different weights and/or even better, diversifying into a broader array of uncorrelated asset classes."

WILL FUTURE PERFORMANCE BE THE SAME AS PAST PERFORMANCE?

The power of this 'long only' approach to "Buy and Hold" lies in the embedded assumption that US equities and US Treasuries will continue to display growth in the future and that bonds will continue to provide tail risk protection to investors in times of equity crisis.

However, there are some major factors that concern allocators such as:

- Treasury Yields are at all-time lows The ultralow interest rate environment is here to stay for a while at least which means that bonds are no longer a reliable source of income and high allocations towards traditional bond portfolios are unlikely to produce meaningful returns in the future while these conditions persist.
- Investors need to consider a Rising Inflationary
 Environment Rising production costs and
 relaxed central bank Quantitative Easing combined
 with various stimulus packages could lead to rising
 inflation in the medium term. Rising inflation is bad
 news for fixed income investors as it increases
 bond yields and correspondingly drives down the
 valuation of bond portfolios. Furthermore, inflation
 dilutes real returns.
- Equities and Bonds do not offer Sufficient
 Diversification Alone The negative correlation
 between Bonds and Equities has been a recent
 phenomenon (since the late 1980's) up to April
 2020, but post Covid we have seen the correlations
 turn positive. Furthermore, over the prior 65 years
 pre-1980's, Bonds and Equities have exhibited
 positive correlation.

Consequently, given these building concerns, many allocators are recommending that instead of allocating 60% broadly to stocks and 40% to bonds, prudent investors should consider different weights and/or even better, diversifying into a broader array of uncorrelated asset classes.



Niels Kaastrup-Larsen, Founder & Host -TopTradersUnplugged



Richard Brennan, Managing Director - ATS Group

INTRODUCTION TO THE SERENITY PORTFOLIO

There are many options available to investors seeking to diversify their portfolios into more robust uncorrelated alternatives than bond portfolios. One such asset class that strongly features in 'Alternative investments' as a powerful diversifier are the Globally Diversified Systematic Trend Following Managers.

This group of Managers place a great deal of emphasis on methods of diversification within their trend following models in terms of geography, asset class, system design, and timeframe to name a few.

Historically Trend Following Managers are almost perfectly uncorrelated to the S&P500 Index. This uncorrelated relationship can be attributed to the extensive diversification achieved by this investment style which naturally is therefore uncorrelated to a single asset class such as equities. This uncorrelated relationship is therefore expected to continue. Furthermore, this style of investment has historically performed very well during inflationary regimes.

The authors of this article have produced a paper that provides a powerful allocation method referred to as 'the Serenity Allocation' that selects top long-term Trend Followers from a pool of globally diversified Managers with a long-term track record. The research paper looks under the hood of this powerful risk adjusted selection method and will shortly be available for download through the Top Traders Unplugged website.

The Serenity allocation is not only a very powerful method to consider for a 100% allocation of investment capital, but it also provides a very powerful diversifier for those investors that want to replace their 40% bond allocation with an alternative uncorrelated asset class, that has a track record of performing well during uncertain periods and across a broad class of different inflationary regimes.

A BRIEF OVERVIEW OF THE SERENITY ALLOCATION METHOD

The Serenity Allocation method is a process that can be applied for investors seeking to allocate a minimum of \$500K towards this alternative investment class which avoids any possible hindsight bias and allows the investor to select suitable Trend



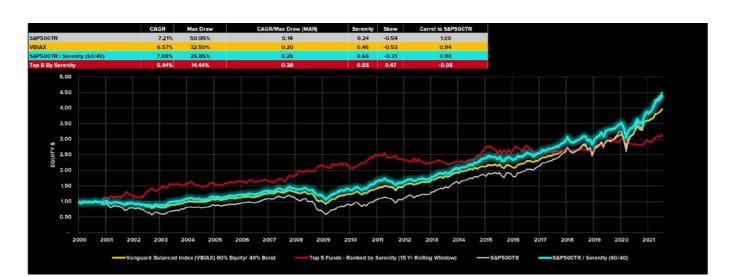


Figure 3: Comparative Performance of Different Investment Allocation Methods

Following candidates that have a long-term track record in delivering excellent risk adjusted returns.

The method looks at a broad selection of Managers and assumes a minimum \$500K investment which is equally allocated to 5 programs that meet the following definition:

- · Are currently active Programs;
- · Possess at least a 15-year track record;
- Are globally diversified and invest across a broad array of asset classes;
- Are fully systematic in nature using quantitative rules-based processes;
- · Adopt Trend Following trading methods;
- Offer pooled Onshore and/or Offshore investment vehicles; and
- Allow for a Minimum investment of \$100K.

From this selection of current Managers that meet this definition, we then undertake an annual rebalancing process that evaluates using the Serenity Ratio an optimal allocation for the next 12 months.

This Serenity Ratio, unlike the Sharpe and Sortino ratio, is a 'path dependent' risk adjusted metric used for investment selection which evaluates the degree of autocorrelation in a portfolios equity curve and estimates both the average and extreme risks carried by a Portfolio.

The Serenity ratio is used to identify a selection of 5 programs that offer superior risk adjusted returns and can meet minimum investment capital requirements of \$500K.

Using a 15-year rolling window, we annually assess the performance of each program using the Serenity Ratio and choose the top 5 ranked performers from the selection as our next 12-month investment selection. Each year we equally allocate our total investment equity towards the top 5 performers selected from this process.

PERFORMANCE RESULTS OF THE SERENITY METHOD

Under a 100% allocation towards the Serenity Portfolio, Figure 3 reflects a CAGR for the 21-year period of 5.44% per annum with a maximum drawdown of 14.44%. The risk adjusted MAR ratio that reflects the relationship between CAGR and the

Maximum Drawdown is 0.38 which is far superior to a 100% investment in the S&P500 or a 100% investment in the VBIAX. A smoother ride is achieved through this allocation than these alternative allocation methods without a significant sacrifice in CAGR.

Such low levels of drawdown allow those investors with a higher risk appetite to include a degree of leverage in their funding allocation to achieve higher returns with commensurate increases in overall maximum drawdown. However, for the purposes of this assessment, we have excluded the potential to enhance returns through leverage.

You will notice in Figure 3 that the Top 5 programs ranked by the Serenity Ratio are almost perfectly uncorrelated with US equity market with a Pearson Correlation Coefficient of -0.08 for the performance history since 1st January 2000. And perhaps more importantly, it is unlikely that these systematic globally diversified Trend Following managers will ever become highly correlated with US Equities given their geographic and system diversification.

PERFORMANCE RESULTS OF THE 60% EQUITY 40% SERENITY PORTFOLIO

From our research we can also demonstrate the power of the Serenity allocation method in delivering powerful risk adjusted returns to a balanced portfolio when we replace the 40% Bond allocation with a 40% Serenity allocation across Trend Following managers using this process.

As can be seen in Figure 3, a 60% Equity and 40% allocation towards the Top 5 by Serenity Ratio produces a CAGR of 7.08% with a Maximum Drawdown of only 26.86%. This risk adjusted performance already exceeds the performance of the VBIAX and is likely to continue outperforming under an uncertain future with prospects of inflation tail winds rising.

RESEARCH PAPER

This article introduces you to our research that we will shortly be releasing on Top Traders Unplugged.

"This Serenity Ratio, unlike the Sharpe and Sortino ratio, is a 'path dependent' risk adjusted metric used for investment selection."

(HEDGENORDIC



(HEDGENORDIC

Nordic Institutions Embracing Private Markets

By Hamlin Lovell – HedgeNordic



istorically, US pension funds had larger allocations to alternatives but Europe may be catching up: as of 2018, European pension funds had 27% in alternatives, almost matching the 31% seen in the US, according to the 2020 report on pension funds by the Association of the Luxembourg Fund Industry (Alfi) and published by PwC Luxembourg. (The percentage allocations were much lower in Asia at 8% and Latin America at 5%).

Within Europe, the largest allocations to alternatives were seen in Germany at 40.6%, Switzerland at 35.3% and the UK at 31.9%, but preferences for different types of alternatives vary between countries - with more appetite for venture capital seen in the Nordics.

These figures are also a moving target. The Swedish Government AP funds can now invest up to 40% in illiquid asset classes, which should eventually give them some of the largest weights. The ALFI report found that European pension funds in general were allocating more to real estate, private equity, private debt, infrastructure, as well as forestry and farmland.

Many insurers in the Nordics have been steadily growing their allocations to alternatives for a number of years. Numerous Nordic pension funds, banks, and funds of funds, are regularly announcing and tendering mandates to invest in these areas. Some of them run programmes allocating to different vintages every year.

"The Swedish
Government AP
funds can now invest
up to 40% in illiquid
asset classes, which
should eventually
give them some of
the largest weights."

MULTIPLE MANDATES UP FOR GRABS

For instance, Danske Bank and its Danica Pension are investing in private equity, infrastructure and private debt, via funds and co-investments. Commitments are around EUR 100 million per fund. The firm invests across private equity buyouts and in private debt the focus is on mezzanine, direct lending, distressed debt, infrastructure debt, fund of funds and special situations.

Denmark's DKK 110 billion Lærernes Pension public pension fund, for doctors, is adding to a wide variety of alternatives, according to Preqin. In private equity



"The European Investment Fund (EIF) is Europe's largest investor in venture capital, but Nordic pension funds are also very big players making up 16% of European venture capital fundraising since 2013."

it is looking for European buyout funds. In real estate it seeks investments in the Nordics and in North America. Its infrastructure programme will include renewable energy and digital infrastructure in Europe, while forestry looks further afield to Australasia (Australia and New Zealand) and North America. Its private debt programme looks at distressed and sustainable debt, in West Europe and North America. Ticket sizes are usually between USD 30 million and USD 60 million.

In Finland, public pension fund Keva runs over EUR 50 billion and its planned additions to alternatives allocations run the gamut from buyout, distressed debt, funds of funds, mezzanine, secondaries, special situations and venture capital, to real estate fund managers, direct hedge funds and funds of hedge funds, infrastructure and private debt.

MULTI-MANAGERS, COLLABORATION AND CLUB DEALS

The largest pension funds will often invest directly into private markets funds while smaller ones – as well as private banks and high net worth individuals - are more likely to outsource to multi-manager groups. The region has private funds of funds managers, such as Coeli Asset Management in Sweden, eQ Asset Management in Finland, Cubera Private Equity in Norway, and Saga Private Equity in Denmark, which are all seeking private equity funds, including growth and buyout funds.

Some investors are joining forces either to set up their own specialized asset managers, or to make larger investments. Danish pension funds, PKA and PenSam, set up joint venture, AIP, to invest in infrastructure, and have in 2020 been joined by Storebrand Asset Management of Norway. The trio

are investing into an energy transition fund that could manage up to EUR 4 billion. Five Danish allocators - Laegernes Pension Fund, P+, MP Pension, the Lars Larsen Group, and Novo Holdings - formed the Danish Investment Club, managed by Advantage Investment Partners, and have committed DKK 3.11 billion (USD 500 million) to ISQ Global Infrastructure Fund III.

Cooperation across borders has also been seen with Lærernes Pension and Pension Danmark of Denmark, joining KLP of Norway, to invest in Copenhagen Infrastructure New Markets Fund. KLP has also joined up with Sweden's Folksam to invest EUR 1.2 billion in Brunswick Real Estate Capital III, a senior debt fund that targets sustainable investments in commercial property in growth regions.

VENTURE CAPITAL

In the Nordics there is a strong appetite for alternatives right across the risk spectrum, and government sponsored funds are sometimes invested in more early stage, venture capital strategies, in the spirit of public/private partnerships.

The European Investment Fund (EIF) is Europe's largest investor in venture capital, but Nordic pension funds are also very big players making up 16% of European venture capital fundraising since 2013, according to "The state of European Tech" 2019 report by Atomico. This is quite impressive when the four Nordic countries' population of 27 million is only about 5% of the EU population of 445 million. Nordic pension funds have a far greater appetite for venture capital than do those in Germany, Austria and Switzerland. Sweden's AP6, which is dedicated to unlisted companies, has helped to seed VC funds such as Cerandum, and also makes direct coinvestments.

GREEN AND CLEAN

Green investments are naturally becoming an important theme for earlier stage funds. The Antler Nordic fund has just raised USD 36 million for its first venture capital fund, devoted to sustainable technology companies. The investors included Norwegian wealth manager Kistefos, as well as two government investors: the Danish state fund Vækstfonden, and the Norwegian state fund Investinor. Another Norwegian government body, Norfund, has committed to Openspace Ventures III, focused on B2B and B2C in South East Asia. Elsewhere in Denmark, The Danish Government's Green Future Fund has allocated to the 2150 Tech Sustainability Fund, which was co-founded by former Facebook executive, Christian Hernandez, and was incubated by Danish real estate company, NREP.

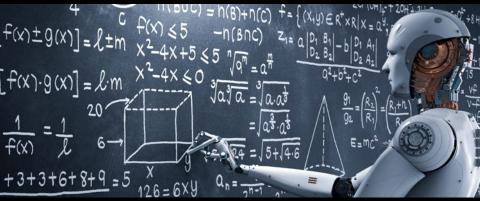
Nordic allocators want to be at the leading edge of technology in general and of course green and clean tech in particular – and they are investing across the range of alternatives, from infrastructure debt in renewable energy often with a low single digit return target to venture capital targeting returns above 20%.



(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

- 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.
- 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.
- 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.
- 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 recom-
- 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.
- 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

- 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.
- 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.

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

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

- 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
- 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

- 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.
- 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.
- 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.