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SPECIAL REPORT
“ALTERNATIVE FIXED INCOME”

Late Cycle Fixed Income Markets

Sampension’s Viewpoint on the Low-Return World

Icelandic Angle on Fixed Income Markets

SPECIAL REPORT 2019 "ALTERNATIVE FIXED INCOME"

Contents

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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 2020:

January:	2020 Vision
March:	Nordic HF Industry Report
June:	Real Assets
September:	Diversifying Portolios
October:	Systematic Strategies
November:	Alternative Fixed Income

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Editor´s Note...

A Feeding Frenzy on Yield

"A feeding frenzy broke out when last June when the Republic of Austria topped up its century bond to 4,8 billion euro."

No asset should be sleepier than the sovereign bonds of stable, rich and reliable countries. In exchange for holding "risk-free" debt, investors willingly accept lower returns. In real terms, American ten-year Treasury bonds for instance have returned just 1.9% a year since 1900. This compares with 6.4% for stocks. One bond, however, issued by one rich country has returned a whopping 75% since 2017.

The country is Austria, with a credit rating of AA+, according to Standard & Poor's, and the coupon on the bond was just 2.1%. The secret to its success is its unusually long term. Lenders will not get their principal back until 2117, 100 years from the date of issue

Surprisingly, a feeding frenzy broke out last June when the Republic of Austria topped up its century bond to 5.8 billion euro. The second tranche was issued at a princely premium of 154.047 euros per €100 face value, which produced a yield to maturity of 1.171% at the time. Bids from potential investors reached 11,4 billion euro, dealmakers said.

And maybe, nothing illustrates the desperate hunt for yield among high-quality global issues better than this Austrian 100-year bond. The debt was issued at just below "par" in 2017. But in the two years following it has more than doubled in worth to 210 at peak by late August (and came back down since then). Around that time in late August 2019, a staggering 17 trillion US Dollars in debt were being punished with negative yields for holding it. After this peak negative-yield-absurdity in August, bond prices fell – in what some refer to as the "bond bloodbath" – and the mountain of bonds with negative yields has plunged by $5 Trillion, or by 30%, despite rate cuts.

We are not moving in well treaded-terrain, but negative interest rates or very low interest rates also have a destructive impact on the real economy: They not only create asset bubbles, and all the risks that come with them, but also distort or eliminate the most important factor in economic decision making – the pricing of risk.

This ultralow – even negative - yielding environment creates headaches for the average Joe investor on his savings account and pension plan. But professional investors are also forced to rethink their strategy. Just a few years ago, this scenario was not in the game plan.

In its latest special report on alternative fixed income strategies, HedgeNordic is looking to identify how managers trading with various fixed income instruments are tackling what could well be a new regime.

We are revisiting Moma Advisors, who are on track for a vintage year with their Asgard funds, trying to understand the difference between sovereign and corporate EM debt, and getting more insights into Danske´s fixed income hedge funds. Formuepleje explains how they are living with negative rates on Danish mortgage bonds, while Sampension lets us in on their viewpoint on negative interest rates.

Arion Banki shares their views on the Icelandic alternative credit market and opportunities that they believe exist there, and Scandinavian Credit Fund explains the ESG angle of lending to SME while State Street Global Advisors is pointing out the sweetspot on the carbon reduction curve. The team at QQM makes the bold claim, equity market neutral may actually be the best fixed income strategy out there while UBS highlights the role of exchange traded funds in the fixed income space. There should be something for every taste bud in this report.

We hope you enjoy the read and take the opportunity of wishing you a very merry Christmas and great start to 2020.

KAMRAN GHALITSCHI

CEO & PUBLISHER HEDGENORDIC

LATE CYCLE FIXED INCOME MARKETS

Where to find Positive Yields and diversify risk exposures

By Hamlin Lovell – HedgeNordic

Investment grade and high yield debt have generally had a strong 2019, in large part due to lower interest rates, but going forward how much value remains?

IG and mortgages

Investment grade corporate credit yields are now the lowest since 1956, according to credit ratings agency, Moodys. Investment grade corporate credit, or Danish mortgage bonds, can have a very low positive yield or sometimes a small negative yield. For a reasonable positive yield, investors probably need to be in the lowest rated investment grade credits eg BBB+, or they might venture into the twilight zone of "crossover" bonds that are either only one notch away from the boundary between investment and speculative grade, or might have a "split rating": investment grade from one credit ratings agency and speculative grade from another one.

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A negative yield could still be interesting in two cases: where it is smaller than the negative interest rate paid on some bank accounts, or where it is still higher than the cost of funding for leveraged strategies, allowing for a positive spread to be extracted. But for investors who have access to bank accounts offering zero interest rates, and/or do not wish to use leverage, the c US$16 trillion of debt offering negative yields is not really investible.

High yield

High yield corporate credit in Europe still has a yield of around 3%, which is clearly more than inflation. Additional returns can come from rolling down an upward sloping yield curve, and corporate defaults could remain below historical averages as it has been easy for companies to refinance debt. Oaktree Capital argue that the growing size of Europe's high yield market allows for more effective diversification.

In the US, high yield might have a yield of 5.5%, though this will not be much higher than in Europe after hedging back to European or Nordic currencies. Asian corporate credit, which also has a large USD denominated market, offers a further spread over US corporate debt, and defaults have also been low recently.

Indeed, hard currency emerging market corporate debt in general – including in South America and Eastern Europe – could provide some extra yield, and companies such as quasi-sovereigns could sometimes be safer than the Government. This year, sovereign emerging market debt has underperformed corporate debt, in part due to Argentina's default. Ashmore Group's Head of Research, Jan Dehn, argues that emerging market corporates have lower leverage, and higher cash levels, than developed market companies, and are therefore lower risk.

Loans

Leveraged loans have underperformed bonds this year because loans are floating rate and do not benefit from the interest rate duration effect of fixed income. But going forward, if investors are worried about default risk, senior secured loans have the advantage of being at the top of the capital structure so recovery rates will typically be higher. Loomis Sayles are of the opinion that loans are well covered by the enterprise value of issuers, and that recovery rates should remain strong.

Investment grade corporate credit yields are now the lowest since 1956, according to credit ratings agency, Moodys.

Structured credit

When loans are packaged into a structure such as CLOs (collateralized loan obligations) they can offer extra yield, because the liabilities of the CLO can be funded at rates below the yields on its assets. Germany's Union Investment point out that structured credit offers attractive yield premiums over corporate, covered and government bonds.

CLOs also have the advantage that interest rates are often floored at zero, so even the highest rated, AAA CLO tranches still offer a positive yield while the equity tranche could still be generating returns of 15% a year or more, if managers' assumptions about defaults and recoveries prove to be correct. Meanwhile, mezzanine tranches might offer a higher income than high yield debt. Structured credit based on asset backed securities, such as mortgage bonds, seems to offer lower yields, but still some premium over investing directly into the underlying issues.

Distressed debt

Distressed debt in the US is one of the only areas of the market where yields have gone up this year as CCC and D rated paper has sold off. However, the concept of a yield does not really make a lot of sense for many distressed names, as a high proportion of them will default and not pay coupons. Value may need to be salvaged through restructuring exercises, debt for equity swaps, litigation and so on, all of which can take years. Therefore, any extra returns from distressed debt are partly a reward for longer holding periods, valuation uncertainties and sometimes also an illiquidity premium.

Direct lending

Another way to pick up an illiquidity premium is direct lending strategies, which may be lending against cashflows, or assets, or some mix of both. Direct lending may be one of the only areas where yields in Europe are as high - or even slightly higher - than in the more developed US market. This is because in many countries Europe's banks struggle to finance smaller companies for both "good" and "bad" reasons. In countries such as Italy the banks clearly have problems with bad debts and non-performing loans. Even in countries such as Sweden, where credit quality is generally good, the banks are hampered by both Basel and local regulations on capital adequacy which restrict their ability to lend.

Ares Management's white paper "Opportunities in Global Direct Lending" reveals that they are targeting returns on senior first lien loans of 6.5% to 7.25% in the US, and between 7% and 8% in Europe. Meanwhile for subordinated loans, the targets are 11 to 13% in the US, and 12 to 14% in Europe. Managers can sometimes profit even in cases of default, because they lend at a discount to collateral values. This strategy usually involves a multi-year investment period of between three and seven years.

Life settlements

Lending against US life insurance policies is another longer-term strategy, which could target returns broadly similar to those in direct lending – a range of between 8% and 12% is often mentioned. Careful due diligence needs to be done into medical histories and legal conditions, and there are managers who have generated consistent returns. This is a complex strategy that does not seem to have been affected by the general yield compression seen in most credit assets.

CAT bonds

Natural catastrophe bonds, and similar reinsurance contracts, have seen some yield increase over the past 18 months. However, this may be partly due to climate change increasing the risk of events such as California wildfires, US hurricanes, and Japanese typhoons. Higher sea temperatures are increasing the frequency of hurricanes and typhoons, while earthquakes are not thought to be impacted by climate change. Nonetheless, these events should not usually be correlated with financial market losses, so there could be a diversification benefit from investing in CAT bonds. GAM Star CAT bond co-manager, Brett Houghton, has argued that capital shortages are now increasing the yield to maturity on CAT bonds. He acknowledges the impact of climate change, but believes that higher yields are attractive going forward.

Investors need to think outside the box, and explore less obvious asset classes and strategies not only to access higher yields, but also to diversify their risk exposures.

A constructive outlook

A Vintage Year for the Asgard Fixed Income and Credit Funds

Morten Mathiesen, Daniel Perdersen and Birger Durhuus - Moma Advisors

By Hamlin Lovell – HedgeNordic

With the credit strategy up 26% and the fixed income strategy up close to 9%, 2019 has been another strong year for the Asgard funds. "The funds, which are fully hedged against outright movements in interest rates, have not benefitted directly from falling interest rates this year, but they have benefitted from the benign behavior of the targeted risk premia during the period", says Moma Advisors CEO, Birger Durhuus.

"The Asgard Credit Fund, which targets risk premia in the credit space, got a tailwind early in the year from the relaxation of the spread widening which happened in late 2018 and hit US investment grade disproportionately hard. For the remaining part of 2019, when credit spreads have been rangebound, the fund has benefitted from the high inherent alpha in its core strategy in the form of high credit spread carry in a year with low default rates. The spectacular 26% return is impressive and must in part be attributed to the successful active management of the fund, as the return of comparable passive strategies with similar risk profiles have only yielded around 18%", says Asgard Credit portfolio manager, Daniel Vesterbaek Pedersen.

"The Asgard Fixed Income strategy has had a solid if less spectacular year with a return around 9%. The fund, which targets risk premia in Nordic mortgage bonds, cross-currency and related fixed income markets, has not had a significant head or tail wind in the form widening or contracting spreads this year, but it has benefitted from the carry and roll which results from the risk premia in the carefully selected positions in the portfolios. The strategy is also one of the few direct beneficiaries from the current ultralow interest rate environment. This may seem contractionary, but since the fund operates a leveraged portfolio of the safest bonds, it benefits from the sub-LIBOR financing in secured lending rates", says Durhuus.

Although the fixed income strategy and credit strategies operate in different markets and geographical jurisdictions, the funds follow a common philosophy – i.e. to pursue and isolate the risk premia which offers the highest reward-to-risk ratio. "The active management of the funds seeks to maximize the ex-ante information ratio within the respective risk mandates. The continuous optimization – in effect buying cheap and selling expensive – will over time mean that mean-reversion of the various risk premia available to the funds contributes to the long run return. This is evidenced in the 2019 returns, which exceeded comparable passive and sub-optimal strategies", says Durhuus.

"The credit fund returns in 2019 have been exceptional, and partly represent a recovery from a drawdown in late 2018. Over the credit cycle, the base case return target is around 7% annualized, and this is also the expectation for 2020", he adds.

"The credit fund returns in 2019 have been exceptional, and partly represent a recovery from a drawdown in late 2018."

The returns in Nordic fixed income markets have been mixed in 2019. In both Denmark and Sweden, investors are facing the challenges of negative yields leading some unleveraged long only bond funds to have a negative yield, and regulators questioning whether it is appropriate for clients to invest in them. A low and negative interest rate environment is clearly challenging for some strategies, but less so for Moma Advisors. "Our funds are a natural place to look, as our expected returns are not dependent on absolute levels in interest rates, and in some cases, we even benefit from the low borrowing costs. This means healthy liquidity and overall support for credit and asset swap spreads in the fixed income markets", says Durhuus.

"For the fixed income strategy, we also see some bond segments cheapen up on a relative basis, as long only investors shy away from bonds that are delivering negative rates. But for us these bonds may still be attractive due to low financing and hedging costs", he adds. A typical breakdown of returns could include carry of 0.25%, rolldown of 0.25%, and relative value of another 0.25%, before leverage, which then multiplies these up to a high single digit expected return. The credit fund is using leverage of around 4 times. The fixed income strategy moves leverage around partly based on the maturity of holdings, applying less leverage to longer dated papers.

The strong performance has not gone unnoticed among the global investor community, as there has been a marked increase in the interest in the funds managed by Moma Advisors. "Historically our investor base has been solely institutional investors, primarily large Scandinavian pension funds, but this year we have seen a surge in requests from family offices around the globe", says Durhuus. Investors come from regions such as Southern Europe, Switzerland and the UK. Further afield, there have been requests from Singapore, Hong Kong and Japan. Moma has some exclusive agreements with a handful of third-party marketers. Typical ticket sizes from this investor segment are US$1-5 million, and are invested in either EUR or USD share classes.

The credit cycle

Some managers have spent years arguing that credit markets are late in the cycle, and been proven wrong. Pedersen has been constructive on corporate credit for some years and he remains so: "the end of the credit cycle is still a few years away. Historically, default rates spike when nominal economic growth slows and the last three years have seen some pickup in nominal growth. US nominal growth slowed between 2010 and 2016, before speeding up between 2017 and 2019". He is upbeat on US economic growth: "we expect the United States Mexico Canada Agreement (USMCA) to be completed in early 2020. Together with the regulatory reforms of 2017 we see these two important events as being catalysts for a continuation of the increase in employment rate among the prime age group (25-54Y) in US".

> "Our funds are a natural place to look, as our expected returns are not dependent on absolute levels in interest rates, and in some cases, we even benefit from the low borrowing costs."

Growth rates do vary between regions. "Europe, and Germany especially, have been challenged by having a higher proportion of manufacturing in their economies: 20% in Germany against 11% in the US. But Europe has now bottomed out and we expect better nominal growth in 2020", he adds.

While corporate debt to GDP is at quite elevated levels, Pedersen finds this is not a consistent measure over time because companies have grown their international revenues. He therefore prefers to look at net debt to EBITDA, which averages about 3 times. "This is about 0.5 times higher than it was in 2013 but there has been no increase in the median leverage since 2015. Debt servicing costs are manageable for most companies. Focusing specifically on the US corporate BBB segment, leverage went from 2.3x to about 3.4x during the energy crisis in 2013-2015. As of Q2 2019, US Corporate BBB leverage is at approximately 2.5x using fundamentally the same accounting standards. Accounting standards were changed as of end of 2018 (related to operating leases). Using the new accounting standards US Corporate BBB leverage is at approximately 3.0x as of Q2 2019. In reality therefore US corporates have reduced leverage slightly since 2015. In Europe, BBB Corporates have also been deleveraging since 2015, for example from 2.3x in 2015 to about 2.0x as of Q2 2019", he says. There is some controversy around EBITDA adjustments but Pedersen uses the traditional EBITDA measure rather than corporates' adjusted figures.

Sectors and companies

Crossover credits remain the sweet spot in terms of credit spread, with around 70% of the book investment grade and 30% high yield. The vast majority of the high yield book is in companies with a 'BB' rating, though some single 'B' names that are deleveraging are also held. The CCC and D rated names that have sold off this year are generally avoided. The priority is to find companies with stable cash flows.

"We see credit spreads overall fairly priced within High Yield issuers trading just below 400bp in spread (unchanged since the end of 2016) and investment grade just above 100bp. US corporate credit spreads are at fair levels overall. However, we urge caution on some autos, oil and gas services, and the lower end of retailers. Auto makers are trading tight but need to spend a lot on capex. Natural gas and oil producers are performing well with higher production levels and stable output prices, but in services there have been several filings for Chapter 11". Whether it is worth actually shorting them depends on how wide spreads are. Pedersen judges that, "oil and gas service providers would not be worthwhile shorts because spreads are already pricing in probable defaults. But car rental companies are under pressure from multiple angles: ride sharing, Airbnb for cars, and other new business models, yet they trade around 300 basis points, which is tighter than the market average".

"In other sub-sectors of autos, such as parts and equipment, it is possible to earn as much as 500, 600 or 700 basis points from BB or B+ rated names. The higher quality names such as Faurecia, which might soon be upgraded to Investment Grade, is trading around +230bp. These firms can have a more stable top line than auto makers and can be very diversified in terms of customer base, without too much dependency on ICE cars", he adds.

Liquidity and capacity

Liquidity in CDS markets is adequate for the typical position sizes of $1-3 million per name, and the CDS markets can be more liquid than cash bond markets. Repo liquidity in the Nordic countries has also been fine, and Moma does not use the US repo markets that saw a spike in overnight rates in September. Repoes are used for the fixed income strategy, in the same currency as the holdings of covered bonds.

Capacity remains in both strategies. The credit fund has AuM of around EUR 140 million and has no specific capacity limits. The fixed income strategy runs EUR 700 million and could go up to EUR 1 billion. Moma keeps an open mind about launching a third strategy at some stage if the right managers can be found.

www.hedgenordic.com - December 2019
HEDGENORDIC

Understanding the Differences Between Corporate and Sovereign Emerging Market Debt

By Alejandro Arevalo
Fund Manager, Fixed Income
Jupiter Asset Management

Alejandro Arevalo, fund manager in Jupiter's emerging market debt team, explains why an understanding of the key differences between corporate and sovereign emerging market debt can help investors better position their portfolios, and with lower volatility.

Emerging market debt is a tricky asset class to navigate because its sub-asset classes have very different characteristics. Two of the most important sub-asset classes of emerging market debt are corporate debt and government debt denominated in hard currency. Understanding the differences between them can help investors better position their portfolios and with lower volatility.

INDEX DIFFERENTIALS ARE KEY

The indices representing emerging market ("EM") corporate and sovereign bonds have some key differences which makes a direct comparison between the indices of limited use. The sovereign bond index has a higher overall duration and a lower overall rating than the corporate bond index. This tends to mean that the corporate bond index is less volatile. Moreover, the regional allocation for the sovereign and corporate bond indices is also different due to the index inclusion rules. The sovereign bond index tends to have a bias towards developing countries whereas the corporate bond index also includes countries which one wouldn't usually refer to as "emerging market" e.g. Singapore. Because of such differences the sovereign bond index has a higher spread than the corporate bond index as it does not compare like for like. *(See graph on next page)*

While the differences between the corporate and sovereign emerging market bond indices might seem technical and mundane, they have significant impacts on risk management. Below are some of the key points to consider when choosing to allocate between corporate and sovereign emerging market debt:

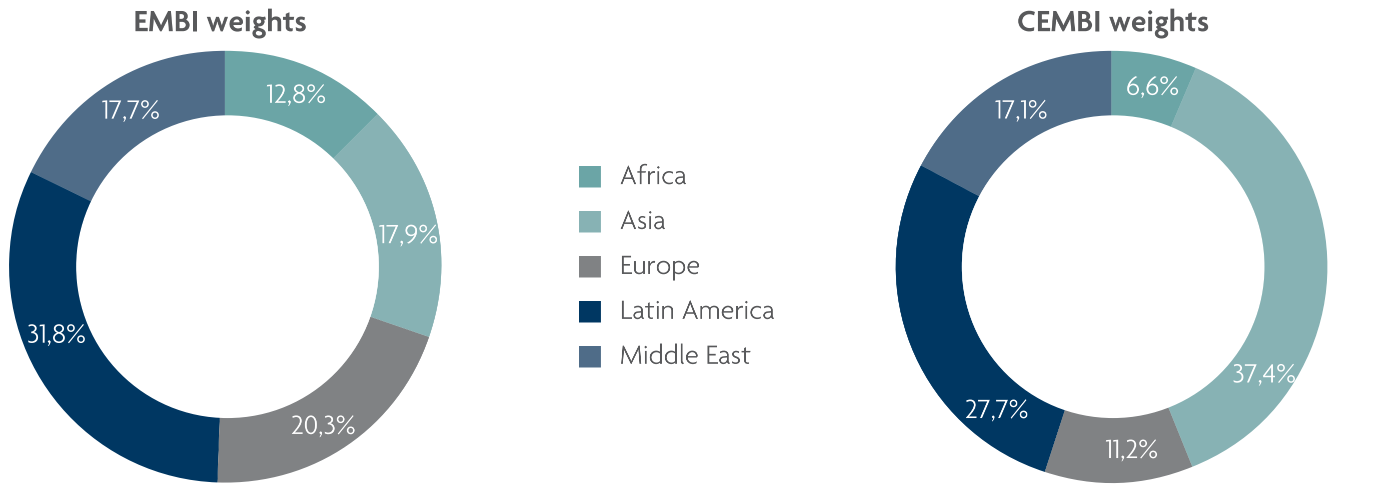
- The corporate bond hard currency investable universe is about $2.3tn compared with $1.1tn for sovereign. While the total liquidity is higher for corporates, the investable universe is split into about 700 issuers compared with about 80 for the sovereign bond universe. Each position size in the corporate portfolio, therefore, tends to be smaller.

- The corporate bond universe allows room for better diversification because of the variation in sectors. For example, it is easier to express a bullish or bearish view on the global economy by being invested in cyclical or non-cyclical sectors respectively. Corporates also tend to have higher variation in ratings which offers more flexibility in investment. Therefore, the volatility of the corporate bond portfolio can be lower.

- Corporates typically offer a higher spread to sovereigns. You can therefore lock in higher yield to maturity. Credit risk also tends to be higher for corporates, but this is something that can be analysed through detailed credit research to find attractive opportunities.

- The factors analysed while investing in corporates also tend to different. Through a bottom-up credit analysis of the financial statements of the companies, one's expectations can be formed on the future liquidity of the company. For government creditworthiness, on the other hand, one must analyse the top-down factors to assess liquidity. However, government creditworthiness is also heavily influenced by politics which often takes unexpected turns.

	EMBI Global Diversified	CEMBI Broad Diversified
Duration	7,5	4,4
Rating	Ba1/BB+/BB+	Baa3/BBB-/BBB-
Index inclusion rule	GNI per capita must be below the Index Income Ceiling (IIC) for 3 consecutive years OR Index PPP ratio is below the EM threshold for 3 consecutive years	Based on region: Countries from Asia ex Japan, Latin America, Eastern Europe, Middle East/Africa are eligible



Source: JP Morgan, as at 30.11.2019

EM CORPORATE BONDS OFFER BETTER RISK-ADJUSTED RETURNS THAN SOVEREIGNS, WITH LOWER VOLATILITY

On a like-for-like basis, corporate bonds almost always offer a higher spread over sovereign bonds. For example, Gazprom, the Russian oil and gas producer is one the strongest credits in Russia and has a one notch higher rating according to Moody's. Despite having a higher rating, Gazprom's curve offers about 50bps higher yield than the Russian sovereign curve. There are some rare exceptions to this. For example, in Ukraine, MHP, a poultry producer, offers yield about 80bps tighter than the sovereign. Nevertheless, in most cases, by being invested in corporate emerging market bonds, an experienced investor can boost the return potential of the portfolio.

In terms of the long-term historical risk and return attributes, corporates have returned about 7.2% p.a. since 2002 compared with 8.7% p.a. for sovereigns during the same period. However, the volatility of the sovereign index is about 1.6x that of the corporates. Hence, the risk-adjusted return, or the Sharpe ratio, is much higher for the corporate bond index.[1]

CREDIT ANALYSIS IS KEY TO MANAGING CURRENCY RISK

Despite corporates having better risk-adjusted returns than sovereigns, currency risk is often cited as a reason to not invest in corporates issuing hard currency debt. While this might appear intuitive, digging a bit deeper into the details can provide quite a different picture. To analyse the real impact of EM currency depreciation it is important to first split corporates between international and domestic companies. Examples of international companies are oil and gas or metals and mining industries; in other words, any company which sells its goods and services primarily in US dollars. For such companies, EM currency depreciation is positive because their revenue remains unchanged whereas their cost component, which tends to be in local currency, goes down when measured in US dollars. As a result, currency depreciation can result in deleveraging.

For the domestic companies, or any company which sells primarily in their local currency and has costs in local currency, these typically tend to leverage up when there is currency depreciation. However, the impact of this is usually short term. In the long run, these companies can pass on the impact of currency depreciation onto the consumer through inflation.

By analysing the credit fundamentals of corporates, one can manage currency risk effectively. Moreover, corporates issuing in hard currency typically tend to have low mismatch in currency (difference in currency breakdown of revenue and debt) or have underlying long US dollar exposure e.g. the oil and gas and metals and mining companies mentioned earlier. Consequently, despite EM currency depreciation corporate debt returns have been resilient. Between July 2011 and January 2016 (a period of sharp EM currency depreciation), EM currency depreciated 40%, while the EM corporate bond index was up 22%.[2]

IN CONCLUSION

To conclude, EM hard currency corporate debt is a larger investable universe offering greater diversification and higher yield relative to EM sovereign debt. By analysing corporate credit fundamentals, the currency risk can be managed effectively: EM corporate bonds have historically outperformed the sovereign bond index on risk-adjusted return, mainly due to their lower volatility.

[1] Source: Bloomberg, 2002- end of July 2019, JP Morgan and Bloomberg indices.

[2] Source: JP Morgan Corporates: CEMBI Broad Diversified; Sovereigns: EMBIGLOBAL Diversified; EM currencies: EMCI Index.

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Danske's Fixed Income Hedge Fund Strategies

Going Global With Fixed Income Arbitrage

By Hamlin Lovell – HedgeNordic

> "...we never expected to see negative 30 year swap rates, but the market volatility in August has contributed to some new trades..."

For the past five years, Michael Petry, Head of Hedge Funds at Danske Bank Asset Management, has started each year with a rather cautious outlook that it will not be easy to generate returns, and that market conditions have probably made it more difficult. Returns in 2018 were well below the long-term average, but have bounced back in 2019. Petry's teams keep an open mind about spontaneously adapting to new opportunities and market conditions.

They run market neutral strategies, which are rarely expressing a view on the direction of a single interest rate, but are more likely to be trading the relative value between two or more fixed and floating interest rates, within or between government bond, mortgage bond, swap and repo markets. For instance, "we never expected to see negative 30 year swap rates, but the market volatility in August have contributed to some new trades", he says. "This discretionary investment process has worked consistently: the flagship fixed income hedge fund strategy (Danske Invest PCC Ltd Hedge Fixed Income Strategies) that launched in 2005 has generated positive returns every calendar year (except in 2008, where we had a

Michael Petry
Head of Hedge Funds
Danske Bank Asset Management

Gabrielle Hagman,
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negative return), and is up c 6,75% in 2019 to November", he adds. It received the 2018 EuroHedge performance awards for long term performance over 10 years, in the macro, fixed income and relative value category for an annualized return of 17,8% in the period 2009-2018 (415% in total).

This fund is not exclusively Nordic in focus but has generated most of its 2019 returns close to home from positions in Danish, Swedish and Norwegian Government bonds, mortgage bonds and interest rate swaps (in those 3 currencies). "Interest rate and currency risks are hedged, and the return has come from for example interest rate spreads between government bonds and the swap curve, . The changes in Swedish interest rates from the Riksbank this year have not impacted the spreads. Very little exposure now remains as profits have been taken", says Petry. Though yields on Danish non-callable mortgage bonds are now negative - at around minus 25 to minus 70 basis points – borrowing costs via repoes are even lower, so it is still possible to extract some positive carry through leveraged trades.

Callable bonds in Denmark can still produce a positive yield without using leverage, but this yield is partly a compensation for borrowers' prepayment optionality, which makes the duration of the bonds variable. "This duration extension and contraction risk has been very difficult to hedge this year, due to interest rate volatility. We have had very little exposure, but have made a small profit on callables", says Petry.

The Danske strategy has also profited from interest rate curve trades at various maturities, including some outside the Nordic region. "Short term curve trades have taken leveraged positions in the DKK and EUR interest rate swap markets. Longer term trades have included one which went short of 30-year swap rates in EUR with forward start vs 30-year swap rates with forward start in US at a spread of 160 basis points. The trade was closed at a spread 25 basis points better", says Petry.

Cross currency basis trades involving USD, GBP and EUR have also been a fruitful way to exploit an inefficiency that contradicts academic textbooks. In theory, the cost of hedging between currencies should be very close to the interest rate differential, in order to eliminate arbitrage opportunities. In practice, flow imbalances regularly cause dislocations which result in divergences from interest rate parity. "Markets eventually normalize, so there is a window of opportunity to take advantage of dislocations. We monitor flows by keeping an eye on issuance and hedging activity from major players such as KfW in Germany and the European Investment Bank in Luxembourg", says Petry.

The Danske Invest PCC Ltd Hedge Fixed Income Relative Value strategy is run by the same team and has some degree of overlap with the flagship strategy, but is not involved in the same degree in Scandinavian mortgage bond trades (which are less scalable), and tends to have more exposure to European government bonds, such as opportunistic trades in UK, French, Dutch and Italian government bonds.

Both of these strategies are soft closed, at assets of around DKK 8 billion and DKK 4 billion, respectively, and Petry takes some pride in maintaining conservative capacity targets. He is of the opinion that some hedge fund managers raise too much money, but has been able to identify more available capacity for a global strategy: Danske Invest SICAV – SIF Fixed Income Global Value, which launched last year. It has assets of almost c EUR 600 million and another EUR 400 million of spare capacity before it reaches EUR 1 billion capacity target.

This strategy is run by a different team, led by Anders Moller Lumholtz, who was previously Head of the Rates Strategy at Danske Markets. It it has a risk budget at the same level as Fixed Income Relative Value, but 50% higher than Fixed Income Strategies. On a risk-adjusted basis, returns of 11% in 2019 are pretty similar to the others. The new fund has already been shortlisted for the Eurohedge award 2019 and has already won the HFM award for 2019 for new fixed income hedge funds.

"The fund was launched partly in response to strong demand from Swedish institutional investors who could not allocate enough capital to the other fixed income strategies. Currently it has institutional investors from primarily Sweden, Denmark and Finland, but is also sold to to retail investors in Denmark. The fund is still waiting for an approval from Swedish FSA for retail clients in Sweden. Some of Danske's other hedge fund strategies are invested in by private wealth firms", says Gabrielle Hagman, Head of Institutional Clients and Fund Distribution, who is based in Stockholm. Most of Danske's hedge fund assets come from investors in Scandinavia, and the firm generally seeks marketing permissions from individual regulators under the national private placement regimes. "We would love to do a UCITS to make marketing easier, and have spent a lot of time looking into it, but it is just not possible for our investment strategy", says Petry. Two of the funds are Guernsey-domiciled AIFs and the global fund is a Luxembourg-domiciled AIF.

All three strategies have a management fee below 1% and a performance fee of 20% (above risk free rate and with high watermark).

Going forward, Petry remains circumspect in his outlook, but his teams will continue to look for dislocations and inefficiencies in a wide variety of fixed income markets globally in their search for trade ideas to generate alpha.

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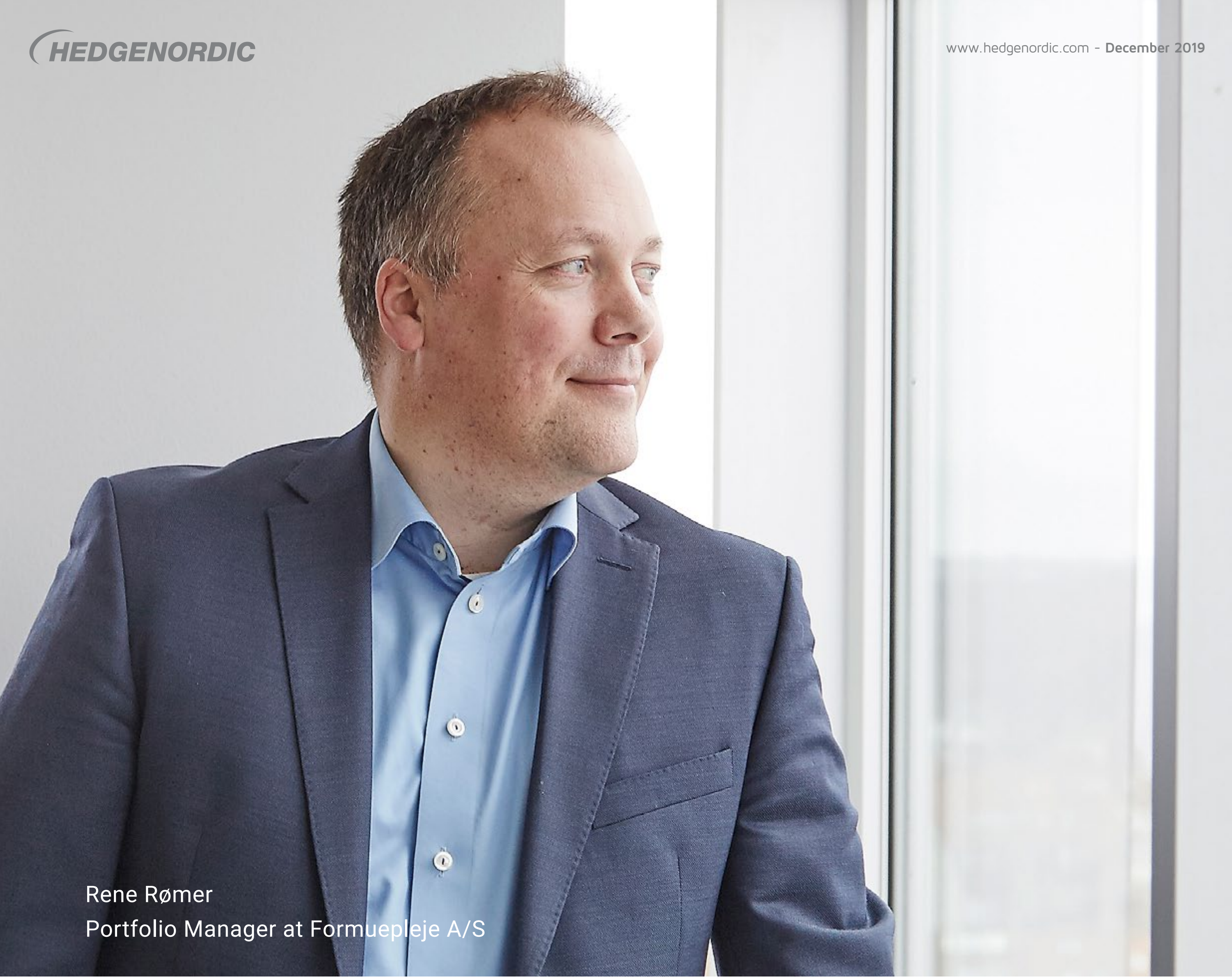

Rene Rømer
Portfolio Manager at Formuepleje A/S

Søren Astrup
Direktør, Partner at Formuepleje A/S

Living with Negative Rates on Danish Mortgages

Reduced Return Expectations

By Hamlin Lovell – HedgeNordic

> "Though the ECB is not actually buying Danish Krone bonds, they are viewed as a very close substitute for Euro-denominated bonds, so there is a ripple effect."

Some Danish individuals can now get a mortgage at a negative rate, and this could still be profitable for local Danish banks, which can fund themselves at interest rates that are even lower. The same logic applies to a number of leveraged investors.

"Danish bullet mortgages now have a yield curve ranging from minus 65 basis points at one year to plus 10 basis points at ten year maturities, while convertible mortgages – with prepayment risk – might only pay 0.50% to 1% even at the most common thirty year maturity", says Formuepleje portfolio manager, Rene Rømer. These rates have come down by at least 70 to 80 basis points over the past year. But Formuepleje's cost of leverage has now also come down well below minus 0.5% from minus 0.40% a year ago.

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"This is partly because covered bonds have a preferential treatment under LCR Basel III rules, which classify Danish covered mortgage bonds as 1b. This low borrowing cost is specific to the asset class. It is worth noting that corporate bonds could cost a lot more to finance, with costs varying with issuers, ratings, and liquidity profiles, because banks cannot use them in their regulatory framework. Equity collateral also has a positive cost of leverage, of around 0.25%", says Formuepleje director, Søren Astrup.

Is the cost of repoes fixed however? In the US in September 2019, overnight repo rates jumped as high as 10%. "This is not at all likely to happen in Denmark, because the banks can easily repo unlimited amounts with the Danish central bank", says Rømer.

So, the gap between Formuepleje's borrowing cost and its income on bonds is about 0.50%. With four times leverage, Formuepleje is able to generate a steady state spread income of around 2%, before its own management fees are charged. Most of the income comes from the callable bonds.

Returns this year have been low, but positive. Formuepleje, which marked its 30th anniversary in 2018, is distinguished from other leveraged Danish mortgage strategies because its leveraged strategy has more interest rate risk, and less prepayment/option/conversion risk. The strategy has a reasonably high correlation, averaging around 0.60, with Danish government bonds. Some other managers' strategies that emphasise prepayment risk (and may use more leverage) have been wrong footed this year by a jump in prepayments as Danes take advantage of lower and negative rates to refinance their mortgages. Formuepleje seeks to reduce prepayment risk by carefully selecting bonds where they expect a lower risk of prepayment.

In contrast to other mortgage managers who seek to minimize their interest rate risk, Formuepleje is rather like a macro or bond manager, in taking active views on yield curve trades, anticipating higher or lower interest rates at different points of the curve, which could generate either profits or losses. In late 2019, Formuepleje effectively has a "curve steepener" trade on.

They could profit from lower rates at the short end and higher rates at the long end. But even positive scenarios for both of these bets might only increase returns to 5% this year, before fees. The strategy historically generated

> "It is now almost impossible for long only Danish government and/or mortgage funds to generate a positive return."

average low double digit returns partly because wider absolute spreads, and a larger gap between income and borrowing cost, generated more income. The strategy has also clearly benefitted from the long bull market in fixed income.

Yield Curve bets

Formuepleje does feel confident in taking some meaningful positions in interest rates term structures. It is long of interest rate risk up to around 7 years, and short between 8 and 30 years. "We see scope for rates to come down at the short end, because Eurozone economic data – especially from Germany – has been deteriorating", says Rømer.

Moreover, the latest round of QE has an indirect impact on Danish bonds. "Though the ECB is not actually buying Danish Krone bonds, they are viewed as a very close substitute for Euro-denominated bonds, so there is a ripple effect", says Astrup.

Conversely, the manager expects longer term rates could rise, for two main reasons. "An easing of the trade war could generally improve risk appetite", says Rømer.

And there is some ambiguity over the outlook for QE, because it is clear that the ECB does not have a consensus for renewed QE and asset purchases.

The German, Austrian, French, Dutch, Solvenian and Estonian central bank representatives have publicly spoken out against the latest QE program, and it emerged in October that the ECB's monetary policy committee had also advised against resuming QE (this confidential advice was leaked to the media, and reported in the Financial Times).

Broader opinion is turning against negative rates. "Financial repression" clearly causes problems for Europe's banks, and increases liabilities for pension funds and insurers. This means that some pension funds are in deficit, and some insurers could be at risk of breaching their solvency requirements; for instance, in Denmark, Qudos Insurance A/S and Alpha Insurance A/S were declared bankrupt in 2018.

And in July 2019 ECB President, Mario Draghi, has made it clear that the inflation target of 2% is not a ceiling but rather an average target that allows for symmetrical deviation in either direction, so that inflation should average at 2% over a full cycle. This implies that the many years of inflation below 2% should, in future, be mirrored by a multi-year period when inflation exceeds 2%. At some stage, investors in long dated bonds must surely pause for thought and decide that they cannot tolerate their purchasing power being eaten up by inflation. There must be some limit on the level of negative real interest rate that investors will accept.

The Future of Long Only Fixed Income Funds in Denmark?

"It is now almost impossible for long only Danish government and/or mortgage funds to generate a positive return. Since 2015, we have stopped offering an unleveraged strategy that is purely invested in Danish mortgage or government bonds. We have added assets such as investment grade corporate bonds to portfolios to maintain positive returns. It does not make sense if we cannot offer investors a positive return when they have zero as an alternative", says Astrup.

"But the game changer now is that banks are now charging retail customers negative interest on bank deposits. If the alternative is a return of minus 75 basis points, then perhaps a pure Danish mortgage or government strategy could make a comeback", Rømer speculates.

Ultimately, market forces can make this decision. If investors are happy with a small negative yield, they can remain invested in long only funds.

Formuepleje is the largest privately held asset manager in Denmark. Founded in 1986 Formuepleje today has more than 10 billion EUR under management in various UCITS-funds and hedgefunds. Domiciled in Aarhus with a strong presence in the Copenhagen area Formueplejes 97 employees offer investment solutions for retail, family office and institutional clients.

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Henrik Olejasz Larsen, CIO - Sampension

Sampension's Viewpoint on the Low-Return World

By Eugeniu Guzun – HedgeNordic

A once-unthinkable environment of ultra-low and negative interest rates and historically expensive equity markets has been forcing pension funds to search for other opportunities to earn decent returns to meet future obligations. As Henrik Olejasz Larsen, Chief Investment Officer at Danish pension provider Sampension, explains, "the low interest rates challenges both the pension product design, the prudent level of risks taken and the asset allocation."

How does Sampension, Denmark's largest labour-market pension fund, respond to the low-return environment? According to Larsen, "an optimal exploitation of the risk budget today means a higher allocation to assets that are very capital intensive for a bank to hold, and a smaller allocation to assets purchased by central banks in their QE-programmes." Because of the low-return environment, "the traditional asset allocation is no longer optimal," according to Larsen. "Both relative expected returns and correlations have changed."

Sampension's Largest Exposures: Bonds and Stocks

More than half of Sampension's net investment assets are allocated to low-risk bonds, whereas equities account for under 20 percent of the portfolio. As most fixed-income investments pose the risk of leaving savers with low pensions, Sampension "are increasing the exposure to less liquid and more complicated credit, especially in segments with low credit risks," explains Larsen. These investments include AAA-rated collateralized loan obligations (CLOs) debt tranches, co-lending with senior real estate loan funds, other senior loan funds or fund finance. The re-allocation from low-risk bonds to less liquid and more complicated credit investments represents "a resource-intensive effort, and thus the change in the portfolio is very gradual."

As equity markets across the globe appear expensive on many measures, the return outlook from equities over the next decade might be sobering investors and prompting them to look outside of traditional asset classes. "We do find equity markets expensive from both a long-term perspective and in light of the mature stage of the business cycle," agrees Larsen. Yet, "equities are likely to be supported by low interest rates for some time yet," he argues. "We are not underweight." Instead, Sampension "will strategically increase the benchmark allocation to equities as we are gradually adapting to a later retirement age for our members."

"The low interest rates challenges both the pension product design, the prudent level of risks taken and the asset allocation."

“Alternative assets represent a very diverse set of instruments that can serve many purposes in a portfolio.”

The Alternatives Bucket

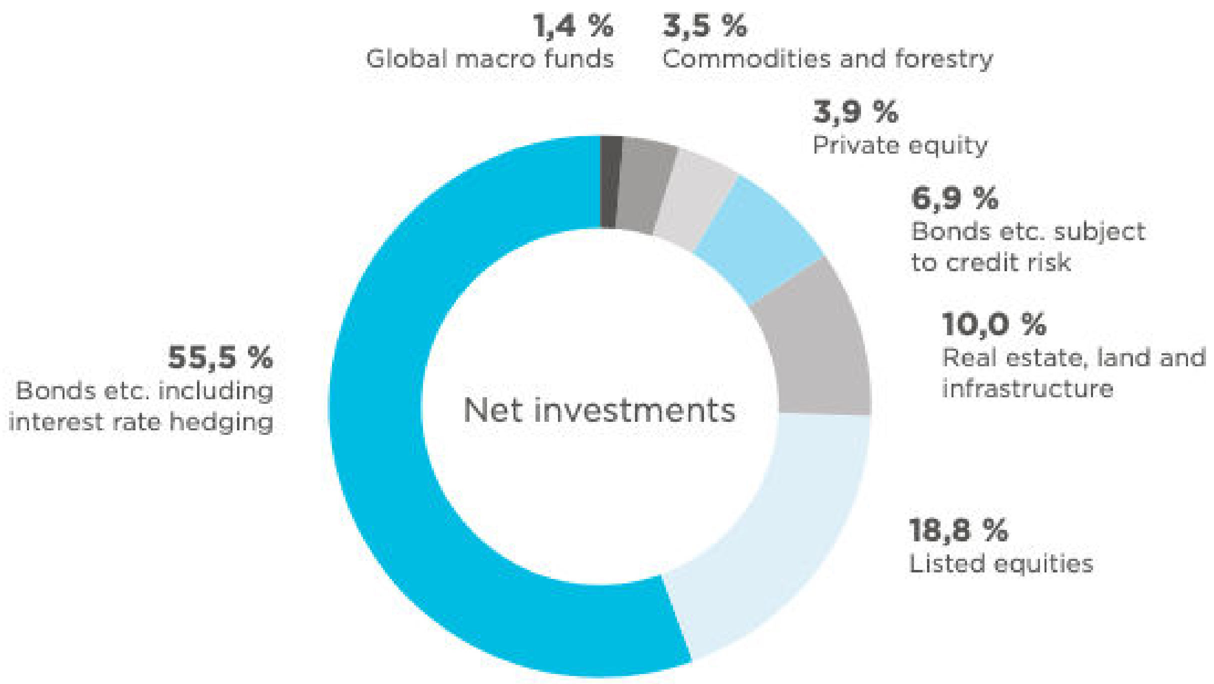
With an expected bleak decade ahead for both stock and bond returns, many pension funds and other institutional investors are shifting out traditional equity and bond investments into alternative asset classes such as real estate, infrastructure, private equity, hedge funds, among others. “Alternatives will play a larger role in our portfolio,” reckons Larsen, who adds that “this is a result of many structural tendencies.” First, Sampension’s “internal ability to source, evaluate, monitor and develop alternative investments has increased.” Second, the supply of alternative assets has increased, whereas the number of listed companies has declined and banks have been pulling back on lending. Third, efficiency and quality have increased in the alternatives space, according to Larsen.

“Alternative assets represent a very diverse set of instruments that can serve many purposes in a portfolio,” argues the CIO of Sampension. “This set of assets gives access to risk premia that are not perfectly correlated to returns on traditional assets, and thus offer a diversification benefit.” Some alternative investments also provide better protection against inflation than listed equities, for example, argues Larsen. The exposure to alternatives, however, “comes at a price of higher complexity, higher costs and lower liquidity,” he acknowledges. “But in this respect, a large investor like Sampension will have a comparative advantage.”

However, Larsen argues that “plain vanilla alternatives are also currently very expensive.” For that reason, Sampension is increasingly looking to engage in early development projects in real estate or renewables, for instance. “The risks here are higher compared with assets that are in place, but so are the rewards,” argues Larsen. “We are a good owner of this type of risk, as we can choose to hold onto the asset when it is fully developed.”

Internal Versus External Investment Management

As alternative investments are more complex than traditional ones and are thereby associated with higher costs, Sampension is expanding their internal resources to make more investments internally in an attempt to reduce total investment costs. Sampension relies on both internal and external management of alternatives, as well as some models with mixed elements. Sampension can make a



Breakdown of net investments as of the end of 2018. Source: Sampension’s 2018 annual report.

direct real estate investment “that is concentrated in our home market where we internally can source, monitor and manage the assets and take advantage of the lower costs of internal management,” according to the CIO. As for assets outside Denmark, Sampension “will use external management to take advantage of the supply of skills, sourcing, among others,” explains Larsen.

When externalizing investment management, Sampension “will go for higher risks to justify the higher investment costs, but we will put emphasis on diversification.” As Larsen explains, “for low-risk alternatives, diversification is not as important as with assets with high risk.” For external management, Sampension is increasingly making use of segregated mandates or “fund-of-one” structures, where Sampension “plays a role in the design and strategy of the structure, but leaves day-to-date investment decisions to the external manager.”

Within alternative investments, in-house management is not as widespread as in the traditional investment space. As Larsen explains, “it is a time-consuming process to build both the necessary internal team and the portfolio itself, which limits the growth rate of the alternatives portfolio.” Another challenge associated with investing in alternatives is the possible risk of overcrowding. “Currently the interest in alternative assets, especially in low-risk real estate and renewable energy, is very substantial relative to the supply of relevant projects,” acknowledges Larsen. This represents “a reason to move ahead with some caution.”

With an increasing share of pension money moving to unguaranteed products with more risk capacity over the last decade and the very low interest rates, “we expect the share of equities and alternatives at the aggregate portfolio level to increase for many years to come,” concludes Larsen.

www.hedgenordic.com - December 2019 HEDGENORDIC

ALTERNATIVE FIXED INCOME MARKET – ICELAND

By Pirkko Juntunen – HedgeNordic

In the past couple of decades and since the Global Financial Crisis, Iceland has featured in more news than it probably did in the entire century before; for good and bad. Lately the news is mainly positive with the country topping lists on best places to retire, equality and security to name a few. So perhaps alternative fixed-income opportunities should now be added to the list.

Arion Banki Institutional Asset Management spoke to HedgeNordic about their views on the Icelandic alternative credit market and opportunities that they believe exist there, both for them as home-grown investors and international ones. The asset management arm runs, among other institutional clients, the daily operations of Frjálsi, the fifth largest pension fund in Iceland, with assets of ISK238 billion as at end of 2018.

Hjörleifur Waagfjörd, head of Institutional Asset Management at Arion Banki, said fixed income investments since the first few years after the economic crisis have shifted from government bonds to alternative credit.

Ólafur Örn Jónsson, senior portfolio manager, said: "Historically government bonds have made up the largest part of pension fund fixed-income portfolios and their yields have been quite attractive. That has, however, changed in recent years and the funds have been focusing more on bonds bearing credit risk. The first non-government bond

Ólafur Örn Jónsson
Senior Portfolio Manager
Arion Banki

Hjörleifur Waagfjord
Head of Institutional Asset Management
Arion Banki

issues after the turmoil of 2008 were mainly asset-backed securities and covered-bonds because the pension funds' appetite for senior unsecured bonds was very limited after the crisis. Spreads have since widened especially for less liquid bonds, as yields on government bonds are now historically low."

In the last few years of low-rate environment the asset management department has begun looking at more illiquid credit such as direct loans, mortgages and investments in specialised real-estate credit funds in its search for higher yields. Bonds issued by the listed commercial real-estate companies have also provided attractive yields but with less liquidity than government bonds, he explained. "In real estate you have collateral and the credit spread between this sector and government bonds has widened, relatively speaking, with the lower government yield enabling us to capture sound credit-risk premium," he added.

"Domestic banks are not as keen on lending these days because of the capital requirements imposed. Therefore there seems to be a window of opportunity at the moment where other lenders can take this role," Jónsson said, adding that there are, however, some challenges since alternative credit generally has pre-payment risks and hence lower duration than government bonds.

Arion Institutional Asset Management has about ISK530 billion under management out of which approximately half is in fixed income. Out of that between 5% and 10% are invested internationally. Waagfjörd said investments internationally are increasing in general since the capital constraints were removed. The upper investment limit for international exposure is 50% but with currency hedging it can go over 50%.

At the end of 2018, Icelandic pension funds invested 28% of total assets internationally, according to the Icelandic Financial Services Authority, up from the lows of 20% when the capital controls were imposed. At end of 2018 the exposure was still short of the 30% allocation prior to the restrictions. Jónsson said that it is expected that pension fund investments internationally will likely rise to around 40% in the next 10 years. "In a few years, pension funds will outgrow the domestic supply which will likely result in more investments abroad," he noted.

Total Icelandic pension fund assets at the end of 2018 were over ISK4.44 trillion which represented 158% of GDP, one of the highest ratios in the world. Jónsson also explained that the role of bonds as a return-provider has fallen significantly. "Icelandic pension funds discount their liabilities at 3.5% real-rate return, whereas in reality the 10-year government bond yield is only 1%, resulting in actuarial losses for the investments of pension funds. This is expected to speed up the trend to search for yield domestically and internationally through various available instruments including alternative credit of some form.

"We are also looking at non-domestic private credit and bonds internationally but the nature of the risk profile is very different so I do not see this becoming a huge feature. In our domestic market we usually have the collateral when lending to real-estate projects whereas abroad we would in general not have the same type of collateral," he said.

Iceland has for a long time had higher interest rates than most of the developed world but has begun cutting rates. The question is whether government bonds will continue to be in favour among institutional investors or whether they will shift to more alternative credit.

International investors looking at countries such as Iceland for their alternative fixed-income needs, have to do their homework and those buying illiquid assets in general need a big balance sheet. In addition, they need to be aware of and able to conduct very different due diligence processes compared to that undertaken for government bonds.

Before 2015-2016 when the inflow limits where introduced there were international appetite for Icelandic fixed income but in order to stop speculation the government required international investors to put half of allocated capital in 0% deposits. Since then the restrictions have been removed but appetite from foreign investors remains muted. "Investors are not selling but they are not adding either," Jónsson said, adding that the downward traction of the interest rates might further discourage international investors.

The Icelandic bond market remains relatively shallow and the currency market slows international investors down as it is not easy to move large amounts of money, giving local players an advantage, he noted.

There may be a boost to international interest in investing in Iceland on its way with new legislation being readied in parliament for the spring 2020. While not focusing on alternative credit in its strictest sense, the Icelandic Minister of Transport has proposed legislation which would facilitate public private partnership (PPP) processes for infrastructure.

Financing transport infrastructure is at the core of the new legislation but other areas where capital is needed are energy generation and distribution, water sewage and waste systems as well as social infrastructure such as schools, prisons, elderly-care facilities and healthcare.

This is where institutional investors both domestic and international can step in. The long-term nature of infrastructure is also an excellent tool for pension funds wanting to match liabilities in an environment where investors are likely going to see rates stay lower for longer.

www.hedgenordic.com - December 2019 HEDGENORDIC

"...10,000 to 20,000 of Sweden's 250,000 SMEs could be potential candidates for borrowing between SEK 20 and SEK 400 million".

Peter Norman, CEO and Fredrik Sjöstrand, CIO - Scandinavian Credit Fund

ESG-Conscious Lending to Swedish SMEs

By Hamlin Lovell – HedgeNordic

The general trend in credit is clearly yield compression. Investment grade corporate credit in Europe now has yields near to zero, with some issuers borrowing at negative rates; defaults are very rare. Even more leveraged companies, funded in Europe's corporate bond marketsare borrowing at historically low rates with an average yield of around 3%, which is close to the historical default rate.

But smaller and medium sized enterprises (SME's), which may struggle to get funding from capital constrained banks, are often paying annualized interest rates of between 7% and 13%. And there can be substantial underwriting or other fees on top of this, where banks and brokers are involved. Direct lenders disintermediate the banks and so can be cheaper for borrowers, as well as offering competitive returns to investors. Scandinavian Credit Fund I AB (Kreditfonden) is one such lender. It has returned 6.64% in 2016, 8.13% 2017 and 7.02% 2018 which has helped it to win several HedgeNordic awards.

The Swedish Government is keen to encourage this activity: from March 2020, Sweden's AP state pension funds will be able to get involved in direct lending as well, as part of a broader increase in their allocations to illiquid credit.

www.hedgenordic.com - December 2019
HEDGENORDIC

Criteria

Kreditfonden lends mainly to private companies. Co-founder, CIO and Partner Fredrik Sjostrand, estimates that, "10,000 to 20,000 of Sweden's 250,000 SMEs could be potential candidates for borrowing between SEK 20 and SEK 400 million".

The fund currently has 85 loans as it is selective and quite labour intensive to carry out research and due diligence on borrowers. Being local lets Kreditfonden carry out site visits. "We reject 99% of email applications we receive for loans and we typically originate between two and four loans per month", he says.

"We only lend against asset-backed collateral", says Sjostrand, who has previously spent nearly 30 years working in portfolio management, trading, analysis, risk management and capital raising at Handelsbanken, Bear Stearns, Straumur Investment Bank, Carnegie and Swedbank in Sweden, England and Luxembourg. "I have looked at every kind of financial risk over my career, and now I am focused on credit risk", he says.

"Our loan to value ratios could range from 50-60% for limited companies, to 75% for commercial real estate and 90-95% for receivables. Whereas many issues of loans and bonds in the public markets are "covenant lite", we insist on tight covenants, which include leverage, interest rate coverage, LTV (loan to value) and ongoing financial reporting from borrowers", he says.

Though Kreditfonden is not lending against cashflows, does not want to lend more than 3 or 5 times companies' EBITDA (earnings before interest, tax, depreciation and amortization), which is often close to various cashflow measures. "We look at reports from Bloomberg, credit ratings agencies such as S&P, and we have also developed our own tools", he says.

Some of Kreditfonden's loans pay cash coupons, others are PIK (Payment In Kind) loans that accumulate interest until the maturity of the loan, and others have partly cash and partly PIK coupons. He admits that PIK loans have some equity risk, so loan to value ratios are likely to be tighter.

Kreditfonden is sometimes the only lender. It also aims to be the most senior lender, where there are other lenders. For instance, it has recently "entered into financing agreements worth a total of SEK 131 million in an industry and engineering company with subsidiaries with an annual turnover of approximately SEK 200 million. All of the loans are senior and secured in shares in group companies".

Non-Performing Loans

Sjostrand estimates that a small percentage of the fund is non-performing in October 2019, and the fund have god faith in returning both kapital and interest rates after enforcing the collateral. The fund has only had two credit losses over the past four years. One in 2017 that had a minor impact on NAV, and one in 2019 that had a larger impact on NAV 2019.

The loss stems from fraud of the borrower and the case is tried in court right now. That is why the collateral didn't fully cover the loan.

Otherwise lending at a discount to collateral values, allows the fund to recover the loan amount and even when borrowers default, says Sjostrand. For example one situation involved selling a private company, which took several months, and another will involve foreclosing on real estate. Some borrowers are asked to make personal guarantees on top of their corporate assets, so the fund may also have recourse to individuals' assets in cases where corporate assets have lost value and are not worth enough to repay loans.

ESG

Kreditfonden's ESG policy is based mainly on negative screening or exclusion. It does not invest in nine industry sectors: Cluster bombs, landmines, Chemical and biological weapons, Nuclear weapons, Alcohol,Tobacco, Pornography, Coal and oil, Uranium and Genetically modified organisms. The fund also avoids lending to "companies that are involved "in violations of international norms and conventions on the environment, human rights, working conditions and business ethics", the website says.

In common with most credit investors, Kreditfonden is not trying to engage with companies to change their behaviour in a positive way; its is more common for equity investors, who have voting rights, to do this type of "impact investing".

> "We only lend against asset-backed collateral."

Fund Structure

There is no secondary market for the Kreditfonden loans made, so they are "Level 3" assets, marked to a theoretical valuation model rather than being marked to market. IFRS accounting standards are applied by independent valuation agent KPMG and auditor PwC, and the accounting valuation does not perfectly match cashflows. Accounting valuations could be lower than cashflows where fees received up front are spread over the life of loans, or higher where PIK coupons are accrued before they are received.

Many direct lending funds have a private equity, closed end fund, style structure, often with capital drawn down as and when investments are found, and a three or five or seven year "lockup" meaning that investors cannot redeem before the end of the lockup. Kreditfonden is not a private equity fund: it very rarely takes equity stakes in borrowers, and is focused on credit risk. It is an open ended fund, and is unusual in offering monthly liquidity. As Kreditfonden's loans are for between three and 48 months, there is potential for some mismatch between the fund liquidity terms and the asset liquidity. Kreditfonden also has a borrowing facility, mainly used for investments..

Some lending funds offer the option of regular income distributions to investors, which will often transfer most or all of the interest received from borrowers. Kreditfonden does not, so anyone seeking to generate a regular income from the fund would need to redeem some of their units.

Investors generally subscribe to, and redeem from, the fund in the primary market. "The vehicle is listed on the Nordic Growth Market (because this is a requirement for marketing to retail investors in Sweden) but in practice liquidity is limited and anyone wishing to sell the fund on NGM would probably have to accept a discount", says Sjostrand.

The fund is denominated in SEK and is sold in Sweden, which contributes 95% of its c 7,000 investors, and Norway. The fund documents are only published in Swedish. Investors include insurance companies, smaller private companies and retail investors.

Assets are SEK 4.4 billion. "The capacity target was set at SEK 5 billion, but will probably soon be increased to SEK 6 billion", says Sjostrand.

Hitting the Sweet Spot on the Carbon Reduction Curve


Rupert Cadbury– Fixed Income Portfolio Strategist at State Street Global Advisors

By Rupert Cadbury
Fixed Income Portfolio Strategist
State Street Global Advisors

ACHIEVING LOWER CARBON WITH FAMILIAR RETURNS

We are helping investors understand, control and benefit from the quantifiable trade-offs between carbon reduction and tracking error. Most importantly, we are demonstrating that significant improvements in carbon intensity can be achieved with minimal impact to credit quality or interest-rate risk relative to corporate bond benchmarks.

SOLVING THE CLIMATE DATA CHALLENGE

Reducing a portfolio's carbon intensity starts with being able to measure carbon emissions for each issuer, and this has been a major challenge for fixed income managers.

It's well documented that data providers' information about carbon emissions and other environmental, social and governance (ESG) factors is less extensive for fixed income than for equities. Historically, ESG data providers have built their coverage based on listings of publicly traded equities.

This has proved to be problematic for two reasons:

1. It excludes bond issuers that don't have publicly listed equity shares.

2. Given that some companies have hundreds of bond issuances and the codes used for

identifying bonds are complex and inconsistent, translating information from the equity universe to the fixed income universe is challenging. Mergers of issuers make this exercise even more difficult.

At State Street, we have devoted an incredible amount of energy into solving these challenges. We have built a proprietary framework based on multiple sources of best-in- class data that maps information about a company's carbon emissions and other climate and ESG data from equities to fixed income. Our framework provides reliable coverage for approximately 85% to 95% of the corporate bond universe in developed markets, depending on the region.

This data provides the foundation of our efforts to guide investors through the process of understanding the tradeoffs between tracking error and carbon reduction at varying levels of exclusions.

RIGHT DATA, RIGHT DECISIONS

This clean data provides the foundation of our efforts to guide investors through the process of understanding the trade-offs between tracking error and carbon reduction at varying levels of exclusions.

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HITTING THE SWEET SPOT

Carbon emissions are concentrated among a relatively small percentage of bond issuers. This means that a corporate bond portfolio's carbon footprint can be reduced by more than 80% by excluding the top quartile of the heaviest polluters.

The carbon reduction curve is steep initially; then, there are diminishing returns. Our research showed that, similar to equities, carbon intensity among corporate bonds is concentrated among a relatively small number of companies. As a result, screening out a small percentage of the heaviest-polluting companies leads to significant reductions in carbon intensity.

The "sweet spot" is likely in the 10% to 30% exclusion range. Given the steepness of the carbon reduction curve and its diminishing returns, the "sweet spot" in the tradeoff between carbon reduction and tracking error is likely found between excluding 10% to 30% of the heaviest polluters. Where a specific investor ends up within this range depends on their specific climate-related objectives and their risk budget.

Based on our data, many investors have expressed interest in 15% screening, which results in a 70% reduction in carbon intensity with only minimal deviation from the Bloomberg Barclays Euro Corporate Bond Index. Within this range, there is also relatively low impact on credit quality and interest-rate risk exposure.

Unsurprisingly, screening out the heaviest-polluting companies introduces a degree of sector bias, tilting the portfolio away from utilities and toward financials. Our research found that this effect is gradual, but it is something that investors should still consider as they determine the level of screening that is appropriate for them.

MOVING FROM GUIDANCE TO IMPLEMENTATION

In addition to helping investors determine the optimal position on the carbon reduction curve, we also guide them through the process of implementing the Low-Carbon Corporate Bond Strategy.

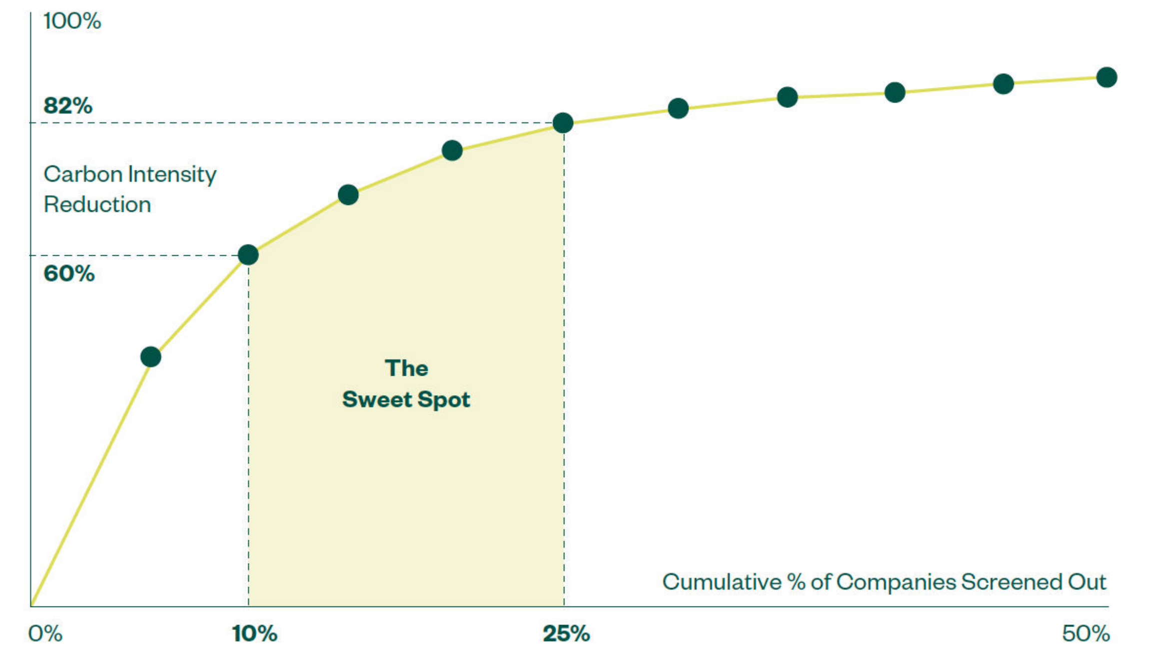
The strategy is customizable based on the level of targeted carbon reduction and the index used as the benchmark; the available benchmarks include any corporate bond index in developed markets. We also work with clients to identify any bespoke constraints they want applied to their portfolio, such as additional screens for controversial weapons, tobacco, firearms or noncompliance with the United Nations' Principles for Responsible Investment.

With any fixed income portfolio, liquidity, turnover and transaction costs are paramount. The Low-Carbon Corporate Bond Strategy aligns well with these concerns. Because the targeted carbon intensity reductions can be achieved with low levels of exclusions, investors don't need to renormalize and rebalance large portions of the portfolio.

Furthermore, our historical research found that the list of companies included among the ranks of the heaviest polluters doesn't change much over time, limiting the amount of monthly turnover in the index.

Another way we look to minimize transaction costs is by participating in new bond issuances when possible. This tactic allows us to capitalize on the slight discount that often is applied before bonds begin trading on the secondary market.

Whether through the Low-Carbon Corporate Bond Strategy or other strategies, our deep knowledge of fixed income market structures and indexing allow us to skilfully implement customized portfolios for our clients in the most efficient way possible.



Source: Sustainalytics, Trucost, POINT and State Street Global Advisors, as of 31 December 2018. Baseline universe: Bloomberg Barclays Euro Corporate Bond Index

> "Reducing a portfolio's carbon intensity starts with being able to measure carbon emissions for each issuer, and this has been a major challenge for fixed income managers."

INTRODUCING THE LOW-CARBON CORPORATE BOND STRATEGY

We've taken the best of our research and our new data framework to develop our Low- Carbon Corporate Bond strategy. Using this strategy we can now create customized portfolios for clients that have significantly lower carbon footprints but nonetheless produce similar returns to their selected fixed income benchmarks. The strategy is available now to help investors reach their goals for reducing carbon emissions without compromising their investment objectives.

DISCOVER MORE

Learn how our ESG strategies could help you meet the climate change challenge and more. Please visit ssga.com/esg for case studies and further information.

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Equity Market Neutral – The Better Fixed-Income Strategy

Jonas Sandefeldt, Portfolio Manager
QQM Fund Management

By Eugeniu Guzun – HedgeNordic

With minimal correlation to equities, corporate and high-yield bonds and other asset classes, systematic market-neutral fund QQM Equity Hedge represents an interesting alternative to fixed-income investments, particularly in the current low-interest-rate environment. Since Ola Björkmo and Jonas Sandefeldt started managing the fund in July of 2010, QQM Equity Hedge has on average returned 4.6 percent per year net of fees with near zero correlation to both local and global equities, as well as other asset classes.

"The low correlation is the main reason our strategy represents a good alternative to fixed income," argues Jonas Sandefeldt. "Although our returns exhibited higher volatility than a typical bond fund, adding our fund to a mixed-asset portfolio, in fact, lowers the volatility of the entire portfolio since our correlation with equities and bonds is so low." More importantly, QQM Equity Hedge does generate higher returns than a typical bond fund. "In short, our fund can increase the expected return of the overall portfolio and simultaneously lower the volatility of the portfolio," adds Sandefeldt.

Ola Björkmo further points out that investors most likely cannot expect attractive or even positive returns in the fixed-income space in the near to medium term. "If you look at yields in the fixed-income market, the returns investors can achieve are very close to zero," says Björkmo. "Zero less fees is not a very attractive investment proposition." QQM Equity Hedge, meanwhile, aims to achieve an annual absolute return between six and eight percent over the long-term. "Given that we are targeting a volatility of eight percent, we aim to achieve a Sharpe ratio of between 0.75 and 1," explains Sandefeldt.

However, Björkmo cautions that investors should not expect QQM Equity Hedge to outperform long-only or long-biased funds in sustained equity bull markets. "Being market-neutral by shorting the same amount we

ASSET CLASS	QQM'S CORRELATION
MSCI WORLD	-0,05
SMB: FAMA-FRENCH'S SIZE FACTOR	-0,01
HML: FAMA-FRENCH'S VALUE FACTOR	-0,25
OMRX T-BILL	0,01
OMRX ALL	0,08
CORPORATE BONDS	0,01
HIGH YIELD	-0,12
HEDGE FUNDS	0,04
MACRO/CTA FUNDS	0,21
LONG/SHORT EQUITY	0,07

Figure 1: QQM Equity Hedge's correlation with other asset classes. 113 months of data since July 2010.

Source: QQM Fund Management AB.

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go long, we expect to lag behind the returns generated by long-only or long-biased equity funds in bull markets. On the other hand, our track record extending back more than 9 years, evidences the strategy being profitable two months out of three, regardless of the direction of the equity market."

THE MAGIC SAUCE

QQM Equity Hedge employs a purely systematic strategy to build a well-diversified market-neutral portfolio that aims to capture fundamental momentum in listed European companies. As Björkmo explains, "we seek to capitalize on fundamental momentum by looking at earnings development, revenue growth and analyst earnings revisions for the companies in all the ten countries we trade." QQM Equity Hedge builds a market-neutral portfolio for each of the ten countries, which, after screening for ESG criteria and internal requirements, represent a current investment universe of about 1,000 stocks. The Fund holds on average 300 single name long and 300 single name short positions.

"We examine the last six months of data and use fundamental information to select a group of companies with strong momentum within their fundamental data for the long portfolio and, conversely, a group of companies with weak momentum in their fundamentals for the short portfolio," explains Björkmo. The team's proprietary systematic model puts more weight on fresher information with the model recalibrating as new data is released. "After studying all the academic research we could find, studying large data sets and drawing conclusions from those data sets, we have built a systematic model that incorporates how the market reacts to information," says Björkmo.

"Even if all our companies perform badly in terms of fundamental performance, we engage in a relative play by selecting the better companies in the market and selling short the weaker ones," explains Björkmo. As for the fundamental data that goes into QQM's systematic model, "the most important element is earnings but we combine that with analyst revision trends, revenue development and to some extent price momentum." In essence, QQM Equity Hedge relies on various fundamental data points, complemented by a price momentum overlay.

Ola Björkomo, Managing Director
QQM Fund Management

"The low correlation is the main reason our strategy represents a good alternative to fixed income..."

As for the portfolio of short positions, "our model identifies companies with weak earnings prospects, companies that running out of cash and seek equity issuances and companies likely to issue profit warnings," explains Sandefeldt. "If a business has been doing poorly, it takes a long time to restructure its business by closing down factories, reducing the workforce or changing products or business models." Weak businesses typically perform poorly for a long time before evidence of a turnaround is visible, if at all.

Since investors do not always pay sufficient attention to fundamentals, business fundamentals and stock prices can and do diverge on some occasions. "Big shifts in investor sentiment in the market represent the biggest challenge to our approach," acknowledges Sandefeldt. Over the long term, however, "the market is always right," argues his colleague. As Benjamin Graham once said, "in the short run, the market is a voting machine, but in the long run it is a weighting machine."

"Fundamental information will drive the stock market sooner or later," says Sandefeldt, who adds that "there might be times when there are discrepancies for a while." Mean reversion is the one thing investors can rely on over time. "We have suffered drawdowns of 11 percent three times in the fund's history and each time it has taken us eight months at the most to recover," points out Sandefeldt. "The fundamentals drive stock market prices in the long term."

TRUE DIVERSIFICATION ALWAYS PAYS OFF

Given the low-return environment in the fixed-income space, Björkmo reckons that institutional investors will gradually move some portion of their portfolios away from fixed income to other asset classes. "Most of the mid-level institutional investors, certainly not the largest institutions, are underweight hedge funds and they would benefit a lot if they were to add sources of alpha," argues Björkmo. "If one looks at investors such as the AP Funds or the Yale University endowment, they maintain much more diversified portfolios and have generated similar or better returns compared to their peers with much lower volatility."

Whereas hedge funds may pursue different objectives, "hedge funds designed to protect capital or generate absolute returns should not lose money when things turn sour," reckons Björkmo. "Then investors are losing money across almost all of the portfolio." According to Sandefeldt, "investors should always maintain a diversified portfolio", and some institutional investors will move out of long-only fixed-income product to something else, including high-yield products. Yet, investors should be aware of the relatively high correlation between corporate bonds or high-yield bonds and equity markets.

"Investors add a lot of equity-like exposure to a portfolio by investing in high-yield products," reckons Björkmo. "We are not very fond of hidden beta and there is a lot of hidden beta in high-yield products," he adds. "All of a sudden this hidden beta will show up when equity markets perform poorly."

Although Sandefeldt believes in diversification, "if investors can handle 100 percent exposure to equities, they should go for 100 percent in equities." But "most people do not sleep very well with 100 percent exposure to equities because the volatility is so high," so investors should have other things in their portfolios. Given the low correlation with equities, bonds and other assets, an equity market-neutral strategy such as QQM can indeed pass the test of being the better fixed-income play.

> "We are not very fond of hidden beta and there is a lot of hidden beta in high-yield products."

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Fixed Income and ETFs

by Florian Cisana, Head of Passive & ETF Specialist Strategic Markets EMEA, UBS AM

The indexed fixed income market is now valued at approximately USD 65 trillion. Assets under management in fixed income ETFs are slightly in excess of USD 1 trillion, which contrasts sharply to equity ETFs' share in the overall equity market. An obvious opportunity?

Exchange Traded Funds (ETFs) offer several benefits to end investors such as transparency, cost efficiency, intraday liquidity and diversifica- tion. For fixed income ETFs, there is an additional advantage, particularly beneficial to smaller investors, which is easy access to a market that trades over-the-counter rather than on-exchange. Simply said, fixed income ETFs have equity-like ease of trading which simplifies the way investors build multi-asset geographically diversified port- folios, but also helps to manage income streams, preserve capital and diversify sources of return.

How big is the fixed income market?

The indexed fixed income market is now valued at approximately USD 65 trillion which is nearly USD 20 trillion more than the global indexed equity market now valued at about USD 45 trillion[1].

"The indexed fixed income market is now valued at approximately USD 65 trillion which is nearly USD 20 trillion more than the global indexed equity market..."

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The largest fixed income segment (Figure 1) are Treasuries (government issued) securities, a roughly USD 30 trillion market, followed by investment grade corporates (> USD 10 trillion). It is important to highlight however, that the global fixed income market is simply proxied by a benchmark that goes through certain eligibility criteria based on security type. The non-indexed fixed income market is left with sizeable segments, e.g. in certain municipal bond sectors, loans or parts of ABS being excluded. For example, according to the SIFMA report, the overall US based bond market is valued at USD 43 trillion[2], whereas the indexed part captures approximately USD 23 trillion, clearly telling just how sizeable the non-indexed segment is. This generally implies that the fixed income market is considerably larger than the equity market.

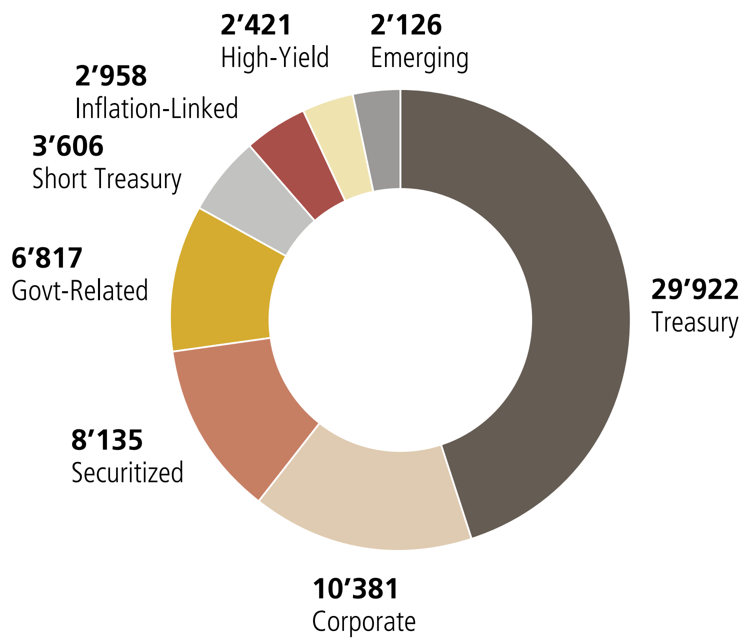
What share of this do ETFs have?

Global ETF assets are now at about USD 5.6 trillion, with more than 7500 ETFs across asset classes. The equity ETFs segment is by far the largest with USD 4.2 trillion, followed by fixed income ETFs with slightly in excess of USD 1 trillion. Relating ETFs to overall markets (Figure 2) it is apparent that fixed income ETFs still make up a disproportionately low proportion of overall fixed income assets. Specifically, assets invested in fixed income ETFs represent roughly 1.8% of the total indexed fixed income market, or put differently, not even two dollars in a hundred go into an ETF wrapper when implementing fixed income investments. In contrast, equity ETFs represent about 9.1% of the global equity indexed market, with the difference between the two asset classes actually widening in recent years. Both nevertheless enjoy persistent positive growth rates. The question is which fixed income segments are underrepresented and why.

Which segments are the most underrepresented?

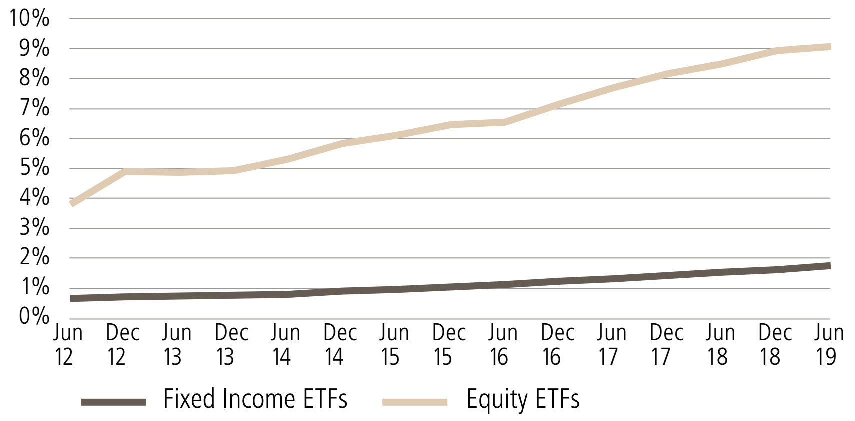
High yield bonds and investment grade corporate segments have the highest share (Figure 3), exceeding 2.5%. Emerging market bond ETFs (including both hard and local currency) have a share of about 1.7%. The government (including Treasury) sector has a share of c. 1.5%, whilst securitized bonds (including MBS) and short dated Treasuries (securities with a time to maturity less than 12 months), both have shares well below 0.5%. This may lead to the thesis that fixed income ETFs serve mostly yield enhancing invest- ments done through tactical adjustments, whilst liquidity and "safe-haven" bond investments are done outside of an ETF wrapper. Moreover, the government bond sector is now

Figure 1: Market value (US dollar billion)



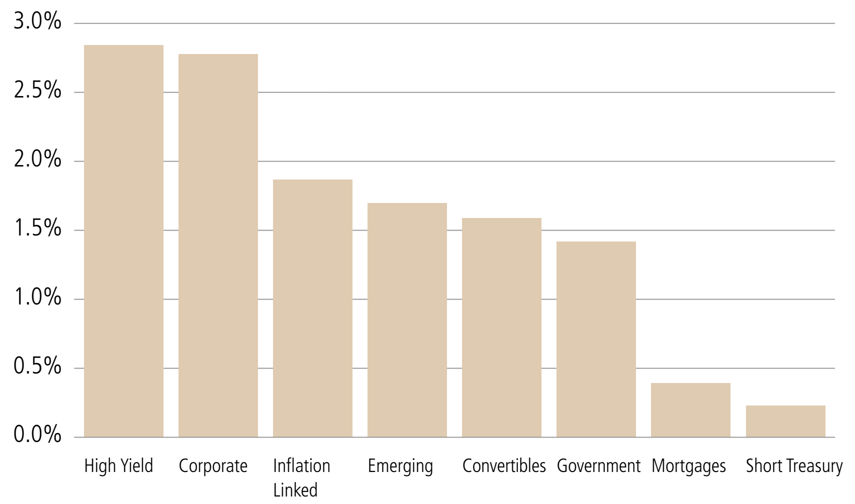
Source: Bloomberg, Barclays Live, UBS Asset Management. Global fixed income market is proxied by segments of the Bloomberg Barclays Multiverse Index. The Bloomberg Barclays Multiverse Index provides a broad based measure of the global fixed income bond market and represents the union of the Global Aggregate Index and the Global High Yield Index. It captures investment grade and high yield securities in all eligible currencies, with time to maturity of 1 year. The Short Treasury is proxied by Bloomberg Barclays Short Treasury family of indices with securities maturity within 0-12 months. Equity market is proxied by MSCI ACWI Index. Data as of July 2019.

Figure 2: Style Factor Risk Loadings Across Time



Source: ETFGI, Bloomberg, UBS Asset Management. Global Fixed Income market is proxied by Bloomberg Barclays Multiverse Index, and global Equity market is proxied by MSCI All-Country World Index. Data as of July 2019.

Figure 3: ETF share across fixed income segments



Source: ETFGI, Bloomberg, UBS Asset Management. Global fixed income market is proxied by Bloomberg Barclays Multiverse Index, and global Equity market is proxied by MSCI All-Country World Index. Data as of July 2019.

experiencing a high percentage of negative yielding debt, thus has less of an appeal for investors. At the time of writing, approximately 35% of global Treasuries are negatively yielding. This might change when investment risk appetite shifts.

What is next?

In the near future, the fixed income ETF offering will be considerably more refined and granular, following developments and evolution in the equity ETFs market. Overall then, a move away from broad-based indices/ segments into more tailored indices and strategies. This also includes the integration of Environmental, Social and Corporate Governance (ESG) criteria but also moving towards specific risk premia. UBS Asset Management is a pioneer in this area having launched ETFs that provide exposure to sustain- able corporates, bonds issued by Supranational Development Banks, and even emerging market local currency debt enhanced with currency factors such as momentum and carry. All these latest developments allow investors to access fixed income exposures that are increasingly targeted by industry, sustainability profile, quality or a number of other factors and characteristics, providing an even greater flexibility to manage portfolios and reach a variety of objectives.

[1] Source: MSCI. Data as of July 2019. [2] Source: Securities Industry and Financial Markets Association (SIFMA); www.sifma.org

www.hedgenordic.com - December 2019
HEDGENORDIC

THE HEALTHY ORGANISM OF THE NORDIC HEDGE FUND INDUSTRY

By Eugeniu Guzun – HedgeNordic

When asked to highlight some unique features of the Nordic hedge fund industry, we most often point out that the industry houses several of world's largest CTA managers and also comprises a strong pool of fixed-income hedge funds (mostly Danish but not only). Judging by the statistics provided by the HedgeNordic database, the group of Nordic fixed-income hedge funds is in a very solid and healthy state, especially when comparing to the broader industry. There are a couple of data points backing this statement.

First, six new fixed-income hedge funds have been launched in the Nordics since the beginning of 2018 and only one fund closed down during the same period. Second, the collective assets managed by Nordic fixed-income hedge funds increased from around €6.4 billion in December 2017 to €7.3 billion in December of last year. This segment of the Nordic hedge fund space continues to manage a little over €7.3 billion as of the end of October. Third, fixed-income hedge funds handily outperformed all four remaining strategy categories in the Nordic Hedge Index in the previous 36 months.

Country of Origination

There are 31 fixed-income hedge funds in the Nordics as of the end of October, exactly the same number as at the end of 2018. During 2019, one new fund joined the industry and one vehicle shut its doors. SRV – Fixed Income, a Danish relative value fund focused on Scandinavian and European fixed-income markets, was launched in February of this year, whereas credit hedge fund Trude was closed down in September. Last year was more fruitful in terms of new hedge fund launches in the Nordic fixed-income space. Five new funds were launched and joined the Nordic Hedge Index during 2018. No fixed-income hedge funds closed down last year.

One in every five active members of the Nordic Hedge Index are classified as fixed-income hedge funds, and three in every five fixed-income funds are based in Denmark. The Danish mortgage bond market is one of the largest and most liquid bond markets in the world, which partly explains the high number of Danish fixed-income-focused hedge funds. Of the 40 Danish funds in the Nordic Hedge Index, 18 solely focus on investing in the fixed-income space. The Nordic hedge fund industry also includes 11 Swedish fixed-income funds and two Norwegian funds. There are no Finnish fixed-income hedge funds in the Nordic Hedge Index.

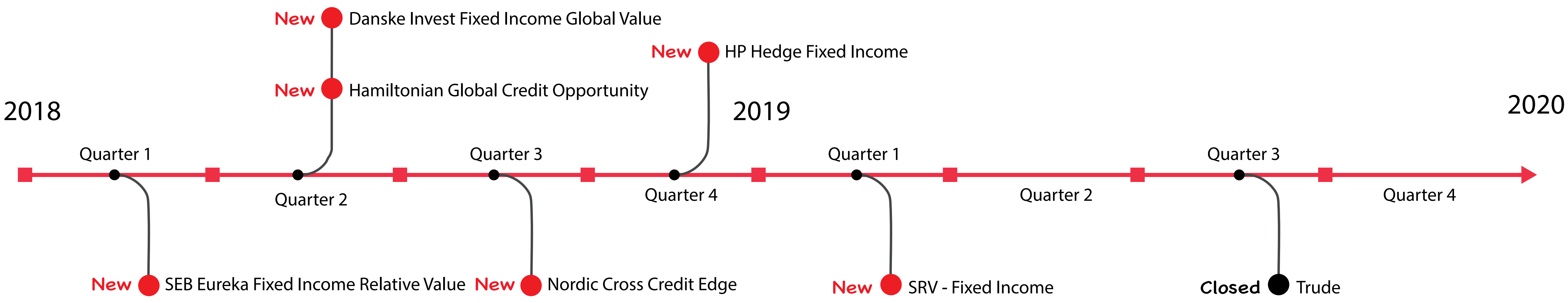
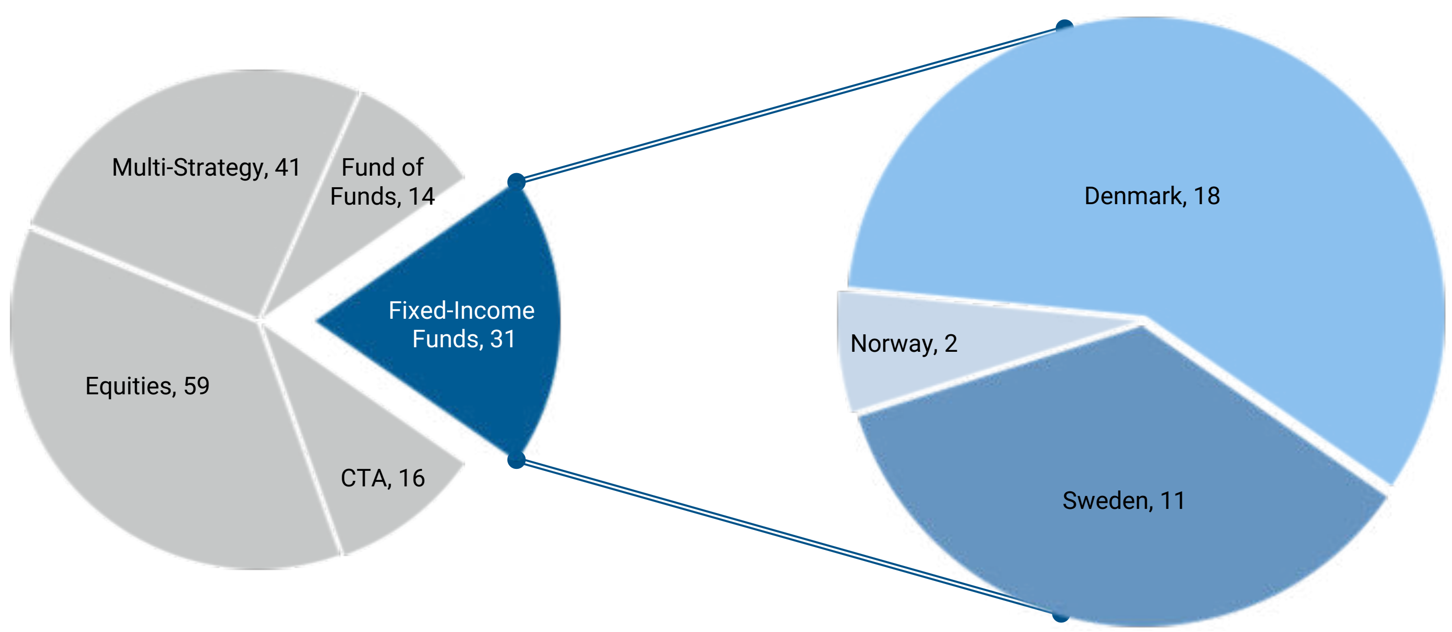


FIGURE 2: COUNTRY BREAKDOWN OF NORDIC FIXED-INCOME HEDGE FUNDS.



Source: HedgeNordic

Nordic Fixed-Income Hedge Funds Versus the Rest

Nordic fixed-income hedge funds outperformed each of the remaining four strategy categories in the Nordic Hedge Index in the previous 36 months and outperformed CTAs, multi-strategy and funds of hedge funds (all but equity hedge funds) over the past 60 months. Furthermore, fixed-income hedge funds outperformed the four other categories in each of the previous full years, with the group trailing only multi-strategy hedge funds year-to-date to the end of October.

Nordic fixed-income hedge funds, as expressed by the NHX Fixed Income, generated a cumulative return of 12.2 percent in the previous 36 months through the end October, surpassing the 4.6 percent cumulative return delivered by the Nordic Hedge Index. Multi-strategy hedge funds, the second best-performing category in the past 36 months, delivered a cumulative return of 7.4 percent during the period. International fixed-income hedge funds, as measured by the Eurekahedge Fixed Income Hedge Fund Index, generated a cumulative return of 14.5 percent in the previous 36 months. The Eurekahedge index currently includes over 300 constituent funds.

Who's the Biggest?

The universe of Nordic fixed-income hedge funds oversees €7.33 billion in assets under management as of the end of October based on data from 28 of the 31 members of the NHX Fixed Income. 29 of the 31 fixed-income-focused members of the Nordic Hedge Index that were up and running in December of last year (including the now-closed Trude) had €7.30 billion in asset under management at the end of 2018. The 25 fixed-income hedge funds at the end of 2017 with reported assets data (out of the 27) collectively managed €6.44 billion at the end of that year.

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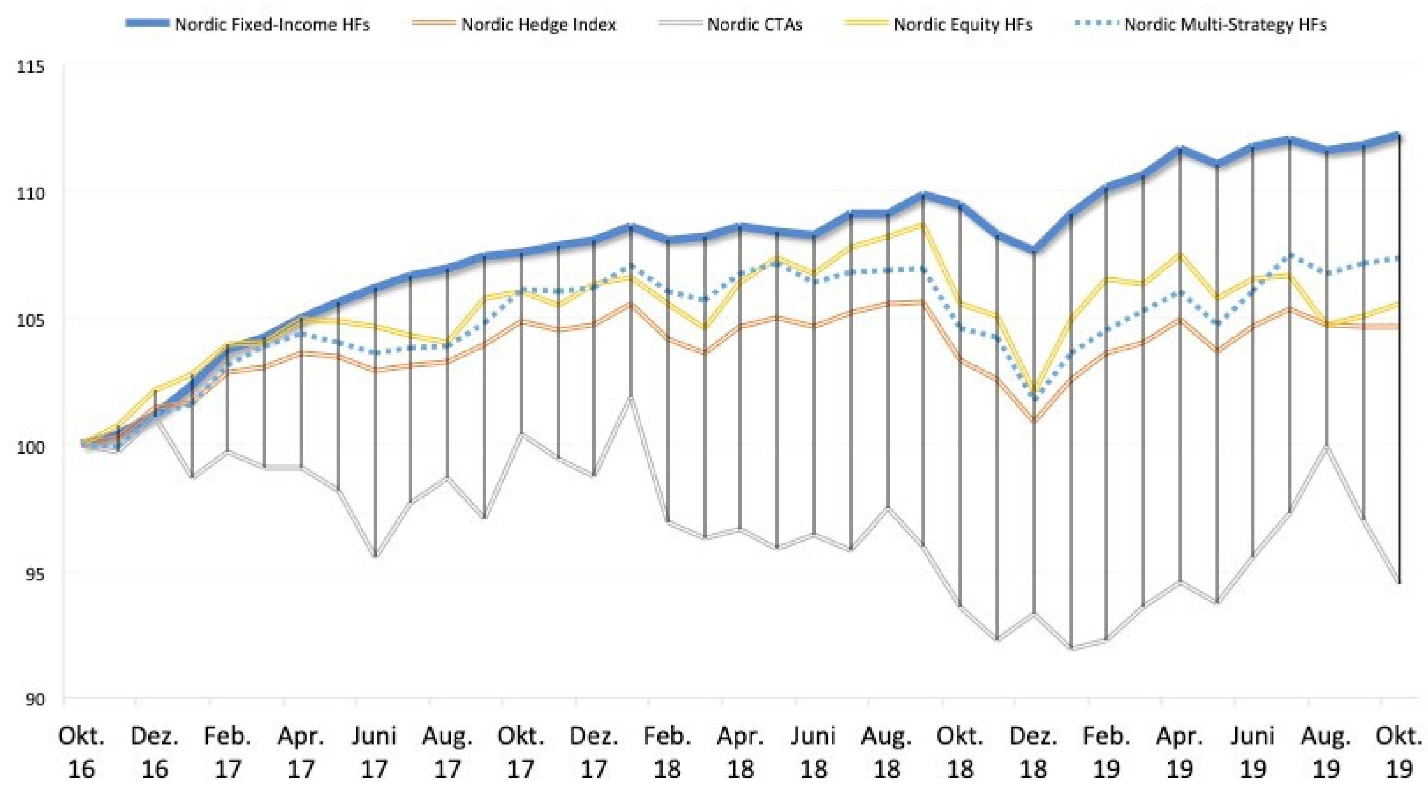
FIGURE 3: THE PERFORMANCE OF NORDIC FIXED-INCOME HEDGE FUNDS IN THE PAST 36 MONTHS VERSUS OTHER STRATEGY CATEGORIES



Source: HedgeNordic

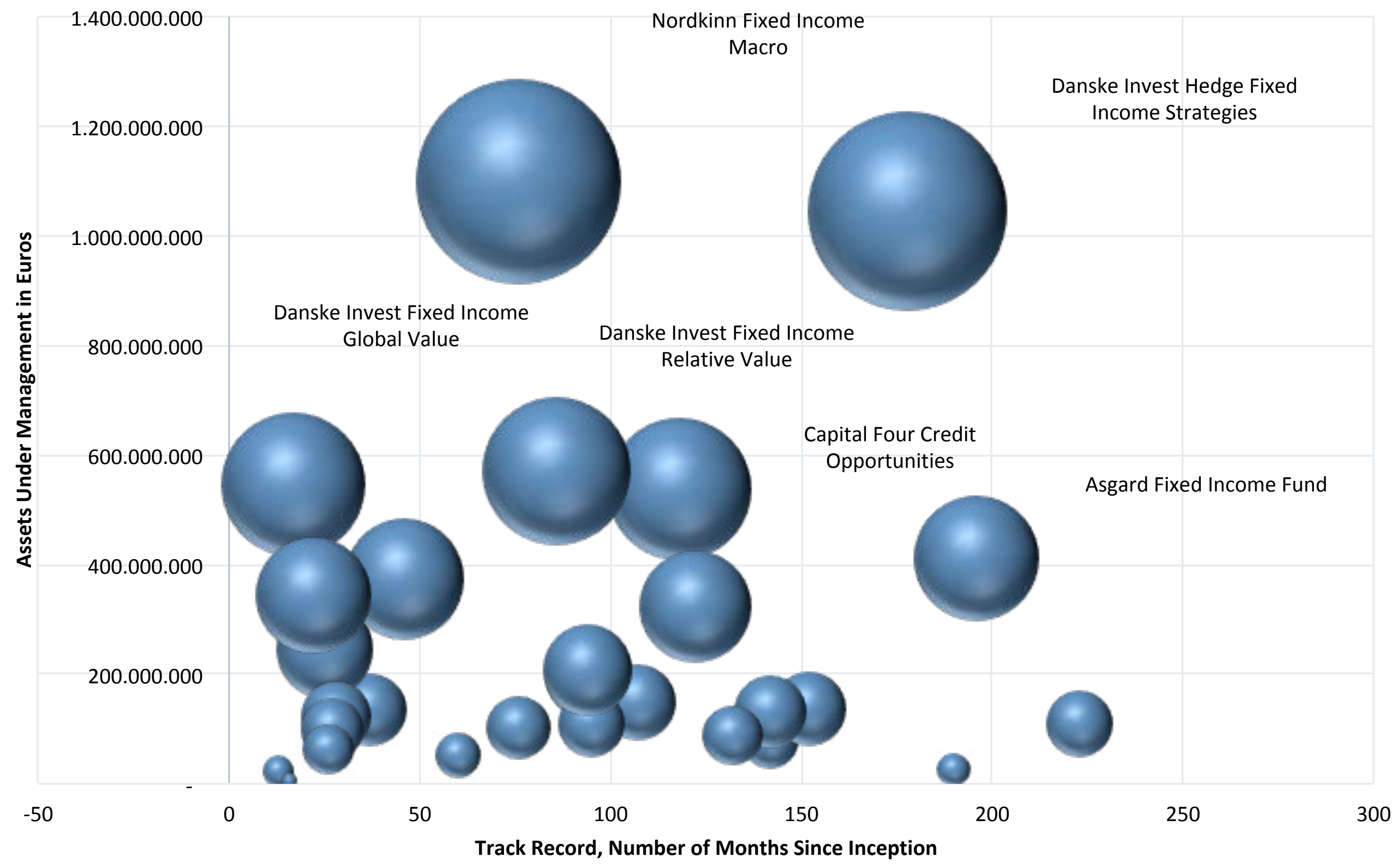
At the end of October, Danish-based fixed-income hedge funds collectively managed two-thirds of the €7.33 billion, whereas Swedish funds represented around 30 percent of all assets. The two Norwegian fixed-income funds collectively managed a little over €300 million in assets at the end of October.

Danske Bank Asset Management's suite of four fixed-income hedge funds oversees about €2.2 billion in assets as of the end of October, accounting for 30 percent of the "fixed-income" category's combined assets. Stockholm-based Nordkinn Fixed Income Macro Fund is the Nordic industry's largest fixed-income hedge fund with assets under management of €1.1 billion at the end of October. Danske Invest Hedge Fixed Income Strategies closely follows suit with assets under management of €1.0 billion. These are the only fixed-income hedge funds in the HedgeNordic database with assets above €1 billion.

The majority of the Nordic fixed-income hedge funds manage over €100 million in assets (20 of the 28 vehicles with reported assets under management figures). Eleven of these 28 funds manage more than €200 million, and eights vehicles oversee less than €100 million. Three Nordic fixed-income hedge funds manage between €500 million and €1 billion in capital as of the end of October. As mentioned above, two fixed-income funds from the Nordic Hedge Index manage over €1 billion.

It is worth pointing out that younger fixed-income hedge funds in the Nordics have been relatively successful in attracting capital from investors. The ten Nordic fixed-income funds launched during 2017 or later (with an operating life of less than three years) collectively manage €1.5 billion or €144.7 million on average as of the end of October. The eleven hedge funds started before 2011 (with an operating life of more than ten years) oversee a combined €3.0 billion or €276.5 million on average. The remaining ten mid-age hedge funds started from the beginning of 2011 to the end of 2016, meanwhile, manage €2.8 billion or €284.1 million on average.

FIGURE 4: THE SIZE OF MOST NORDIC FIXED-INCOME HEDGE FUNDS AS OF THE END OF OCTOBER AND THEIR TRACK RECORDS.



Source: HedgeNordic

The Best Performers

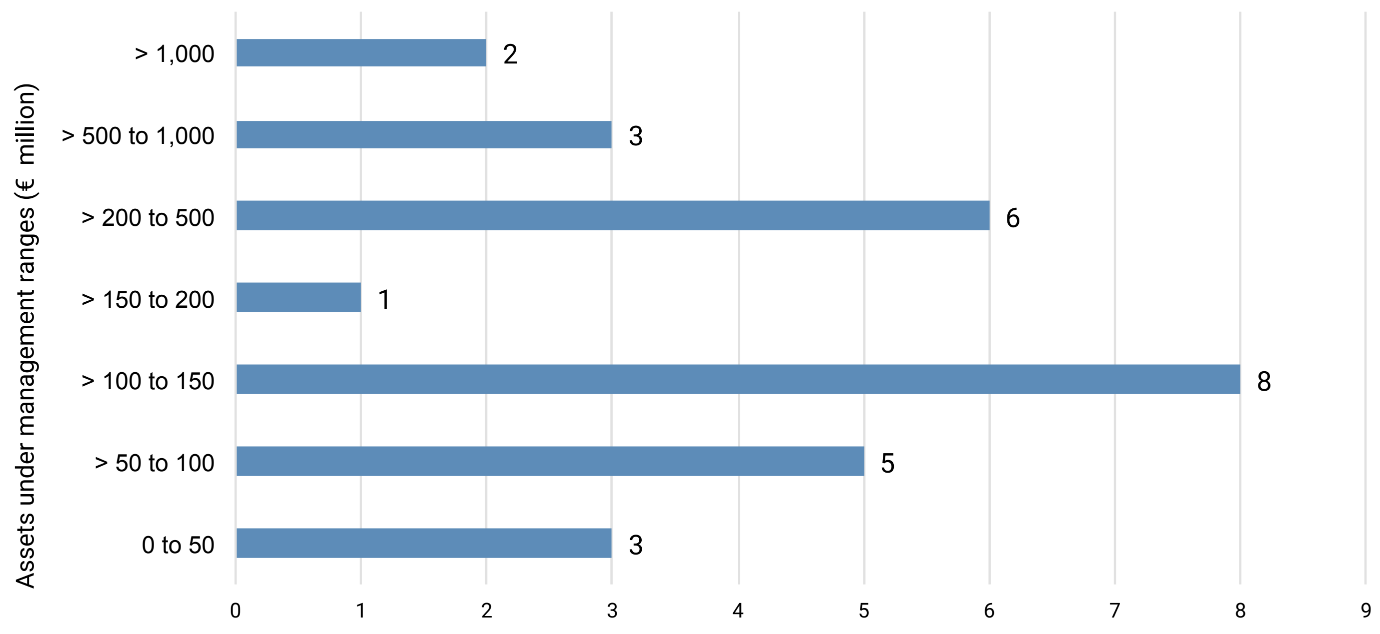
Norwegian fixed-income fund Borea Høyrente achieved the highest annualized return in the past 36 months to the end of October among the funds with a track record of more than three years. Two funds managed by Copenhagen-based fixed-income manager Moma Advisors followed suit, with Asgard Fixed Income Fund generating an annualized return of 7.8 percent in the past 36 months and Asgard Credit Fund delivering 7.4 percent per year.

Stockholm-based direct lending fund Scandinavian Credit Fund, meanwhile, achieved a net-of-fees annualized return of 7.3 percent in the past three years to the end of October. Danske Bank Asset Management's flagship fixed-income fund, Danske Invest Hedge Fixed Income Strategies, delivered an annualized return of 7.1 percent.

Looking at inception-to-date returns, Asgard Fixed Income Fund generated an annualized return of 13.1 percent since launching in mid-2003, the highest annualized rate of return among fixed-income funds in the Nordic Hedge Index.

Midgard Fixed Income Fund, managed by the asset management arm of Danish commercial pension fund PFA, generated an annualized return of 12.6 percent since its inception in September of 2009. Danske Invest Hedge Fixed Income Strategies, meanwhile, returned 11.3 percent per annum since launching at the beginning of 2005. Up and running Nordic fixed-income hedge funds have performed relatively well over time. After all, 20 of the current 31 funds achieved inception-to-date Sharpe ratios above one.

FIGURE 5: NUMBER OF NORDIC FIXED-INCOME HEDGE FUNDS BY SIZE.

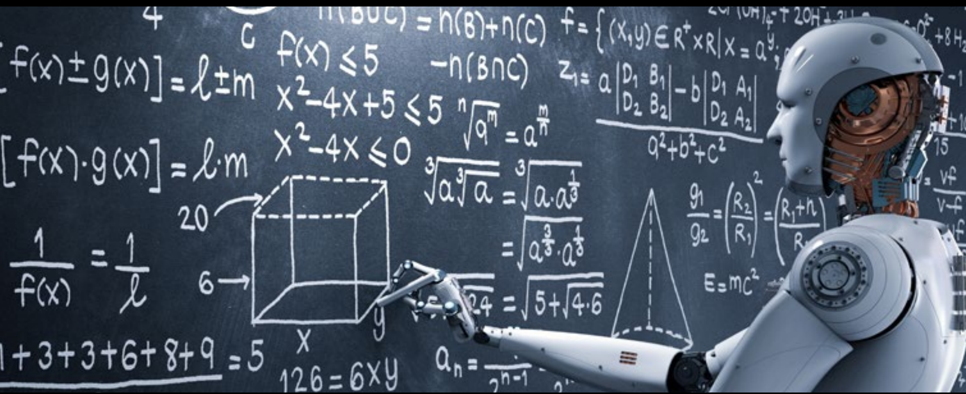


Source: HedgeNordic

FIGURE 6: RANKING ON THE LEFT: ANNUALIZED RETURNS IN THE PAST 36 MONTHS AMONG FUNDS WITH A TRACK RECORD OF MORE THAN THREE YEARS. RANKING ON THE RIGHT: ANNUALIZED RETURNS SINCE INCEPTION

Ranking		3-Year Annualized Return	Ranking		Annualized Return Since Inception
1	Borea Høyrente	8,8	1	Asgard Fixed Income Fund	13,1
2	Asgard Fixed Income Fund	7,8	2	Midgard Fixed Income Fund	12,6
3	Asgard Credit Fund	7,4	3	Danske Invest Hedge Fixed Income Strategies	11,3
4	Scandinavian Credit Fund I	7,3	4	Capital Four Credit Opportunities	10,6
5	Danske Invest Hedge Fixed Income Strategies	7,1	5	Danske Invest Fixed Income Global Value	9,2
6	Danske Invest Fixed Income Relative Value	5,4	6	Nykredit KOBRA Hedge Fund	8,4
7	HP Hedge Danish Bonds	4,6	7	Danske Invest Fixed Income Relative Value	8,3
8	Nykredit KOBRA Hedge Fund	4,6	8	HP Hedge Danish Bonds	8,2
9	Catella Credit Opportunity	4,1	9	Borea Høyrente	8
10	Formuepleje Fokus	3,9	10	Nykredit MIRA Hedge Fund	7,8

Source: HedgeNordic



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

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