NORDIC HIGH YIELD | MARCH 2024

Nordic high yield market – diversification benefits and yield pick-up opportunities for EUR HY investors

MANDATUM
ASSET MANAGEMENT

ABSTRACT

In this whitepaper, we delve deeper into the Nordic high yield market, its special characteristics and current outlook. Our assessment suggests compelling additional diversification and yield pick-up opportunities for Euro high yield investors seeking alternatives within credit asset classes. The whitepaper commences with an introduction and subsequently navigates through the differentiating market factors, barriers to entry, historical return characteristics, as well as current outlook.

Emerging from the financing requirements of the Norwegian energy sector in the late 2000s, the Nordic high yield market has grown with an impressive annual growth rate of approximately 12% since 2009. By this, it has transformed into an active and diversified marketplace with over 540 individual issuers having circa EUR 80bn of bonds outstanding.[1] Today, the Nordic high yield market rests on a robust foundation formed by the politically and economically stable Nordic countries having prudent governance structures and drive for ESG transition.

While there is limited overlap between the regions and sectors within the European and Nordic high yield markets, offering diversification, the Nordic HY market also exhibits special characteristics. These include typically stricter bond documentation, which increases credit protection for investors, as well as a lower duration. The latter results from a circa 50% share of floating rate instruments and shorter maturities compared to fully fixed European high yield and investment grade indices. Moreover, the lower duration limits the price volatility caused by the changes in interest rates.

Additionally, the Nordic HY market is characterized by a significant 53% share of unrated issues, which tend to be less than EUR 100 million in size[2]. Consequently, there is less demand from large international investors that typically have rating and minimum issue size requirements. Furthermore, the absence of index or exchange-traded fund (ETF) products in the Nordic HY market creates a favorable supply-demand situation for local professional investors. They can leverage their strong internal credit research resources as well as relationships and strive for a better risk-reward profile.

Arising from, among others, higher barriers to entry, smaller average company size and unrated nature of many transactions, the Nordic high yield market typically trades at wider credit spreads — i.e., larger risk premia — compared to European market. Historically, this risk premium has also translated into better returns. Notably, the Mandatum Nordic High Yield Total Return Fund has achieved a total gross return of 23.8% over the last five years, outperforming the Euro High Yield Index (which returned 17.2%)[3]. This difference has further widened in the past two years partially due to lower interest rate sensitivity. Moreover, these returns have been accompanied by lower realized daily volatility. In the absence of speculative investors and index products, the Nordic high yield market primarily attracts long-term “real money” investors such as pension funds, insurance companies, dedicated asset managers and family offices. Additionally, the combination of lower interest rate duration from floating-rate notes and lower spread duration from shorter maturities helps to mitigate volatility arising from macroeconomic factors.

As we look into 2024 and beyond, the Nordic high yield market continues to look attractive. Despite anticipated policy rate cuts, market participants maintain their expectation that interest rates will remain above 2%.[4] This provides a solid foundation for high yield returns compared to the previous ten years, where average 3-month Euribor was only 0.18%.[5] Additionally, the Nordic HY credit spread premia remains robust, hovering close to 300 basis points above the currently modest 320 basis points Euro HY spread.[6] This favorable yield level serves as a solid entry point for Nordic high yield investors and acts as a buffer against potential negative scenarios arising from interest rate hikes, wider credit spreads, or defaults.

1) Stamdata AS (NordicTrustee), see graph 2. 2) Stamdata AS (NordicTrustee), see graphs 7 and 8. 3) Past performance does not predict future returns. ICE BofA Euro High Yield Index (HE00). 4) 3-month Euribor forward curve as of 23.2.2024. 5) Average 3-month Euribor rate 1.1.2013-31.12.2023. 6) Illustrative DNB Nordic High Yield index’s asset swap spread was 610bps on 31.12.2023. Source: DNB Markets Credit Research

1. What are high yield bonds?

High yield bonds are debt securities that are typically issued by corporates and are either unrated or have credit ratings of below BBB- by Standard & Poor's and Fitch, or below Baa3 by Moody's.

- HY bonds are typically priced with a wider spread and hence, a higher yield compared to investment grade bonds to compensate for higher probability of default. This is often due to e.g., higher leverage, corporate size or PE ownership
- Over time, high yield credit spreads have mostly ranged between 300-500bps (vs investment grade 100-200bps)
- Maturities are circa two years shorter than in IG
- Typically, low correlation to IG and government bonds, partly due to lower interest rate duration[1]
- In Europe, high yield bonds have offered similar returns as equities over the last 20 years, but with lower volatility[2]

Growing and increasingly diversified sub-market within European high yield universe

Today accounting for ~17% of the European high yield universe, the Nordic HY market has grown 12% per annum since 2009 from a concentrated market to an active and diverse marketplace with over 540 individual issuers. The recent slight decline has been driven by lower issuance volumes due to issuers' greater focus on the cost of debt – similar development also in Europe.

While Nordic HY origins are deep in the Norwegian energy and shipping sectors, these represent only 15% of the current EUR 80bn volume outstanding. A larger and more diversified market enables fund managers to be selective in portfolio construction and secures secondary liquidity. However, there is still growth potential, especially in Finland and Denmark.

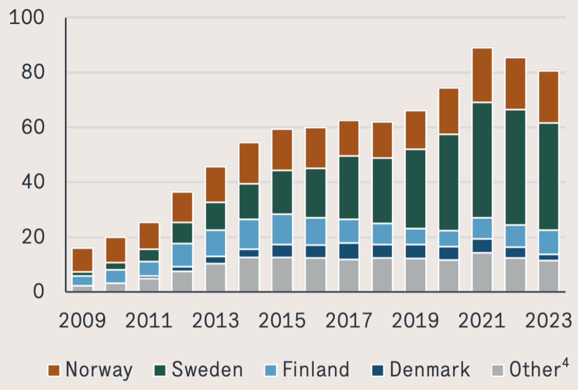
Politically and economically stable Nordic countries driving ESG transition

Nordic countries are politically stable, healthy economies, of which three out of four are among the only 11 countries globally with triple A rating. In addition, these countries typically provide solid education and social security while also have little corruption and good governance – all rank within the best five globally by the level of corruption.[3]

To add to the stability of governance, Nordic Trustee acts as bond trustee for most corporate bonds issued in the Nordics. In its role, the Trustee represents bondholders in facilitating transparent and compliant communication between the issuers and the bondholders.

2. Market size (2009-2023)

Nordic HY bonds, total nominal volume, EUR bn

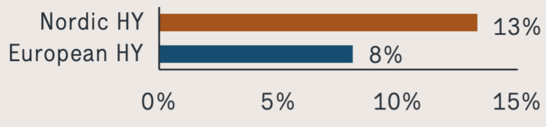


Source: Stamdata

Moreover, to secure a sustainable future, the Nordic regions have a significant focus on sectors and innovations – such as bio-based materials – driving the ESG transition. This is also visible in graph 3 showing the volume of green bonds as well as in the fact that most of the company materials presented to prospective bond investors today include sections which underlines the sustainable investment thesis and targets.

3. Share of green bonds (2023)

Green bonds, % of total volume outstanding



Source: Stamdata (Nordic HY); ICE BofA EUR HY Index (European HY)

1) 2003-2023 EUR HY & IG daily return correlation 0.26, EUR HY & Gov. 0.12, and EUR IG & Gov 0.80. 2) Last 20y CAGR for EUR HY index (HE00) is 7.5% (5.0% annualised daily volatility) and for EUR Stoxx 600 return index (SXXR) 7.4% (18%). 3) Source Transparency International. 4) Consists mainly of globally operating offshore companies having origins in Norway. Source: Stamdata AS (Nordic Trustee), ICE BofA; STOXX Ltd., Transparency International e.V.

DIFFERING CHARACTERISTICS PROVIDE DIVERSIFICATION FOR EURO INVESTOR

Typically stricter bond documentation provides downside protection

Nordic bonds are often characterised by tighter bond documentation, e.g., in many cases include maintenance covenants and stricter limitations for additional debt incurrence, compared to EUR HY issuers. Moreover, Nordic bonds often benefit from additional security like share pledges. This robust documentation aims to protect bond investors when issuers face challenges and ultimately enhance recoveries in case of default.

Lower duration reduces price volatility

Circa 50% of Nordic HY bond issues have floating rate coupons (base rate + margin), which results in low interest rate duration and hence, lower price volatility related to changes of underlying interest rates. Also, due to shorter maturity, the spread duration is also lower, which reduces price volatility stemming from changes in risk sentiment. By adding instruments with lower interest rate and spread duration into a credit portfolio, an investor can reduce the portfolio's overall sensitivity to rates and spreads.

Additional country and sector diversification

As Nordic HY consists mostly of local issuers, it is highly complementary to European HY that is largely concentrated into Central and Southern Europe. In addition, the sector split of Nordic HY differs greatly from European market providing further diversification as illustrated in graph 6.

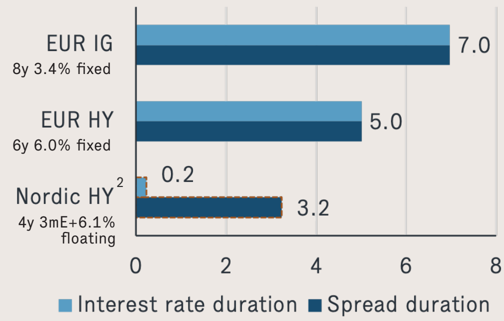
4. Key differences vs. European high yield

	Nordic HY	European HY
Currency	EUR, SEK, NOK, DKK	EUR, USD, GBP
Tenor	3-5y	5-8y
Coupon type	~50% floating	Mostly fixed
Secured bonds	34%[1]	30%
Covenants	Maintenance and /or incurrence	Incurrence (generally looser terms)

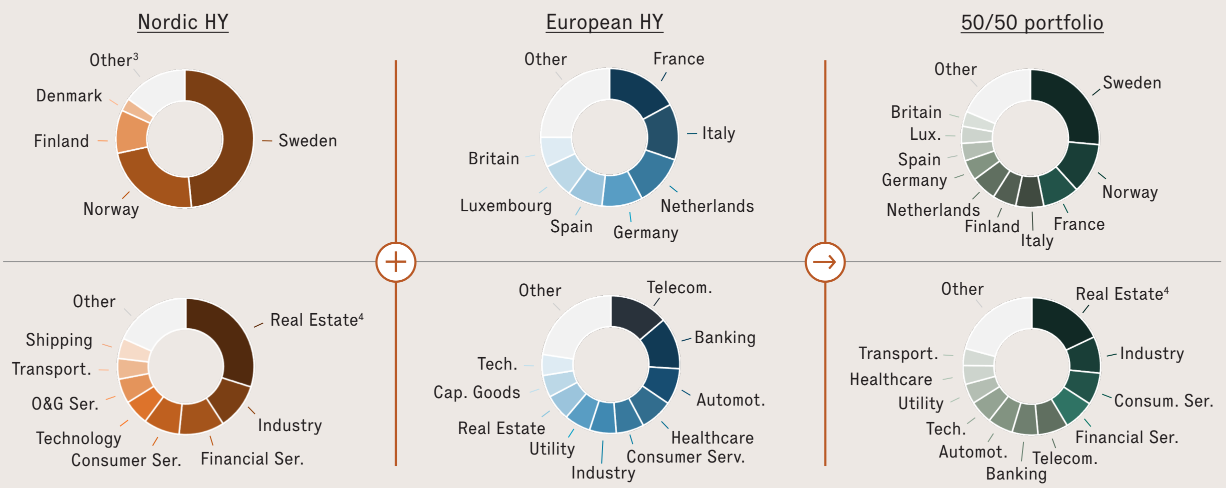
Source: Stamdata; ICE BofA EUR HY Index; Mandatum

5. Examples of typical new issue durations

Duration measures the price sensitivity of the bond in relation to 1% change in base rate or credit spread



6. Geographical and industry diversification of combined high yield portfolio



Source: Stamdata (Nordic HY); ICE BofA EUR HY Index (European HY)

1) Mandatum Nordic High Yield Total Return Fund's share of secured instruments is 44%, as of 31.1.2024. Holdings and allocations are subject to change. 2) Share of floating rate instruments in Nordic HY index is ~50%. 3) Consists mainly of globally operating offshore companies having origins in Norway. 4) Mandatum Nordic High Yield Total Return Fund has 9% weight in Real Estate sector (excl. cash), as of 31.1.2024. Holdings and allocations are subject to change. Source: Mandatum Asset Management, Stamdata AS (Nordic Trustee), ICE BofA.

HIGH BARRIERS TO ENTRY BENEFIT WELL-RESOURCED LOCAL INVESTORS

Unrated and on average smaller companies require thorough bottom-up based credit selection

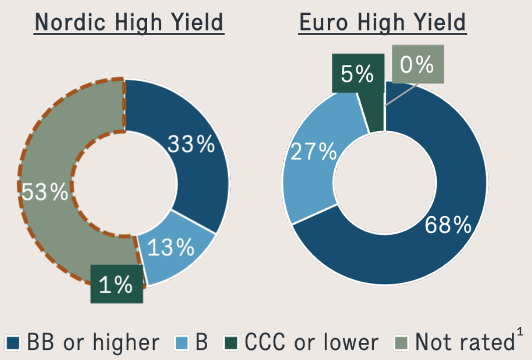
As illustrated in graph 8, Nordic HY issues are often less than EUR 100m in size, which usually makes it more efficient for such issuers to pay slightly higher interest than have a credit rating. This is particularly true given that the rating agencies assign significant weight to company size. As a result, circa 53% of the Nordic HY bonds are unrated and hence, tend to be neglected by large international investors. For such investors, it is often more efficient to invest in familiar names with higher liquidity and well-specified credit quality defined by external rating agencies.

However, this often results in a need for local financing, which improves supply-demand situation from local investors' point of view. Another factor that benefits local investors is that there are no index products or ETF:s following the Nordic HY market due to somewhat lower liquidity, smaller issue sizes and larger share of unrated companies. This further limits the demand pressures, which on the other hand is often experienced in large rated benchmark sized issues in the European market.

While the slightly narrower investor universe results in better position for local investors to harvest superior risk-return profile, the unrated and often smaller companies also require thorough and high-quality credit research by the investment teams to fill the lack of external analysis.

In addition, fluency in local languages is considered beneficial – e.g., news and management meetings are sometimes only in local languages.

7. Nordic vs. Euro HY ratings
Credit rating distribution, %

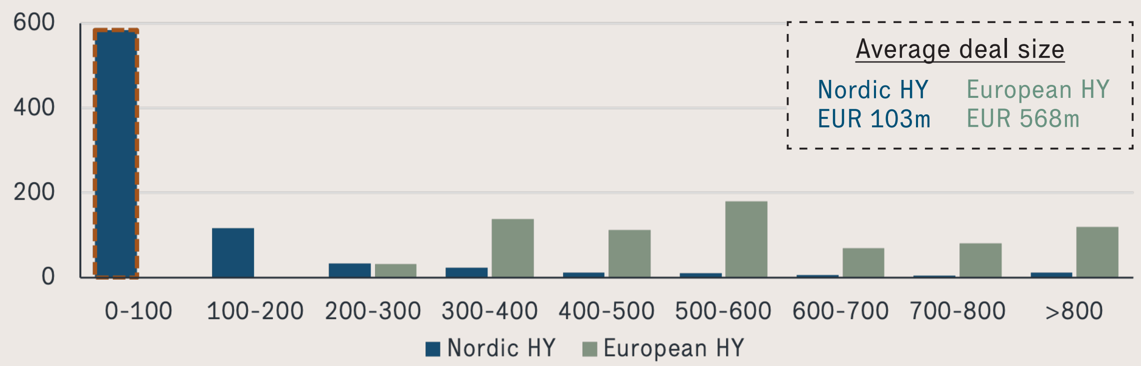


Source: Stamdata (Nordic HY); ICE BofA EUR HY Index (European HY)

Established market position and network enable access to the market

In the Nordics, investment teams are required to have established relationships with issuers and local banks to have sufficient access to e.g., market soundings and company management. For example, significant sized Nordic investors can often participate in the new issue processes well in advance of public launch – often called as pre-sounding – which allows more time to review the issuer and negotiate terms. These aspects have a greater importance in environments like Nordic HY market, where the bottom-up research can often have a significant impact on expected returns.

8. Deal size comparison, Nordic vs. Euro HY
Number of deals by nominal size of the issue outstanding (in EURm)



Source: Stamdata (Nordic HY); ICE BofA EUR HY Index (European HY)

1) Refers to the lack of official rating by Standard & Poor, Fitch, or Moody's.
Source: Stamdata AS (Nordic Trustee), ICE BofA.

ATTRACTIVE HISTORICAL RETURNS WITH LOWER REALISED VOLATILITY

Historical excess return driven by high entry barriers, size premia and credit selection

As shown in graph 10, Nordic HY market has historically provided strong returns for investors, which is visible in 6.6 percentage points higher gross return for Mandatum Nordic High Yield Total Return Fund[1] compared to Euro HY index over the past five years – this difference has even increased to 11.1ppt in the past two years, supported by lower duration. While the market was born from the need of Norwegian energy service and shipping sectors, the recent years' returns are generated by a diversified set of companies.

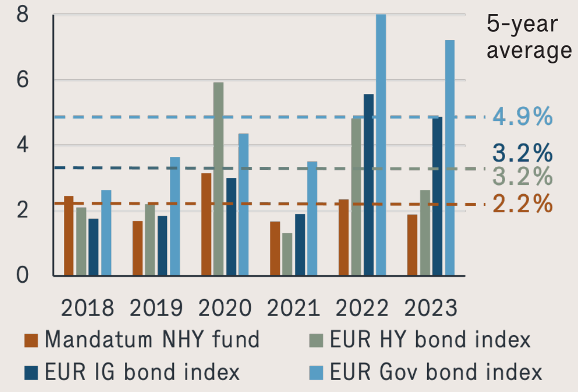
The return premia has been driven by the higher underlying spread, i.e., risk premia, which is not only compensating the risks related to often unrated and smaller sized deals – risks that can be mitigated by the investment team – but also the high barriers to entry. There are no centralised marketplace nor index products enabling easy market entry, while international investors are less involved in Nordic deals. This results in better supply-demand situation for Nordic investors.

Historical returns have been achieved with lower realised price volatility

In addition to excess returns, the Nordic High Yield market has also experienced less daily volatility, which is visible in the five-year average of rolling one-month annualized volatility of Mandatum Nordic High Yield Total Return Fund, 2.2%.

9. Fixed income daily volatility (2018-2023)[1]

Average rolling one-month annualised daily volatility, %

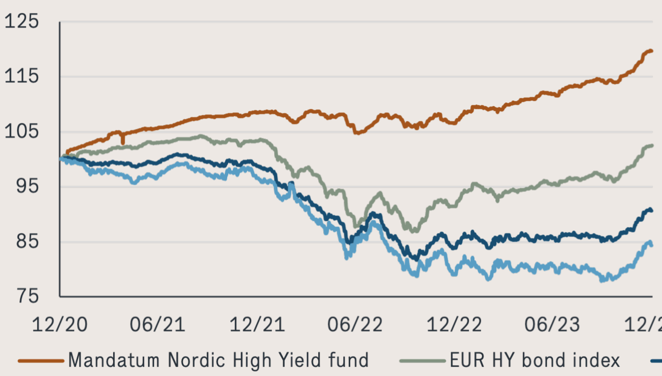


First, the lack of speculative investors and the large interest from "real-money" investors – such as pension funds, insurance companies, dedicated asset managers and family offices – result in less volatile aftermarket trading driven by e.g., short-termism.

Secondly, the lower interest rate duration due to the higher share of floating rate notes results in less volatility from changing interest expectations, which has supported recent years' returns specifically. Thirdly, shorter maturities, which in turn result lower spread duration, limit the volatility arising from the changes in risk sentiment – however, credit spreads are still driving the pricing more than rates in the Nordic HY market.

10. Mandatum Nordic High Yield Total Return Fund vs. EUR HY, IG and Government bonds (2021-2023)[1]

Total return in %, indexed to 100



	Total return as of 12/2023				Sharpe ratio[2]	
	1 year	2 years	3 years	5 years	3 years	5 years
Mandatum Nordic High Yield fund	12.3%	10.3%	19.7%	23.8%	2.2	1.3
EUR HY bond index	12.0%	-0.8%	2.5%	17.2%	0.0	0.6
EUR IG bond index	8.2%	-8.2%	-9.3%	-0.6%	-0.9	-0.1
EUR Gov bond index	6.7%	-12.7%	-15.7%	-5.5%	-0.9	-0.2

1) Mandatum Nordic High Yield Total Return Fund is used due to the lack of proper EUR-hedged index data for whole Nordics. Note: Past performance does not predict future returns. The Fund is actively managed but not in reference to a Benchmark. Comparison with the Indexes for illustration purpose only. Relevance of the Indexes: focus on European High Yield. Please note that there are significant limits between the investment policy of the Fund and the ones of the Indexes. Euro High Yield index ticker HE00, Euro Investment Grade index ticker EN00, and Euro Government index ticker EG00. Data until 31.12.2023. Source: Mandatum Asset Management, Bloomberg, ICE BofA. 2) Sharpe ratios against the average of 5y German government bond yield and in relation to annualised daily standard deviations over the sample period.

Spread and yield look compelling, especially with a portfolio that has been constructed through strict credit selection

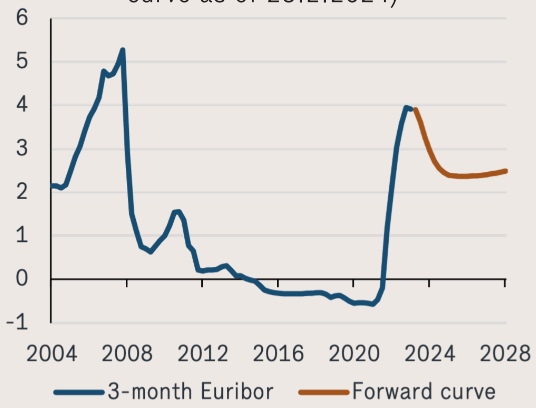
After a decade of low interest rates, base rates have finally started to offer decent returns for investors on the back of central banks' actions to fight the inflation. Despite the somewhat declining forward-looking rates, reflecting the investor sentiment on inflation and economy, the market still expects rates to continue to offer solid underlying returns also going forward.

Further, as seen in graph 12, Nordic HY credit spread of 610bps still provides 295bps premia compared to Euro HY, where the spreads have declined to modest 315bps. The difference is even above the seven-year average of 256bps, despite the improved diversification. While the Nordic premia was partly driven by the stressed energy sector in 2014-2016, it is now driven by significantly more diversified group of companies.

All in all, the return scenarios in graph 13 for illustrative Nordic HY portfolio with 7.4% yield – which is much more defensive than the Nordic HY market in general – demonstrate attractive opportunities for investors also going foward. Even in downside scenarios, sufficient entry yield supports positive returns – also when the possible distressed situations are prudently considered, which investment teams are dedicated to avoid by conducting strict credit selection.

11. Base rates (2005-2028)

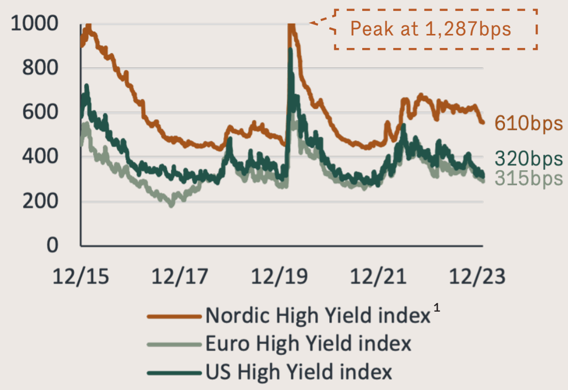
3m Euribor in % (forward curve as of 23.2.2024)



Source: Bloomberg, European Money Market Institute

12. HY credit spreads (2016-2023)

Asset swap spread, bps



13. Three-year annualised return scenarios* as a function of base rate and credit spread

Illustrative* – Yield-to-maturity: 7.4% Modified duration: 2.56 Spread duration: 2.53
Default rate: 2.2% Recovery rate: 58% Avg. bond price: 94.5px – 6.6% p.a. return incl. defaults

Gradual change in base interest rate 2024-2026

Gradual change in credit spread	-3.0%	-2.0%	-1.0%	0%	+1.0%	+2.0%	+3.0%
-150bps	8.8 %	8.4 %	7.9 %	7.3 %	6.8 %	6.3 %	5.7 %
-100bps	8.6 %	8.1 %	7.6 %	7.1 %	6.6 %	6.0 %	5.5 %
-50bps	8.3 %	7.9 %	7.4 %	6.9 %	6.3 %	5.8 %	5.2 %
0 bps	8.1 %	7.6 %	7.1 %	6.6 %	6.1 %	5.5 %	5.0 %
+50bps	7.8 %	7.4 %	6.9 %	6.3 %	5.8 %	5.3 %	4.7 %
+100bps	7.6 %	7.1 %	6.6 %	6.1 %	5.6 %	5.0 %	4.4 %
+150bps	7.3 %	6.8 %	6.3 %	5.8 %	5.3 %	4.7 %	4.2 %

*) Illustrative annual returns for a three-year investment into a high yield portfolio with similar key metrics as Mandatum Nordic High Yield Total Return Fund as of 31.12.2023: yield-to-maturity of 7.4%, modified duration of 2.56, spread duration of 2.53 and average bond price of 94.5px. Default rate of 2.2% and recovery rate of 58% are estimated averages of Nordic HY market excl. Oil & Gas sector since 2008 by DNB Credit Research. To account not only the duration effect from changes in base rate and credit spreads, yield-to-maturity is gradually set to decrease/increase in relation to the change in interest rate and spread over the three-year period (i.e., -1ppt over 3 years has 0ppt effect in year 1, -33bps in year 2 and -66bps in year 3 compared to situation at the beginning).

1) Non-tradable index, for illustrative purposes. Source: DNB markets credit research (DNB Markets Nordic high yield index). Source: DNB Markets Credit Research, Bloomberg, ICE BofA, European Money Market Institute. Source: DNB Markets Credit Research, Bloomberg, ICE BofA, European Money Market Institute.

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MAM offers discretionary and consultative asset management for institutional and other professional investors and manages a variety of investment products within its core areas of credit, private equity, real estate and equity selection.

Investing both client money as well as the Group's own balance sheet capital, MAM has extensive investment experience in European leveraged finance including high yield bonds and leveraged loans. MAM's experienced team is responsible for portfolio management and credit selection, utilizing the entire group's resources and expertise. Mandatum's own stress-tested Nordic High Yield strategy has been actively open to investors since 2013 and offers a well-diversified portfolio with a careful credit analysis and investment process.

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Investing in the Fund involves risks. These include, among others:

- Market risk – a risk caused by general economic development, in other words, factors that broadly affect the earnings potential of companies operating on the market and/or that the value of the investment changes as a result of changes in the economic outlook.

- Liquidity risk – investments cannot be or cannot easily be realised or covered at the current market price or that a value cannot be determined for the investments due to the markets' lack of depth or because the markets are not working due to some kind of dis-turbance. The value of an investment may need to be defined in an exceptional manner at an exceptional time as the result of a market disturbance.

- Credit risk – loss or the weakening of the financial position due to the fact that the issuer of a security or other debtor fails to meet his or her obligations.

- Interest rate risk – changes in the value of the Investment Basket due to a change in the market interest rates.

The investor must carefully familiarise themselves with the Fund Documentation which provides exhaustive information on the risks.

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