



Xtrackers

**FIXED INCOME ETFs – AN ASSET  
OF CLASS FOR YOUR ALLOCATION  
THINK ETF. THINK X.**

**// DWS**

# Contents

ETFs help investors achieve their Fixed Income portfolio goals	3
Fixed Income ETF assets are growing rapidly	4
Uses of Fixed Income ETFs	6
Which Fixed Income market segments do ETFs cover?	8
Liquidity and trading	10
Tracking a Fixed Income index	12
A Fixed Income ETF manager is far from passive	13
Why choose Xtrackers Fixed Income ETFs?	14
Disclaimer	16

# ETFs help investors achieve their Fixed Income portfolio goals

Imagine bond pricing could be made transparent. Imagine bond trading could be brought on exchange, and that bond trading would function without reliance on increasingly constrained bank balance sheets. Imagine being able to trade indexed bond exposure in one standardised vehicle rather than hundreds of individual bonds with various product features, without losing out on diversification.

Now keep these thoughts in mind while you read the rest of this brochure.

This brochure touches on a range of fixed income exchange-traded fund (ETF) aspects, starting with the goals investors have in mind when considering fixed income ETFs — for example, improving diversification, increasing liquidity, allocating cash more efficiently, reducing costs or increasing yield. The brochure further analyses the growth of fixed income ETFs and how various ETF features resonate in different market scenarios.

The variety of bond exposures available through the Xtrackers platform is broad: it ranges from broad market exposure, sovereign bonds, inflation-linked, corporate, covered and emerging market bonds, to currency-hedged, interest rate-hedged, inverse, credit and cash ETFs. These ETFs offer a variety of yield and duration exposures to suit investors' individual needs.

In the liquidity section we discuss how fixed income ETF trading is beneficial as a transparent, on-exchange, standardised way of trading bond exposures.

Last but not least, we shed some light on how to most efficiently track a fixed income index in an ETF. We outline the tasks facing a fixed income ETF portfolio manager, showing that the goal of tracking indices requires operational excellence and precision.

We hope this brochure provides you with new insights that will help your investment process and identify how fixed income ETFs can address your investment needs today and in the future.

## Julien Boulliat

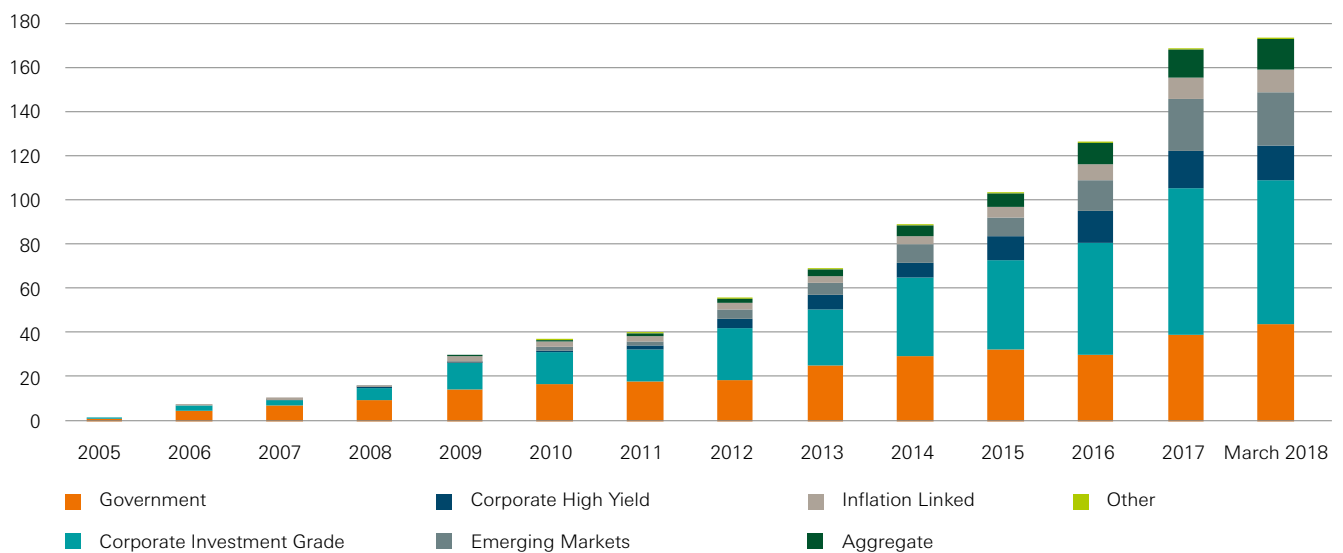
Managing Director  
Head of ETF Portfolio Management Europe and Asia

# Fixed Income ETF assets are growing rapidly

The first exchange-traded funds (ETFs), launched in the 1990s, aimed to track equity indices. But in the last decade fixed income ETFs have attracted growing interest from investors.

European fixed income ETF assets rose from €7 billion in 2006 to €173 billion in Q1 2018, a compound annual growth rate of 30 percent. By the end of 2017, a quarter of all European ETF assets were in fixed income funds, about double the market share level of 2006.

**GRAPH 1:**  
European fixed income ETF assets by market segment (in EUR billion)



Source: DWS, Bloomberg, as of 31 March 2018. European domiciled ETFs, all providers.

## Why have fixed income ETF assets grown at such a pace?

Five key characteristics of ETFs have helped boost client demand during the last decade:

### Transparency

During the financial crisis of 2008-09, many investors switched out of complex, hard-to-value fixed income products and into more transparent investment vehicles, such as government bond and money market ETFs. The vast majority of ETFs track indices based on consistent, publicly available rules, while also disclosing their portfolio holdings daily.

### Targeted Exposure

During 2010-2012 the increasing variety of European fixed income ETFs helped investors select the precise market, maturity and credit exposures they wanted for their portfolios. For example, government bond ETFs investing in “safe haven” countries and investment-grade corporate bond ETFs that excluded financial issuers proved popular.

### Access Vehicle

Gaining immediate, diversified exposure to fixed income securities can be challenging, especially in less traded segments of the market, such as corporate bonds. ETFs act as a convenient access vehicle for indices of bonds with similar underlying characteristics.

### Low Costs

In recent years record low bond yields have thrown the costs of investing into sharp focus, as asset management fees threaten to consume an increasing share of investors’ overall returns. The average All-in Fee (TER) of fixed income Xtrackers ETFs is only 0.19%.<sup>1</sup>

### Liquidity

The liquidity of an ETF reflects its underlying holdings. But in less liquid fixed income market categories, such as high-yield corporate bonds, investors increasingly use ETFs as a price discovery mechanism for the market as a whole. Secondary market trading in ETFs often enables investors to enter and exit funds at lower cost than buying or selling the whole underlying index basket. This liquidity feature has been cited as a key reason for recent investor interest in fixed income ETFs.<sup>2</sup>

<sup>1</sup> Source: DWS. Average TER is calculated as an asset-weighted average as of 31 May 2018.

<sup>2</sup> For a detailed analysis of ETF liquidity, please see the passive insights paper ‘ETFs: Catalyst or Mirage for Market Liquidity?’ <https://etf.dws.com/-/Downloadcenter> – ‘Passive Insights’

# Uses of Fixed Income ETFs

ETFs are best understood as building blocks, designed to be used in portfolio construction. The performance of most fixed income ETFs is linked to that of an underlying index, which follows consistent, publicly available rules.

This ensures that investors are exposed to targeted risk/return measures such as yield, duration or credit spreads.

The modular nature of fixed income ETFs makes them suitable for a wide range of uses.

## Examples of uses of fixed income ETFs



Source: DWS – For illustrative purposes only



Imagine, for example, that a fixed income portfolio manager has the following goals:



#### Scenario 1: Diversification

A manager has core holdings of individual fixed income securities from the domestic market but is looking to diversify into foreign currency-denominated, higher-yielding or emerging market bonds. Individual ETFs provide instantly accessible, broad exposure within these market categories.



#### Scenario 2: Core and satellite (tactical) exposure

A portfolio manager may use fixed income ETFs on core market segments to reduce overall portfolio costs, and complement these exposures with more tactical 'satellite' allocations for example to specific maturity buckets or high-yielding bonds.



#### Scenario 3: Access Vehicle/Sourcing Bonds

The portfolio manager regularly receives cash inflows of unpredictable size into the portfolio and needs to allocate the money quickly and efficiently. Rather than constructing a purchasing programme of individual bonds, which can take time, threatening a drag on portfolio performance, the investor can use large and liquid fixed income ETFs to gain exposure immediately. Further, since ETF shares can be created or redeemed in-kind<sup>3</sup>, via an exchange of the ETF units for the bonds in the underlying portfolio, the investor can acquire the ETF units and then request a redemption, receiving the bonds in return.



#### Scenario 4: Transition Management

Following the termination of an active mandate, a portfolio manager wishes to retain market exposure during the interim period before appointing a replacement manager. ETFs offer index-based returns within a variety of individual market segments, allowing the investor to maintain the desired exposure during the transition.



#### Scenario 5: Investing on an FX-Hedged Basis

The portfolio manager wishes to buy bonds in a particular foreign market while reducing the risk of a fall in the foreign currency. Currency-hedged fixed income ETFs offer this market exposure in a pre-packaged format, based upon systematic rules and transparent pricing of the hedge transaction.

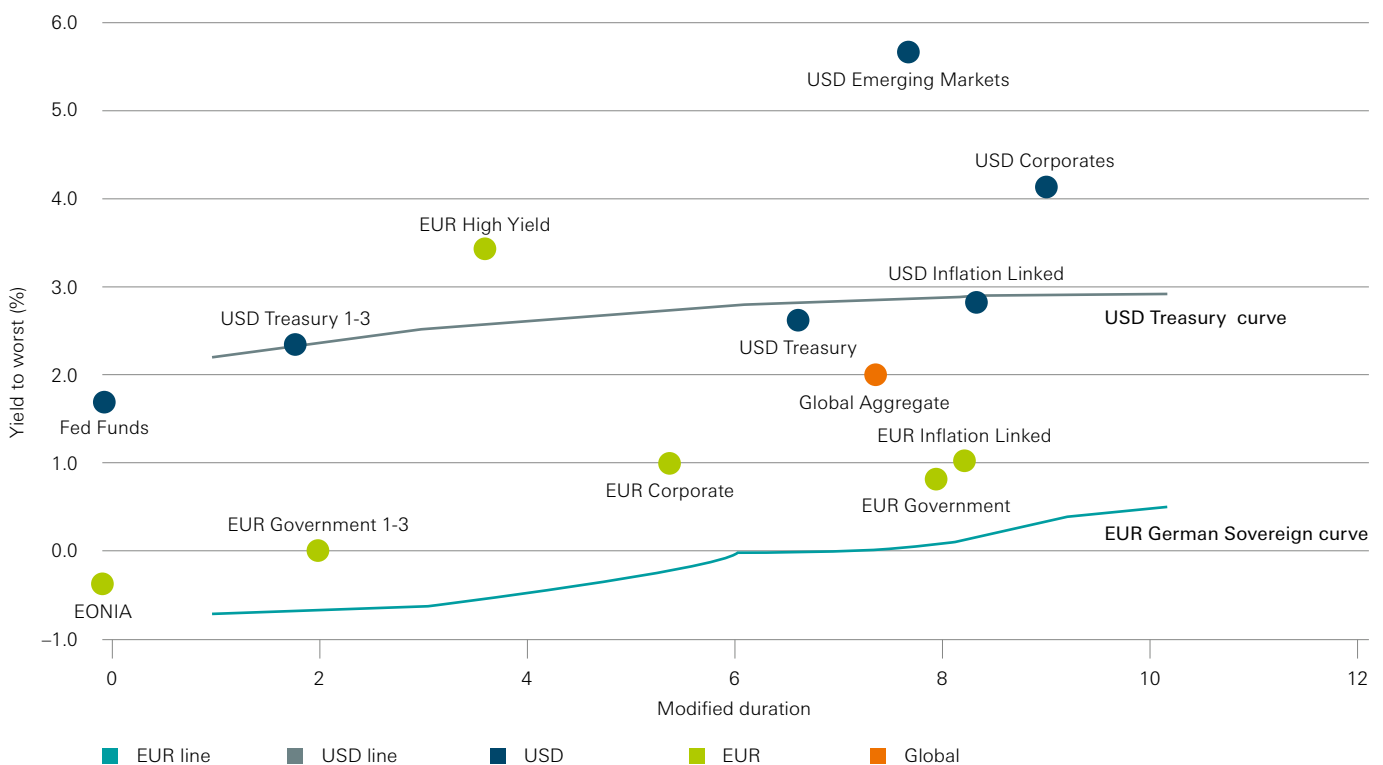
<sup>3</sup> Via the services of an "Authorised Participant" or "AP".

# Which Fixed Income market segments do ETFs cover?

DWS Xtrackers range offers investors exposure to a wide variety of fixed income market segments, helping them to find the right solution for their portfolio requirements. The approximately 50 fixed income ETFs currently offered cover segments from government bonds to emerging market bonds, from investment-grade to high-yield corporates and from single country exposure with maturity focus to global aggregate bonds in a currency hedged format.

The indices underlying these ETFs can be categorised by geography, issuer type, currency of denomination, income stream, levels of diversification, index methodology, credit spread, duration and issuer quality. In the table we illustrate key characteristics of fixed income ETFs, showing the range of options potentially available for investors.

**GRAPH 2:**  
Examples of bond segments offered by Xtrackers ETFs



Source: Bloomberg Barclays, Markit iBoxx, DWS. As of May 2018.



## Features of Fixed Income ETFs



### Characteristic

Global	<b>Geographical Coverage</b>	Regional/Single Country
Government/Agency	<b>Issuer Type/Market Sector</b>	Corporate/Covered
Multi-currency	<b>Currency of Denomination</b>	Single-currency
Fixed	<b>Income Stream</b>	Variable/Inflation-Linked
Diversified/Aggregate	<b>Diversification</b>	Concentrated/Liquid
Capitalisation-Weighted	<b>Index Methodology</b>	Alternatively-Weighted
AAA or Investment Grade	<b>Credit Quality</b>	High Yield
Short duration/cash-like	<b>Maturity/Duration</b>	Long Duration
Unhedged	<b>Currency Risk</b>	FX-hedged

Source: DWS. For illustrative purposes only.

# Liquidity and trading

In the past, bond investors may often have wanted to trade fixed income securities as easily as trading equities. That is, instead of seeking prices in the OTC market for hundreds of bonds with varying features, there could be a single security that bundles the available liquidity in the fixed income markets and also offers transparent pricing.

Fixed income ETFs make this wish less unrealistic than it sounds.

Fixed income ETFs are regulated, open-ended mutual funds. Each ETF tracks a bond index that can contain hundreds or thousands of bonds. But in contrast to traditional mutual funds, which are usually priced and traded once a day, ETFs trade continuously. This trading

takes place on stock exchanges during the trading day, as well as in the OTC market, where many investment institutions, banks and professional market makers interact.

By bringing the trading of the bond basket onto an exchange, the ETF promotes price transparency and price discovery. In turn, the exchange order book, which discloses potential ETF buyers and sellers and their preferred prices, helps create an additional layer of liquidity, from which all market participants can potentially benefit.

The larger and more liquid a fixed income ETF, the greater the proportion of trading that is likely to take place in the secondary market (either on-exchange or OTC) and the more significant this secondary layer of liquidity.

## The layers of ETF liquidity

### Secondary market trading offers an additional layer of liquidity:

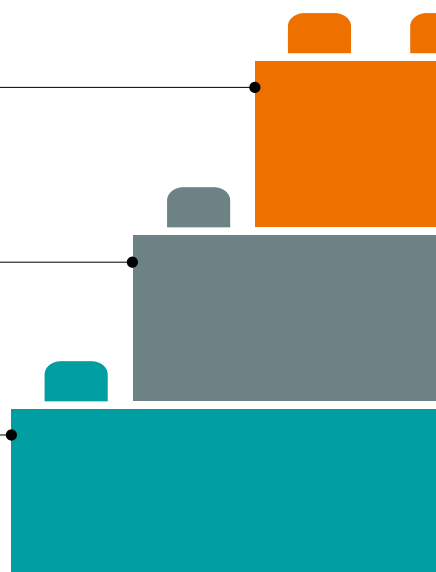
It reflects the trading volume that is exchanged between investors and market makers without resulting in creations or redemptions of ETF units. It is the flow that is 'absorbed' by the market.

### In practice:

The liquidity (costs) of creations and redemptions is determined by the basket of bonds needed to create or redeem ETF units.

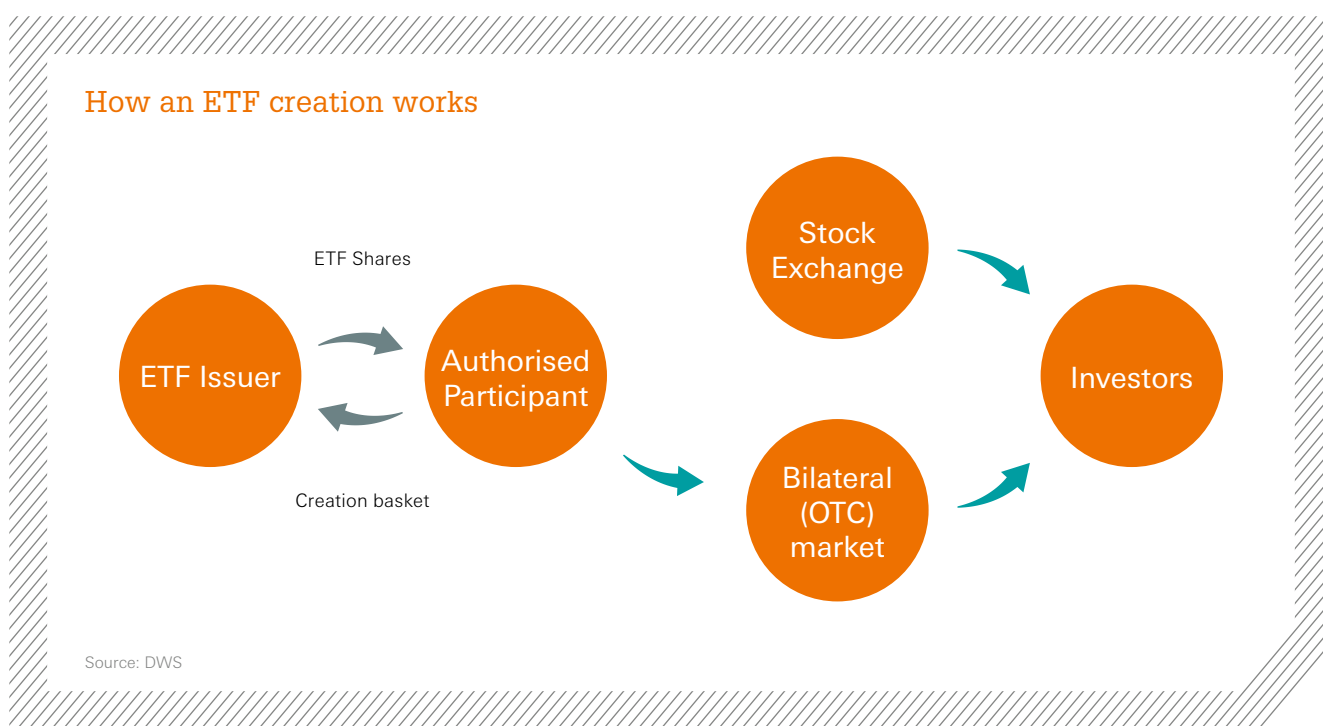
### Base case:

ETFs are index tracking funds. In theory a fixed income ETF should be as liquid as the single bond components in the benchmark. This assumes all bonds are traded when the ETF is traded.



The accurate secondary market pricing of an ETF depends on the primary market, where dealers called Authorised Participants (or “APs”) are authorised to create and redeem ETF shares directly with the ETF issuer. The existence of the primary market helps ensure that any significant deviations between the market price of the ETF and the value of its underlying assets are ironed out using the mechanism of supply and demand.

The diagram shows how an ETF creation works: ETF shares are distributed from the ETF issuer to the Authorised Participant (in the primary market, shown by the grey arrows) and onwards (via the secondary market, shown by the turquoise arrows) to investors.



In order to facilitate the liquid trading of Xtrackers ETFs we address liquidity in our ETF construction, portfolio management and trading functions:

- \_ We select fixed income indices for our ETFs that include liquidity screens, such as a minimum amount outstanding per bond and per issuer, or ratings cut-offs
- \_ We choose the replication methodology to suit the index type, allowing for physical sampling (optimisation) or synthetic replication approach where full physical replication might involve the inclusion of too many illiquid securities

- \_ By allowing ETF creations and redemption to take place both in-kind and in cash, as well as in relatively small minimum basket sizes, we encourage APs to participate in our ETFs' primary market, thereby supporting liquidity

The behaviour of any fund cannot be divorced from the behaviour of its underlying assets. At times, liquidity concerns may affect different types of market. However, ETFs have “lines of defence” in mitigating potential liquidity risks.

# Tracking a Fixed Income index

Managing a passive (index-tracking) fixed income portfolio sounds simple: in theory, the portfolio manager just buys all the bonds in the index. In practice, this is often a suboptimal way of running an index fund. Why? It comes down to the way the bond market works.

Secondary market trading activity in bonds can be concentrated, usually in large and recently issued individual securities. That is true in the government bond markets and even more so in corporate bonds and other sectors. This doesn't mean that bonds which are less actively traded do not have a price – just that it's usually more expensive to buy and sell them.

As a result, buying the index bonds in their full weightings usually makes sense only for concentrated indices of relatively more liquid securities, such as high-quality government bonds. For other types of indices, full index replication is likely to generate an undesired level of trading costs, threatening to defeat the objective of tracking the index.

An alternative is to replicate the index via a process called stratified sampling: this means selecting a sample of the benchmark's securities that will closely match the benchmark's risk profile within multiple predetermined buckets. This approach helps keep the overall risk/return exposures of the portfolio (such as yield, duration and credit spread) close to those of the benchmark, based on a smaller number of portfolio holdings. In turn, turnover costs can be reduced when compared to a policy of full replication.

Another type of index replication methodology is derivatives-based or "synthetic". The manager of the passive fixed income portfolio outsources the responsibility for tracking the index to a third party, usually a bank, which guarantees to provide the return on the index under a bilateral derivatives contract. The third party also hands over a basket of collateral to back its promise. Synthetic replication is used to track less liquid fixed income indices.

Full physical, sampled physical and synthetic replication index-tracking techniques all have pros and cons – see the table. At DWS we use both physical and synthetic replication in our Xtrackers ETF range.

---

## TRACKING TECHNIQUES

Methodology	Definition	Advantages	Disadvantages
Full Physical	All index constituents purchased at full index weighting	Very low tracking error Easy to understand	High transaction costs Not feasible for less liquid indices
Sampling Physical	Portfolio holdings selected matching benchmark risk profile across key risk buckets	Efficient for broad, less liquid indices Lower transaction costs	Higher tracking error Requires specialist skills and infrastructure
Synthetic	Counterparty provides benchmark return via a derivative contract	Very low tracking error Lower transaction costs	Credit exposure to swap counterparty (can be offset by collateral)

Source: DWS

---

# A Fixed Income ETF manager is far from passive

Index-tracking ETFs are passive by name, but not by nature. The sampling process requires high levels of specialist industry knowledge, a robust operational infrastructure and precision in implementation. Together, these qualities help ensure success in meeting a fixed income ETF's primary objective – to track its index.

**Julien Boulliat,**

Managing Director, Head of ETF Portfolio Management Europe and Asia explains:

In recent years we have built up a team of fixed income specialist portfolio managers and assistant portfolio managers. We run physical as well as synthetic fixed income Xtrackers ETFs. The main objective of each ETF is to track the performance of the underlying index as closely as possible, we have two main focus areas that enable us to deliver high quality replication:

## 1 Portfolio construction and risk monitoring

The key challenge is to minimise the active risk of a portfolio by choosing bonds that will better match the benchmark's risk profile within various identified risk buckets, still favouring assets with higher liquidity to lower transaction costs. Ensuring the quality of replication in our portfolios is a continuous process that relies on two key systems:

- \_ Our centralised portfolio management system (Aladdin by Blackrock) which allows portfolio managers to monitor and adjust funds ex-ante active exposures versus a multitude of internal tolerance levels across various risk buckets (country, maturity, sectors...) and risk metrics (duration, spread duration, credit spread...) while still focusing on liquidity thanks to multiple live data feeds flowing automatically in the portfolio construction module (continuous evaluated prices, brokers inventories...)
- \_ Some proprietary tools providing very detailed ex-post performance attribution analysis

Primary flows another key method of continuously improving the quality of replication: With every cash flow we can 'fine-tune' the tracking of the index by buying or selling bonds. This means we can use inflows into the ETFs to fill gaps in a physical sampled portfolio. The bond lists for creations/redemptions by our Authorised Participants are put together by our team in such a way that they maintain - or in some cases enhance - the tracking quality while also focusing on the more liquid bonds in order to decrease transaction costs where possible.

## 2 Performance enhancement

Although most bond indices only rebalance monthly, we don't necessarily wait until month end to adjust the portfolios for market events such as new issues, corporate actions or rating changes as this wouldn't always achieve best trade timing for the bonds we trade and there are opportunities to lower the rebalance cost. That is why we are active throughout the month and continuously monitor all market events to understand their impact on month end rebalance. Each trading opportunity is then compared to the active risk it represents and if this risk remains within internal pre-determined tolerance levels, we sometimes trade the index changes ahead of the effective rebalance date to benefit from potential premiums.

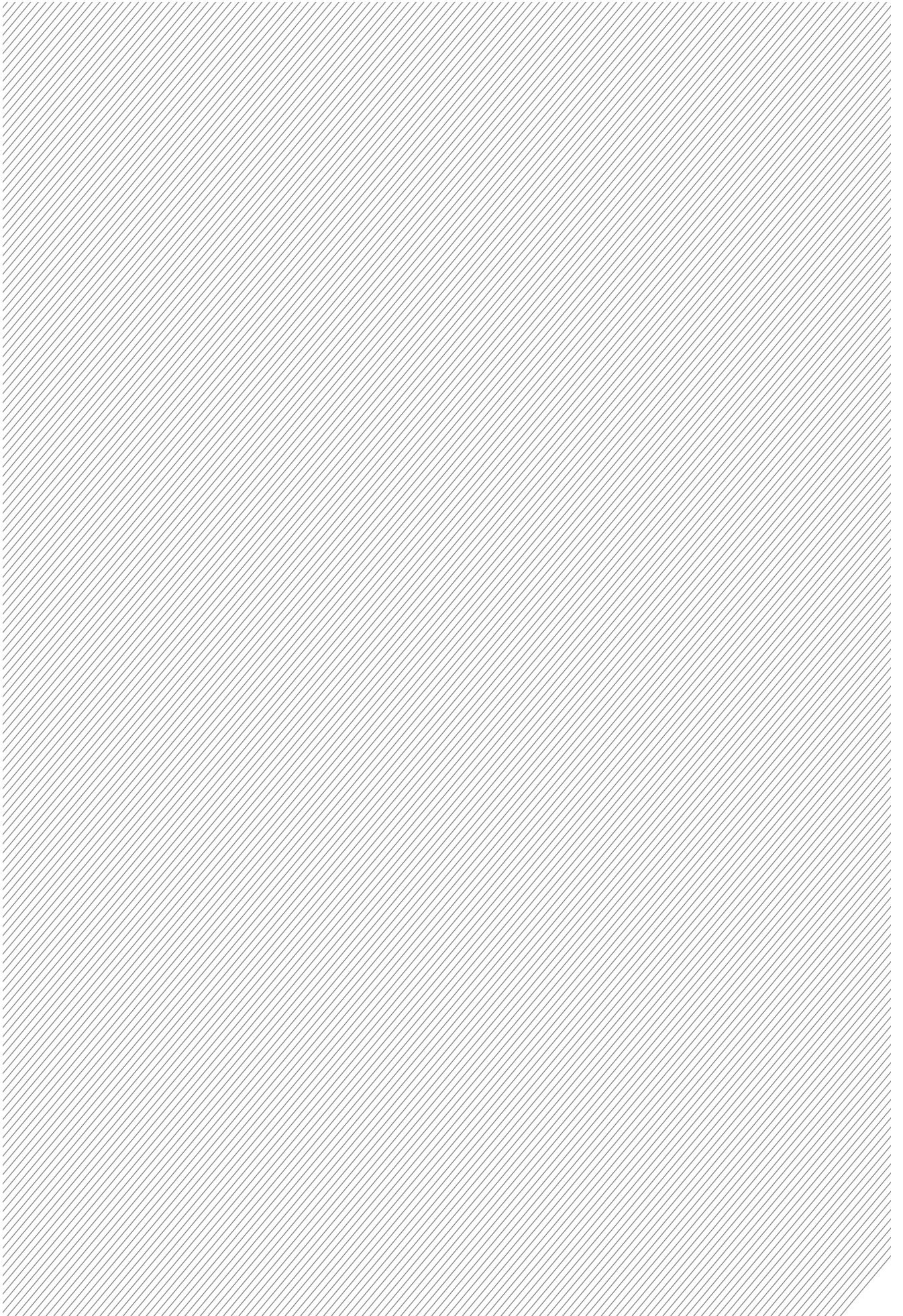
Lowering transaction costs is the other key driver of performance enhancement. In addition to the liquidity focus when choosing the bonds to trade, the experience of our in-house trading desk offers lower transaction costs. We benefit from a global trading desk with experienced specialists based in several locations (Frankfurt, New York and Hong Kong) who ensure not only best execution for clients but also allow us to leverage the power of being part of one of the largest asset managers in Europe.

# Why choose Xtrackers Fixed Income ETFs?

Passive portfolio management is a highly competitive business.  
Why should investors select DWS as their fixed income ETF manager?

We believe our firm is well-positioned for this role for the following reasons:

- \_ Clients benefit from a comprehensive range of fixed income index exposures.
  - \_ Our Core fixed income ETF range offers physical, cost-efficient exposure for investors' core allocations: EUR and USD government bonds, EUR and USD investment grade corporate bonds and EUR and USD high yield corporate bonds. For USD exposures FX hedged share classes are available.
  - \_ More than 45 additional ETFs complement the Core range to address varying investor requirements, including for example cash ETFs, maturity band government bond ETFs, emerging market bonds, ESG or strategic beta ETFs.
  - \_ The Xtrackers share class structure offers distributing or accumulating options as well as currency hedging (more than 25 share classes available).
  - \_ Through the open architecture trading platform, investors can buy and sell Xtrackers ETFs via a broad range of banks and brokers as well as fund platforms. Our Capital Markets team can assist investors to achieve efficient execution for ETF trades at no additional charge.
- \_ DWS Xtrackers has pioneered a variety of fixed income exposures for the region's investors and we continue to demonstrate flexibility and innovation in meeting clients' fixed income portfolio management needs.
- \_ Our Xtrackers clients benefit from a clearly articulated and efficient investment process, with robust risk, compliance and performance monitoring. Our ongoing investments in operational and dealing infrastructure help ensure that ETF investors enjoy economies of scale and low dealing costs.





# Disclaimer

## FOR PROFESSIONAL CLIENTS ONLY

### Key risk factors

An investment in an Xtrackers ETF may not be suitable for all investors. Past performance is not a reliable indicator of future results. Investments in funds involve numerous risks including, among others, general market risks, credit risks, foreign exchange risks, interest rate risks and liquidity risks. As such, the value of an investment in an Xtrackers ETF may go down as well as up and can result in losses, up and including a total loss of the amount initially invested.

Investors should be aware that Deutsche Asset Management (UK) Limited, any of its parents or any of its or its parents subsidiaries or affiliates may from time to time own interests in the Fund which may represent a significant amount or proportion of the overall investor holdings in the Fund. Investors should consider what possible impact such holdings, or any disposal thereof, may have on them.

### Disclaimer

Issued in the UK by Deutsche Asset Management (UK) Limited. Deutsche Asset Management (UK) Limited is authorised and regulated by the Financial Conduct Authority.

Any reference to "DWS", "Deutsche Asset Management" or "Deutsche AM" shall, unless otherwise required by the context, be understood as a reference to Deutsche Asset Management (UK) Limited including any of its parent companies, any of its or its parents affiliates or subsidiaries and, as the case may be, any investment companies promoted or managed by any of those entities.

This document is a "non-retail communication" within the meaning of the FCA's Rules and is directed only at persons satisfying the FCA's client categorisation criteria for an eligible counterparty or a professional client. This document is not intended for and should not be relied upon by a retail client.

Xtrackers, Xtrackers II and Xtrackers (IE) plc are undertakings for collective investment in transferable securities (UCITS) in accordance with the applicable laws and regulations and set up as open-ended investment companies with variable capital and segregated liability between their respective compartments.

Xtrackers and Xtrackers II are incorporated in the Grand Duchy of Luxembourg, are registered with the Luxembourg Trade and Companies' Register under number B-119.899 (Xtrackers) and B-124.284 (Xtrackers II) respectively and have their registered office at 49, avenue J.F. Kennedy, L-1855 Luxembourg. Xtrackers (IE) plc is incorporated in Ireland with registered number 393802 and has its registered office at 78 Sir John Rogerson's Quay, Dublin 2, Ireland.

Deutsche Asset Management S.A. acts as the management company of Xtrackers, Xtrackers II and Xtrackers (IE) plc.

The information contained in this document is provided for information purposes only. Any investment decision in relation to an Xtrackers ETF should be based solely on the latest version of the prospectus, the audited annual and, if more recent, un-audited semi-annual reports and the Key Investor Information Document (KIID), all of which are available in English upon request or on [www.Xtrackers.com](http://www.Xtrackers.com). In the case of any inconsistency with the prospectus, the latest version of the prospectus shall prevail.

This document is intended for discussion purposes only and does not create any legally binding obligations on the part of DWS Group GmbH & Co. KGaA and/or its affiliates (DWS). Without limitation, this document does not constitute an offer, an invitation to offer or a recommendation to enter into any transaction. When making an investment decision, you should rely solely on the final documentation relating to the transaction and not the summary contained herein. DWS is not acting as your financial adviser or in any other fiduciary capacity in relation to this Paper. The transaction(s) or product(s) mentioned herein may not be appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. For general information regarding the nature and risks of the proposed transaction and types of financial instruments please go to <https://www.db.com/company/en/risk-disclosures.htm>. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with DWS, you do so in reliance on your own judgment.

Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such. All opinions and estimates herein, including forecast returns, reflect our judgment on the date of this report and are subject to change without notice and involve a number of assumptions which may not prove valid.

Any opinions expressed herein may differ from the opinions expressed by Deutsche Bank AG and/or its affiliates (DB). DB may engage in transactions in a manner inconsistent with the views discussed herein. DB trades or may trade as principal in the instruments (or related derivatives), and may have proprietary positions in the instruments (or related derivatives) discussed herein. DB may make a market in the instruments (or related derivatives) discussed herein. You may not distribute this document, in whole or in part, without our express written permission.

DWS SPECIFICALLY DISCLAIMS ALL LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR OTHER LOSSES OR DAMAGES INCLUDING LOSS OF PROFITS INCURRED BY YOU OR ANY THIRD PARTY THAT MAY ARISE FROM ANY RELIANCE ON THIS DOCUMENT OR FOR THE RELIABILITY, ACCURACY, COMPLETENESS OR TIMELINESS THEREOF.

This document has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by Deutsche Bank, are appropriate, in light of their

particular investment needs, objectives and financial circumstances. Furthermore, this document is for information/discussion purposes only and does not constitute an offer, recommendation or solicitation to conclude a transaction and should not be treated as giving investment advice.

DWS does not give tax or legal advice. Investors should seek advice from their own tax experts and lawyers, in considering investments and strategies suggested by DWS. Investments with DWS are not guaranteed, unless specified.

Investments are subject to various risks, including market fluctuations, regulatory change, counterparty risk, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you may not recover the amount originally invested at any point in time. Furthermore, substantial fluctuations of the value of the investment are possible even over short periods of time.

This publication contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author's judgment as of the date of this material. Forward looking statements involve significant elements of subjective judgments and analyses and changes thereto and/or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by DWS as to the reasonableness or completeness of such forward looking statements or to any other financial information contained herein. The terms of any investment will be exclusively subject to the detailed provisions, including risk considerations, contained in the offering documents. When making an investment decision, you should rely on the final documentation relating to the transaction and not the summary contained herein.

This document may not be reproduced or circulated without our written authority. The manner of circulation and distribution of this document may be restricted by law or regulation in certain countries, including the United States. This document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, including the United States, where such distribution, publication, availability or use would be contrary to law or regulation or which would subject DWS to any registration or licensing requirement within such jurisdiction not currently met within such jurisdiction. Persons into whose possession this document may come are required to inform themselves of, and to observe, such restrictions.

PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

© Deutsche Asset Management (UK) Limited 2018. All information as of March 2018 unless otherwise stated.

## Germany

This marketing communication is intended for professional clients only. All statements of opinion reflect the current assessment of DWS International

GmbH and are subject to change without notice.

Additional information on target market and costs resulting from the implementation of MiFID II Regulation, which capital management company make available to the sales partners, can be downloaded under [www.etf.deutscheam.com](http://www.etf.deutscheam.com).

According to the information in the sales prospectus distribution of the products mentioned in this document is subject to restrictions of the relevant jurisdictions. This document and the information contained herein may only be distributed and published in jurisdictions in which such distribution and publication is permissible in accordance with applicable law in those jurisdictions. Direct or indirect distribution of this document is prohibited in the USA as well as to or for the account of US persons and persons residing in the USA.

Xtrackers® is a registered trademark of DWS.

DWS International GmbH. As of: 31/08/2018.

## Austria

DWS International GmbH, Vienna Branch, with its registered office in Vienna, Republic of Austria, registered with the companies register of the Vienna Commercial Court under FN 490436 f as an Austrian branch of DWS International GmbH with its registered office in Frankfurt am Main, Federal Republic of Germany, registered with the commercial register of the Frankfurt am Main District Court under HRB 23891. UID: ATU73270417. Deutsche Bank Group.

The information contained in this document is exclusively for fund and asset managers, financial advisors and other professional clients (according to the Austrian Securities Supervision Act (Wertpapieraufsichtsgesetz 2018)) and may not be passed on electronically, by fax, by mail, by delivery of copies or by any other way to third parties.

The information in this document does not constitute investment advice or an investment recommendation and is only a brief summary of key aspects of the funds.

The information contained in this document and other documents connected with this document is not an offer to sell or a solicitation of an offer to purchase or an exchange of fund units, or a prospectus within the meaning of the Austrian Capital Markets Act (Kapitalmarktgesetz – KMG), the Austrian Stock Exchange Act 2018 (Börsegesetz 2018 – BörseG 2018) or the Austrian Investment Fund Act (Investmentfondsgesetz 2011 – InvFG 2011), and this information was therefore not prepared, reviewed, approved, or published in accordance with these provisions.

Investment decisions should be made exclusively on the basis of the key investor information document and the published prospectus, as supplemented by the latest audited annual report and the latest semi-annual report, if this report is more recent than the last annual report, as well as any supplementary offer documents. Only these documents are binding.

The documents stated above are available in German free of charge in electronic or printed format from your financial advisor, from DWS International GmbH Vienna Branch, Fleischmarkt 1, A 1010 Vienna, on the [www.dws.at](http://www.dws.at) website, from DWS Investment GmbH, Mainzer Landstraße 11-17, D-60327 Frankfurt am Main, and, for Luxembourg funds, from Deutsche Asset Management S.A., 2 Boulevard Konrad Adenauer, L-1115 Luxembourg.

The prospectus contains detailed risk information.

Any views expressed in this document reflect the current assessment of DWS Investments, which may change without notice.

Calculation of the performance follows the BVI method (gross performance based). The gross performance (BVI method) includes all costs incurred at the fund level, the net performance also includes the sales charge; additional costs may be incurred at the investor level (e.g. custody costs, fees, commissions or other expenses). Since the sales charge is only levied in the first year, the net/gross amount shown is different only in this year. Past performance is not a reliable indicator of the future performance of a fund.

For further information on taxation, please refer to the full prospectus. It is recommended that persons who purchase, hold, or intend to dispose of investment fund units seek the advice of an accounting professional regarding the individual tax consequences of the purchase, holding, or disposal of the investment fund units described in this document. It should be noted that the tax advice depends on the personal situation of the individual investor and that the tax advice regarding financial products may change in future (also retrospectively) as a result of decisions by the tax authorities and court rulings.

The information in this document is marketing information, which has been provided exclusively for informational and advertising purposes. The information provided is not a financial analysis and is therefore subject neither to the statutory requirements to promote the independence of financial analyses nor to the prohibition on trading following the dissemination of financial analyses.

The units issued under the funds described in this document may only be offered for sale or sold in jurisdictions in which such an offer or purchase is permitted. The units of these funds may not be offered for sale or sold in the US nor for the account of US persons (within the meaning of the definition for the purposes of US federal laws on securities, goods and taxes, including Regulation S of the United States Securities Act of 1933).

This document and the information contained therein may not be distributed in the US. The distribution and publication of this document and the offer or sale of the investment fund units described in this document may also be subject to restrictions in other jurisdictions.

## Netherlands

Additional information for investors in the Netherlands

The prospectus, key investor information, articles of association, annual and semi-annual reports are all available in Dutch language in electronic or printed form free of charge from the website <https://etf.dws.com/NLD/NLD/Home>

## Luxembourg

Important information

Any reference to "DWS", "Deutsche Asset Management" or "Deutsche AM" shall represent the asset management activities conducted by DWS Group GmbH & Co. KGaA and/or its affiliates ("DWS"). Clients will be provided with DWS products or services by one or more legal entities that will be identified to clients pursuant to the contracts, agreements, offering materials or other documentation relevant to such products or services.

The information contained in this document does not constitute investment advice and is merely a brief summary of key aspects of the fund. Full details of the fund can be found in the key investor information document and the sales prospectus, supplemented in each case by the most recent audited annual report and the most recent half-year report, if this report is more recent than the most recently available annual report. These documents constitute the sole binding basis for the purchase of fund units. They are available free of charge in either electronic or printed form from your advisor, from Deutsche Asset Management Investment GmbH, Mainzer Landstrasse 11-17, 60329 Frankfurt am Main, Germany, or – where Luxembourg-based funds are involved – from Deutsche Asset Management S.A., 2, Boulevard Konrad Adenauer, 1115 Luxembourg.

All opinions given reflect the current assessment of DWS Investments, which may change without notice. In cases where information contained in this document derives from third parties, DWS Investments accepts no liability for the accuracy, completeness or appropriateness of such information, although DWS Investments only uses data that it deems to be reliable.

Calculation of performance is based on the time-weighted return (BVI method) and excludes initial charges. Individual costs such as fees, commissions and other charges have not been included in this presentation and would have an adverse impact on returns if they were included. Past performance is not a reliable indicator of future returns.

Further information on taxation can be found in the sales prospectus.

The units issued under this fund may only be offered for purchase or sold in jurisdictions in which such offer or sale is permitted. The units in this fund are not allowed to be offered for purchase or sold either in the US or to or for the account of US citizens or US persons domiciled in the US.

This document and the information contained therein must not be distributed in the US. The distribution and publication of this document as well as the offering or sale of the fund's units may be subject to restrictions in other jurisdictions as well.

## Spain

Complete information on the Funds including risks can be found in the relevant key investor information documents and prospectuses in their prevailing version. These and the relevant key investor information documents constitute the only binding sales documents for the Funds. Investors can obtain these documents along with copies of the articles of association and the latest published annual and semi-annual reports from

Deutsche Asset Management SGIIC S.A., in printed form free of charge, or download them from [www.DeutscheAM.com](http://www.DeutscheAM.com)

All statements of opinion reflect the current assessment of Deutsche Asset Management SGIIC S.A. are subject to change without notice.

## Belgium

The information contained herein is only intended for and must only be distributed to institutional and/or professional investors (as defined in the Belgian law of 2 August 2002 on the supervision of the financial sector and the financial services). In reviewing this presentation you confirm that you are such an institutional or professional investor. When making an investment decision, potential investors should rely solely on the final documentation (including the prospectus) relating to the investment or service and not the information contained herein. The investments or services mentioned herein may not be adequate or appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the suitability or appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with us you do so in reliance on your own judgment.

## Nordic Countries

Where distributed by Deutsche Bank AG, Stockholm branch:

Deutsche Bank AG is authorised under German Banking Law (competent authority: European Central Bank and the BaFin, Germany's Federal Financial Supervisory Authority). Deutsche Bank AG Stockholm branch ("DBS", Bolagsverket nr. 516401-9985) is authorised by BaFin and regulated by Finansinspektionen for the conduct of licensed activities in Sweden, Denmark, Norway and Finland. Deutsche Bank branches operate within the EEA on the back of the legal entity (Deutsche Bank AG) EU Passports within the European Economic Area ("EEA"). Reference is made to European Union Regulatory Background and Corporate and Regulatory Disclosures at [https://www.db.com/en/content/eu\\_disclosures\\_uk.htm](https://www.db.com/en/content/eu_disclosures_uk.htm). Details about the extent of our authorisation and regulation by BaFin and respective Nordic Region Financial Supervisory Authority are available from us on request.

Without limitation, this document and any attachment does not constitute an offer or a recommendation to enter into any transaction with DBS. This material and attachments is for information purposes only and is not intended to be an offer or an advice or recommendation or solicitation, or the basis for any contract to purchase or sell any security, or other instrument, or for DBS to enter into or arrange any type of transaction as a consequence of any information contained herein. The implicit or explicit views and recommendations expressed in marketing or other financial presentation material as well as any financial proposals are solely those of the issuer of such material, and forwarded to you on behalf of the contracting party.

The views set out in this presentation are those of the author and may not necessarily be the views of any other division within Deutsche Bank, including the Sales and Trading functions of the Corporate and Investment Bank or the Global Client Group of Deutsche Asset Management and Private Wealth Management: all services provided by these the Sales and Trading functions of the Corporate and Investment Bank are purely on a non-advised, execution-only basis. DB may engage in transactions in a manner inconsistent with the views discussed herein. DB trades or may trade as principal in the instruments (or related derivatives), and may have proprietary positions in the instruments (or related derivatives) discussed herein. DB may make a market in the instruments (or related derivatives) discussed herein. Sales and Trading personnel are compensated in part based on the volume of transactions effected by them. You may not distribute this document, in whole or in part, without our express written permission.

DBS is solely acting for and on behalf of Deutsche Bank AG and/or any of its affiliates. Potential investors should be aware that if they decide to enter into a transaction with Deutsche Bank AG or any of its affiliates acting in their capacity as principal to the transaction ("contracting party"), any and all agreements will be entered into with that contracting party (unless re-negotiated) and pursuant to the financial laws and regulations of the country where the contracting party is licensed.

Unless DBS is entering into a separate and explicit contractual relationship with you for the provision of investment services, it is neither obliged to categorise you in accordance with MiFID nor perform MiFID suitability and/or appropriateness assessment (as enacted into Swedish laws and regulations). The investments or services mentioned in this material or an attachment thereto may not be appropriate for all investors and before entering into a transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with a contracting party you do so in reliance on your own judgment. For general information regarding the nature and risks and types of financial instruments please go to [www.globalmarkets.db.com/riskdisclosures](http://www.globalmarkets.db.com/riskdisclosures).

Past performance is not a suitable indicator of future results. An investment in funds can rise or fall in value and there is no guarantee that the investor will get back all capital invested. Fluctuations in currency rates may cause the value of investments to either rise or fall. Investors should note that most funds are not capital protected or capital guaranteed. Investors in funds should be aware of the possibility, and financially able, to lose part or all of the invested capital. An investment in funds is associated with risks, for a presentation of the risks related to investments in these funds, please refer to respective funds Key Investor Information Document ("KIID") and/or fund Prospectus).

DB SPECIFICALLY DISCLAIMS ALL LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR OTHER LOSSES OR DAMAGES INCLUDING LOSS OF PROFITS INCURRED BY YOU OR ANY THIRD PARTY THAT MAY ARISE FROM ANY RELIANCE ON THIS DOCUMENT OR FOR THE RELIABILITY, ACCURACY, COMPLETENESS OR TIMELINESS THEREOF.

Deutsche Asset Management (UK) Limited  
DWS  
Xtrackers ETF Team  
Winchester House  
1 Great Winchester Street  
London EC2N 2DB  
United Kingdom

Website: [www.Xtrackers.com](http://www.Xtrackers.com)  
Email: [Xtracker@dws.com](mailto:Xtracker@dws.com)  
Hotline: +44 (0) 20 7547 1747