

Eurex FI ESG Index Futures

March 2023



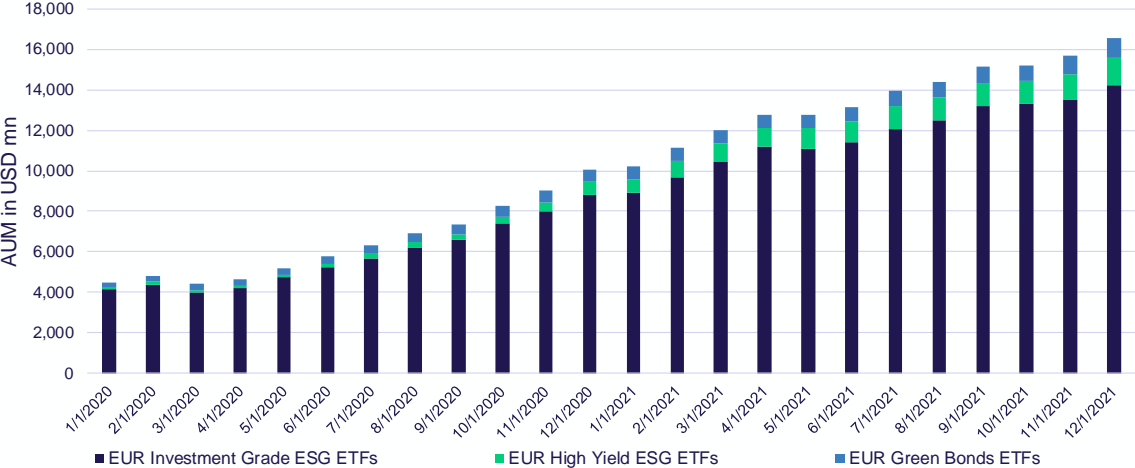
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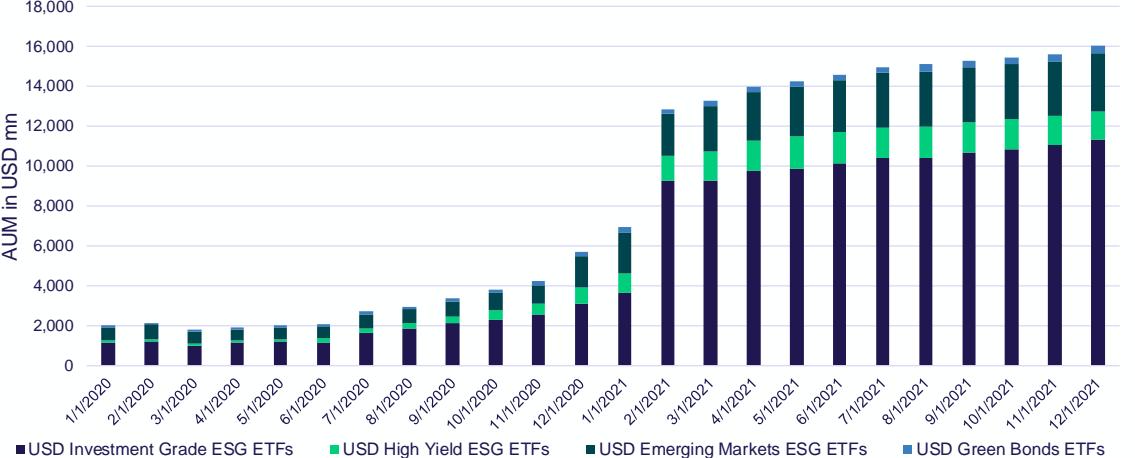
1 Introduction

Significant market growth and adoption of ESG principles in FI investing

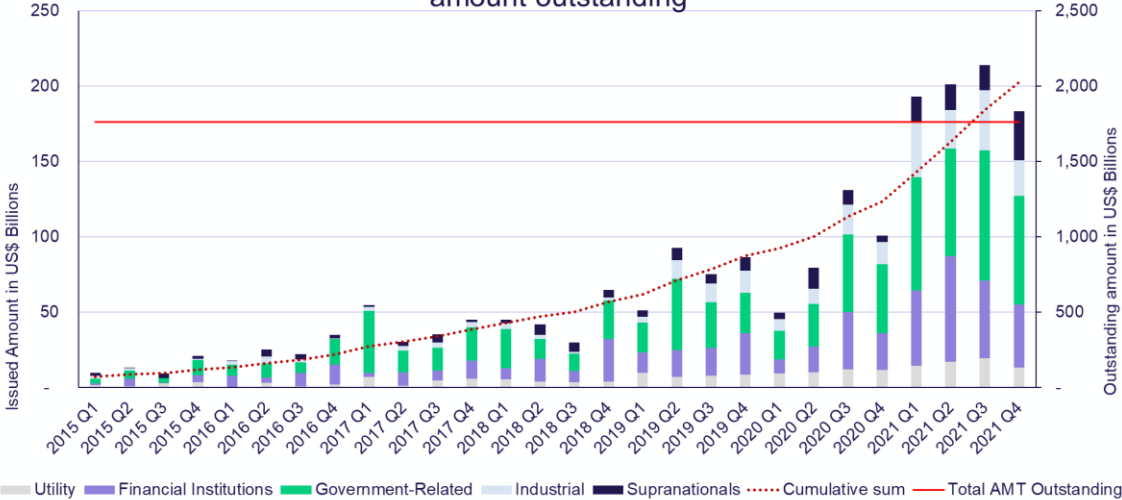
EUR FI ESG ETF - AUM Development



USD FI ESG ETF - AUM Development



Green, Social and Sustainable bonds - Historical amount issued and amount outstanding



Comments

- Looking at the ETF market as a proxy, 2020 and 2021 saw a significant growth of AUM in both EUR and USD AUM, which focused in IG corporate.
- In the US, the greatest winners of 2021 were USD IG and hard currency emerging markets, which saw their AUM soar in 2021.
- The green and sustainable bond market continues to exhibit exponential growth in issued amounts.
- This market will see new participants, such as the EU Commission and several other European Government agencies.

2 Roadmap

Eurex aims to become the global venue for listed ESG derivatives for EUR and USD denominated products



- Global venue of EUR fixed income derivatives
- Global leader of ESG listed derivatives in the equity space
- Price transparency and compliance with regulation through the Central Limit Order-book
- Clearing through Central Counterparty

ESG Compliance

- Allow Asset managers to **best adapt** their strategies to comply with **strict ESG mandates**

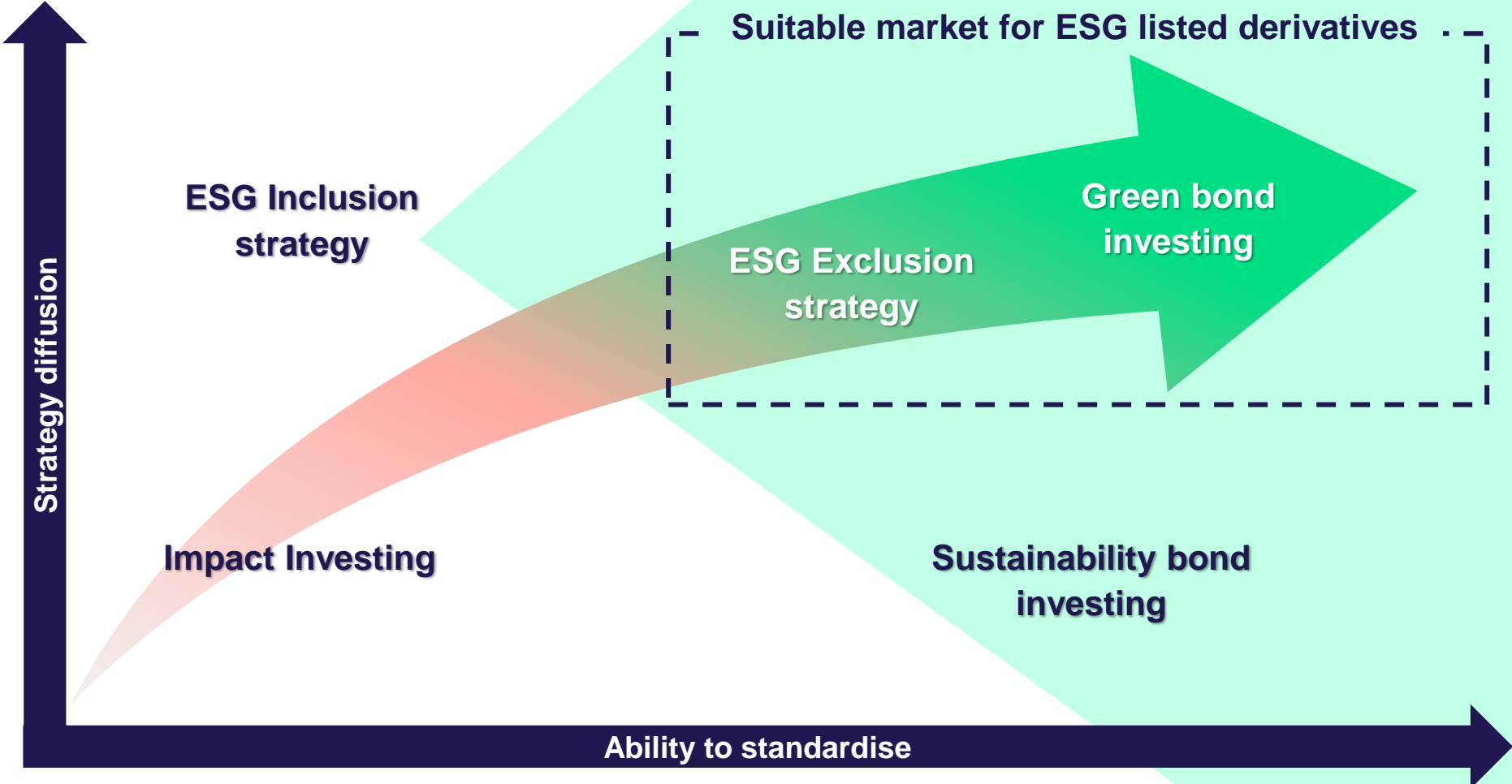
Risk Management

- Offer the market an **efficient and cost-effective** solution
- **Optimally manage** risk of ESG-driven portfolios

Additional Alpha

- Generate **additional alpha** with synthetic exposure to **ESG** fixed income securities

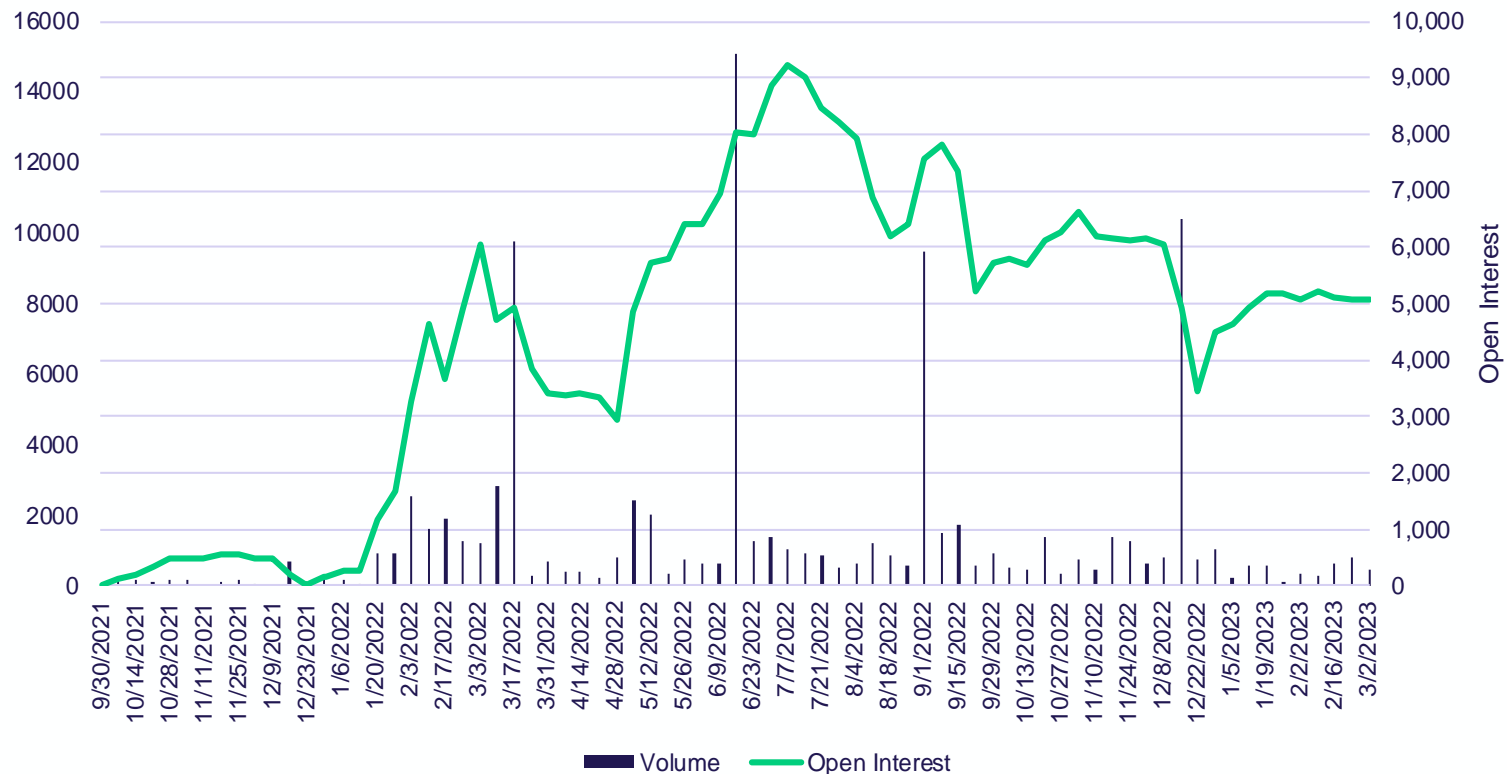
To date, only few of the investment themes in the fixed income ESG space can be leveraged to offer a tradable standardized contract



FECX Volume and Open Interest Development

New Fixed Income ESG index futures performed strongly in 2022, and now see over €732 million in outstanding notional and €15 bn in traded notional since launch in September 2021

Weekly Development of Euro Corporate SRI Index futures



Liquidity Provider picture

# of active LPs	CLOB	4
	Off-book	6

Overview of Trading Stats

- Total contracts since launch: **97,325**
- ADV in 2023: **82** contracts
- Open Interest as of January 31th 2023: **5,081** contracts

3 Eurex Futures on Euro Corporate SRI Index

Eurex Futures on Euro Corporate SRI index: Contract Specification

Bloomberg ticker of the index: RECMTREU Index

Contract Standard	Bloomberg MSCI Euro Corporate SRI Total Return Index Value Unhedged EUR
Eurex Product code	FECX
Contract Value	EUR 1,000 per index point
Minimum Block Trade size	8
Price Quotation Tick Size / Tick value	In points with two decimal places / 0.01 Points = EUR 10
Trading hours	8:00 a.m. to 7:00 p.m. CET
Contract Months	The three nearest quarterly months of the March, June, September and December cycle
Last Trading Day/ Final settlement day	Third Friday of each maturity month if this is an exchange day; otherwise the exchange day immediately preceding that day; close of trading in the maturing futures on the last trading day is 17:15 CET. Final settlement day is the exchange day immediately following the last trading day
Final settlement Price	The final settlement price is established by Eurex on the final settlement day of the contract and is based on the closing price of the index (TR, EUR) on the last trading day.
Daily settlement price	Determined from the volume weighted average of all transactions during the minute before 17:15 CET (reference point), provided that more than 5 trades transacted within this period
Settlement	Cash settlement, payable on the first exchange day after following the expiration day
Vendor codes	Bloomberg: LX YA Index; Refinitiv RIC: 0#FECX:

The Euro Corporate SRI Index (RECMTREU Index)

Key Index statistics

Components	3,050
Market Value	EUR 2.032 tn
Amount Outstanding	EUR 2.247 tn
Average Coupon	1.69
Average Maturity	5.03
Average Duration	4.67
Rating	A3 / BAA1

Index

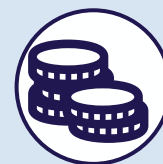
Exclusions

Methodology

- Investment Grade, Euro-denominated corporate bond universe satisfying the below criteria:



At least 1 year until final maturity



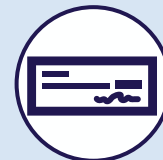
EURO denominated



Investment Grade (rating BBB or higher)



Minimum amount outstanding of Eur300MM



Fixed Coupon

- MSCI Business Involvement Screening: exclude issuers involved in business lines/activities as per the standard Bloomberg MSCI SRI screen:



Alcohol



Gambling



Nuclear Power



Civilian Firearms



Thermal Coal



Tobacco



Adult Entertainment



Genetically Modified Organisms



Military Weapons



Unconventional Oil & Gas

- MSCI ESG Controversy Score: exclude issuers with a Red (0) score – i.e. companies involved in a current, major ESG problem.

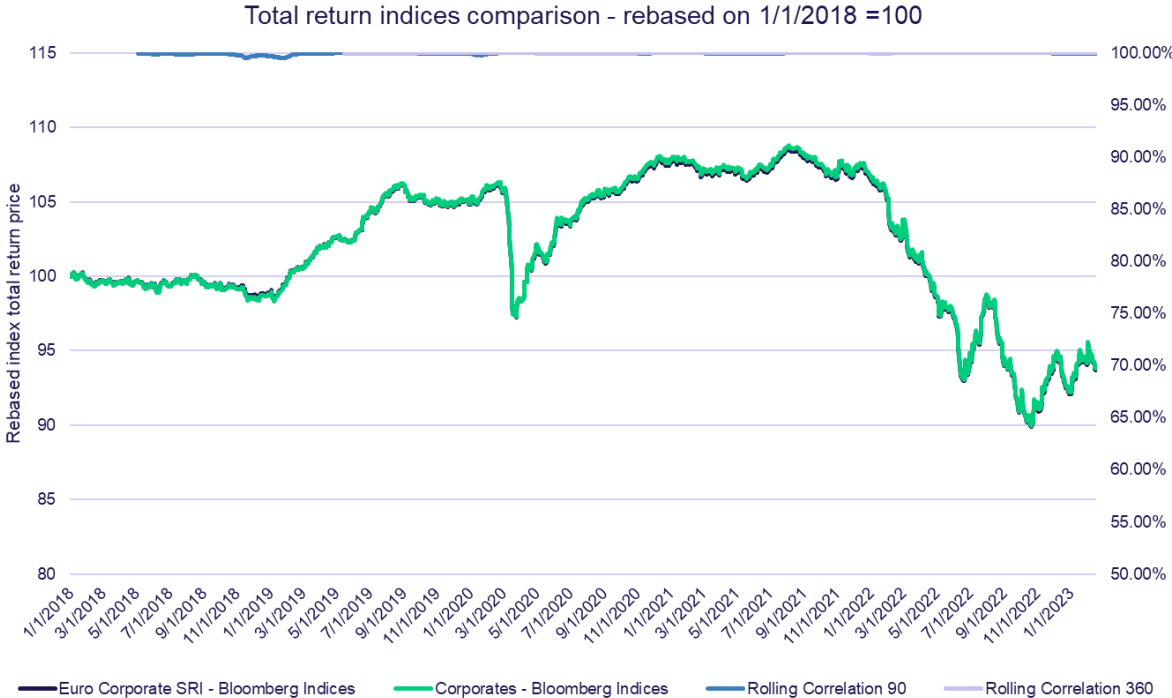
Total return comparison with the Euro corporate aggregate index – all relevant index key statistics closely match the benchmark



▪ The ESG Exclusion index closely tracks the Euro Corporate IG benchmark



- The fixed income ESG space lacks an official index benchmark
- The exclusion index plays as de-facto benchmark and was very well received by the buy-side community since its launch



Statistics of Total Returns – 2018/01 to 2023/01

Statistics	SRI Exclusion	Euro Corporate (benchmark)
Annual Average Returns	-1.64%	-1.62%
Annual Average STD	4.23%	4.27%
Average Sharpe Ratio Overall	-0.34	-0.33
Min Daily Return	-2.20%	-2.22%
Max	1.43%	1.42%

4 Eurex Futures on Global Green Bond Index

Eurex Futures on Global Green Bond index: Contract Specification

Bloomberg ticker of the index: GBGLTREU Index

Contract Standard	Bloomberg MSCI Global Green Bond Total Return Index Value Unhedged EUR
Eurex Product code	FGGI
Contract Value	EUR 1,000 per index point
Minimum Block Trade size	40
Price Quotation Tick Size / Tick value	In points with two decimal places / 0.01 Points = EUR 10
Trading hours	8:00 a.m. to 7:00 p.m. CET
Contract Months	The three nearest quarterly months of the March, June, September and December cycle
Last Trading Day/ Final settlement day	Third Friday of each maturity month if this is an exchange day; otherwise the exchange day immediately preceding that day; close of trading in the maturing futures on the last trading day is 17:15 CET. Final settlement day is the exchange day immediately following the last trading day
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Vendor codes	Bloomberg: LXAA Index; Refinitiv RIC: 0#FGGI:

The MSCI green bond selection criteria are stricter but in line with the ICMA green bond principles – The Global Green Bond Index (GBGLTREU Index)

Key Index statistics

Components	1,134
Market Value	EUR 866.67 bn
Amount Outstanding	EUR 1.012 tn
Average Coupon	1.63
Average Maturity	8.33
Average Duration	7.18
Rating	AA3 / A1

EUREX

Index

Green Bond screen

Methodology

- Investment Grade bonds belonging to Treasury, Corporate, Government-related and Securitized sectors and satisfying:



No maturity restrictions



Fixed Coupon



EUR (69%), USD (20%), CAD (3%), SEK (2.5%), GBP (2%), AUD (2%), other (1.5%)



Minimum amount outstanding of Eur300MM



Investment Grade (rating BBB or higher)

- Securities are independently evaluated by MSCI ESG Research along four dimensions to determine whether they should be classified as a green bond:



Stated use of proceeds indicated in the bond issuance prospectus



Process for management of proceeds



Process for green project evaluation and selection

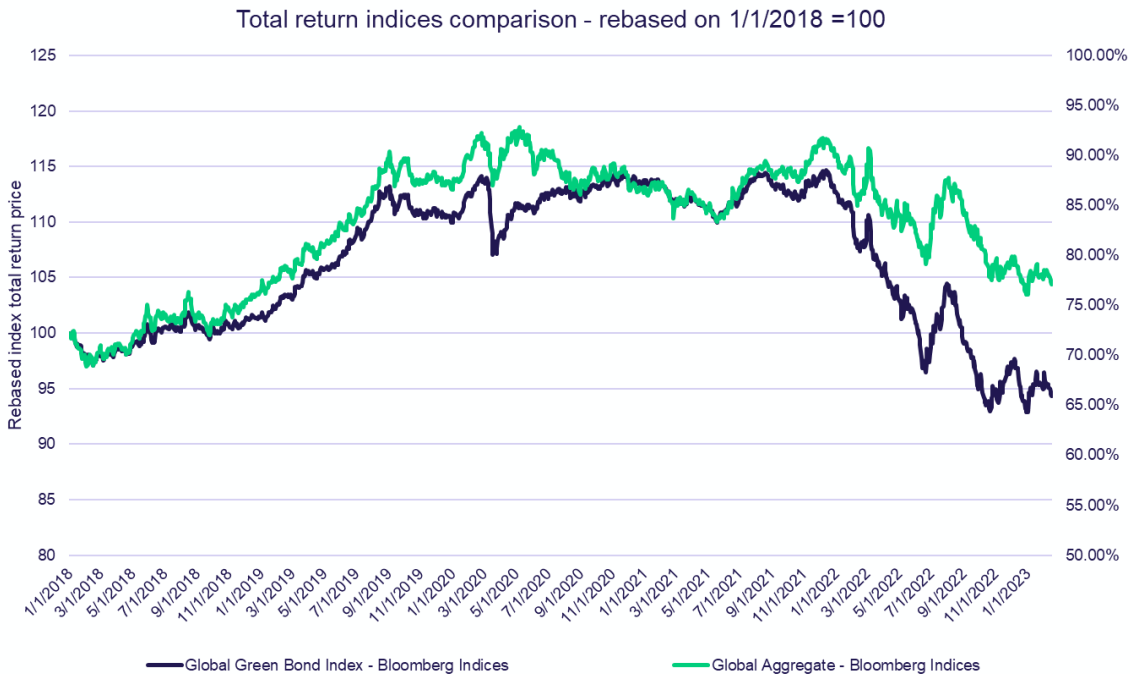


Commitment to ongoing reporting of the environmental performance of the use of proceeds

- Both self-labelled green bonds and unlabelled bonds will be evaluated using these criteria for potential index inclusion (even if not marketed as green)

Total return comparison with the Euro Global aggregate index – the Global Green bond index has a unique risk-return profile

- *The Euro Global Aggregate is not the benchmark for the Global Green Bond index. Strictly speaking the Global Green Bond Index does not have a benchmark.*
- *The Global Green bond index has a different risk return profile from it's closest parent index. Futures on this index provide a cost-effective alternative to access this particular market.*

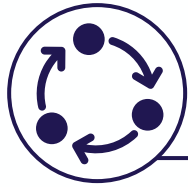


Statistics of Total Returns – 2018/01 to 2023/01

Index Stats	Global Green Bond Index - Bloomberg Indices	Global Aggregate - Bloomberg Indices
Annual Average Returns	-1.39%	1.37%
Annual Average STD	5.87%	6.37%
Average Sharpe Ratio Overall	-0.20	0.24
Min Daily Return	-1.74%	-1.45%
Max	1.67%	1.48%

5 Opportunities in Trading Eurex Fixed Income ESG Futures

Product Use Cases



Liquidity and cash management

- When **large fund flows occur**, it can be most **efficient** to "put the money to work" quickly via futures. This exposure can then be **scaled down** as individual securities are sourced.
- Employ available **un-invested** cash to get unfunded **exposure to market returns**.



Hedging purposes

- For a fund pursuing an **active selection** of bonds to **outperform** the market, **futures** can be used to temporarily **reduce market exposure** of a portfolio.
- Futures remove the need to pay **high bid/offer spreads** on bonds or run the **risk** of not being able to **buy back securities** when the need to reduce risk is over.



Portfolio overlay

- **Futures** can be used to **increase or reduce** market exposure in a portfolio, relative to its actual funded amount.
- **Synthetic replication** of an asset class, market or factor exposure.

6 Wholesale Offering

Wholesale Offering

Eurex Fixed Income ESG Futures can also be traded **outside the order book** on a **bilateral basis**, and subsequently booked to Eurex Clearing through the use of our **Eurex T7 Entry Service**.

Block Trading

- Members are able to **enter bilaterally agreed off-book** transactions into the trading and clearing system. Registered off-book trades are then automatically cleared like regular exchange transactions.
- The Block Trade Entry facility is **fully electronic and integrated into members' processes** (the exchange defines a minimum number of contracts for a Block Trade – see below).

Basis Trading

- **Basis trading** can also be facilitated by the Exchange for Physicals - Index (EFP-I) functionality. An EFP-I **against an ETF or a basket of bonds** (the “Reference Instrument”) can be entered , subject to certain criteria regarding notional size and correlation.
- Furthermore, FI ESG Futures can themselves be used as a “Reference Instrument” for an EFP-Fin trade **against a government bond futures** trade.
- There are no minimum entry size restrictions for EFP.

Minimum Entry Size for Block Trades

- Minimum block entry size has been kept to the minimum to facilitate the initial build up of Open Interest:
 - **FECX:** 30 contracts.
 - **FGGI:** 40 contracts
- There are **no minimum entry size restrictions for EFP**.

7 Liquidity Providers

Liquidity Providers

Liquidity Providers On-Screen

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Thank you!

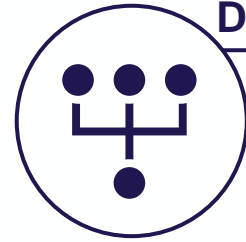
9 Appendix

Bloomberg Fixed Income Indices are the benchmark of choice, backing over USD 5tn in assets under management worldwide



History

- **47 years** as market pioneer and **leader in fixed income** benchmarks
- Serve a **wide range of applications** and benchmark users with **deep client relationships**



Distribution

- Benchmarks are **widely accessible** via market data redistributors and **portfolio analytics platforms**
- **Strong data** and wide scope of **analytics** and **custom index** solutions



Industry-wide adoption

- Over **US \$5 trillion AUM** benchmarked
- **#1 provider** of benchmarks for **Fixed Income ETFs**



Research & Product Expertise

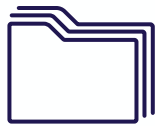
- Full suite of **benchmark** and **strategy indices** (broad market beta to alpha strategies)
- Expertise with **alternative weighted indices** to provide diversification, value and income themes
- **Innovation** and thought leadership



Industry Recognition

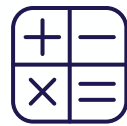
- **#1 Bond Market Indices** by Institutional Investor every year **since 1987**
- **Top index provider** by US Credit magazine **since 2004**

Bloomberg, as an index provider, is uniquely positioned to self-source all fundamental pillars to support a sound index maintenance and production process



Data

- Access to 35 million instruments across all asset classes
- Rapid, real-time market data, key reference data and more with unmatched data normalization and intelligence



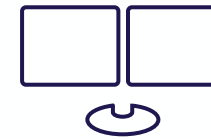
Price - BVAL

- Transparent, defensible pricing at current and historical snapshots using sophisticated, asset class-specific relative value models
- 2.5M securities priced daily using 9 snapshots and 3,600 different curves
- 1.3K clients globally



Analytics

- Portfolio & Risk Analytics, PORT<GO>
- Portfolio Report Editor, PREP<GO>
- Custom Index Builder, IQ<GO>



Distribution

- 325,000 Bloomberg Terminals globally
- BBA clients have automatic access to these indices on the terminal
- Integration with PORT and multiple 3rd party vendors



Research

- PORT and Index Research, INP <GO>
- Bloomberg Intelligence, BI<GO>

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