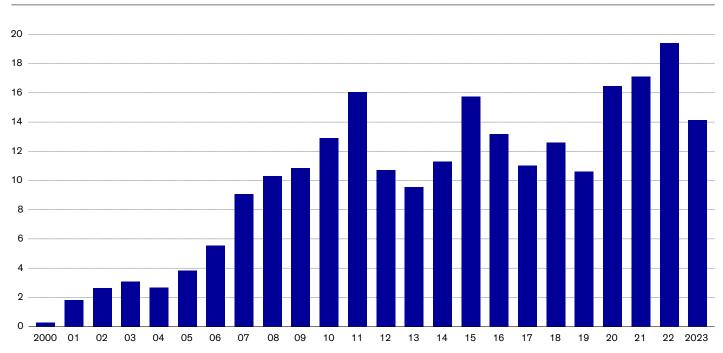


OVERVIEW

- → Deutsche Börse's XTF segment for exchange-traded funds (ETFs) was launched on 11 April 2000.
- → Xetra® was the first trading platform for ETFs in Europe and has since then maintained its leading market position in terms of both listed ETFs and trading turnover.
- → Xetra's market share in European ETF trading was higher than 30 per cent in 2023.
- → ETFs can be traded on Xetra every trading day from 9:00 to 17:30 and on Börse Frankfurt from 8:00 to 22:00

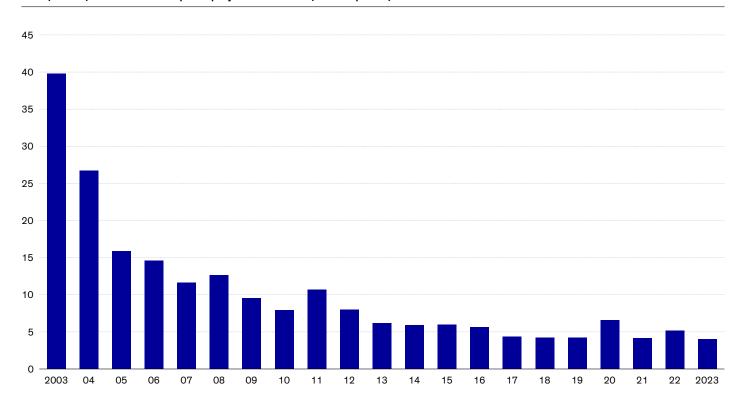
DEVELOPMENT OF TRADING TURNOVER AND LIQUIDITY

Xetra turnover in € billions (monthly average)



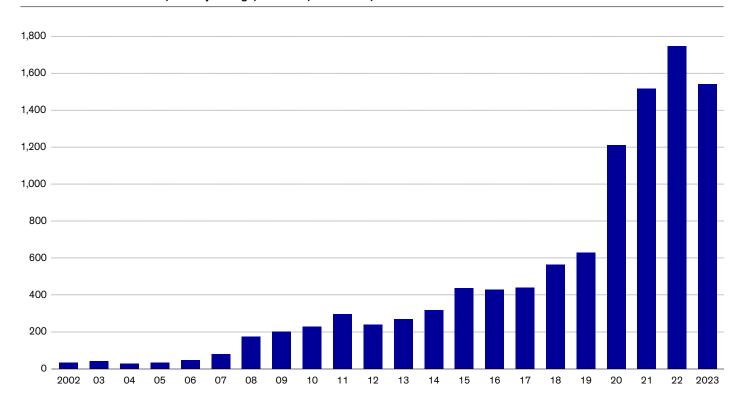
- → The average monthly order book volume in 2023 was €14.1 billion.
- → In general, the trading turnover correlates with the volatility on the stock market. The higher the volatility, the higher the trading turnover.
- → On average, the Xetra Liquidity Measure (average spread for a roundtrip order of €100k) for the 20 most liquid equity index ETFs on Xetra was around 4.0 basis points in 2023.

XLM (€100k) of the 20 most liquid equity ETFs on Xetra (in basis points)



- → Each ETF is supported by at least one Designated Sponsor as liquidity provider with two or more Designated Sponsors active in over 75 per cent of ETFs. Designated Sponsors are obliged to post firm bid and offer prices on an ongoing basis so that investors can buy or sell ETF shares via Xetra at any time. Last year, a total of 14 Designated Sponsors provided liquidity in ETF trading on Xetra.
- → Measured by ETF trading volume in 2023, the share of private investors¹⁾ was 12 per cent; measured by the number of transactions, it was 39 per cent.
- → The average order size for ETFs on Xetra across all trading participants was €18,000 in 2023, it amounted to €22,000 in 2022.

Number of executed orders (monthly average) on Xetra (in thousand)

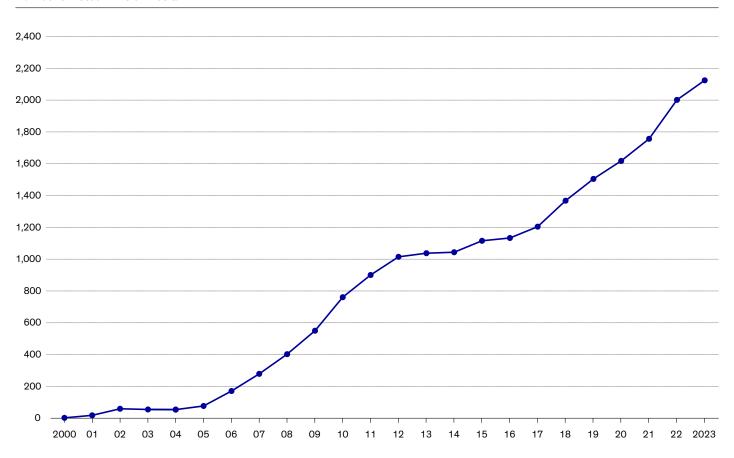


→ The average monthly number of executed orders in 2023 was a record 1.54 million (2022: 1.75 million orders per month).

Top 10 reference indices of 2023

Benchmark	Turnover in €bn	Highest Volume ETF	Turnover €bn
MSCI World Index	13.21	iShares Core MSCI World UCITS ETF	6.11
EURO STOXX 50 Index	9.53	iShares Core EURO STOXX 50 UCITS ETF (DE)	5.95
DAX Index	8.51	iShares Core DAX UCITS ETF (DE) EUR (Acc)	4.54
S&P 500 Index	7.86	iShares Core S&P 500 UCITS ETF USD (Acc)	2.69
Nasdaq 100 Index	4.79	iShares Nasdaq 100 UCITS ETF USD (Acc)	1.33
STOXX Europe 600 Index	4.15	iShares STOXX Europe 600 UCITS ETF (DE) EUR (Dist)	2.90
FTSE All World Index	2.77	Vanguard FTSE All-World UCITS ETF - (USD) Accumulating	1.67
EURO STOXX Banks 30-15 Index	2.37	iShares EURO STOXX Banks 30-15 UCITS ETF (DE) EUR (Dist)	2.37
MSCI EM Index	2.17	Xtrackers MSCI Emerging Markets UCITS ETF 1C	0.50
Solactive EUR STR + 8.5 Daily Index	2.12	Xtrackers II EUR Overnight Rate Swap UCITS ETF 1C	2.00

Number of listed ETFs on Xetra



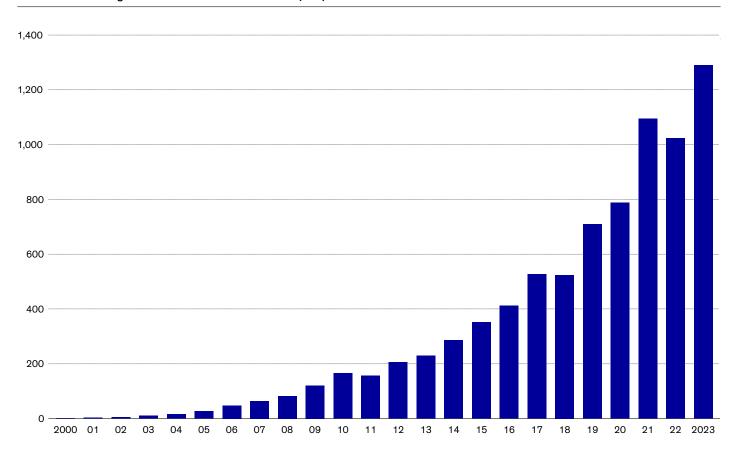
- → At the end of December 2023, 2,125 ETFs were available to investors on Xetra. Compared to the previous year, the number of tradable ETFs increased by 123.
- → ETFs available on Xetra comprise the following asset classes: equities (1,417), fixed-income (551), commodities (34), Active ETFs (119) and other (4). Active ETFs pursue an active investment strategy to outperform the performance of a reference index. The category "other" includes ETFs on volatility and multiple asset classes. A distinction can also be made between the following categories across the individual asset classes: sustainable ETFs (881), strategy ETFs (262) and thematic ETFs (206).
- → At the end of the year 2023, 2,006 index ETFs facilitated trading of 1,307 different reference indices²⁾.
- → In 2023, 261 new ETFs were listed and 138 ETFs were delisted, 61 of which were due to ETF mergers.

Number of products by issuer

ETF Issuer	Number of ETFs per end of 2023
iShares	410
Amundi	366
Xtrackers	295
Invesco	138
UBS ETF	134
SPDR	115
EasyETF	92
Vanguard	72
J.P. Morgan ETF	59
Deka ETF	56
L&G ETF	48
HSBC ETF	43
WisdomTree	41
Global X	37
Fidelity ETF	31
VanEck	31
Franklin Templeton	26
Ossiam	26
HANetf	24
First Trust	12
Expat	11
AXA	9
Credit Suisse	8
KraneShares	8
Rize ETF	7
Tabula	7
PIMCO	6
Goldman Sachs ETF	4
FlexShares	3
Market Access	3
abrdn	1
Axxion	1
CASE Invest	1
Total	2,125

- → At the end of December 2023, ETFs by 33 issuers were currently tradable on Xetra.
- → Deutsche Börse welcomed three new ETF issuers to Xetra in 2023: abrdn, CASE Invest and KraneShares.
- → The range of ETF products has been growing strongly. The product offering not only includes the major indices such as MSCI World®, DAX® and EURO STOXX 50® but also a wide range of country and regional indices, a variety of sector and strategy indices as well as other asset classes such as bonds and commodities.
- → In the fixed-income segment a wide range of government and corporate bonds with different maturities and bond ratings are available to investors. Fixed-income ETFs with currency hedging, inflation protection and various investment strategies are also available.
- → Sustainable ETFs were once again the focus of product providers in 2023. For sustainability ETFs, investors can choose between several approaches. The best-in-class-approach considers companies that have been rated best in terms of ESG criteria. Other ETFs exclude companies involved in the manufacture of controversial products such as weapons, nuclear weapons, tobacco, alcohol or the extraction of coal for power generation. In addition, individual ETFs focus on topics such as climate protection, biodiversity and the circular economy.
- → In addition to sustainability, issuers also offer ETFs on numerous other innovative trends and promising business areas. These include topics such as alternative energy, innovative healthcare services or cybersecurity and digitalization.

Assets under management for ETFs tradable on Xetra (€bn)



→ At the end of the first trading year (December 2000), ETF assets under management in the XTF segment were €0.4 billion. The milestone of €1 trillion was exceeded for the first time in 2021. At €1.29 trillion as at the end of December 2023, assets under management reached a new record level last year. The annual growth rate of the fund assets over the past ten years amounts to 16 per cent.

ETF Assets under Management by issuer

ETF Issuer	AuM in 2023 (€bn)³)
iShares	593.32
Amundi	158.83
Xtrackers	156.67
Vanguard	105.78
SPDR	60.75
Invesco	51.42
UBS ETF	41.97
EasyETF	23.57
HSBC ETF	19.11
L&G ETF	14.35
J.P. Morgan ETF	14.20
Deka ETF	13.13
Credit Suisse	6.71
VanEck	6.09
Ossiam	4.85
Fidelity ETF	4.12
WisdomTree	4.00
PIMCO	2.68
Franklin Templeton	2.34
AXA	1.63
First Trust	1.19
HANetf	0.82
Global X	0.73
Rize ETF	0.47
KraneShares	0.41
Tabula	0.31
FlexShares	0.28
Goldman Sachs ETF	0.20
Market Access	0.14
Axxion	0.04
abrdn	0.01
Expat	0.01
CASE Invest	0.00
Total	1,290.14

3) Assets under management per issuer only include ETFs listed on Xetra.

→ ETFs have firmly established themselves as a successful investment product. Worldwide, assets managed by ETFs reached a new record high of more than €10.5 trillion at the end of December 2023.4)

MILESTONES SINCE THE INTRODUCTION OF THE XTF-SEGMENT

11 April 2000

The first ETFs of the underlying reference indices EURO STOXX 50® and STOXX® Europe 50 are tradable on Xetra. The issuer was Merrill Lynch International with the LDRS product family, which is today part of the iShares product family of BlackRock.

2001

Indexchange, today also part of the iShares product family of BlackRock, issues the first ETF on the DAX index globally.

2003

The first European bond ETFs on German government and European corporate bonds were launched.

2005

The segment is expanded to include dividend strategy ETFs as well as a commodity ETFs.

2006

A Lyxor ETF enables investors to participate in the performance of the LevDAX. The index is linked to the performance of the DAX with a leverage factor of 2.

2007

The segment is expanded to include currency-hedged bond ETFs and ETFs with inverse performance (short ETFs).

2010

For the first time, investors can invest in high-yield corporate bonds via a high-yield bond ETF.

2011

The first ETFs replicating equal-weighted instead of traditional market cap-weighted indices are issued. Furthermore, the first volatility ETF is listed.

2012

The 1,000th ETF becomes tradable on Xetra on 22 August.

2014

The first ETF with direct access to Chinese A shares is listed.

2015

First ETFs on Chinese and Indian government bonds are tradable on Xetra. Furthermore, the first nine US sector ETFs are listed.

2016

The first ETFs on the Israelian equity market and Turkish government bonds are introduced to trading.

2018

Topics such as artificial intelligence, digital security and cloud technology are becoming investable via ETFs. In the area of country ETFs, Eastern European countries such as Macedonia, Bulgaria, Croatia or Slovenia are being included for the first time.

2019

The range of thematic ETFs is being expanded to include block-chain ETFs. In addition, more sustainability ETFs are being listed.

2020

The first ETFs on medical cannabis and the CBD industry are listed. This is followed by the first ETFs that take the Paris Climate Agreement into account when selecting companies.

2021

For the first time, thematic ETFs focussing on the aerospace as well as hydrogen industries become available.

2022

The range of sustainability ETFs is expanded for the first time to include global sector ETFs. In addition, the first thematic ETFs are listed on the Metaverse.

2023

The first bond ETFs with a fixed maturity enable a diversified investment in bonds held to maturity with similar maturity dates. A thematic ETF offers access to companies in the defence industry for the first time.

Published by

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January 2024

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