



ETF TRADING ON XETRA

Facts & figures for the year 2018

Overview

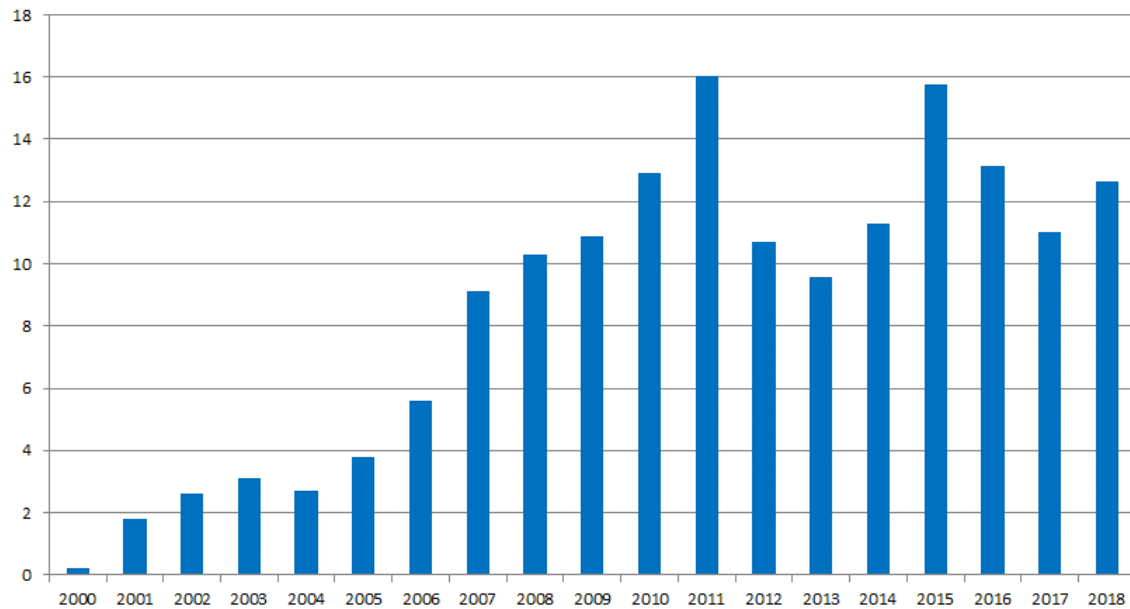
- Deutsche Börse's XTF segment for exchange-traded index funds (ETFs) was launched on 11 April 2000.
- Thus, Xetra® was the first trading platform for ETFs in Europe and since then is the market leader in terms of listed ETFs (1,368) and trading turnover (€12.6 billion monthly average).
- The market share of Xetra for the on-exchange volume of ETFs in Europe was 29 per cent in 2018.
- 89 percent of the exchange-traded funds turnover in Germany is generated on Xetra.
- ETFs can be traded on Xetra every trading day from 9 a.m. to 5.30 p.m. and on the Börse Frankfurt trading venue from 8 a.m. to 8 p.m. All ETFs traded in euro on Xetra are also tradable through Börse Frankfurt.

Top 10 reference indices with trading turnover on Xetra in the year 2018

Benchmark	Turnover in €bn	Highest Volume Instrument	Turnover in €bn
DAX Index	29.51	iShares Core DAX UCITS ETF (DE)	19.73
EURO STOXX 50 Index	17.42	iShares EURO STOXX 50 UCITS ETF (DE)	8.50
STOXX Europe 600 Index	5.86	iShares STOXX Europe 600 UCITS ETF (DE)	5.24
S&P 500 Index	5.82	iShares Core S&P 500 UCITS ETF	2.02
MSCI World Index	5.37	iShares Core MSCI World UCITS ETF USD (Acc)	1.85
EURO STOXX Banks 30-15 Index	4.52	iShares EURO STOXX Banks 30-15 UCITS ETF (DE)	4.52
MSCI Emerging Markets Index	4.01	Xtrackers MSCI Emerging Markets Swap UCITS ETF 1C	0.76
Nasdaq 100 Index	2.54	iShares NASDAQ-100 UCITS ETF (DE)	0.81
MSCI Europe Index	2.41	Xtrackers MSCI Europe UCITS ETF – 1C	0.77
MDAX Index	2.37	iShares MDAX UCITS ETF (DE)	1.54

Development of trading turnover and liquidity

- The average monthly order book volume in 2018 is €12.6 billion.
- In general, the trading turnover correlates strongly 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 is around 4.2 basis points in 2018.

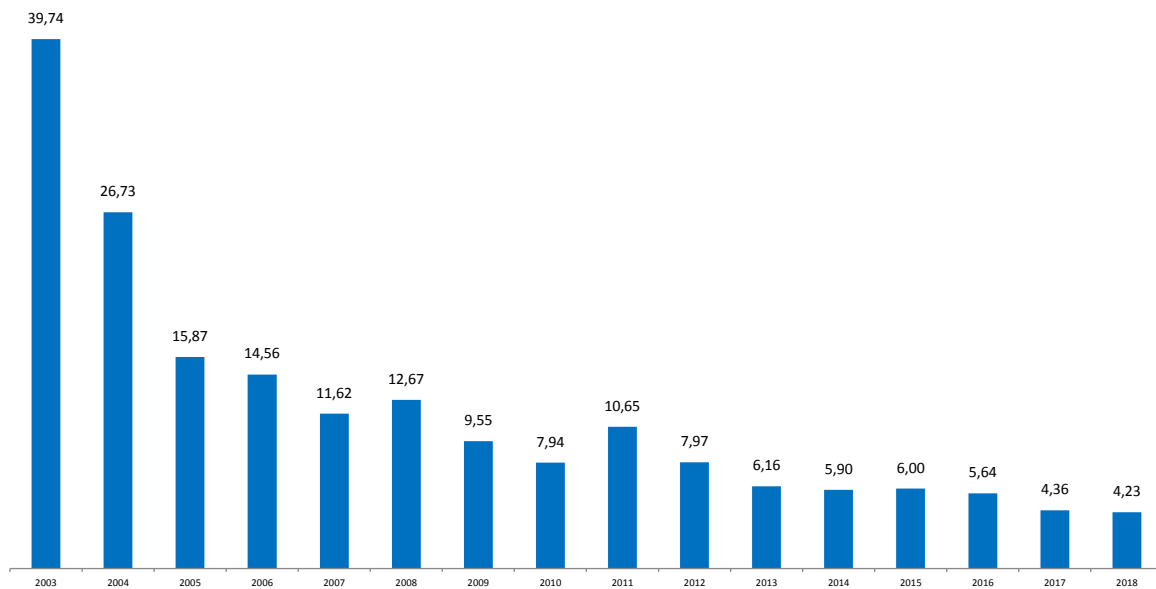
Xetra turnover in € billions (monthly average)

- Each ETF is covered by a minimum of one Designated Sponsor. Designated Sponsors are obliged to post binding prices. Currently, more than 80 per cent of ETFs are managed by more than one Designated Sponsor. At least 17 Designated Sponsors provide liquidity in ETF trading on Xetra.
- Measured by ETF trading volume in 2018, the share of private investors¹ was 5 per cent; measured by the number of transactions, it was 30 per cent.
- The average order size for ETFs on Xetra was €45,000 in 2018, it amounted to €50,000 in 2017.

¹ Assuming that all orders in an amount of up to €25,000 were placed by private investors

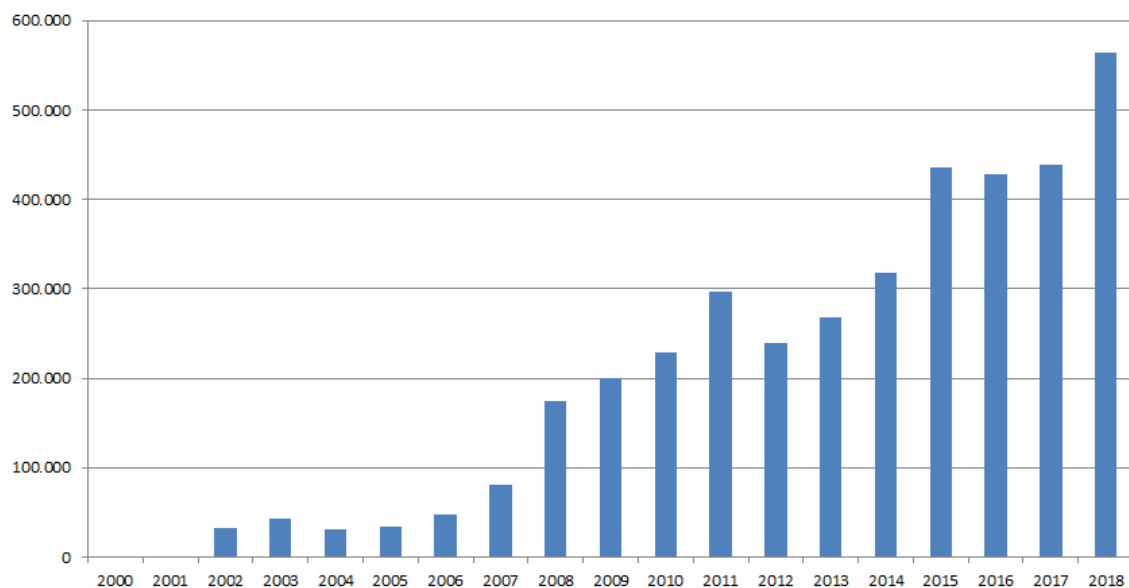
- On average, the Xetra Liquidity measure (average spread for a roundtrip order of €100k) for the 20 most liquid equity index ETFs on Xetra is around 4.2 basis points in 2018.

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

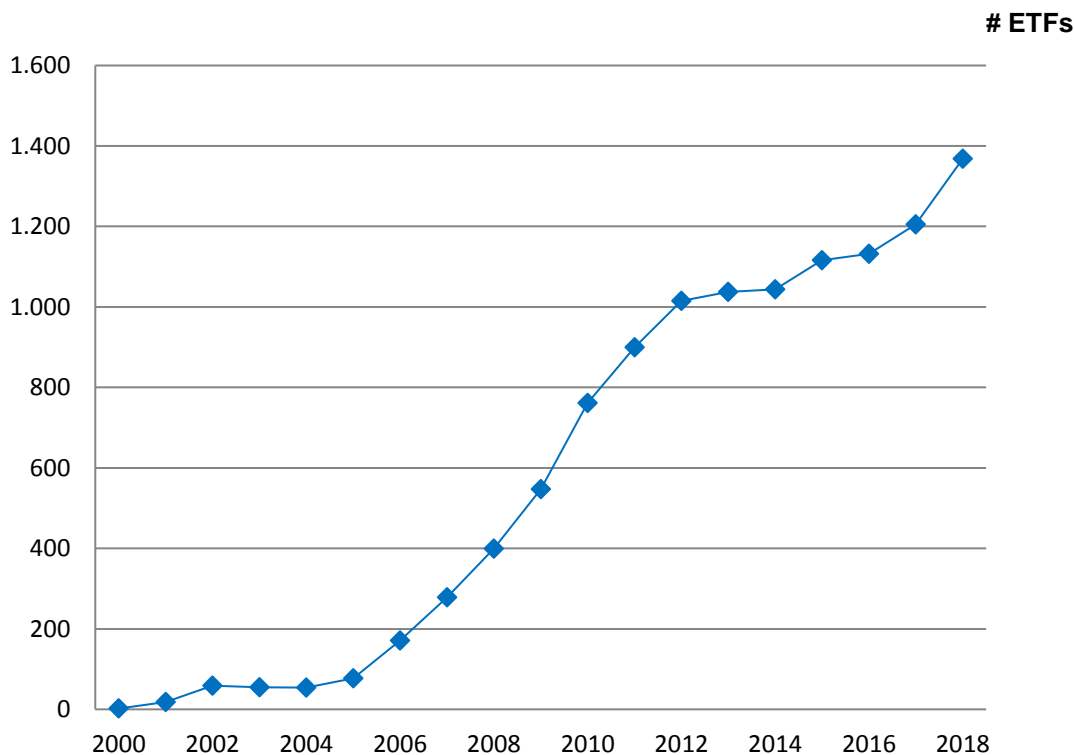


- The average number of orders executed in 2018 was a record 560,000 (per month).

Xetra – Number of executed orders



Development of tradable products on Xetra since the year 2000



- At the end of 2018, 1,368 ETFs were listed on Xetra. In 2018 alone, 187 new ETFs were listed. The ETFs cover six categories: equities (705), pension products (346), commodities (27), strategies (248), Active ETFs (35) and other (7). The category "Other" includes hedge funds, volatility and mixed funds. Active ETFs pursue an active investment strategy to surpass the performance of a reference index.
- The 1,333 index ETFs facilitate trading of 962 different reference indices (price index and performance index both taken into account).
- During the past 18 years, 483 ETFs have been delisted due to market exits of individual issuers as well as due to consolidation or closing of individual funds. It is a sign of healthy market development when issuers close products without sustainable market demand and thereby providing a clear offering to investors.

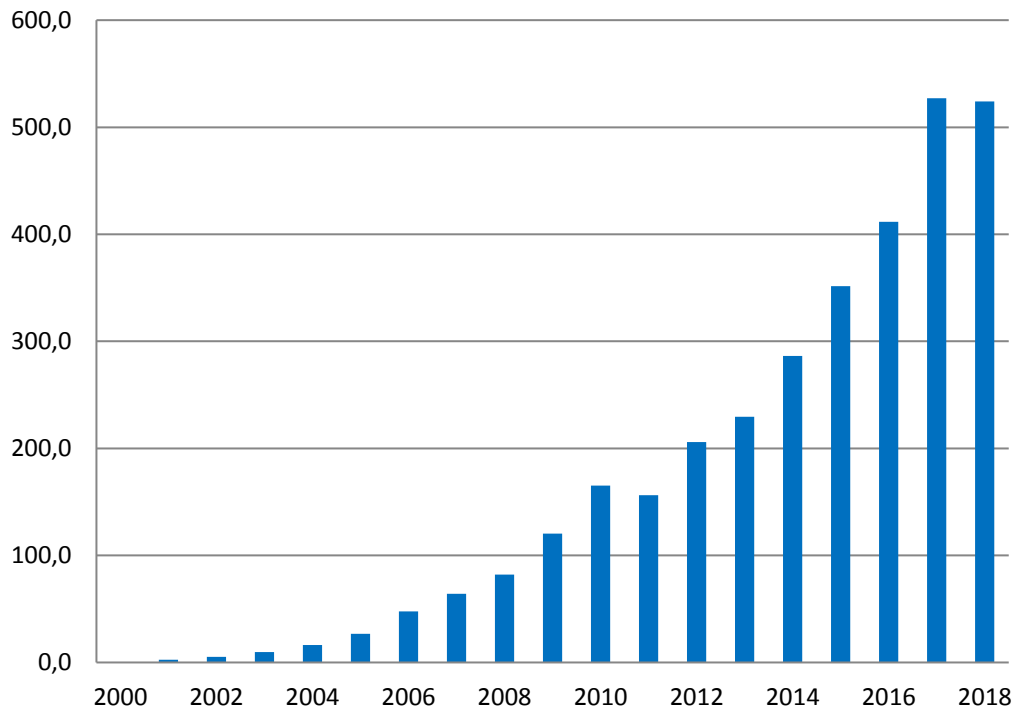
Number of products by issuer in 2018

ETF issuer	Number
iShares	282
Xtrackers	206
Lyxor	130
ComStage	109
Amundi	101
SPDR	91
UBS ETF	83
Invesco	79
BNP Paribas Easy	49
Deka ETF	44
WisdomTree	32
HSBC ETF	27
Vanguard	25
VanEck	18
JP Morgan	17
L&G ETF	15
Ossiam	13
Expat	11
Franklin Liberty Shares	9
Market Access	7
Fidelity ETF	7
Commerzbank ETF	5
HANetf	3
UniCredit ETF	3
First Trust	2
Total	1.368

- ETFs by 25 issuers are currently tradable on Xetra.
- Deutsche Börse welcomed three new ETF issuers to Xetra in 2018: Expat, J.P. Morgan und HANetf.
- The range of ETF products has been growing strongly. The product offering not only includes the major Bluechip-indices such as the 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 periods, high-yield bonds as well as money market ETFs are available for investors. Furthermore, first pension product ETFs with a strategic component are accessible.
- The current trend is towards new index concepts, which aim to generate higher profits compared to classical indices with a market capitalization weighting. 248 strategy ETFs are currently listed on Xetra.

Development of managed fund assets on Xetra (Assets under Management, AuM)

AuM (€bn)



- At the end of the first trading year (December 2000), the ETF assets on Xetra were €0.4 billion; as of the end of the year 2018, it reached the record high of €524.2 billion.
- The annual growth rate of the fund assets over the past ten years amounts to 16 per cent.
- ETFs have firmly established themselves as a successful investment product. Worldwide, assets managed in index funds reached a record high of €4.1 trillion at the end of December 2018.
- Issuers remain optimistic about growth and profitability in the coming years.

Managed fund assets by issuer December 2018

ETF-Emittenten	AuM in Mio. €*
iShares	262,134.0
db x-trackers	66,782.2
Lyxor	41,233.1
Vanguard	31,220.8
Amundi	29,842.3
SPDR	25,343.9
UBS-ETF	16,196.6
Invesco	15,480.1
Deka ETF	8,601.9
ComStage	7,686.3
BNP Paribas Easy	6,266.2
HSBC ETF	5,217.2
L&G ETF	2,257.6
VanEck	1,916.9
Ossiam	1,181.7
WisdomTree	834.7
JP Morgan	769.7
Fidelity ETF	635.3
Market Access	193.0
First Trust	110.5
Franklin Liberty Shares	94.1
UniCredit ETF	86.8
Commerzbank ETF	57.0
Expat	14.6
HANetf	5.3
Total	524,161.8

*Managed fund assets per product section in relation to ETFs which are listed on Xetra

Milestones since the introduction of the 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: with "iShares eb.rexx Government Germany (DE)" by Indexchange and "iShares € Corporate Bond" the first European pension ETFs on German government bonds and European corporate bonds follow.
- 2005: Inclusion of dividend strategy and commodities ETFs on DivDAX, EURO STOXX 50 Select Dividend 30 and STOXX50 Select Dividend 30 as well as on EasyETF GSCI.
- 2006: A Lyxor ETF facilitates participation in the performance of the LevDAX, linked to the performance of the DAX and leveraged by a factor of 2.
- 2007/2008: First listing of pension ETFs with currency hedging and ETFs with inverse performance (short ETFs).

- 2010: First high-yield ETF on corporate bonds tradable.
- 2011: First issuance of ETFs on equal-weight approach indices instead of classic weighting by market capitalisation. Furthermore the first volatility ETF is listed.
- 2012: The 1,000th ETF becomes tradable on Xetra on 22 August.
- 2014: First ETF with direct access to Chinese A shares listed.
- 2015: First ETFs on Chinese and Indian government bonds (db X-trackers II Harvest CSI China Sovereign Bond UCITS ETF (DR) 1D) and LAM Sun Global ZyFin India Sovereign Enterprise Bond UCITS ETF Class USD) are tradable on Xetra. Furthermore first nine US sector ETFs are tradable.
- 2016: With the first ETF on Israeli market the iShares TA-25 Israel UCITS ETF investors have the possibility to benefit from the performance of Israeli publically listed companies. They also have access to Turkish government bonds (LAM Alternatif ZyFin Turkey Sovereign Bond UCITS ETF).
- 2017: The first ETF with access to equities from the Biotechnological- and Pharmaceutical branch, which are listed on the NASDAQ (iShares NASDAQ US Biotechnology UCITS ETF).
- 2018: First ETFs focusing on companies active in artificial intelligence, digital security or cloud technology: Amundi STOXX Global Artificial Intelligence, iShares Digital Security UCITS ETF (Acc), HAN-GINS Cloud Technology UCITS ETF. In addition, bond ETFs on conditional mandatory convertible bonds (Co-Co bonds) of WisdomTree are listed for the first time. For the first time, investors will also have access to ETFs from the issuer Expat on individual Eastern European countries such as Macedonia, Bulgaria, Croatia or Slovenia.

Published by
Deutsche Börse AG
60485 Frankfurt am Main
www.xetra.com

E-Mail: xetra@deutsche-boerse.com
Follow us on twitter: @Xetra

February 2019