

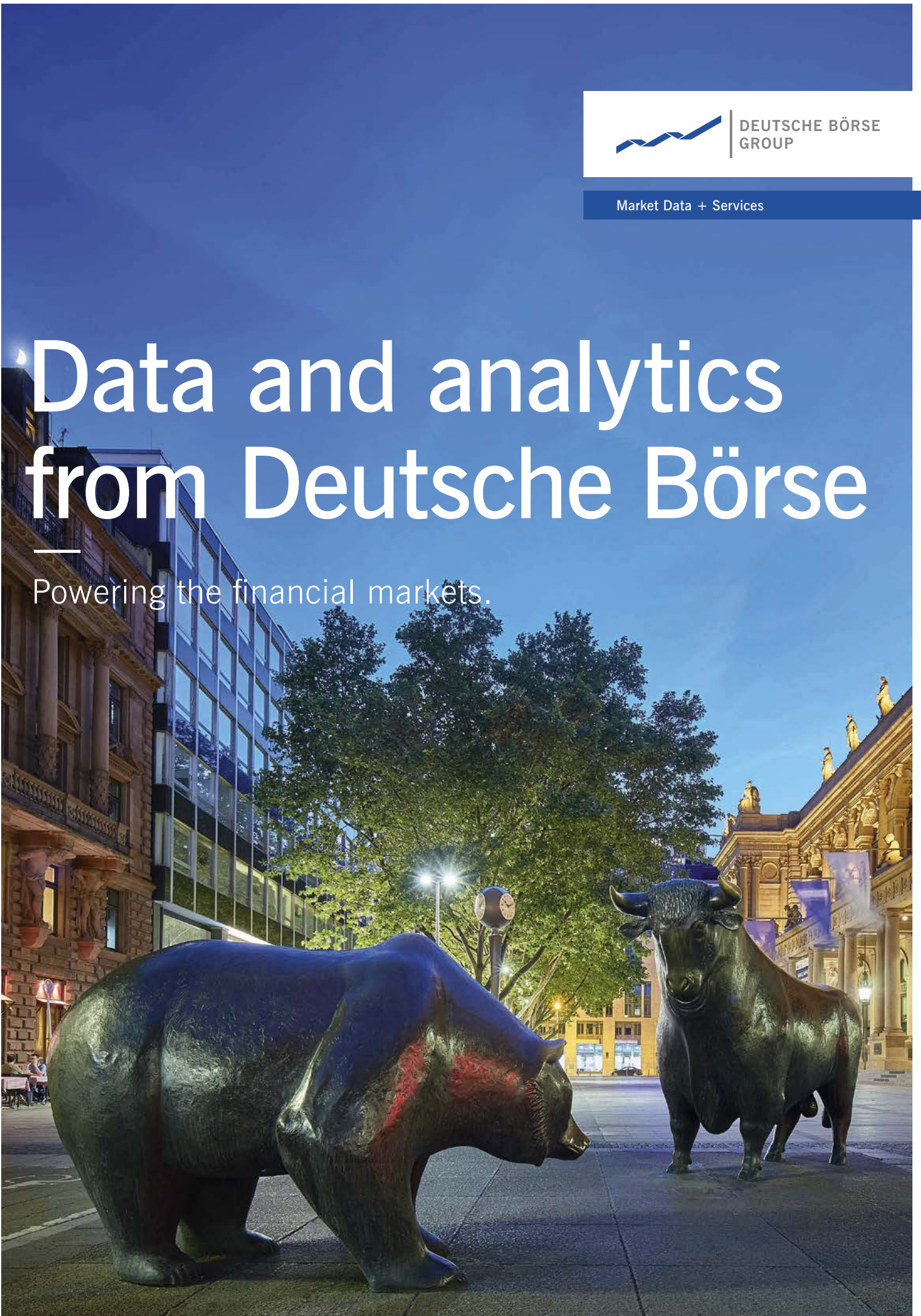


DEUTSCHE BÖRSE
GROUP

Market Data + Services

Data and analytics from Deutsche Börse

Powering the financial markets.



Deutsche Börse Group

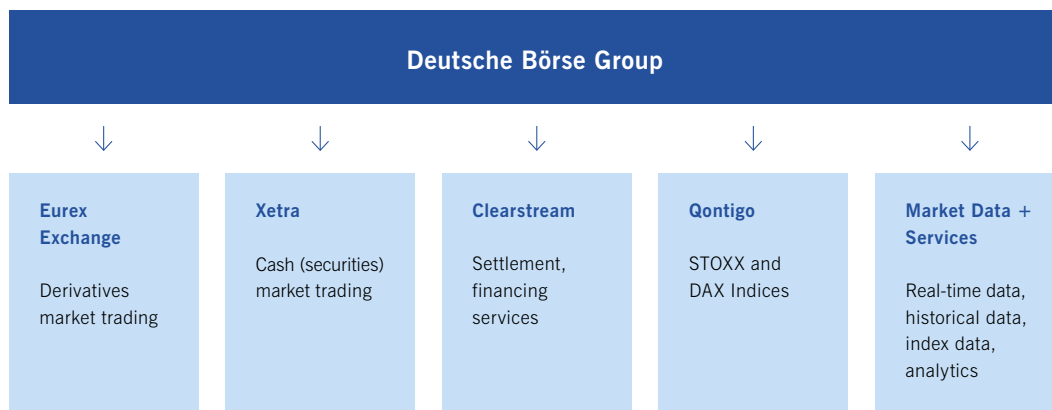
A global market operator

Deutsche Börse Group, whose history dates back to 1585, is today one of the largest exchange organisations world-wide. The Group is headquartered in Germany and has more than 10,000 employees working to provide investors, financial institutions and companies access to global capital markets.

Deutsche Börse Group's integrated business model covers the entire process chain from securities and derivatives trading, clearing, settlement and custody, through to market data and the development and operation of electronic trading systems. Deutsche Börse Group owns the derivatives exchange Eurex Exchange, the securities exchange Xetra, as well as the settlement and custody business Clearstream. Through its subsidiary Qontigo, Deutsche Börse calculates the well-known STOXX and DAX indices.

The Group's market data business, operated by Market Data + Services, is trusted by more than 4,000 institutions and 410,000 subscribers. Market Data + Services also supports other exchanges and cooperation partners in the distribution and licensing of their market data, like BSE India, Taiwan Futures Exchange (TAIFEX) or the Pakistan Stock Exchange (PSX).

Deutsche Börse Group's business areas



Simplified illustration

Trademarks

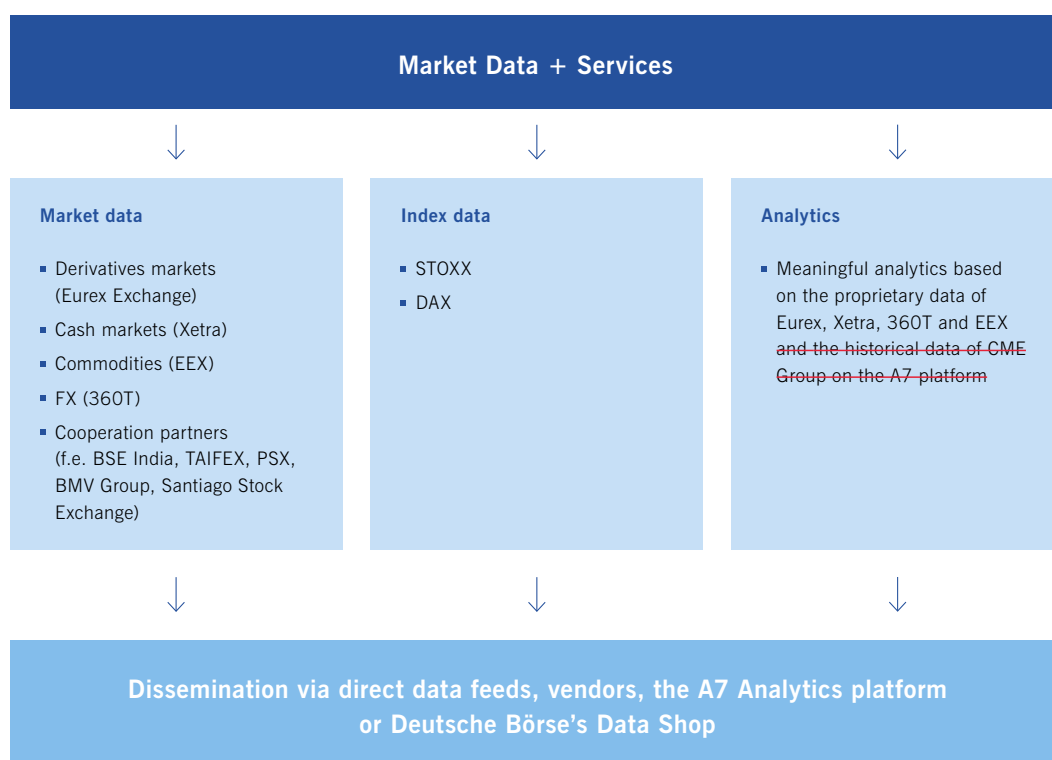
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Deutsche Börse

Market Data + Services

Powering the markets with high quality data

An overview of our offering



Simplified illustration

What is real-time market data?

Deutsche Börse's real-time market data information products typically provide the following information:

- Best bid
- Best ask
- Last traded price and quantity
- Up to 15 top buy and sell offers (available in level 2 products)

Our customers can choose between receiving data directly from Deutsche Börse via the CEF direct data feeds or from vendors who receive the data from Deutsche Börse. CEF data feeds disseminate market data ultra-fast, i.e. with in milliseconds or even microseconds, depending on the feed chosen and the location of the customer's application.

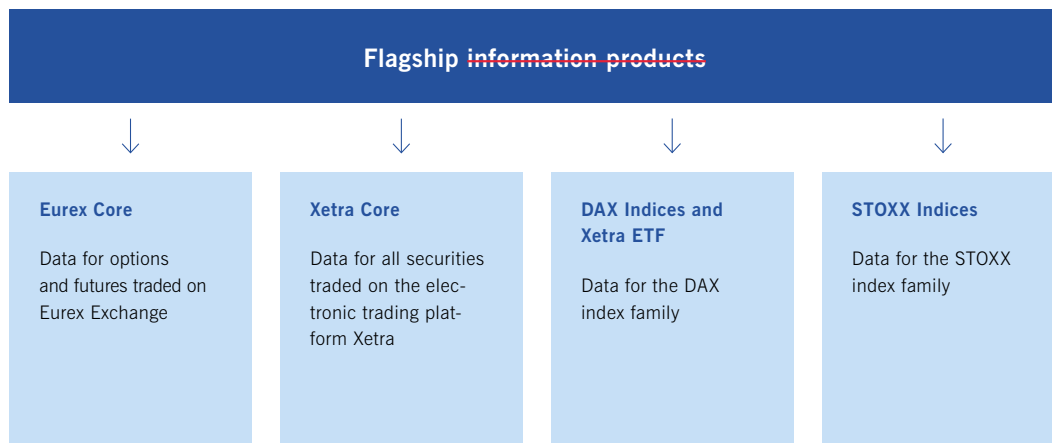
Our flagship ~~information products~~

Deutsche Börse provides financial market participants with reliable and valuable input to help them operate successfully in today's markets.

The Information Products provide real-time and historical information on instruments listed on Deutsche Börse's own trading venues (Eurex and Xetra) as well as those of our cooperation partners. We also provide data for the DAX and STOXX indices.

The below chart highlights the most important real-time ~~information products~~.

Real-time ~~information products~~ for leading markets and indices



Simplified illustration

Eurex Core

Market data from the leading global derivatives exchange

Eurex is one of the world's leading derivatives exchanges offering a broad range of international benchmark products, operating the most liquid fixed income markets in the world and featuring open and low-cost electronic access. With market participants connected from 35 countries, trading volume at Eurex exceeds 1.8 billion contracts per year.

The most well-known and heavily traded Eurex Exchange products include:

- Euro Schatz Futures
- Euro Bobl Futures
- Euro Bund Futures
- Euro Buxl Futures
- EURO STOXX 50 Index Futures
- DAX Index Futures
- KOSPI 200 Options
- MSCI Index Futures

The ~~information product~~ Eurex Core contains netted pre-trade information and un-netted trade information.*

*Netted pre-trade information provides bids and offers at specified time intervals; un-netted pre-trade information provides all bids and offers (up to the pre-defined order book depth) as soon as they occur.



Xetra Core

Data from Germany's most important stock market

The Information Product Xetra Core provides a comprehensive overview of the trading activity on Germany's most important stock market. Xetra is one of the leading trading platforms for securities in Europe and the reference market for German equities and exchange traded funds (ETFs). It is also the world's largest exchange network, connecting more 200 trading participants from 18 countries.

More than 1.000 German and international shares can be traded on Xetra, including the German blue chips from the DAX index.

Well-known German companies traded on Xetra:

- Adidas
- BMW
- Daimler
- Linde
- Lufthansa
- Porsche
- Siemens
- Volkswagen

US companies traded on Xetra:

- Apple
- Cisco
- Exxon
- Microsoft
- Pfizer

The Information Product Xetra Core contains netted pre-trade and un-netted trade information.*

*Netted pre-trade information provides bids and offers at specified time intervals; un-netted pre-trade information provides all bids and offers (up to the pre-defined order book depth) as soon as they occur.



DAX Indices and Xetra ETF

Index and ETF data combined in one Information Product

The DAX index tracks the performance of the 40 largest German companies and is widely used as an indicator of German economic activity.

Some well-known DAX index constituents are:

- Adidas
- BMW
- Daimler
- SAP
- Siemens

The information product Deutsche Börse Indices and Xetra ETF provides trade and price information for the complete Deutsche Börse index universe (the DAX index as well as many other indices in the DAX family). It also includes data for more than 1,000 ETFs listed in Deutsche Börse's XTF Exchange Traded Funds segment, Europe's leading market for actively and passively managed exchange-traded funds.

DAX index composition (October 2022)

1. adidas	15. Deutsche Telekom	29. PUMA
2. Airbus	16. E.ON	30. QIAGEN
3. Allianz	17. Fresenius	31. RWE
4. BASF	18. Fresenius Medical Care	32. SAP
5. Bayer	19. Hannover Rück	33. Sartorius
6. Beiersdorf	20. Heidelberg Cement	34. Siemens
7. BMW	21. Henkel	35. Siemens Healthineers
8. Brenntag	22. Infineon	36. Siemens Energy
9. Continental	23. Linde	37. Symrise
10. Covestro	24. Mercedes-Benz Group	38. Volkswagen
11. Daimler Truck	25. Merck	39. Vonovia
12. Deutsche Bank	26. MTU Aero Engines	40. Zalando
13. Deutsche Börse	27. Münchener Rück	
14. Deutsche Post	28. Porsche	



STOXX Indices

Data for leading European and global indices

STOXX Ltd., part of Deutsche Börse Group, is a leading global index provider. Its most recognised index is the EURO STOXX 50, which provides a blue-chip representation of supersector leaders in the Eurozone.

The ~~information product~~ STOXX Indices provides comprehensive real-time data for the European and global indices calculated by STOXX.

Euro STOXX 50 index composition (October 2022)

1. adidas	DE	26. Iberdrola	ES
2. Adyen	NL	27. Inditex	ES
3. Ahold Delhaize	NL	28. Infineon	DE
4. Air Liquide	FR	29. ING Group	NL
5. Airbus	FR	30. L'Oreal	FR
6. Allianz	DE	31. LVMH	FR
7. Amadeus IT Group	ES	32. Mercedes Benz Group	DE
8. Anheuser Busch InBev	BE	33. Münchener Rück	DE
9. ASML Holding	NL	34. Nokia	FI
10. AXA	FR	35. Nordea Bank Abp Registered	FI
11. Banco Santander	ES	36. Pernod Ricard	FR
12. BASF	DE	37. Philips	NL
13. Bayer	DE	38. Prosus	NL
14. BBVA	ES	39. Safran	FR
15. BMW	FR	40. Sanofi	FR
16. BNP Paribas	IE	41. Santander	ES
17. Cement Roadstone Holding	IE	42. SAP	DE
18. Danone	FR	43. Schneider Electric	FR
19. Deutsche Börse	DE	44. Siemens	DE
20. Deutsche Post	DE	45. Stellantis	NL
21. Deutsche Telekom	DE	46. TotalEnergies	FR
22. Enel	IT	47. Vinci	FR
23. Eni	IT	48. Vivendi	FR
24. EssilorLuxottica	FR	49. Volkswagen	DE
25. Flutter Entertainment	IE	50. Vonovia	DE

Real-time data availability

Global reach, fast delivery

All real-time Information Products are disseminated via Deutsche Börse's CEF direct data feeds as well as through vendors. A list of vendors can be found at www.data.services.deutsche-boerse.com > Quick links > Vendor list.

CEF data feeds offer the following advantages:

- Data is disseminated ultra-fast
- Special feed solutions are offered for different needs, e.g. a consolidated feed with all data products or Ultra feeds with increased data granularity
- Fastest source for DAX and STOXX index data
- Fastest source of data for non-trading participants

We offer a tailored CEF Asia feed for our clients in Asia. Highlights of CEF Asia are:

- Focuses on the most liquid instruments traded on Eurex and Xetra and the most important DAX and STOXX indices
- Provides Xetra and Eurex data in netted mode and reduced market depth for easier and faster processing
- Exclusively offered to the Asian market with regional connection options

Historical data

Valuable insights for analyses, forecasts and trading strategies

- Historical market data provides key insights when it comes to analyses, forecasts and the optimisation of trading strategies
- Deutsche Börse's Data Shop offers a wide range of meaningful analytics as well as historical data from Deutsche Börse's trading venues Eurex, Xetra, Clearstream and 360T
- In addition, the recently concluded cooperation with the International Institute of Green Finance (IIGF) provides access to a variety of unique ESG database products which help market participants to better understand the ESG activities of Chinese companies
- The Data Shop is characterised by its flexible and efficient data delivery, the high-performance, cloud based infrastructure and an state-of-the-art user interface which allows you to quickly integrate the data into your business processes

Analytics

Advanced analytics improve decision making

Our rich analytics offering is based on the unique data from Clearstream, Eurex, Xetra, 360T and EEX. It is utilized to meet the most diverse needs of our clients and cannot be sourced anywhere else in the marketplace.

Analytics highlights:

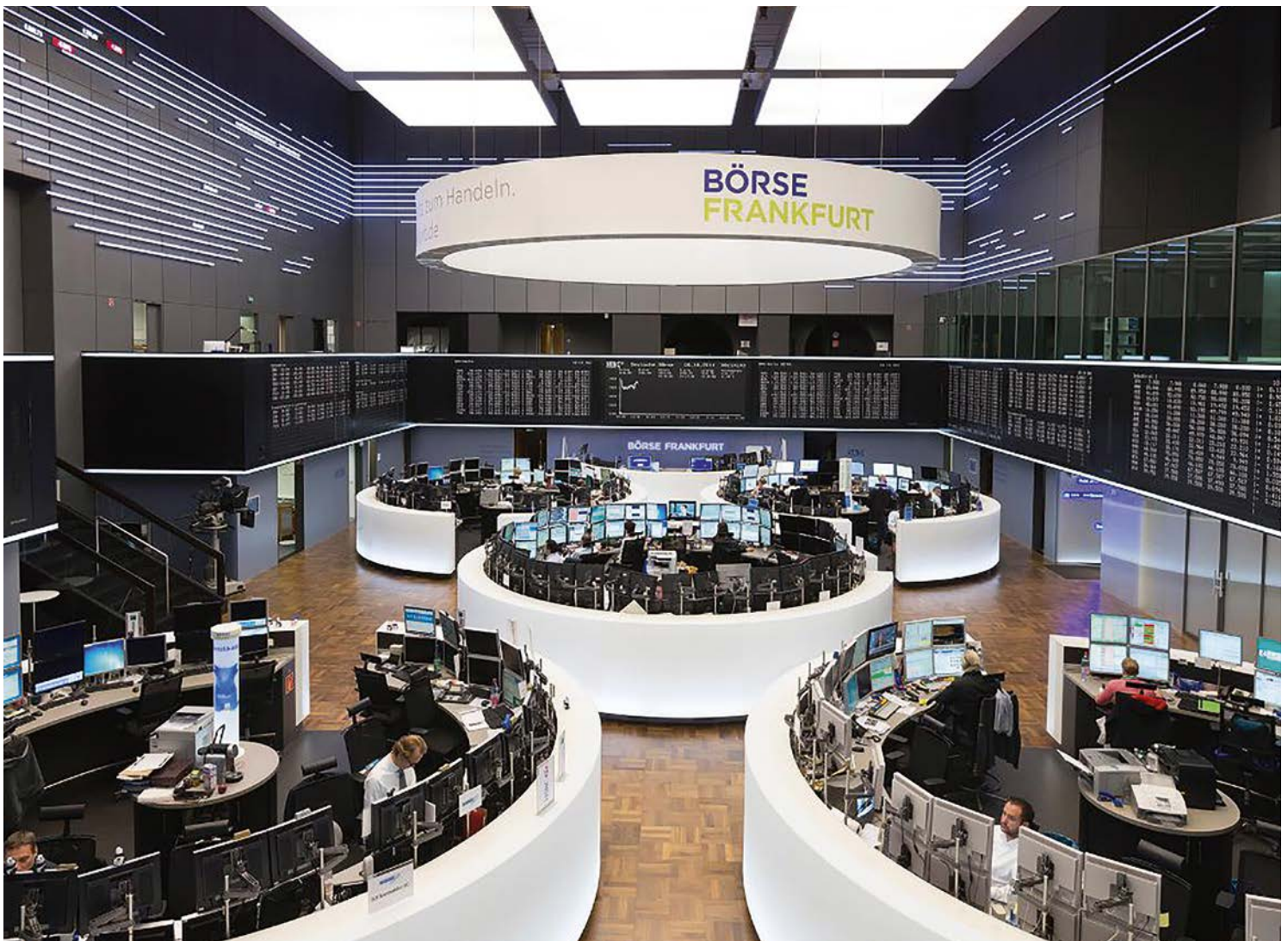
- Eurex Flow Insights provide a daily analysis of order flow by market participant groups (agent, market maker and proprietary trader) by instrument.
- Eurex Open Interest Insights provides Open Interest measures, broken down into long and short positions giving insights into the distribution of exposure in the futures and options market.
- High Precision Timestamps (HPT) give important insight into the speed of an order within the Eurex and Xetra trading architecture.
- Based on the Herfindahl-Hirschman Index and using Xetra and Eurex data, HHI Insights provides valuable information about market concentration and relative demand imbalances.
- The A7[®] Analytics Platform provides easy access to co-location quality Eurex, Xetra, EEX and CME data via an online platform and can be used for order book visualisation and developing and back-testing algos.

Contact

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