





# Market Data Products

Available to support all our clients' needs in their trading activities, analysis, research, support for trading, forecast evaluations, financial information.

#### **RELIABILITY**

Robust, accurate
systems and products
that are always available

#### **VERSATILITY**

Raw feeds adjustable to different clients' needs

### **PROFESSIONAL TEAM**

Highly experienced teams involved in product development and customers management

# MARKET DATA

#### **COMPLETENESS**

Detailed information

of all instruments listed on the Euronext Markets

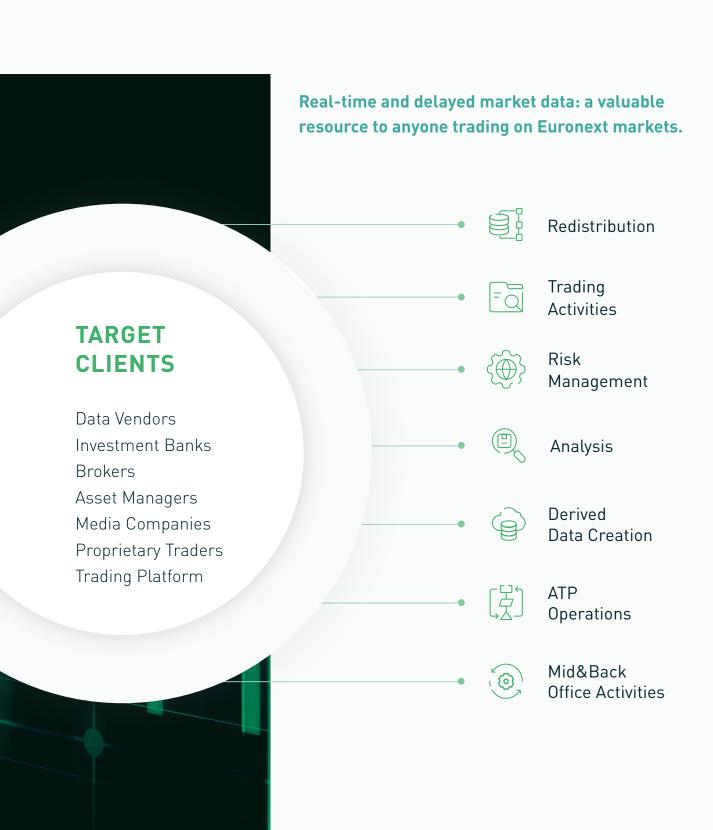
### **FLEXIBILITY**

**Customised** products available on request

# HIGH QUALITY & EFFICIENCY

State-of-the-arttechnology, accurate contents

# **Real-time Data**



### UNIQUE PORTFOLIO

Access data from all Euronext venues: Belgium, France, Ireland, Italy, The Netherlands, Norway and Portugal.

# BROAD RANGE OF PRODUCTS

Products covered include:

- ✓ Equities
- Exchange Traded Funds (ETFs)
- ✓ Warrants and Certificates
- ✓ Bonds
- Derivatives
- Commodities
- ✓ Indices, including our flagships CAC 40®, CAC 40® ESG, AEX® and MIB ESG

#### **DEPTH**

Complete depth of order book, with traded prices and sizes included in Euronext market data.

Market data from pan-European markets complemented with data from:

- Around 900 real-time indices
- ✓ Data from our Approved Publication Arrangement (APA)

#### **FLEXIBLE**

Several levels of data to suit all business needs, standard message formats including international identification codes to enable global trading.

#### **RELIABLE**

Access to data via Optiq® MDG platform

- Robust and always available
- Multiple site configurations
- ✓ Instantaneous real-time market data
- Quick strategic trading decision-making based on reliable and accurate insights



### Access a wide range of data types, including:

Pre- and post-trade data (orders and trades): different levels of depth for pre- and post-trade data from our trading venues

- All bids and offers, the full depth of the order book
- The number of orders at each price level
- Indicative matching price and volume
- Traded prices and quantities, open, high, low, and closing prices
- Opening and closing messages relative to the characteristics of the equities

#### Range of products:

- Euronext Continental Equities (France, Netherlands, Belgium and Portugal)
- Euronext Dublin Equities
- Oslo Bors Equities
- Borsa Italiana Equities
- Euronext Best of Book for all Euronext Markets (all bids and offers and number of orders at each price level)
- Euronext Equity and Index Derivatives
- Borsa Italiana Fixed Income & Derivatives
- Euronext Commodity Derivatives
- Euronext ETFs and Funds
- Euronext Warrants and Certificates
- Euronext Fixed Income

#### Post-trade data

- Trades from all our trading venues
- Nordic ABM (post-trade data and statistics relating to instruments registered on Nordic ABM)
- Euronext Block (traded prices and quantities and instrument status, pre-trade data not available)

#### Data from our APA (Approved Publication Arrangement)

- OTC trades (and quotes) by firms
- Trades (and quotes) by Systematic Internalisers (SI) that use Euronext's Trade Publication Service for publication
- Information about range of asset classes including European Equities and ETFs

#### Index data

The index levels, open, high, low and closing levels

- Euronext All Indices
- Euronext Single Indices (for public display only)
- VINX Indices

For more information please contact

# Official, complete and reliable

# **Historical Trading Data**



Historical Trading Data Service: a complete view of the trading activity on Euronext, Oslo Børs and Borsa Italiana markets.

- Official Historical Trading Data collected directly from the source
- ✓ E-commerce functionalities available
- ✓ Daily data delivery
- Customised Historical Dataset available on request
- ✓ Data delivered via FTP / SFTP



Data Vendors

Banks

Legal Firms

Consultants

Researchers

**Brokers** 



Dataset Validation



Developing Research



Redistribution of Historical Data products



Algo Testing



Backup Solution



Historical Analysis

## END OF DAY SUMMARY DATA

Cash daily market summary; open, high, low and last prices, volumes and turnover. Also includes trading calendar, instrument characteristics, dividends and adjustments factors.

Derivatives daily market summary; open, high, low, close and settlement prices, volumes, open interest, delta and volatility. Also includes instrument characteristics.

Index daily summary; open, high, low, close and previous close values. Also includes index characteristics.

### **BB01**

Best bid and offers (book snapshot – first level)

### INTRADAY TRADES

Intraday Trades executed on and off book during each trading day; includes prices of execution, volume and turnover.

### FULL ORDER BOOK

Complete view of the Order Book of all Euronext Markets in .csv format

### **RAW DATA**

Data from Optiq MDG in PCAP Format

<sup>+</sup> Customised requests can be made to the Data Solutions Team at datasolutions@euronext.com

# Comprehensive, accurate, timely

# **Reference Data**



# Complete, accurate and timely information directly from Euronext and Borsa Italiana.

- ✓ Suite of reference data products providing comprehensive information on the attributes of securities and derivatives listed and traded on Euronext, Oslo Børs and Borsa Italiana markets
- Data delivered daily before markets opening, in time for systems updates
- ✓ Data delivered via FTP/ SFTP

# TARGET CLIENTS

Data Vendors

Media

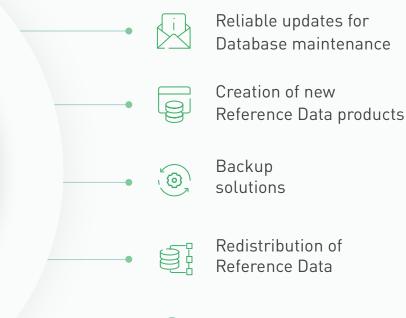
Banks

Consultants

Researchers

Brokers

Buy Side





Research

# Master files products

Detailed reference data for ETFs and Structured Products traded on Euronext markets. The information is provided once a day before the start of the trading session.

# ADVANCED REFERENCE DATA

Updated and complete list of reference information for all Tradable Financial Instruments of Borsa Italiana's Markets.

The services include information of Intruments' issuers, Underlying, Dividends and Coupons, Amortisations and Events.

# Dublin Bond & Fund Feed

Information on Euronext Dublin-listed bonds and funds that are not traded on the Euronext central order book. Delivered via Optig MDG, includes:

- instrument reference data
- instrument suspension
- Fund NAVs
- On-exchange/Off-book trades (covers bonds only)

# Optiq MDG Cash & Derivatives Reference Data

Information on each financial instrument traded on the central order book of Euronext and Oslo Børs. The information is provided once a day before the start of the trading session.

### NAV

Net Asset Value of Borsa Italiana ETFs, ETCs, ETNs and Funds.

### Oslo Børs Products

### Oslo Børs Fundamental Data -Bonds

Information concerning bond fundamentals and events that affects the valuation of bonds listed at Oslo Børs and Nordic ABM, including key dates, fundamentals, companies.

#### Oslo Børs Financial Calendar File

Financial Calendar about events such as earnings, shareholder and bondholder meetings.

# Oslo Børs Participant Trading Data – All Bonds

Details of all fixed income trades (Optiq, APA, OBOE, Duplicated Trades) published before the cut-off time (~16:00 CET).

#### Oslo Børs Mutual Funds

NAV registration, Classification and Mutual Fund Feed (OMFF). 4 modules offered for OMFF: basic, dividend, return and risk.

# Oslo Børs Shares and Voting Rights

# Directly from the source, up-to-date, official

# **Corporate Action Data**



Complete and rich set of information collected and disseminated by Euronext and Borsa Italiana.

Real-time and scheduled dissemination of daily notices every day with a complete set of meta data available.

# TARGET CLIENTS

Data Vendors

Buy Side

Sell Side

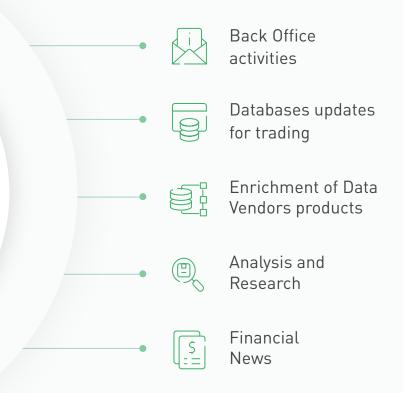
CSDs

Law Firms

Media

Researchers

Consultants





### **AVAILABLE DELIVERY**



FTP file transfer (notices delivered in PDF format and a summary Excel file containing notice numbers and classifications)



Corporate Actions Portal: user-friendly interfaces with alerts included.

### **Cash Market Notices**

Direct access to the following Exchanges' official notices:

- Corporate actions
- Dividend
- Other notices for Euronext and Oslo Børs listed securities. Available in real-time in PDF format or in machine readable formats.

### Stock and dividend news

Overview of corporate actions and dividend payments that will impact the order book of Euronext and Oslo Børs listed securities on the next business day.

### **Borsa Italiana Market Notices**

Direct access to the database of all Market Notices created and categorised by Borsa Italiana. All price-sensitive announcements, relevant information collected by the issuers of financial instruments listed on Borsa Italiana Markets and technical instructions. Notices are produced and disseminated every day at 15:00, 18:00, 20:30, 23:30 CET.

# **End of Day Index Data**

Complete suite of index data products providing current and historical detailed index composition and weights, index values, divisors and market capitalisation for Euronext indices.

# Euronext Index Weightings

Detailed information on:

- Index composition and weights
- Closing index values for Euronext and Oslo Børs indices.

This product consists of:

- Index reports (carrying closing index levels, divisors and market capitalisation)
- Stock reports (carrying detailed composition data – e.g. number of shares, free float, weights) published in the form of EOD/closing reports and NXTD/opening reports.
- The Next Day reports carry data adjusted for corporate actions/ dividends/index reviews.

## Euronext Index Membership

- the full constituent list
- identifiers for Euronext and Oslo Børs indices.

The index membership data is published in the form of End of Day files and of Next Day files.

The Next Day files carry index membership data adjusted for any composition changes

# Euronext Index Corporate Actions Calendars & Notices

- index review/rebalance information
- corporate actions
- dividends and divisor changes

Reports detailing upcoming changes and corporate actions impacting the constituents of the indices including:

- additions
- deletions
- ex dividend adjustments and
- changes arising from a variety of corporate events to be applied the next business day.



Detailed, flexible and timely market share statistics on trading volumes and associated market share ranking through an easy to use web interface provided to Member Firms.

The following are some of the features available:

- Query by market and by ISIN
- Possibility to query by a specific date range
- Dashboard view with summary charts
- Comparison year on year
- Detailed view

### **Statistics**

Statistics are provided via FTP file transfer transfer available on a monthly, weekly or daily basis.

For Borsa Italiana the Distribution Type Report and Borsa Italiana ETF Spread Report are currently available.

Further statistics to come.

# Delayed & Historical Data API

Euronext Web Services offers a simple and cost effective way to access real-time, delayed and historical market data via a web API

It offers online access to quotes, last price, trades and reference data and allows the aggregation of trades in intraday interval bars.

Clients can pull the information from the API, with no added third-party cost.

Authentication is over a secure HTTPS protocol and responses are in JSON Format.



#### **CONTACTS**

#### **Data Solutions Team**

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