Budapest Stock Exchange

INFORMATION PACKAGES

Version number	Effective date/date of modification
I/2005	01 January 2005
II/2005	02 November 2005
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I/2007	01 November 2007
I/2011	15 November 2011
2013	06 December 2013

Budapest Stock Exchange Ltd.

Information Packages

Effective ***6 December 2013***

1. Real time data

Real time data content are described in 'ADH TIP Protocol Specification WBAG 3.1.0 Annex 2 –Data Products, Market Model, Data Content (Vienna SE, Ljubljana SE, Prague SE, Budapest SE, EXAA and CEGH)'. It provides additional information on subscription products, data content, trading hours, market model, used message types and data fields of ADH.

The document is available in the closed user group 'Vendors Only' for Distributors having an agreement with BSE, at the following website:
http://en.wienerborse.at/marketplace_products/market-data-services/contact.html

User name and password to the 'Vendors Only' page can be requested from WBAG via telephone (+43-1-531-65-288) or via e-mail at datafeed@wienerborse.at.

All effective information concerning data content that published on the 'Vendors Only' page of WBAG's official website is part of the Information Packages of BSE's Information Distribution Agreement.

Available market depth of the cash market is maximum 10 (via ADH) or 20 (via rapidADH) while of the derivatives –and commodities market is maximum 5.

2. Data available on BSE FTP

- **End of Day data**

  1. Closing Statistics

  - The official list of trades concluded in the equities, government securities, derivatives and commodities sections of the BSE;
  - The open interest in derivatives on the preceding trading day and the settlement prices;
  - The closing value of the Real-time BUX, BUMIX indices;
  - The closing value of the End of Day CETOP20 Index;
  - The following closing price statistics in respect of products available on the markets of the BSE:
    - opening price
    - closing price/yield
    - maximum price
    - minimum price
    - average price
    - total value
    - total volume

- The following turnover data:
    - Total number of trades on the particular trading day;
    - Total exchange day turnover broken down by:
        - Cash market:
            - equities
            - corporate bonds
            - bonds by international institutions
            - T-bills
            - investment funds
            - compensation coupons
            - government bonds
            - mortgage bonds
        - Futures market:
            - index futures
            - currency futures
            - equity futures
            - interest rate futures
        - Options market:
            - stock options
            - index options
            - currency options
        - Commodities market:
            - spot grain products
            - grain futures
            - grain options;
    - Total capitalisation data broken down by:
            - equities
            - corporate bonds
            - bonds by international institutions
            - T-bills
            - investment funds
            - compensation coupons
            - government bonds
            - mortgage bonds;
- The following Information regarding the transactions of the BSE's BETa Market:
    - The official list of trades concluded in the BSE's BETa Market;
    - The date of settlement of these trades.

2. Information regarding the products to be traded on the next trading day

- The following data regarding all BSE-traded products:
        - ticker symbol
        - market segment
        - currency
        - status (active or suspended)

- ISIN code
- first and last trading day

- The following further data regarding products traded on the cash market:
    - security name
    - security type
    - security subgroup
    - face value and its currency
    - issue price
    - listing date
    - listed quantity
    - free float
    - date of general assembly
    - payment information:
        - duration start and end
        - dividend/yield/interest rate
        - payment date
        - value paid and its currency
        - redemption information
- The following further data regarding products traded on the derivatives market:
    - strike price
    - minimum price step
    - maturity week/month and year
    - expiry date
    - instrument/product ID
    - option type (American or European)

- **End of day index data**

  Content of the files are the same as the Index baskets displayed on the BSE website on the below links:

BUX

http://bse.hu/menun_kivuli/dinportl/buxindexbasketen

BUMIX

http://bse.hu/menun_kivuli/dinportl/bumixindexbasketen

CETOP20

http://bse.hu/menun_kivuli/dinportl/cetop20indexbasketen

3. Data available via WBAG FTP

- **Xetra Reference Data**

Connection: the file can be downloaded from WBAG FTP server (download.wienerborse.at.)

Format: details described in 'Interface description Xetra Reference Data File Xetra 14' which are available in the closed user group 'Vendors Only' of BSE for Distributors having an agreement with BSE, at the following link:

http://bse.hu/topmenu/infoservices/vendors_only/vendors_only.html

User name and password to the 'Vendors Only' page can be requested from BSE via telephone (+36-1-429-6735) or via e-mail at vendor@bse.hu.

All effective information concerning data content that published on the 'Vendors Only' page of BSE's official website is part of the Information Packages of BSE's Information Distribution Agreement.

Helpdesk concerning data content is provided by BSE: at vendor-technical @bse.hu e-mail address or +36-1-429-6857 phone number on all trading days during trading hours.

4. Derivatives market – Real Time and Delayed Data

1. **Data of standardized and futures market/futures grain market**

For each maturity the following Information is published:

Transaction data (details of trades concluded on the futures market with negotiated deals marked):

ticker code of the maturity
price of trade
trade price change indicator (direction of change as compared to the price of the previous trade)
quantity of contracts traded
opening price
date and time of trade
board name

Price level data:

ticker symbol
board name
indicative price (in the opening- and closing order-collection sub-period)
best 5 price level or best 1 price level bid/ask price/yield level
best 5 price level or best 1 price level bid/ask change indicator (direction of change of the current best 5 price level or best 1 price level bid/ask level as compared to the previous best bid/ask level)

best 5 price level or best 1 price level cumulated quantity on the best bid/ask level
composition of the cumulated quantity (number of orders and number of firms placing orders on the best 5 price level or best 1 price level bid/ask level)
timestamp (the time of the last change for any data item on the best 5 price level or best 1 price level bid/ask level)

<u>Closing data:</u>

ticker symbol
board
opening price
closing price/yield
maximum price
minimum price
average price

Closing statistical data are sent at the end of the trading day in the End-of-Day vendset file.

2. Data on standardized options transactions:

For each options strike the following Information is published:

<u>Transaction data</u> (details of trades concluded on the options market with negotiated deals marked):

ticker symbol of the strike (put or call)
price of trade
trade price change indicator (direction of change as compared to the price of the previous trade)
quantity of contracts traded
opening price
date and time of trade
board name

<u>Pricelevel data:</u>

ticker symbol
board name
indicative price (in the opening order-collection sub-period)
best 5 price level or best 1 price level bid/ask price/yield level
best 5 price level or best 1 price level bid/ask change indicator (direction of change of the current best 5 price level or best 1 price level bid/ask level as compared to the previous best 5 price level or best 1 price level bid/ask level)
5 price level or best 1 price level cumulated quantity on the best bid/ask level
composition of the cumulated quantity (number of orders and number of firms placing orders on the best 5 price level or best 1 price level bid/ask level)
timestamp (the time of the last change for any data item on the 5 price level or best 1 price level best bid/ask level)

<u>Closing data:</u>

ticker symbol
board
opening price
closing price/yield
maximum price

minimum price
average price

Closing statistical data are sent at the end of the trading day in the End-of-Day vendset file.

5. Derivatives market – End of Day Data

- The open interest in derivatives on the preceding trading day and the settlement prices;
- The following closing price statistics in respect of products available on derivatives market of the BSE:
    - opening price
    - closing price/yield
    - maximum price
    - minimum price
    - average price
- The following turnover data:
    - Total number of trades on the particular trading day;
    - Total exchange day turnover broken down by:
        - Futures market:
            - index futures
            - currency futures
            - equity futures
            - interest rate futures
        - Options market:
            - stock options
            - index options
            - currency options
        - Commodities market:
            - spot grain products
            - grain futures
            - grain options;

II. 2. The following information regarding the products to be traded on the next trading day[1]

- The following data regarding all BSE-traded products:
    - ticker symbol
    - security board
    - currency
    - status (active or suspended)
    - ISIN code
    - first and last trading day

- The following further data regarding products traded on the derivatives market:
    - strike price
    - minimum price step
    - maturity week/month and year
    - expiry date
    - instrument/product ID
    - option type (American or European)

6. MIFID OTC DATA PACKAGE

The MiFID OTC Data Package is embedded in the vendotc_yyyymmdd.dat file, which is available technically 24 hours on each trading day. A few seconds before midnight a 'Z' record is added and the intraday file is closed. Having received the 'Z' record Distributor clients (after a due 1 minute delay) may start a new connection for accessing the new file applying to the next trading day.

This Information Package contains MiFID OTC Data received by BSE from Exchange Members and transmitted to Distributors in accordance with Section 2.5.7 of BSE Information Policies. MiFID OTC Data solely contains information on trades but not on offers, on the status of the instruments etc. Exchange Members forward trade information to BSE within the time interval specified in MiFID post-trade publication obligations following the trade's execution; the Information is then further published on BSE's vendor servers in real-time.

Any existing Information Package can be extended by the subscription for the vendotc real-time file, but it can also be purchased separately without subscribing for other Information Packages.

Detailed list of Information:

General characteristics of MiFID OTC Data contained in this Package:

- The Information provided is the information subject to the post-trade publication obligations of Hungarian Investment Firms under the MiFID Directive: data of OTC trades executed by BSE Exchange Members as described below.
- BSE's system for the publication of MiFID OTC Data may be used only by BSE Exchange Members on an optional basis. Unless otherwise agreed, the seller party in the trade has the publication obligation.
- Scope of reportable instruments: shares admitted to trading on any of the Regulated Markets within the EU.
- Trades to be reported:
    - OTC trades, i.e. trades executed by non-SIs, outside RMs and MTFs;
    - Trades executed by Systematic Internalizers (SIs).

On the range of securities and transactions defined above, the Package contains the following Information:

Transaction data:

- OTC trade ID
- ISIN code*
- ticker code (optional; for the securities listed on BSE the ticker symbol is inserted automatically by BSE)*
- OTC record publishing code (new trade, amendment or cancellation)*
- unit price of trade*
- trade currency*
- traded quantity*
- venue identification (BIC code, SI or OTC)*
- OTC trade type (trade determined by factors other than the actual evaluation of the market, negotiated deal, or no specification)*
- reference information (optional text field)*
- date and time of trade*
- date and time of publication

* Information entered by BSE Exchange Member