GUIDE TO OTR CALCULATION AND REPORTING SERVICE

Relevant for: All markets

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CHAPTER 1: INTRODUCTION

Following the requirements of the revised Markets in Financial Instruments Directive (MiFID II) and Regulation (MiFIR), and according to Borsa Italiana Rules,¹ Borsa Italiana introduced on 3 January 2018 a new regime related to the ratio between unexecuted orders and transactions ("order-to-trade ratio" or "OTR") for its market participants².

CDR 566/2017 requires trading venues to define, at the level of each financial instrument³:

- a maximum permissible OTR expressed "in volume terms", and;
- a maximum permissible OTR expressed "in number terms";

(hereinafter, the "Maximum OTR Permitted Values") and to calculate these ratios on a daily basis, for each market participant and separately for each trading venue where an individual instrument is traded.

Detailed daily reports are produced and recorded in separated files, each with fixed-length format.

Reports can be retrieved by Customers via FTP and SFTP protocol starting from 11.00 AM CET on T+1.

1.1 Purpose

The purpose of this document is to describe the OTR regime in place for Borsa Italiana's markets, and to provide a technical description of "OTR Reporting Service".

Chapter 2 of this document provides details regarding the implementation of the OTR regime for Borsa Italiana's markets.

Chapter 3 of this document provides technical specifications for the "OTR Reporting Service", through which Borsa Italiana makes available to market participants, on a daily basis, information regarding their registered OTR ratios.

¹ The Rules of the markets and MTFs organized and managed by Borsa Italiana.

² Commission Delegated Regulation (EU) 566/2017 of 18 May 2016, supplementing Directive 2014/65/EU of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards for the ratio of unexecuted orders to transactions in order to prevent disorderly trading conditions.

³ All instruments traded on Borsa Italiana are traded "on an electronic continuous order book, a quote driven or a hybrid trading system".

1.2 Readership

This document is particularly relevant to trading desks and Compliance Officers within Borsa Italiana's member firms.

1.3 Document series

This document is part of a series of documents which provide technical specifications for certain cross-market services offered by Borsa Italiana, that are connected to the regulatory environment defined by MiFIR / MiFiD II. For quick reference, this series of documents can be found at the following link:

http://www.borsaitaliana.it/borsaitaliana/gestione-mercati/altriservizi/serviziregolamentari.en.htm

CHAPTER 2: OTR CALCULATION

2.1 Calculation methodology

Borsa Italiana calculates the two OTRs required by European regulations, on a daily basis, for each: i) instrument (i.e. individual ISIN code), ii) market participant, iii) trading venue where an individual instrument is traded, and iv) separately for order flows submitted to the trading venue under a market making agreement signed with the trading venue.

The two OTRs are calculated as follows:

 $OTR (in volume terms) = \frac{Total volume of orders}{Total volume of executed transactions} - 1$ $OTR (in number terms) = \frac{Total number of orders}{Total number of executed transactions} - 1$

where the definition of:

- "order" means all input messages, including messages on submission, modification and cancellation sent to the trading system of a trading venue, relating to an order or a quote, but excluding cancellation messages sent subsequent to: (i) uncrossing in an auction; (ii) a loss of venue connectivity; (iii) the use of a kill functionality;
- "transaction" means a totally or partially executed order;
- "volume" means the quantity of financial instruments traded, expressed as any of the following: (i) the number of instruments for shares, depositary receipts, ETFs/ETCs/ETNs, certificates and other similar financial instruments, (ii) the nominal value for bonds and structured finance products and, (iii) the number of standard contracts for derivatives.

Rules to calculate the numerator and denominator of the two ratios are based on ESMA's guidelines described in Annex I to CDR 566/2017.

Floor Value

A minimum value of the numerator of the "number terms" OTR (the "Floor Value") is also defined. "OTR rules" will not be deemed as breached in case the numerator of the "number terms" OTR is below the Floor Value (see also under "OTR breach").

Breach of the "OTR rules"

A market participant will be considered to have breached the OTR Rules on a specific instrument, for a trading day, relatively to a specific trading venue where the instrument is traded, acting as a normal participant or as a Market Maker, in case:

• at least one of the two OTRs exceeds the respective Maximum OTR Permitted Value; and

• the numerator of the "number terms" ratio exceeds the Floor Value.

In case of OTR breaches, Borsa Italiana notifies the market participant and may evaluate further actions according to its Rules.

Maximum OTR Permitted Values and Floor Values

Borsa Italiana "Guide to the parameters" indicates the maximum permitted value of the two OTRs and the value of the Floor, for each Borsa Italiana's trading venue or segment. Dedicated values for market participants who provide liquidity under an agreement signed with Borsa Italiana (here collectively, the "Market Makers") are also indicated.

Borsa Italiana "Guide to the parameters" can be found at this **link**.

CHAPTER 3: OTR REPORTING

3.1 Service description

All markets and MTFs managed by Borsa Italiana on MIT and SOLA Platforms are covered by this service.

OTR Reports are saved on a daily basis as CSV files. Customer can retrieve the files via FTP and SFTP protocols. In order to ensure the usual information security standards, an authentication mechanism, based on username/password, is in place. Username and password will be provided to customers, together with the enabled IP addresses, as they join the service.

Each member firm can have exclusive access to its own files. Files will be available with the following naming convention:

OTRSTATS_[MARKET]_DAILY_[MEMBER]_[DATE]

where:

- MARKET is the market code (char(4))
- MEMBER is the membership code of the firm (char(6))
- DATE is the report date (char(YYYYMMDD))

The output files will be ASCII-encoded CSV files with a semicolon (;) as a delimiter. All semicolon and carriage-return/end-of-line symbols in free-text fields will be removed.

The files are available to customers for 1 month.

Please note that:

- OTR stats are computed at instrument (ISIN) level
- OTR Report will be populated only in the following circumstances:
 - a) when **"OTR breaches" are detected either in terms of number or in terms of volume.** In this case the report will serve as notification of the breaches;
 - b) when "OTR warnings" are submitted, i.e. the OTR values are equal to or above 50% of the related thresholds and the number of orders is equal to or above 20% of the Floor defined in the Guide to Parameters (80% of the Floor for ETLX market). In this case the report will serve as warning when participant's OTR stats are approaching the relevant OTR thresholds;
- OTR stats with values below the mentioned thresholds are not displayed in the report;
- In case there are no "OTR breaches" or "OTR warnings" for a given member firm and market, the related file will be empty for the specific day.

CHAPTER 4: CONNECTIVITY

4.1 Production IP addresses and ports

OTR Report files are available in PRODUCTION environment for all customers who submit the service upon FTP (port 21) and SFTP (port 22) connection to the following server:

All Borsa Italiana markets and MTFs except for ETLX:

- PDC:
 - 81.174.64.61
 - 81.174.64.62
- SDC:
 - 81.174.64.189

ETLX market:

- PDC:
 - 81.174.64.64
 - 81.174.64.66
- SDC:
 - 81.174.64.192

Dedicated Username and password to connect to the servers will be provided to customers as they join the service.

Login credentials (username and password) can be requested by the Contract Representative of the member firm at the following contacts (Group: +39 02 72 426 512, email: **clients-services@borsaitaliana.it**).

CHAPTER 5: MESSAGE FORMATS

This section provides details on OTR Reporting files.

All fields are encoded using printable ASCII.

5.1 OTRSTATS_[MARKET]_DAILY_[MEMBER]_[DATE]

Field name	Description	Format
REPORT_DATE	The date for the record.	DATE
MEMBER_CODE	The participant code for the record.	CHAR(4)
MM_ROLE	Indicates whether this record is referring to the order flows of the market participant under a market making or liquidity provision agreement signed with Borsa Italiana. Possible values: • Y = Yes • N = No	CHAR(1)
MARKET_CODE	Possible values: MTA: cash equity markets ETFP: ETF Plus ETLX: ETLX MOT: MOT SDX: SeDeX TAH: Trading After Hours XDMI: IDEM	CHAR(4)
INSTRUMENT_CODE	The ISIN code for this record.	CHAR(12)
SEGMENT_CODE	MIT Platform only : the Millennium Exchange segment where the ISIN is traded. See MIT305 document	CHAR(4)
SECTOR_CODE	MIT Platform only : the Millennium Exchange sector where the ISIN is traded. See MIT305 document	CHAR(4)
PRODUCT_NAME	Product description	CHAR(50)
PRODUCT_TYPE	SOLA Platform only : indicates whether the record is referring to an option or a future: Values: "O" = index/equity option "F" = index/equity future "N" = power futures "T" = durum wheat futures "S" = strategy instrument	CHAR(1)
UNDERLYING_TYPE	SOLA Platform only : indicates the type of underlying for the record.	CHAR(1)

Field name	Description	Format
	Values: "I" = index "S" or "P" = stock "D" = stock dividend "E" = power "G" = durum wheat	
CALLPUT_CODE	SOLA Platform only : indicates whether the record is referring to a call or put option. Values: <empty> = Future "C" = call option "P" = put option</empty>	CHAR(1)
OPTION_TYPE	SOLA Platform only : indicates the type of option. Values: "0" = American, physically settled "1" = European, physically settled "2" = European, cash settled	CHAR(1)
UNDERLYING_SYMBOL	SOLA Platform only : the root code for the instrument.	CHAR(6)
LOT_SIZE	Minimum trading unit	NUMBER(20,4)
ORDER_COUNT	The numerator of the 'number terms' OTR, i.e. the number of orders sent by the participant on the ISIN for the DATE and ROLE.	NUMBER(9,0)
ORDER_VOLUME	The numerator of the 'volume terms' OTR.	NUMBER(20,0)
TRADE_COUNT	The denominator of the `number terms' OTR.	NUMBER (9,0)
TRADE_VOLUME	The denominator of the 'volume terms' OTR.	NUMBER (20,0)
FLOOR	The minimum number of messages that can determine a breach.	NUMBER(9,0)
OTR_COUNT	The value of the `number terms' OTR	NUMBER (9,0)
OTR_COUNT_THRESHOLD	The maximum defined threshold for OTR_COUNT	NUMBER (12,0)
OTR_VOLUME	The value of the 'volume terms' OTR	NUMBER (9,0)
OTR_VOLUME_THRESHOLD	The maximum defined threshold for OTR_VOLUME	NUMBER (12,0)
OTR_BREACH	Indicates whether a breach to OTR rules has occurred, either in terms of OTR_COUNT or in terms of OTR_VOLUME • Y = Yes • N = No	CHAR(1)

APPENDIX

Document history

Version	Date	Description of changes	
1.0	September 2018	First version of this document.	
1.1	November 2019	New rule for the generation of the file.	
1.2	September 2020	Added reference to SFTP service provided starting from 16 September 2020.	
1.3	29 April 2021	 Euronext rebranding. Includes: OTR calculation rules, previously published in Market Notice "MiFIR / MiFID II: Order to trade ratio and trading venue transaction identification code (TVTIC)" dated 20 December 2017; OTR calculation and reporting service for ETLX market, previously published in a separate document 	

CONTACTS

For any technical questions to access the service outlined in this document please contact:

Client-Support

- Toll Free: 0080026772000
- From Mobile: +39 02 45411399
- Email: Client-Support@borsaitaliana.it

Technical Account management

- Telephone: +39 02 72 42 6 512
- Email: clients-services@borsaitaliana.it

For any functional or compliance questions about the content of OTR Reports please contact **Markets Supervision** at:

- Telephone: +39 0272426 327
- Email: ms@borsaitaliana.it

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