External Specifications

BORSA ITALIANA HISTORICAL DATA SPECIFICATION

Relevant for: Cash markets

27 March 2023

Issue 1.3

EURONEXT

1. Introduction

1.1 Document History

This document has been through the following iterations:

Issue	Date	Description
1.0	June 2022	New product for equities and ETF.
1.1	October 2022	Header names review
1.2	MArch 2023	Instrument id addition, BBO10 layout
1.3	April 2023	New product for fixed income ,warrant and certificates

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2. Historical Data

2.1 Service Overview

The service provides a number of separate full market end-of-day data files needed to provide all the necessary data for Italian markets.

Borsa Italiana Historical Data is offered in packages described below. Each package is comprehensive of files related to all markets.

PACKAGE	CONTENT
EOD Summary Data	Daily summary: includes official and reference price, first, last, highest and lowest prices, auction prices, volumes and turnover, adjustment factor
Monthly Averages Prices	Average of official prices of each instrument

Please note that the legacy packages "Tick Data Trades" and "BBO" have been replaced by "NextHistory" files. Description available in NextHistory documentation on the page: **Non-real time client specifications | Connect (euronext.com)**

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2.2 Access to the service

Historical Data files are available through Euronext's Datashop service.(sFTP). Each Client will receive a username and password (or certificate) to access the service.

Datashop Folder:

BITA Cash EoD Summary and adjustment factor	/CSH_BIT_ALL_SUM /CSH_ BIT_ALL_SUM_YYYY /CSH_ BIT_ALL_SUM_YYYYMM
BITA Cash Average Monthly files	/CSH_BIT_MEDIE_ /CSH_ BIT_MEDIE_YYYY /CSH_ BIT_MEDIE_YYYYMM
ETLX Cash EoD Summary	/CSH_ETLX_ALL_SUM /CSH_ ETLX_ALL_SUM_YYYY /CSH_ ETLX_ALL_SUM_YYYYMM

2.3 Calendar and Service hours

End-of-Day Data files are available on published trading days as soon as they are available, within 08:00 local market time.

2.4 Data layout

The files are created in accordance with the following specifications:

File format	Csv
Fields delimiter	; (semicolon)
Decimal symbol	. (point)

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Digit grouping symbol (thousands separator)	none
Date fields format	yyyymmdd

The fields length is variable, moreover the maximum length for the field is defined in the datatype column of the tables below.

The first record of each file contains a header, which contains the name of each field.

The files are made available in zip format

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2.5 Content

2.5.1 EOD SUMMARY DATA

MARKET	FILE NAME	LAYOUT TABLE
Euronext Milan (Italian Equity Markets) **Euronext Growth Milan** **BEM** (Italian Equity MTF) **Euronext MIV Milan** (Market for Investment Vehicles)	**BRED_LST_MTA_yyyymmdd.csv** **BRED_REFDATA_ADJ_INSTR_MTA__yyyymmdd.csv**	**Table A** **Table A.1**
ETF (ETFs, ETCs, ETNs)	**BRED_LST_ETF_yyyymmdd.csv** **BRED_REFDATA_ADJ_INSTR_ETF__yyyymmdd.csv**	**Table A** **Table A.1**
Trading After Hours	**BRED_LST_TAH_yyyymmdd.csv**	**Table A**
MOT (Italian Bond and Euro Bond) **ExtraMOT**	**BRED_LST_MOT_yyyymmdd.csv** **BRED_REFDATA_ADJ_INSTR_MOT__yyyymmdd.csv**	**Table A** **Table A.1**
SeDeX (Italian Securitised	**BRED_LST_SDX_yyyymmdd.csv**	**Table A**

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Derivatives Market)	**BRED_REFDATA_ADJ_INSTR_SDX_yyyymmdd.csv**	**Table A.1**
EuroTlx - Bondx	**BRED_LST_BONDX_yyyymmdd.csv**	**Table A**
EuroTlx – Certx	**BRED_LST_SDX_yyyymmdd.csv**	**Table A**
EuroTlx – Certx	**BRED_LST_SDX_yyyymmdd.csv**	**Table A**

Each file contains one record for each financial instrument traded on each trading date.

Table A: Record Layout EOD Summary Data – Cash Markets

Field Name	Datatype	Values Description
tradedate	number int8	Trading day in YYYYMMDD format
Isincode	Char(12)	Instrument ISIN code
OpeningUncrossingPrice	Number	First price in opening auction
Firstcontinuousprice	Number	First price in continuous phase
Officialprice	Number	Official price
Lastcontinuousprice	Number	Last price in continuous
LastTradedPrice	Number	Price of the last contract of the day
Closinguncrossingprice	Number	Last price in closing auction
Closingprice	Number	Reference price
DailyHighPrice	Number	Highest price of the day
DailyLowPrice	Number	Lowest price of the day
OpeningUncrossingQuantity	Number	Opening volume
ClosingUncrossingQuantity	Number	Closing volume
DailyTradedQuantity	Number	Total volume

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OpeningUncrossingTradeNumber	number int7	Number of contracts in opening auction
ClosingUncrossingTradeNumber	number int8	Number of contracts in closing auction
Totaltrades	number int8	Total number of contracts
Totalturnover	Number	Total turnover
OpeningUncrossingTime	Char(9)	Time when the price of first Opening Auction was determined
ClosingUncrossingTime	Char(9)	Closing Auction price determined during the trading day
MaxTradePriceTime	Char(9)	Indicates the time when the first trade at maximum price was concluded
MinTradePriceTime	Char(9)	Indicates the time when the first trade at minimum price was concluded
LastUncrossingPrice	Number	Last opening price made during the day
Currency	Char(3)	Currency in which price is expressed
MIC	Char(4)	Market identification code
TradeQuantityAtMaxPrice	number int8	Trade quantity at maximum price of the trading day
TradeQuantityAtMinPrice	number int8	Trade quantity at minimum price of the trading day
InstrumentID	number int8	Internal instrument code. It doesn't change in case of change of Isin code

Table A.1: Record Layout Adjustment Factors – Cash Markets

Field Name	Datatype	Values Description
TradeDate	number int8	Trading day in YYYYMMDD format
ISINCode	char(12)	Instrument ISIN code
AdjustmentFactor	number 20int 8d	Adjustment value

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NoticeNumber	number int20	Notice that contains the adjustment
NoticeDate	Number int8	Date in which the notice related to the adjustment has been issued

2.5.2 MONTHLY AVERAGE PRICES

MARKET	FILE NAME	LAYOUT TABLE
Euronext Milan (Italian Equity Markets) **Euronext Growth Milan** **BEM** (Italian Equity MTF) **Euronext MIV Milan** (Market for Investment Vehicles)	**BRED_MEDIE_MTA_yyyymmdd.csv**	**Table M**
ETF (ETFs, ETCs, ETNs)	**BRED_MEDIE_ETF_yyyymmdd.csv**	**Table M**
MOT (Italian Bond and Euro Bond) **ExtraMOT**	**BRED_MEDIE_MOT_yyyymmdd.csv**	**Table M**
SeDeX (Italian Securitised	**BRED_MEDIE_SDX_yyyymmdd.csv**	**Table M**

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Derivatives Market)		

Monthly, 3 and 6 months average of official prices for all the instruments traded on BITs markets.

Table M: Monthly Files

Field Name	Datatype	Values Description
Month	char(6)	Month
ISINCode	char(12)	Instrument ISIN code
Currency	Char(3)	Currency in which price is expressed
MIC	Char(4)	Market identification code
SymbolIndex	char(12)	Instrument unique code
MonthlyAverage	number 20int 4d	Monthly average of official prices
QuarterlyAverage	number 20int 4d	3 months average of official prices
SemesterAverage	number 20int 4d	6 months average of official prices
NbSecuritiesListed	number int19	Number of listed securities on the market

2.5.3 BBO10

The Historical service provide the possibility to retrieve throught API the BBO10 files containing the 10 best bid and ask order levels in the day for each instrument
File layout is the following and it's possible to create one file for each market. File name is mbpbook_mk_yyyymmdd.csv where mk is the partition number associated to each market as follows :

18 = Equity Italy
45 = Equity GEM
39 = Funds ETF Plus Italy
19= Trading After Hour

 TBD Market included in phase2 migration

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Field Name	Datatype	Values Description
tradingdate	number int8	Trading day in YYYYMMDD format
market	Char(50	Market identifier, can assume the following values: Equity Italy Equity GEM Funds ETF Plus Italy Trading After Hour
snapshottime	Char(12)	End time in millisecond of the interval the snapshot refers to
instrumentID	Char(12)	Instrument identifier code (symbol index)
isincode	Char(12)	Instrument ISIN code
bidprice1level	number 26int 8d	1 level bid price
bidsize1level	number int16	1 level bid size
bidnum1level	Char(6)	Number of bid orders 1 level
bid price2level	number 26int 8d	2 level bid price
bidsize2level	number int16	2 level bid size
bidnum2level	Char(6)	Number of bid orders 2 level
bidprice3level	number 26int 8d	3 level bid price
bidsize3level	number int16	3 level bid size

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bidnum3level	Char(6)	Number of bid orders 3 level
bidprice4level	number 26int 8d	4 level bid price
bidsize4level	number int16	4 level bid size
bidnum4level	Char(6)	Number of bid orders 4 level
bidprice5level	number 26int 8d	5 level bid price
bidsize5level	number int16	5 level bid size
bidnum5level	Char(6)	Number of bid orders 5 level
bidprice6level	number 26int 8d	6 level bid price
bidsize6level	number int16	6 level bid size
bidnum6level	Char(6)	Number of bid orders 6 level
bidprice7level	number 26int 8d	7 level bid price
bidsize7level	number int16	7 level bid size
bidnum7level	Char(6)	Number of bid orders 7 level
bidprice8level	number 26int 8d	8 level bid price
bidsize8level	number int16	8 level bid size
bidnum8level	Char(6)	Number of bid orders 8 level
bidprice9level	number 26int 8d	9 level bid price
bidsize9level	number int16	9 level bid size
bidnum9level	Char(6)	Number of bid orders 9 level
bidprice10level	number 26int 8d	10 level bid price

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bidsize10level	number int16	10 level bid size
bidnum10level	Char(6)	Number of bid orders 10 level
askprice1level	number 26int 8d	1 level ask price
asksize1level	number int16	1 level ask size
asknum1level	Char(6)	Number of ask orders 1 level
askprice2level	number 26int 8d	2 level ask price
asksize2level	number int16	2 level ask size
asknum2level	Char(6)	Number of ask orders 2 level
askprice3level	number 26int 8d	3 level ask price
asksize3level	number int16	3 level ask size
asknum3level	Char(6)	Number of ask orders 3 level
askprice4level	number 26int 8d	4 level ask price
asksize4level	number int16	4 level ask size
asknum4level	Char(6)	Number of ask orders 4 level
askprice5level	number 26int 8d	5 level ask price
asksize5level	number int16	5 level ask size
asknum5level	Char(6)	Number of ask orders 5 level
askprice6level	number 26int 8d	6 level ask price
asksize6level	number int16	6 level ask size
asknum6level	Char(6)	Number of ask orders 6 level

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askprice7level	number 26int 8d	7 level ask price
asksize7level	number int16	7 level ask size
asknum7level	Char(6)	Number of ask orders 7 level
askprice8level	number 26int 8d	8 level ask price
asksize8level	number int16	8 level ask size
asknum8level	Char(6)	Number of ask orders 8 level
askprice9level	number 26int 8d	9 level ask price
asksize9level	number int16	9 level ask size
asknum9level	Char(6)	Number of ask orders 9 level
askprice10level	number 26int 8d	10 level ask price
asksize10level	number int16	10 level ask size
asknum10level	Char(6)	Number of ask orders 10 level

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