



European Securities and
Markets Authority

FIRDS Transparency System

Instructions on download and use of full and delta transparency results



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Ref	Title	Version	Author	Date
RTS1	COMMISSION DELEGATED REGULATION (EU) 2017/587 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on transparency requirements for trading venues and investment firms in respect of shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments and on transaction execution obligations in respect of certain shares on a trading venue or by a systematic internaliser	1	European Commission / ESMA	31/03/2017
RTS2	COMMISSION DELEGATED REGULATION (EU) 2017/583 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on transparency requirements for trading venues and investment firms in respect of bonds, structured finance products, emission allowances and derivatives	1	European Commission / ESMA	31/03/2017
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1 Introduction

1.1 Purpose and intended audience of this document

1. The purpose of this document is to provide details on the files containing transparency calculation results that ESMA will be publishing, how to access them, and how to use them.
2. The intended audience are the EU market participants and National Competent Authorities that need to make use of the results of transparency calculations for the purpose of MiFIR.

1.2 Scope

3. The scope of this document is the files published on ESMA website and containing transparency calculations results.

1.3 Abbreviations

Acronym	Definition
RM	Regulated Market
MTF	Multilateral Trading Facility
OTF	Organised Trading Facility
SI	Systematic Internaliser

2 Description of the transparency calculation results files generated by the FIRDS system

2.1 Full files / delta files

4. The system makes transparency calculation results available in the form of machine-readable files:
 - a. **Full files:** the equity (resp. non-equity) full files contain transparency calculation results for all equity (resp. non-equity) instruments for which the system has performed calculations. For each ISIN and Reporting Period, the file contains the latest version of the calculations performed by the system. Records older than 18 months are removed from the full files.
 - b. **Delta files:** the equity (resp. non-equity) delta files contain the transparency calculation results for which a change has occurred since the generation of the previous set of files, e.g. in the following situations
 - i. Calculations have been produced for a new instrument;
 - ii. Updated data has been received for the instrument;
 - iii. A non-equity instrument is getting closer to its maturity date, and as a result its time-to-maturity bucket changes and the instrument now belongs to a different non-equity sub-class;
 - iv. Calculation results have been updated following a specific action from a NCA User, or from an ESMA Data Manager.
5. Given the high volume of data, the files are split in several, in particular when they exceed 500,000 records, or based on the first letter of the CFI code in the case of the full files.

2.2 Equity transparency calculation results full and delta files

6. Equity transparency calculation results files contain, for each ISIN:
 - a. A flag indicating whether the instrument is liquid¹;
 - b. The average daily turnover²;
 - c. If the instrument is liquid, the average value of transactions³;
 - d. If the instrument is liquid, the Standard Market Size (SMS)⁴;
 - e. The average daily number of transactions⁵;
 - f. The total number of transactions executed⁶

¹ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Lqdtly

² BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/AvrgDalyTrnvr

³ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/AvrgTxVal

⁴ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/StdMktSz

⁵ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/AvrgDalyNbOfTxs

⁶ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/TtlNbOfTxsExctd

- g. The total volume of transactions executed⁷
- h. The most relevant market in terms of liquidity for the purpose of MiFIR Art.4(1)(a)⁸
- i. For shares and depositary receipts, the average daily number of transactions on the most relevant market in terms of liquidity⁹;
- j. The Reporting Period describing the period of trading activity taken into account in order to derive the results.¹⁰

2.3 Non-Equity transparency calculation results full and delta files

- 7. Non-Equity transparency calculation results files contain, for each ISIN:
 - a. A flag indicating whether the instrument is liquid¹¹;
 - b. The pre-trade Large-In-Scale threshold (LIS)¹²;
 - c. The post-trade Large-In-Scale threshold (LIS)¹³;
 - d. Pre-trade Size-Specific-to-the-Instrument threshold (SSTI)¹⁴;
 - e. Post-trade Size-Specific-to-the-Instrument threshold (SSTI)¹⁵;
 - f. The Reporting Period describing the period of trading activity taken into account in order to derive the results¹⁶.
- 8. LIS and SSTI thresholds are expressed in EUR (under element <Amt>) except for emission allowances and derivatives on emission allowances, where they are expressed in tons of carbon dioxide (under element <Nb>).

⁷ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Sttstcs/TtlVolOfTxsExctd

⁸ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/RlvntMkt/ld

⁹ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/RlvntMkt/AvrgDalyNbOfTxs

¹⁰ BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/RptgPrd/FrDtToDt

¹¹ BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/Lqdyt

¹² BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/PreTradLrgInScaleThrshld

¹³ BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/PstTradLrgInScaleThrshld

¹⁴ BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/PreTradInstrmSzSpfcThrshld

¹⁵ BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/PstTradInstrmSzSpfcThrshld

¹⁶ BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRslt/NonEqtyTrnsprncyData/RptgPrd/FrDtToDt



3 Instructions to download full and delta transparency results files from ESMA website

3.1 Timing of generation

9. The files published by ESMA on its website are generated:
 - a. on a weekly basis for the Full Files (every Saturday)
 - b. on a daily basis for the Delta Files ; in case there is no change to publish on that day, no delta file is generated.

3.2 XML Format

10. The transparency calculation results files produced by FIRDS are structured as follows:
 - a. Encapsulation of a Business Application Header (BAH), and a Payload as per XML Schema head.003.001.01.xsd
 - b. The Business Application Header is generated as per XML Schema head.001.001.01_ESMAUG_1.0.0.xsd
 - c. The payload is generated as per XML Schema
DRAFT6auth.044.001.01_ESMAUG_DATECR_1.0.0.xsd for Equity calculation results full files (FULECR) and delta files (DLTECR) and
DRAFT5auth.045.001.01_ESMAUG_DATNCR_1.0.0.xsd for Non-Equity calculation results full files (FULNCR) and delta files (DLTNCR)
11. Link to XML Schema: https://www.esma.europa.eu/sites/default/files/library/2016-annex_2_firds_transparency_xml_schema.zip

3.3 File naming conventions

12. The full files will follow the following naming convention:

For Equities: FULECR_<Date>_<CFI 1st letter>_<Key1>of<Key2>.zip

For Non-Equities: FULNCR_<Date>_<CFI 1st letter>_<Key1>of<Key2>.zip

Where:

<Date> =YYYYMMDD.

<Key1> = The number of the file in the range produced for that day and that CFI 1st letter.

<Key2> = The total number of files produced for that day and that CFI 1st letter.

Examples:

FULECR_20171104_E_1of1.zip

FULNCR_20171104_D_1of1.zip

FULNCR_20171104_O_1of2.zip

FULNCR_20171104_O_2of2.zip
13. The delta file will follow the following naming convention.

For Equities: DLTECR_<Date>_<Key1>of<Key2>.zip

For Non-Equities: DLTNCR_<Date>_<Key1>of<Key2>.zip

Where:



<Date> =YYYYMMDD

<Key1> = The number of the file within the range produced for that day.

<Key2> = The total number of files produced for that day.

Examples:

DLTECR_20171106_01of01.zip

DLTNCR_20171106_01of01.zip

3.4 Access to the files published (human interface)

- Go to <https://registers.esma.europa.eu/publication/> select register “Financial Instrument Transparency System” ; or go directly to

https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_fitrs_files

- Use the Publication Date filter on the left hand side and click on “Filter list” to list all files published within the specified period. Additional filters are available to further refine the list (Full / Delta files, Equity / Non-Equity instruments)

File Type	Instruments Type	Publication Date	Download Link
Delta	Equity Instruments	2017-12-04	DLTECR_20171204_1of1.zip
Delta	Non-Equity Instruments	2017-12-04	DLTNCR_20171204_1of1.zip
Full	Non-Equity Instruments	2017-12-02	FULNCR_20171202_M_1of1.zip
Full	Non-Equity Instruments	2017-12-02	FULNCR_20171202_H_1of1.zip
Full	Equity Instruments	2017-12-02	FULECR_20171202_S_1of1.zip
Full	Equity Instruments	2017-12-02	FULECR_20171202_O_1of1.zip
Full	Equity Instruments	2017-12-02	FULECR_20171202_D_1of1.zip
Full	Equity Instruments	2017-12-02	FULECR_20171202_R_1of1.zip
Full	Non-Equity Instruments	2017-12-02	FULNCR_20171202_S_1of1.zip
Full	Equity Instruments	2017-12-02	FULECR_20171202_C_1of1.zip

- Click on the Download Link for any of the files returned, in order to download the corresponding file.

3.5 Access to the files published (machine-to-machine interface)

17. To support automated download of the files, it is possible to list the files published on a specific date by sending an HTTP request.
18. The following HTTP request will return the list of the files published by ESMA on 24 November 2017

https://registers.esma.europa.eu/solr/esma_registers_fitrs_files/select?q=*&fq=creation_date:%5B2017-11-24T00:00:00Z+TO+2017-11-24T23:59:59Z%5D&wt=xml&indent=true&start=0&rows=100

19. The below table explains each aspect of the above query so that it can be modified as required to meet necessary usage requirements

Query component	Description
q=*	This is the general query part of the request and tells the response to return all columns for a given result if one exists
fq=creation_date:%5B2017-11-24T00:00:00Z+TO+2017-11-24T23:59:59Z%5D	fq means the filtered query and supports restricting the data that is being search for. For the filtered query here, we are restricting by date – note both the latest date and earliest date are present and follow the ISO date format. Change the date to look for files from a different day or range of days
wt=xml	Response type e.g. xml, json
indent=true	Not necessary but assists to make the output more readable
start=0	The result to start outputting from. 0 works best but any number can be here and corresponds to which set of records to start outputting from
rows=100	The number of results to return. Default is 10

20. The combination of start and row is used to assist cycling over the results when multiple results are returned e.g. more than 100. To read a secondary list (100+) change start to 100 and leave rows as 100. The number of records that the query returns is given by attributes of the resultsFound list.
21. The response is an XML document. The URL to the files are located under the following XPath:
`/response/result/doc/str[@name='download_link']`
22. Note that the number of returned files returned will usually be greater than 1 for a given date.

4 Use of full and delta transparency calculation results files

4.1 Calculation results files for equity instruments (FULECR and DLTECR files)

23. FULECR / DLTECR records with empty Reporting Period¹⁷ and tagged with “ESTM” methodology¹⁸ correspond to estimates; they apply from the day the instrument starts being traded, until six calendar weeks thereafter.
24. FULECR / DLTECR records with a Reporting Period¹⁹ of four calendar weeks and tagged with “FFWK” methodology correspond to calculations produced on the basis of the first four weeks of trading ; they apply from six calendar weeks after the day when the instrument started being traded, until the next yearly calculation²⁰. The Reporting Period holds the first four weeks of trading of the instrument, as known by the system at the time of performing the calculations.

Date of first trade (first day of the Reporting Period)	Four-weeks calculation results apply until	First yearly calculation
From 3 December year (Y) to 2 December year (Y+1)	31 March year (Y+2)	Performed in year (Y+2) based on year (Y+1) trading activity

25. FULECR / DLTECR records with a Reporting Period of a full year (Y) and tagged with “YEAR” methodology correspond to calculations produced on the basis of a year of trading ; they apply from 1 April of year (Y+1) until 31 March of year (Y+2).

26. In summary, FULECR / DLTECR records can be in one of the following cases

Reporting period	Type of calculation	Type of instrument	Period of application
Empty	Estimates	Equity / Equity-like	Liquidity and LIS/SMS thresholds apply from first trading date for six weeks Calculation results may be updated e.g. when refined estimates are provided NCAs or ESMA.
Four calendar weeks	Calculations based on first four weeks of trading	Equity / Equity-like	Liquidity and LIS/SMS thresholds apply from six calendar weeks after the first trading date, until the next yearly calculation as per table 24
1/Jan/Y – 31/Dec/Y	Yearly calculations	Equity / Equity-like	Liquidity and LIS/SMS thresholds apply from 1 April of year (Y+1) until 31 March of year (Y+2)

¹⁷ No < RptgPrd> element under /BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData

¹⁸ /BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/Mthdlgy

¹⁹ /BizData/Pyld/Document/FinInstrmRptgEqtyTradgActvtyRslt/EqtyTrnsprncyData/RptgPrd

²⁰ For instruments which start trading before 2/Dec of year Y, the next yearly calculations will be the yearly calculations performed on year (Y+1) and applicable from 1 April (Y+1), whereas for instruments which start trading after 3/Dec of year Y, the next yearly calculations will be those performed on year (Y+2) and applicable from 1 April (Y+2)

4.2 Calculation results files for non-equity instruments (FULNCR and DLTNCR files)

27. For non-equity instruments other than bonds, the system publishes results which correspond to calculations produced on the basis of a year of trading. Reporting Period is a full year (Y), and liquidity results are provided along with LIS / SSTI thresholds. The results apply from 1 June of year (Y+1) until 31 May of year (Y+2).

Reporting Period	Period of application of the results
1/Jan – 31/Dec year Y	1/June year Y – 31/May year (Y+1)

28. For bond instruments, two different processes with separate timings (quarterly vs yearly) are required for the liquidity assessment on one hand, and for the determination of LIS / SSTI thresholds on the other hand. As a consequence, liquidity and LIS / SSTI thresholds will be found in separate records

- a. Results which Reporting Period is a full year (Y) correspond to calculations produced on the basis of a year of trading ; for bond instruments, they only hold LIS / SSTI threshold and the liquidity flag is empty. The LIS / SSTI thresholds apply from 1 June of year (Y+1) until 31 May of year (Y+2).

Reporting Period	Period of application of the results
1/Jan – 31/Dec year Y	1/June year Y – 31/May year (Y+1)

- b. Results which Reporting Period²¹ is a quarter correspond to quarterly liquidity assessment for bonds; they apply for three months from the sixteenth day of the second month of the following quarter, as per table below.

Reporting Period	Period of application of the results
1/Jan – 31/March year Y	16/May – 15/Aug year Y
1/Apr – 30/June year Y	16/Aug – 15/Nov year Y
1/July – 30/Sep year Y	16/Nov year Y – 15/Feb year (Y+1)
1/Oct – 31/Dec year Y	16/Feb year (Y+1) – 15/May year (Y+1)

- c. Results with empty Reporting Period²² only contain the liquidity flag for new bond instruments ; they apply from the day the instrument starts being traded, until the next quarterly liquidity assessment for the bond, as per table below;

Date of first trade	Records with information on liquidity for new bonds apply until	First quarterly liquidity assessment
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²¹ /BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRsIt/NonEqtyTrnsprncyData/RptgPrd

²² No <RptgPrd> element under /BizData/Pyld/Document/FinInstrmRptgNonEqtyTradgActvtyRsIt/NonEqtyTrnsprncyData

1/March – 31/May year Y	15/August year Y	Quarterly liquidity calculations made on the basis of Reporting Period 1/April – 30/June year Y
1/June – 31/August year Y	15/November year Y	Quarterly liquidity calculations made on the basis of Reporting Period 1/July – 30/September year Y
1/September – 30/November year Y	15/February year (Y+1)	Quarterly liquidity calculations made on the basis of Reporting Period 1/October – 31/December year Y
1/December year Y – end of February year (Y+1)	15/May year (Y+1)	Quarterly liquidity calculations made on the basis of Reporting Period 1/January – 31/March year (Y+1)

29. In summary, FULNCR / DLTNCR records can be in one of the following cases

Reporting period	Liquidity flag	Type of instrument	Period of application
1/Jan/Y – 31/Dec/Y	True or false (not empty)	Non-equity instrument other than bond	Liquidity and LIS/SSTI thresholds apply from 1/June year Y – 31/May year (Y+1) Calculation results may be updated over time e.g. when the instrument changes time-to-maturity bucket, in which case the new results need to be applied.
	(empty)	Bond	LIS/SSTI thresholds apply from 1/June year Y – 31/May year (Y+1)
Quarter	True or false (not empty)	Bond	Liquidity flag applies from sixteenth of a month for three month as per table 28.b
Empty	True or false (not empty)	Bond	Liquidity flag applies from first trading date until sixteenth of a month as per table 28.c