## **COMMISSION DELEGATED REGULATION (EU) 2017/575**

## of 8 June 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 concerning the data to be published by execution venues on the quality of execution of transactions

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (¹), and in particular point (a) of the first subparagraph of Article 27(10) thereof,

#### Whereas:

- (1) With a view to providing both the public and investment firms with relevant data on execution quality to help them determine the best way to execute client orders, it is important to set out the specific content, format and the periodicity of data relating to the quality of execution of financial instruments subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 of the European Parliament and of the Council (²) to be published by trading venues and systematic internalisers It is also important to set out the specific content, format and the periodicity of data relating to the quality of execution of other financial instruments which are not subject to the trading obligation and which execution venues are required to publish. In this respect, due regard should be given to the type of execution venue and the type of financial instrument concerned.
- (2) In order to fully assess the extent of the quality of execution of transactions that take place in the Union, it is appropriate that execution venues which may be selected by investment firms to execute client orders comply with requirements on data to be provided by execution venues in accordance with this Regulation. To this effect, these execution venues should include regulated markets, multilateral trading facilities, organised trading facilities, systematic internalisers, market makers and other liquidity providers.
- (3) Differences in the type of execution venue and financial instruments require that the content of reporting should vary depending on several factors. It is appropriate to differentiate the amount and nature of reported data according to trading systems, trading modes and trading platforms to provide a proper context for the quality of execution obtained.
- (4) To avoid inappropriate comparison between execution venues and ensure the relevance of collected data, execution venues should submit separate reports corresponding to segments that operate different order books or that are regulated differently or use different market segment identifiers.
- (5) To ensure an accurate picture of the quality of execution that effectively occurred, trading venues should not publish among executed orders those traded over the counter and reported onto the trading venue.
- (6) When market makers and other liquidity providers are reporting as execution venues for financial instruments which are not subject to the trading obligation, they should only publish information on the orders executed or the price quoted for their clients when the orders are either quoted or executed over the counter, or executed pursuant to Articles 4 and 9 of Regulation (EU) No 600/2014, excluding orders which are held in an order management facility of a trading venue pending disclosure.
- (7) It is appropriate to consider that other liquidity providers should include firms that hold themselves out as being willing to deal on own account, and which provide liquidity as part of their normal business activity, whether or not they have formal agreements in place or commit to providing liquidity on a continuous basis.

<sup>(1)</sup> OJ L 173, 12.6.2014, p. 349.

<sup>(2)</sup> Régulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 (OJ L 173, 12.6.2014, p. 84).

- (8) In order to have complete transparency on the quality of execution for transactions in relation to price, it is appropriate that the information provided in relation to price should exclude all commissions or accrued interest, where relevant.
- (9) In determining appropriate information for assessing price quality, both daily average levels and point-in-time information should be required. This will provide participants with an appropriate context and a more complete picture when analysing the quality of execution obtained. In order to allow for price comparisons between financial instruments it is also necessary to specify the currency code of any reported transaction.
- (10) To ensure regulatory consistency, it is not appropriate to require trading venues to provide details of transactions that remain, at the time of publication, subject to a deferral of publication in compliance with requirements on post trade transparency. It is appropriate that systematic internalisers, market makers and other liquidity providers be exempt from publishing point-in-time transaction data for any transactions above standard market size or above size specific to the financial instrument in order to avoid those venues becoming subject to undue risk of disclosing commercially sensitive information that might hinder their ability to hedge exposures and provide liquidity. For shares, exchange-traded funds and certificates deemed to be illiquid under Regulation (EU) No 600/2014, the standard market size threshold to be used is the minimum available standard market size for that type of financial instrument. To avoid uncertainty, it is appropriate to clarify that reference to large in scale and size specific to the financial instrument have the same meaning as set out in the post trade transparency requirements.
- (11) It is essential to have full transparency on all costs charged when executing an order through a given venue. It is necessary to specify all costs in the execution of a client order relevant to the use of a specific venue and for which the client pays directly or indirectly. Those costs should include execution fees, including fees for the submission, modification or cancellation of orders or quotes withdrawals, as well as any fees related to market data access or use of terminals. The relevant costs may also include clearing or settlement fees or any other fees paid to third parties involved in the execution of the order when they are part of the services provided by the execution venue. Information on costs should also include taxes or levies directly invoiced to or incurred by the venue on behalf of the members or users of the execution venue or the client to whom the order refers.
- (12) Likelihood of execution indicates the probability of execution of a particular type of order and is supported by details on trading volumes in a particular instrument or other characteristics of orders and transactions. Information on likelihood of execution should allow for the calculation of metrics such as the relative market size of a venue in a particular financial instrument or a class of financial instruments. Likelihood of execution should also be assessed with data on failed transactions or cancelled or modified orders.
- (13) Speed of execution may have different meanings for the different types of execution venues as the measurement of speed varies by both trading systems and trading platform. For continuous auction order books, speed of execution should be expressed in milliseconds while for other trading systems it is appropriate to use larger units of time. It is also appropriate to exclude the latency of a particular participant's connection to the execution venue, as this is outside of the control of the execution venue itself.
- (14) In order to compare the quality of execution for orders of different size, execution venues should be required to report on transactions within several size ranges. The thresholds for these ranges should be dependent on the type of financial instrument and its liquidity to ensure that they provide an adequate sample of executions in a size that is typical in that instrument.
- (15) It is important that execution venues collect data throughout the normal hours of their operation. Reporting should therefore be made without charge in a machine readable electronic format via an internet website to enable the public to download, search, sort and analyse all the provided data.
- (16) The reports by execution venues should be complemented by the output of a consolidated tape provider established by Directive 2014/65/EU thus allowing for the development of enhanced measures of execution quality.

- (17) For reasons of consistency and in order to ensure the smooth functioning of the financial markets, it is necessary that the provisions laid down in this Regulation and the provisions laid down in Directive 2014/65/EU and Regulation (EU) No 600/2014 apply from the same date.
- (18) This Regulation is based on the draft regulatory technical standards submitted by the European Securities and Markets Authority (ESMA) to the Commission.
- (19) ESMA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the opinion of the Securities and Markets Stakeholder Group established by Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council (1),

HAS ADOPTED THIS REGULATION:

#### Article 1

### Subject matter

This Regulation lays down the specific content, the format and the periodicity of the data to be published by execution venues relating to the quality of execution of transactions. It shall apply to trading venues, systematic internalisers, market makers, or other liquidity providers.

#### Article 2

### **Definitions**

For the purposes of this Regulation, the following definitions shall apply:

- (a) trading system means the way in which an execution venue executes orders as continuous auction order book, continuous quote driven, request for quote, periodic auction or any hybrid system falling into two or more of these categories or into a system where the price determination process is of a different nature than that applicable to the types of system set out above;
- (b) 'Size Specific to the financial instrument' means size specific to a bond, structured finance product, emission allowance or derivative traded on a trading venue, for which there is not a liquid market and where the transaction in those instruments is subject to deferred publication in accordance with Article 11 of Regulation (EU) No 600/2014;
- (c) Large in Scale means an order large in scale in accordance with Article 7 and 11 of Regulation (EU) No 600/2014;
- (d) failed transaction means a transaction that was voided by the execution venue;
- (e) price multiplier means the number of units of the underlying instrument represented by a single derivative contract;
- (f) price notation means an indication as to whether the price of the transaction is expressed in monetary value, in percentage or in yield;
- (g) quantity notation means an indication as to whether the quantity of the transaction is expressed in number of units or in nominal value or in monetary value;
- (h) delivery type means an indication as to whether the financial instrument is settled physically or in cash including instances when the counterparty may choose or when it is determined by a third party;
- (i) trading mode means scheduled opening, closing or intra-day auction, unscheduled auction, trading at close, trading out of main session, or trade reporting;
- (j) trading platform means the type of platform the execution venue operates: electronic, voice or outcry;

<sup>(</sup>¹) Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

- (k) book depth means the total available liquidity expressed as the product of price and volume of all bids and offers for a specified number of price increments from the mid-point of the best bid and offer;
- (l) average effective spread means the average of twice the difference between the actual execution price compared with mid-point of best bid and offer at time of receipt, for market orders or marketable limit orders;
- (m) average speed of execution for unmodified passive orders at best bid and offer means the average time elapsed between a limit order that matches the best bid and offer being received by the execution venue, and the subsequent execution of this order;
- (n) aggressive order means an order entered into the order book that took liquidity;
- (o) 'passive order' means an order entered into the order book that provided liquidity;
- (p) immediate or cancel order means an order which is executed upon its entering into the order book and which does not remain in the order book for any remaining quantity that has not been executed;
- (q) fill or kill order means an order which is executed upon its entering into the order book provided that it can be fully filled. In the event the order can only be partially executed, then it is automatically rejected and is not executed.

#### Article 3

#### Publication of information on execution venue and financial instrument

1. Trading venues and systematic internalisers shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Article 23 and 28 of Regulation (EU) No 600/2014 information on the type of execution venue in accordance with the third subparagraph.

Execution venues shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Article 23 and 28 of Regulation (EU) No 600/2014 information on the type of execution venue in accordance with the third subparagraph.

The following information shall be published in the format set out in Table 1 of the Annex:

- i) name and venue identifier of the execution venue;
- ii) country of location of the competent authority;
- iii) name of the market segment and market segment identifier;
- iv) date of the trading day;
- v) nature, number and average duration of any outage, within the venue's normal trading period, that interrupted trading across all instruments available to trade at the venue on the date of the trading day;
- vi) nature, number, and average duration of any scheduled auctions within the venue's normal trading period on the date of the trading day;
- vii) number of failed transactions on the date of the trading day;
- viii) value of failed transactions expressed as a percentage of total value of transactions that were executed on the date of the trading day.
- 2. Trading venues and systematic internalisers shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Article 23 and 28 of Regulation (EU) No 600/2014, information on the type of financial instrument in accordance with the third subparagraph.

Execution venues shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 information on the type of financial instrument in accordance with the third subparagraph of this paragraph.

The following information shall be published in the format set out in Table 2 of the Annex:

- (a) for financial instruments that have identifiers as set out in Table 2 of the Annex:
  - (i) name and financial instrument identifier;
  - (ii) instrument classification;
  - (iii) currency;
- (b) for financial instruments that do not have identifiers as set out in Table 2 of the Annex:
  - (i) the name and a written description of the instrument, including the currency of the underlying instrument, price multiplier, price notation, quantity notation and delivery type;
  - (ii) instrument classification;
  - (iii) currency.

#### Article 4

#### **Price**

Trading venues and systematic internalisers shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 information as regards price for each trading day orders were executed on the financial instrument in accordance with the third and fourth paragraphs of this Article.

Execution venues shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 information as regards price for each trading day orders were executed on the financial instrument in accordance with the third and fourth paragraphs of this Article.

The following information shall be published:

- (a) intra-day information
  - (i) for trading venues: the simple average price of all transactions that were executed in the two minutes starting at each of the reference times 9.30.00, 11.30.00, 13.30.00 and 15.30.00 UTC on that date and for each size range as set out in Article 9;
  - (ii) for systematic internalisers, market makers and other liquidity providers: the simple average price of all transactions that were executed in the two minutes starting at each of the reference times 9.30.00, 11.30.00, 13.30.00 and 15.30.00 UTC on that date within size range 1 as set out in Article 9;
  - (iii) total value of trades executed during the two minute period referred to in points (i) and (ii);
  - (iv) for trading venues: if no transactions occurred during the first two minutes of the relevant time periods referred to in point (i), the price of the first transaction executed within each size range as set out in Article 9, if any, after each of the reference times set out in point (i) on that date;
  - (v) for systematic internalisers, market makers and other liquidity providers: if no transactions occurred during the first two minutes of the relevant time periods referred to in point (ii), the price of the first transaction executed within size range 1 as set out in Article 9, if any, after each of the reference times set out in point (ii) on that date:
  - (vi) execution time for each transaction referred to in points (iv) and (v);
  - (vii) transaction size in terms of value for each executed transaction referred to in points (iv) and (v);
  - (viii) trading system and trading mode under which the transactions referred to in points (iv) and (v) were executed;
  - (ix) trading platform on which the transactions referred to in (iv) and (v) were executed;
  - (x) best bid and offer or the suitable reference price at the time of execution for each executed transaction referred to in points (iv) and (v);
    - Intra-day information shall be published in the format set out in Table 3 of the Annex.

- (b) daily information:
  - (i) simple average and volume-weighted average transaction price, if more than one transaction occurred;
  - (ii) highest executed price, if more than two transactions occurred;
  - (iii) lowest executed price, if more than two transactions occurred.

Daily information shall be published in the format set out in Table 4 of the Annex.

### Article 5

#### Costs

Trading venues and systematic internalisers shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Article 23 and 28 of Regulation (EU) No 600/2014 information as regards costs applied by the trading venue to any members or users of the venue in accordance with the third paragraph of this Article.

Execution venues shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 information as regards costs applied by the execution venues to any members or users of the venue in accordance with the third paragraph of this Article.

The following information shall be published in the format set out in Table 5 of the Annex:

- (a) a description of the nature and level of all components of costs applied by the execution venue, before any rebates or discounts are applied, and information on how those costs differ according to the user or financial instrument involved and the relevant amounts by which they differ. The components of costs shall include:
  - (i) execution fees;
  - (ii) fees for the submission, modification or cancellation of orders or quotes withdrawals;
  - (iii) fees related to market data access and use of terminals;
  - (iv) any clearing and settlement fees and any other fees paid to third parties involved in the execution of the order;
- (b) a description of the nature and level of any rebates, discounts or other payments offered to users of the execution venue including information on how those rebates, discounts or other payments differ according to the user or financial instrument involved and the amounts by which they differ;
- (c) a description of the nature and amount of any non-monetary benefits offered to users of the execution venue, including information on how those non-monetary benefits differ according to the user or financial instrument involved and the value by which they differ
- (d) a description of the nature and level of any taxes or levies invoiced to, or incurred by the execution venue on behalf of the members or users of the venue;
- (e) a link to the website of the venue or to another source where further information on costs is available;
- (f) the total value of all rebates, discounts, non-monetary benefits or other payments as set out under points (b) and (c), expressed as a percentage of the total traded value during the reporting period;
- (g) the total value of all costs as set out in point (a), excluding the total value of rebates and discounts, non-monetary benefits or other payment as set out in points (b) and (c), expressed as a percentage of the total traded value during the reporting period.

### Article 6

#### Likelihood of execution

Trading venues and systematic internalisers shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Article 23 and 28 of Regulation (EU) No 600/2014 information as regards likelihood of execution for each trading day in accordance with the third paragraph of this Article.

Execution venues shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 information as regards as regards likelihood of execution for each trading day in accordance with the third paragraph of this Article.

The following information shall be published in the format set out in Table 6 of the Annex:

- (a) number of orders or requests for quotes that were received;
- (b) number and value of transactions that were executed, if more than one;
- (c) number of orders or request for quotes received that were cancelled or withdrawn excluding passive orders with instructions to expire or to be cancelled at the end of the day;
- (d) number of orders or request for quotes received, that were modified on that date;
- (e) median transaction size on that date if more than one transaction occurred;
- (f) median size of all orders or requests for quote on that date if more than one order or request for quote was received;
- (g) number of designated market makers.

### Article 7

## Additional information for continuous auction order book and continuous quote driven execution venues

1. Trading venues and systematic internalisers operating under a continuous auction order book, continuous quote driven trading system or other type of trading system for which that information is available shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information at the reference times specified in points (i) and (ii) of Article 4(a) for each trading day in accordance with the third subparagraph of this paragraph.

Execution venues operating under a continuous auction order book, continuous quote driven trading system or other type of trading system for which that information is available shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information at the reference times specified in points (i) and (ii) of Article 4(a) for each trading day in accordance with the third subparagraph of this paragraph.

The following information shall be published in the format set out in Table 7 of the Annex:

- (i) best bid and offer price and corresponding volumes;
- (ii) book depth for three price increments.
- 2. Trading venues and systematic internalisers operating under a continuous auction order book, continuous quote driven trading system or other type of trading system for which that information is available, shall publish for each market segment they operate and for each financial instrument subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information for each trading day, in accordance with the third subparagraph of this paragraph.

Execution venues operating under a continuous auction order book, continuous quote driven trading system or other type of trading system for which that information is available shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information for each trading day, in accordance with the third subparagraph of this paragraph.

The following information shall be published in the format set out in Table 8 of the Annex:

- (a) average effective spread;
- (b) average volume at best bid and offer;
- (c) average spread at best bid and offer;
- (d) number of cancellations at best bid and offer;
- (e) number of modifications at best bid and offer;
- (f) average book depth for 3 price increments;

- (g) mean and median time elapsed between an aggressive order or quote acceptance being received by the execution venue and the subsequent total or partial execution;
- (h) average speed of execution for unmodified passive orders at best bid and offer;
- (i) number of Fill or Kill orders that failed;
- (j) number of Immediate or Cancel orders that got zero fill;
- (k) number and value of transactions that were executed on the trading venue that are Large in Scale pursuant to Article 4 or 9 of Regulation (EU) No 600/2014;
- (l) number and value of transactions that were executed on the trading venue pursuant to Article 4 or Article 9 of Regulation (EU) No 600/2014, but excluding orders that are held in an order management facility of the trading venue pending disclosure and not included under point (k);
- (m) number and average duration of trading interruptions as the result of any volatility auction or circuit breaker which occurred within the venue's normal trading period;
- (n) nature, number and average duration of any trading suspension that occurred as a result of a decision by the venue within the venue's normal trading period, outside of any that were reported under Article 3(1)(v).
- 3. Trading venues and systematic internalisers operating under, in whole or in part, a continuous quote driven trading system, shall publish for each market segment they operate and financial instrument subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information in accordance with the third subparagraph of this paragraph.

Execution venues operating under, in whole or in part, a continuous quote driven trading system shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information in accordance with the third subparagraph of this paragraph.

The following information shall be published in the format set out in Table 8 of Annex:

- (a) the number and average duration, during the venue's normal trading hours, of any periods lasting more than 15 minutes during which no bid or offers were provided for each trading day;
- (b) average quote presence expressed in percentage of the venue's normal trading period on that date.

### Article 8

## Additional information for request for quote execution venues

Trading venues and systematic internalisers operating under a request for quote trading system or any other type of trading system for which that information is available shall publish for each market segment they operate and each financial instrument subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information for each trading day in accordance with the third paragraph of this Article.

Execution venues operating under a request for quote trading system, or any other type of trading system for which that information is available shall publish for each market segment they operate and each financial instrument not subject to the trading obligation in Articles 23 and 28 of Regulation (EU) No 600/2014 additional information for each trading day in accordance with the third paragraph of this Article.

The following information shall be published in the format set out in Table 9 of Annex:

- (a) the mean amount of time and median amount of time elapsed between the acceptance of a quote and execution, for all transactions in that financial instrument, and;
- (b) the mean amount of time and median amount of time elapsed between a request for a quote and provision of any corresponding quotes, for all quotes in that financial instrument.

#### Article 9

## Determination of reporting ranges

Execution venues shall report the executed transactions specified in Article 4 for the following ranges:

- (a) for all financial instruments other than money market instruments:
  - (i) range 1: greater than EUR 0 and less than or equal to the Standard Market Size or the Size Specific to the financial instrument;
  - (ii) range 2: greater than the Standard Market Size or the Size Specific to the financial instrument and less than or equal to Large in Scale;
  - (iii) range 3: greater than Large in Scale.
- (b) for illiquid shares, exchange traded funds or certificates:
  - (i) range 1: greater than EUR 0 and less than or equal to the smallest available Standard Market Size in that type of instrument;
  - (ii) range 2: greater than the smallest available Standard Market Size in that type of instrument and less than or equal to Large in Scale;
  - (iii) range 3: greater than Large in Scale.
- (c) for money market instruments:
  - (i) range 1: greater than EUR 0 and less than or equal to EUR 10 million;
  - (ii) range 2: greater than EUR 10 million and less than or equal to EUR 50 million;
  - (iii) range 3: greater than EUR 50 million.

### Article 10

## Format for publication

Execution venues shall publish, for each trading day, the information in accordance with the templates set out in the Annex, in a machine-readable electronic format, available for downloading by the public.

### Article 11

## Periodicity of the information to be published

Execution venues shall publish the information quarterly and no later than three months after the end of each quarter, as follows:

- (a) by 30 June, information regarding the time period 1 January to 31 March;
- (b) by 30 September, information regarding the time period 1 April to 30 June;
- (c) by 31 December, information regarding the time period 1 July to 30 September;
- (d) by 31 March, information regarding the time period 1 October to 31 December.

### Article 12

### Entry into force and application

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

It shall apply from 3 January 2018.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 8 June 2016

For the Commission
The President
Jean-Claude JUNCKER

## ANNEX

Table 1 — identification information to be published as referred to in Article 3(1) — type of execution venue

Venue	Name	Identifier (ISO 10383 Market Identifier Code (MIC) or the Legal Entity Identifier (LEI)	
Country of Competent Authority	Name		
Market Segment	Name	Identifier (ISO 10383 market segment MIC)	
Date of the trading day	ISO 8601		
Outages	Nature	Number	Average duration
Scheduled Auction	Nature	Number	Average duration
Failed Transactions		Number	Value (as % of total value of transactions executed on that day)

Table 2 — identification information to be published as referred to in Article 3(2) — type of financial instrument

Financial Instrument	Name	Identifier(ISO 6166)
Written description of financial instrument, if no identifier available (including the currency of the underlying instrument, price multiplier, price notation, quantity notation and delivery type)		
Instrument classification	(ISO 10962 CFI code)	
Currency	(ISO 4217)	

Table 3 — price information to be published as referred to in Article 4 point (a)

	Size Range	All trades executed v		First tran	First transaction after time T (if no transactions within first two m			rst two minu	ites after time T)	
Time (T)		Simple average executed price (excluding commis- sions and accrued interest)	Total value executed	Price	Time of execution	Trans- action size	Trading System	Trading Mode	Trading platform	best bid and offer or suitable reference price at time of execution
09.30.00	1									
	2									
	3									
11.30.00	1									
	2									
	3									

	Size Range	All trades executed v		First tran	First transaction after time T (if no transactions within first two minutes after time T)					ites after time T)
Time (T)		Simple average executed price (excluding commis- sions and accrued interest)	Total value executed	Price	Time of execution	Trans- action size	Trading System	Trading Mode	Trading platform	best bid and offer or suitable reference price at time of execution
13.30.00	1									
	2									
	3									
15.30.00	1									
	2									
	3									

## Table 4 — price information to be published as referred to in Article 4 point (b)

simple average transaction price	
volume-weighted transaction price	
highest executed price	
lowest executed price	

# Table 5 — costs information to be published as referred to in Article 5

Information required under Article 5(a) to (d)	(Description)
Link to a website or other source where further information on costs is available	
Total value of all rebates, discounts, or other payments offered (as % of total traded value during the reporting period)	%
Total value of all costs (as a % of total traded value during the reporting period volume)	%

# Table 6 — likelihood of execution information to be published as referred to in Article 6

Number of orders or request for quotes received	
Number of transactions executed	
Total value of transactions executed	
Number of orders or request for quotes received cancelled or withdrawn	

Number of orders or request for quotes received modified	
Median transaction size	
Median size of all orders or requests for quote	
Number of designated market makers	

# Table 7 — likelihood of execution information to be published as referred to in Article 7(1)

Time	Best Bid Price	Best Offer Price	Bid Size	Offer Size	Book depth within 3 price increments
9.30.00					
11.30.00					
13.30.00					
15.30.00					

# Table 8 — information to be published as referred to in Article 7(2) and 7(3)

Average effective spread	
Average volume at best bid and offer	
Average spread at best bid and offer	
Number of cancellations at best bid and offer	
Number of modifications at best bid and offer	
Average book depth at 3 price increments	
Mean time elapsed (to the millisecond) between an aggressive order or quote acceptance being received by the execution venue and the subsequent total or partial execution	
Median time elapsed (to the millisecond) between a market order being received by the execution venue and the subsequent total or partial execution	
Average speed of execution for unmodified passive orders at best bid and offer	
Number of Fill or Kill orders that failed	
Number of Immediate or Cancel orders that got zero fill	
Number of transactions executed on the trading venue that are Large in Scale pursuant to Article 4 or 9 of Regulation (EU) No 600/2014	
Value of transactions executed on the trading venue that are Large in Scale pursuant to Article 4 or 9 of Regulation (EU) No 600/2014	

Number of transactions that were executed on the trading venue pursuant to Article 4 or 9 of MiFIR, except for orders that are held in an order management facility of the trading venue pending disclosure and not Large in Scale	
Value of transactions that were executed on the trading venue pursuant to Article 4 or 9 of MiFIR, except for orders that are held in an order management facility of the trading venue pending disclosure and not Large in Scale	
Number of trading interruptions	
Average duration of trading interruptions	
Number of suspensions	
Nature of suspensions	
Average duration of suspensions	
For continuous quote venues, number of periods during which no quotes were provided	
For continuous quote venues, average duration of periods during which no quotes were provided	
Average quote presence	
Table 9 — information to be published as referred	to in Article 8
Mean time elapsed between acceptance and execution	
Median time elapsed between acceptance and execution	
Mean time elapsed between request and provision of any corresponding quotes	
Median time elapsed between request and provision of any corresponding quotes	