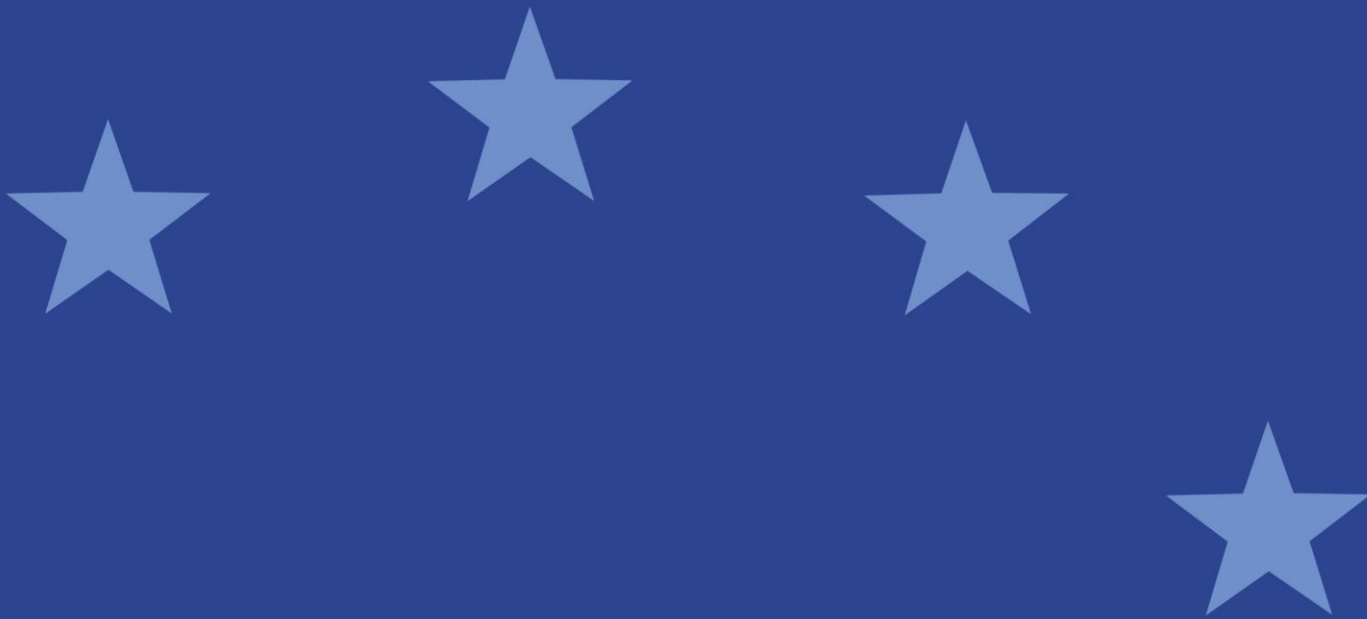




European Securities and  
Markets Authority

# Call for evidence

**Periodic auctions for equity instruments**



## Responding to this paper

ESMA invites comments on all matters in this paper and in particular on the specific questions summarised in Annex 1. Comments are most helpful if they:

1. respond to the question stated;
2. indicate the specific question to which the comment relates;
3. contain a clear rationale; and
4. describe any alternatives ESMA should consider.

ESMA will consider all comments received by **11 January 2019**.

All contributions should be submitted online at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading 'Your input - Consultations'. Please follow the instructions given in the document 'Reply form for the call for evidence on periodic auctions' also published on the ESMA website.

### Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publically disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

### Data protection

Information on data protection can be found at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading [Legal Notice](#).

### Who should read this paper

All interested stakeholders are invited to respond to this consultation paper. This consultation paper is primarily of interest to trading venues and investment firms trading in equity instruments, but responses are also sought from any other market participant including trade associations and industry bodies, institutional and retail investors.

## Table of Contents

1	Executive Summary .....	3
2	Introduction .....	4
3	MiFID II and periodic auctions .....	4
3.1	Definition of periodic auction trading systems.....	4
3.2	The development of frequent batch auction trading systems under MiFID II.....	5
4	Specificities of frequent batch auction trading systems operating within the EU .....	9
4.1	Pre-trade transparency.....	9
4.2	Auction duration .....	11
4.3	Price determination .....	12
4.4	Self-matching .....	13
5	Further developments in equity trading since the application of MiFID II .....	14
6	Annexes .....	17
6.1	Annex 1.....	17

# 1 Executive Summary

## Reasons for publication

Over the last months, and in particular following the first suspensions of trading under the double volume cap (DVC), a new type of periodic auction trading system, frequent batch auctions, has been rapidly gaining market share. In light of this development various stakeholders have raised concerns that frequent batch auction trading systems may be used to circumvent the suspension of trading under the DVC. This call for evidence aims at gathering more information on the functioning of frequent batch auction trading systems.

## Contents

Section 3 defines periodic auction systems and presents the development of frequent batch auction trading under MiFID II. Section 4 presents four key features of frequent batch auction trading systems that in ESMA's view are important for explaining the success of these systems while raising at the same time some questions on their compatibility with the MiFID II pre-trade transparency framework. Section 5 looks at broader market developments in equity trading following the application of MiFID II.

## Next Steps

ESMA will consider the feedback it received to this call for evidence to further develop its understanding of frequent batch auction trading systems, to assess whether and to which extent these systems can be used to circumvent the MiFID II transparency requirements and, should this be the case, to develop appropriate policy measures.

---

## 2 Introduction

1. With the application of Directive 2014/65/EU (MiFID II) and Regulation No 600/2014 (MiFIR) on 3 January 2018 a new type of periodic auction trading systems for equity instruments consisting of auctions of a very short duration during the trading day triggered by market participants has been rapidly gaining market share ('frequent batch auctions').
2. Various stakeholders have approached ESMA over the last months raising concerns that frequent batch auctions may be used to circumvent the DVC. In order to better understand whether these concerns are valid and, should this be the case, reflect on possible policy measures, ESMA carried out a stock taking exercise over the last months assessing frequent batch auctions for equity instruments operating in the EU.
3. Against this background, ESMA is seeking the input of stakeholders on the results of this stock-taking exercise. Stakeholders are, in particular, invited to provide feedback on the main factors driving the success of frequent batch auctions, whether they agree with the main characteristics of frequent batch auctions identified in this call for evidence, whether these characteristics may serve to circumvent the DVC and, if this is the case, what measures ESMA could take to avoid such circumvention.
4. Section 3 of the call for evidence provides a definition of periodic auction trading systems and presents the development of frequent batch auctions in recent months. Section 4 presents the key characteristics that ESMA identified during the fact-finding exercise. Finally, Section 5 looks at broader market developments since the application of MiFID II and, in particular the first suspensions under the DVC, to identify the main beneficiaries in terms of market share.

## 3 MiFID II and periodic auctions

### 3.1 Definition of periodic auction trading systems

5. MiFID II and MiFIR do not provide for a definition of periodic auction trading systems as such. However, Commission Delegated Regulation 2017/587 (RTS 1) further specifies the definitions and pre-trade transparency requirements for different types of trading systems, including periodic auction trading systems. According to table 1 of Annex I of RTS 1 a periodic auction trading system is '*a system that matches orders on the basis of a periodic auction and a trading algorithm operated without human intervention*'.<sup>1</sup>
6. Trading venues operating periodic auction systems collect offers to sell (buy) financial instruments at or above (below) a minimum (maximum) price by the selling (buying) firm.

---

<sup>1</sup> Commission Delegated Regulation 2017/583 (RTS 2) provides for the same definition for periodic auction trading systems for non-equity instruments.

Based on those offers the trading algorithm determines a single ‘uncrossing’ price which maximises the volume of instruments which can be executed at that price.

7. Periodic auctions are not a new development but have been used for a long time already, either in the form of closing and opening auctions to set the price for the beginning or the closure of the trading day or, for less liquid instruments, intra-day auctions in order to gather sufficient liquidity to allow trading. Moreover, following a trading interruption due to market volatility, most trading venues open in auction mode. Those trading systems are in the following analysis referred to as ‘conventional periodic auctions’.
8. Recently, with frequent batch auctions, a new type of periodic auction trading systems has gained market share. While those frequent batch auctions, including auctions on demand, function in a similar way as conventional periodic auctions operated by many trading venues, two differences between conventional periodic auctions and frequent batch auctions can be noted.
9. First, the duration of frequent batch auctions is very short and lasts only some milliseconds as opposed to conventional periodic auctions that last several minutes. Second, whereas conventional periodic auctions are scheduled by the trading venue, for frequent batch auctions two different models for triggering an auction currently exists. One commonly used approach is to collect trading interest throughout the day, and to trigger a ‘call period’ every time a pair of opposing orders can be matched. Another frequent approach is to trigger an auction as soon as one order has been submitted.
10. This call for evidence focusses on frequent batch auctions. Nonetheless, it should be noted that some features of frequent batch auctions are also inherent to conventional periodic auctions. Where this is the case, this is highlighted in the analysis in section 4.

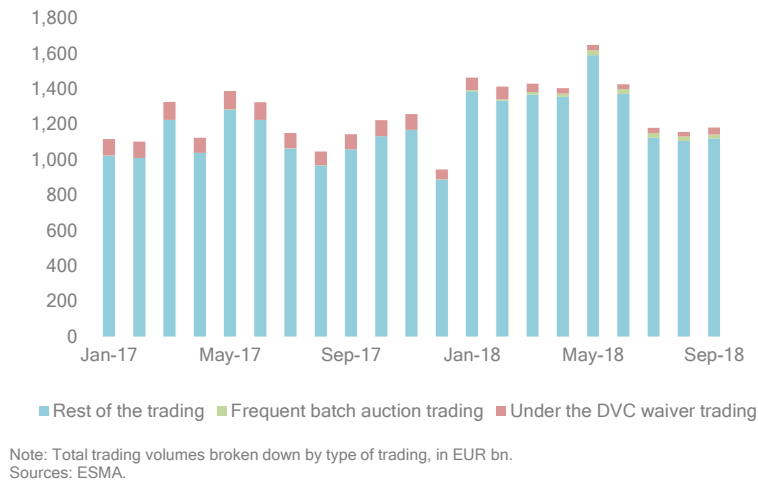
**Q1 Do you agree with the two main differences identified to distinguish conventional periodic auctions from frequent batch auctions? If not, please explain why.**

### **3.2 The development of frequent batch auction trading systems under MiFID II**

11. Following the application of MiFID II and, in particular, the suspension of dark trading under the DVC, frequent batch auctions have experienced significant growth.
12. Figure 1 shows the development of the total trading volumes concluded on EU trading venues for equity instruments from January 2017 to September 2018. It can be observed that following a significant increase of the overall on-venue trading volume in the first months of application of MiFID II, trading volumes are now broadly at the same level as in 2017. The largest part of on-venue trading is executed in either a lit environment (in particular, continuous auction order book trading systems but also closing/opening auctions) or subject to a waiver that is not subject to the DVC (‘rest of trading’). Trading under frequent batch auctions (‘frequent batch auction trading’) and under the waivers

subject to the DVC ('under the DVC waiver trading') currently only constitutes a small part of the total trading volume.

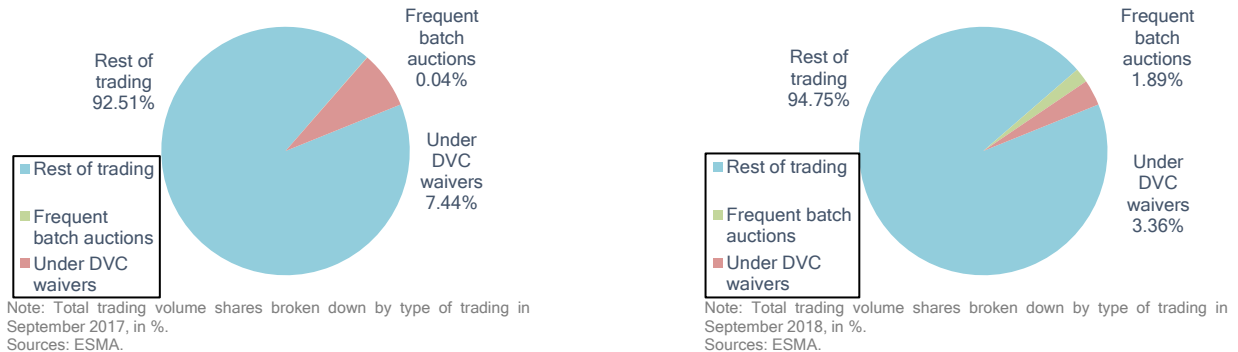
**FIGURE 1: DEVELOPMENT OF TOTAL TRADING VOLUME IN EQUITY INSTRUMENTS ON EU TRADING VENUES**



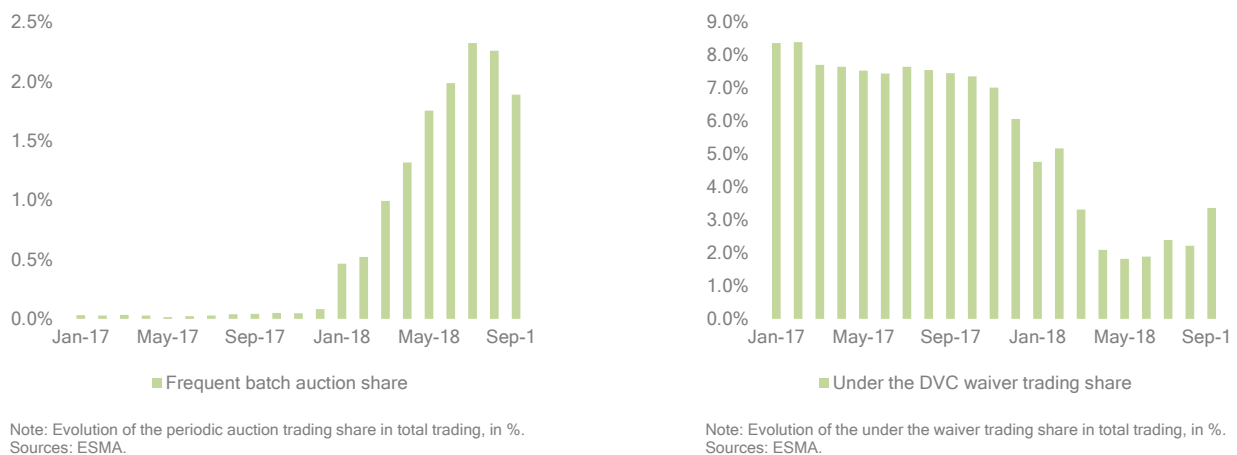
13. Nevertheless, Figures 2 and 3 highlight the rapid rise of frequent batch auction trading and the decrease in trading under the DVC waivers following the application of MiFID II in January 2018 and the first suspensions of dark trading in March 2018. From a market share in terms of the total trading volume of equity instruments on EU trading venues of about 0.5% (6.78 bn EUR) in January 2018, the market share of frequent batch auctions increased to 2.3% (26.09 bn EUR) in August 2018 before dropping to 1.9% (22.28 bn EUR) in September 2018.

14. At the same time it can be observed that, as expected, trading under the waivers subject to the DVC decreased significantly following the suspension of dark trading for a number of instruments in March 2018. Whereas in January 2018 trading under the two waivers subject to the DVC represented 4.6% (69.57 bn EUR) of the overall trading volume, the market share dropped to 3% (47.3 bn EUR) in March 2018 and continued to fall up to August 2018 with a market share of 2.2% (25.57 bn Euro) in August 2018. Following the end of the suspension of dark trading for 618 instruments in September 2018, the market share of trading under the two DVC waivers increased again to 3.4% (39.68 bn EUR).

**FIGURE 2: DEVELOPMENT OF TOTAL TRADING VOLUME ON EU TRADING VENUES – AUGUST 2017 VS. AUGUST 2018**



**FIGURE 3: DEVELOPMENT OF TRADING ON FREQUENT BATCH AUCTIONS AND UNDER WAIVERS SUBJECT TO THE DOUBLE VOLUME CAP**



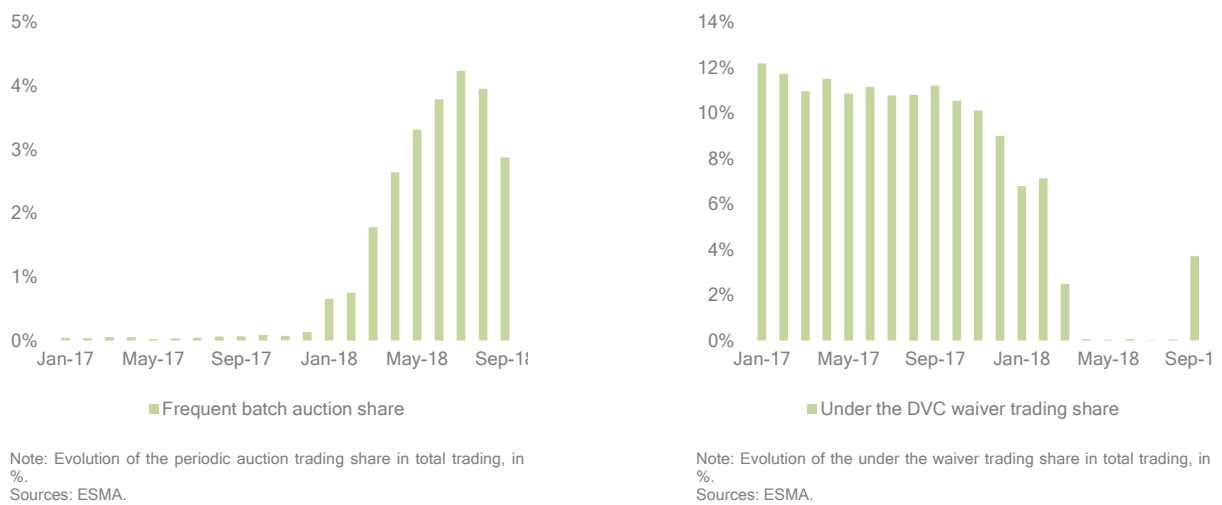
15. Figure 4 shows the development of trading in 618 ISINs that were suspended under the DVC from 12 March 2018 to 12 September 2018. The trend of moving to frequent batch auctions is similar to the overall trend presented in Figure 3 but more accentuated. For instance, frequent batch auctions for all equity instruments had a market share of 2.3% in July 2018, whereas it was 4.2% including only instruments that were suspended from March to September 2018.

16. Similarly the drop in trading activity on frequent batch auctions in September 2018 is more pronounced for ISINs for which the suspension under the DVC ended in September 2018 (a drop in market share of 1.3 percentage points from July to September 2018) compared to all ISINs (a drop in market share of 0.4 percentage points). Moreover, the trading under the DVC waivers increased in September. Again, this trend is significantly more pronounced for instruments for which the DVC suspension ended in September 2018 compared to all instruments.



17. Based on these observations it appears that the trend observed for frequent batch auction trading seems to be to a large extent driven by instruments that have been suspended under the DVC. Furthermore, it appears that market participants consider trading under the waivers subject to the DVC more attractive than trading on frequent batch auctions, while noting at the same time that the increase in dark trading is significantly larger than the drop in frequent batch auction trading in September 2018.<sup>2</sup>

**FIGURE: 4 DEVELOPMENT OF TRADING ON FREQUENT BATCH AUCTIONS AND UNDER WAIVERS SUBJECT TO THE DVC – ONLY ISINS FOR WHICH DVC SUSPENSION ENDED IN SEPTEMBER 2018**



18. In light of these developments stakeholders raised concerns that frequent batch auctions may be used as alternatives to trading under the DVC waivers and/or as a way to avoid the pre-trade transparency requirements of systematic internalisers (SIs).

19. ESMA agrees that should frequent batch auctions be used with the main objective of circumventing the DVC or other pre-trade transparency obligations under MiFID II by allowing trading in an environment with limited or no pre-trade transparency without a waiver, this would violate the spirit and the rules of MiFID II.

20. However, the success of frequent batch auctions may also be driven by other factors, for instance, stakeholders trying to reduce the impact of factors such as speed and latency which often are important in central limit order books. It can also not be excluded that the growth in frequent batch auctions is in part attributable to activity that had previously been OTC prior to MiFID II entering into force.

<sup>2</sup> It should also be noted that since the suspensions for 618 ISINs ended only on 12 September, the September data presented above reflects mainly adjustments after 12 September, i.e. for about half of the month.

**Q2 Do you agree with the observation of a rising market share for equity trading on frequent batch auctions?**

**Q3 What are in your view the main factors driving this development?**

## **4 Specificities of frequent batch auction trading systems operating within the EU**

21. ESMA assessed, based on publicly available information, seven frequent batch auction trading systems for equity systems operating in the EU.

22. Overall, it can be observed that frequent batch auction trading systems share many characteristics. In particular, all systems have a very short auction duration (ranging from 25ms to 150ms), offer member/broker preferencing rules and conclude transactions within the best bid and offer price. At the same time, all frequent batch auction systems have somewhat different features. For example, auctions can be initiated based on different events, the degree of pre-trade disclosure is different, the systems provide for different modalities for order cancellations and amendments and for different order types.

23. It is therefore not possible to assess frequent batch auctions as such but the assessment should rather focus on the different characteristics of those systems and on whether they raise any concerns concerning their compliance with MiFID II and in particular the transparency framework, including the DVC.

24. The analysis in the following sections focusses on four characteristics of frequent batch auctions that in ESMA's view are important for explaining their success while raising at the same time questions on their compatibility with the MiFID II transparency framework: the application of pre-trade transparency, short auction duration, price determination within the best bid and offer price, and self-matching features.

**Q4 Do you agree with the four characteristics identified by ESMA? Please explain.**

**Q5 Do you consider that other characteristics of frequent batch auctions may explain their success and/or raise questions in terms of compatibility with the MiFID II transparency provisions? Please explain.**

### **4.1 Pre-trade transparency**

25. According to table 1 of Annex I of RTS 1 periodic auction trading systems are required to make public *'the price at which the auction trading system would best satisfy its trading algorithm in respect of shares, depositary receipts, ETFs, certificates and other similar financial instruments traded on the trading system and the volume that would potentially be executable at the that price by participants in that system'*. These requirements are the same for both conventional and frequent batch auctions.

26. ESMA identified differences in the way frequent batch auctions apply these pre-trade transparency requirements, depending on whether the systems initiate an auction at the arrival of the first order or only in case of a matching opportunity.
27. Systems that initiate an auction upon receipt of a first order only start disclosing pre-trade transparency information once a counter order is submitted during the auction call leading to a possible match. Once a possible match has been identified, the systems publish real-time information on the indicative price and volume, which is updated during the auction period when new orders are incoming or following the amendment or cancellation of orders.<sup>3</sup> This configuration raises questions whether the system should disclose pre-trade information already at the initiation of the auction (i.e. upon receipt of the first order).
28. On the one hand, one could take the view that those systems cannot disclose any pre-trade information for auctions initiated on the basis of one order since there is no potential uncrossing price and the potentially executable volume would be zero. On the other hand, it could be considered that such systems provide no information to the market on the trading interest that initiated the auction. Furthermore, it could be argued that pre-trade transparency of such systems would be very limited in case a possible matching order is only submitted close to the end of the call period, thereby only providing pre-trade transparency for a very short period of time.

**Q6 What is your view on the level of pre-trade transparency applied by systems that initiate auctions upon the receipt of a first order? In particular, should pre-trade transparency already be applied as of the start of an auction, irrespectively of whether there is a potential match or not? Please explain.**

29. Systems that collect orders and only initiate an auction once there is a matching opportunity provide real-time information on the indicative price and volume from the beginning of the auction. Similar to the systems that initiate an auction upon receipt of a first order, no pre-trade transparency information is disclosed on orders collected pending a potential match and hence the initiation of the auction. This practice is similar to conventional periodic auctions where it is current practice to allow the submission of orders ahead of the start of the auction without those orders being subject to pre-trade transparency. However, whereas for opening/closing auctions the trading venue defines in its rules the starting point of the opening/closing auctions, the starting point of frequent batch auctions is not known in advance.
30. Some of those frequent batch auction systems that trigger an auction once a possible match has been identified lock in the auction price at the beginning of the auction. Furthermore, most of those systems allow the use of orders pegged to the mid-point. These features may be perceived as limiting de facto pre-trade transparency to the indicative

---

<sup>3</sup> All systems assessed that initiate an auction based on one order allow the modification and cancellations of orders during the auction period.

volume and may raise questions as to the contribution to price formation of these systems (see section 4.3).

**Q7 What is your view on the level of pre-trade transparency applied by systems that initiate auctions upon the identification of a possible match? In particular, do you consider that systems locking in prices at the beginning and/or allowing the submission of orders pegged to the midpoint meet the pre-trade transparency requirements? Please explain.**

31. While the disclosure of information on market/order imbalance is not required under the pre-trade transparency provisions for periodic auction trading systems in RTS 1, this information is published by many conventional periodic auction trading systems during the opening/closing auction. Currently, none of the frequent batch auction trading systems assessed discloses such information. Disclosing such information also for frequent batch auction systems may be beneficial to provide the market with information about the level of buyers and sellers and encourage additional order flow to be directed to the auction.

**Q8 Would you see benefit in frequent batch auction systems providing information on market/order imbalance? Please explain.**

## 4.2 Auction duration

32. In all frequent batch auction trading systems assessed, the auction duration is standardised and consists in most cases of a short fixed call period and a short random period, thereby resulting in a randomised end time.

33. The total auction length of the frequent batch auction systems assessed is very short, ranging from 25ms to 150ms. Some systems adapt the auction length to the specificities of the instrument traded (e.g. one system provides for a shorter auction length for liquid instruments compared to illiquid instruments), but most systems currently use the same parameters (i.e. fixed period followed by a short random period) for all instruments traded on their systems.

34. While the short auction duration aims in particular at protecting market participants participating in the auction from high frequency traders by reducing the value of small speed advantages compared to central limit order book trading, it could also be argued that such short auction call periods make it difficult if not impossible for third parties to participate in the auction. This might be in particular the case for systems initiating an auction at the receipt of the first order where the total auction length may be perceived to be even shorter given the lack of pre-trade information pending a potential match.<sup>4</sup>

---

<sup>4</sup> E.g. in case an auction has been initiated on basis of one incoming order and the total auction length is 100ms, if a matching order is entered into the order book after 99ms, pre-trade transparency would be limited to 1ms.

- Q9 Do you consider the auction length of frequent batch auctions as appropriate? In particular, how does the short auction length contribute to fair and orderly trading? Please explain.**
- Q10 Would you see benefits in having a longer auction duration? Do you consider that the auction duration should take into account the liquidity and/or type of instruments traded (e.g. a longer auction duration for less liquid instruments)? Please explain.**
- Q11 In your experience, how often do frequent batch auctions result in a match, and how many transactions are executed per frequent batch auction on average?**

### **4.3 Price determination**

35. In its evaluation of the characteristics of frequent batch auctions, ESMA noted that these systems require that the auction price is set at, or within, the best bid and offer price. This rule aims at ensuring that transactions always reflect the current market conditions, which is of particular relevance in case there are only few orders participating in an auction.
36. Furthermore, some of the systems analysed lock in the auction price at the beginning of the auction, thereby leading to non-price forming auctions. In consequence, orders amended or cancelled during the call period<sup>5</sup> as well as new orders entered do not affect the auction price. While this feature provides market participants with certainty on the execution price it limits pre-trade transparency information to the indicative volume.
37. It should be noted that there are currently other functionalities with similar features in place (e.g. trading at last, i.e. the possibility to trade for a short period after the closing auction trading) where the price is locked in and orders are therefore not price forming and pre-trade transparency is limited to the indicative volume (and in some cases the order/market imbalance).
- Q12 Do you consider frequent batch auction systems as non-price forming systems? Should a characteristic of any trading system be that it is always price forming in order to operate without a waiver? Please explain.**
- Q13 Do you consider that these functionalities resemble reference price systems (in particular when matching transaction at mid-point)? Please explain.**
38. Usually, the variety of orders and the depth of trading interests participate in the price formation process to the benefit of all participants and allow reaching the equilibrium of price where the transaction between a buyer and a seller occurs. In the case of frequent batch auctions, presenting the specific features explained above (i.e. short duration, limited pre-trade transparency), the multilateral characteristics of price determination may be

---

<sup>5</sup> It should be noted that those systems somewhat limit the possibility of order cancellations/amendments during an auction.

weakened. Limitations reducing the likelihood of multiple orders confrontation (such as short duration, reduced number of orders, concentrated number of participants) may result in a suboptimal outcome for the counterparties.

**Q14 How do frequent batch auctions ensure multilaterality and interactions of trading interests in the price formation process (e.g. diversity of participating members, average number of participants, distribution of orders involved per transaction)?**

39. The requirement that the auction price is at or within the bid and offer, i.e. either the European Best Bid and Offer Price (EBBO) or Primary Best Bid and Offer Price (PBBO), limits the contribution to genuine price formation of these systems. Furthermore, since most systems allow for the use of pegged orders, the price formation process logic is further weakened.

40. In order to ensure that the resulting price is within the EBBO or PBBO, some systems have a mechanism that prevents the auction uncross at a price outside the EBBO or PBBO. The price determination process might be affected by the triggering of these mechanisms.

**Q15 Do you consider that the possibility of pegged orders might weaken the price determination logic? If yes, which measures would you recommend?**

**Q16 How frequent are mechanisms used to prevent an auction uncross at a price outside the EBBO or PBBO (e.g. patterns and occurrences)?**

41. The concerns around price determination are further reinforced by the fact that some trading venues operating periodic auction systems are currently not compliant with the mandatory tick-size regime.

## **4.4 Self-matching**

42. All frequent batch auction systems analysed allow for self-matching, that is the possibility that two orders from the same member are matched. Self-matching in frequent batch auction systems raises concerns to the extent to which those systems may be used for cross trades, in particular where two matching orders are submitted by the same member in the periodic auction book at the same time. Moreover, all systems assessed allow for member/broker preferencing, either as an optional or mandatory feature. Member preferencing is a matching logic that gives matching preference to opposing orders from the same member, matching them ahead of other orders at the same price.

43. Self-matching and member preferencing have been in place for many years in central limit order books. While those features create an efficient way of internalising order flow by lowering the cost of execution for final clients, they also reduce the likelihood of execution of orders not benefitting from self-matching and/or member preferencing. In the context of periodic auctions, concerns have been raised that member/broker preferencing may be used for cross trades, and hence to circumvent the DVC (negotiated trades in liquid instruments), in particular in case two matching orders of the same member have been

sent to the order book at the same time. According to information relating to Q3 2018 activity published by CBOE about 20% of the activity in the periodic auctions book represents broker priority allocations<sup>6</sup>.

**Q17 What are your views on self-matching functionalities, and in particular member preferencing, in the context of frequent batch auction systems taking into account their short auction length? Do self-matching functionalities, and in particular member preferencing, coupled with other features of frequent batch auctions (short duration, locked-in prices) contribute to fair and orderly trading?**

44. The use of frequent batch auction systems in combination with member preferencing might basically allow to execute a transaction as a negotiated trade without a waiver from pre-trade transparency. It should be noted however that some of the systems assessed allow for self-cross prevention as an optional feature, i.e. should members not want their orders to self-match, this feature could be used. It is unclear to which extent members make use of this option for periodic auctions.

**Q18 Do you consider that self-matching functionalities, and in particular member preferencing, on frequent batch auction systems may be used to formalise privately negotiated transactions?**

**Q19 In your opinion, is the feature of member preferencing indispensable for the success observed in frequent batch auction systems since the application of MiFID II?**

## **5 Further developments in equity trading since the application of MiFID II**

45. MiFID II aims at increasing the transparency of equity markets and introduces various provisions in order to deliver on this objective. Most notably, MiFID II introduces the DVC mechanism, the trading obligation for shares, extends the pre- and post-trade transparency regime to equity instruments other than shares and strengthens the SI regime.

46. It was therefore expected that MiFID II would increase the volume of trading on pre-trade transparent markets, i.e. on trading venues not benefitting from a waiver and SIs. Furthermore, in light of the inclusion of SIs as eligible execution venues for the trading obligation for shares it was expected that the volume of trading executed on SIs would increase.

47. While it is too early to assess after less than a year of applying the new legal framework whether MiFID II delivered on its objective of increasing the transparency of equity markets and having in mind that some of the MiFID II provisions, such as the mandatory SI-regime

---

<sup>6</sup> [https://markets.cboe.com/europe/equities/trading/periodic\\_auctions\\_book/](https://markets.cboe.com/europe/equities/trading/periodic_auctions_book/)

only started applying recently, to date no significant shift to trading in a more transparent environment can be observed.

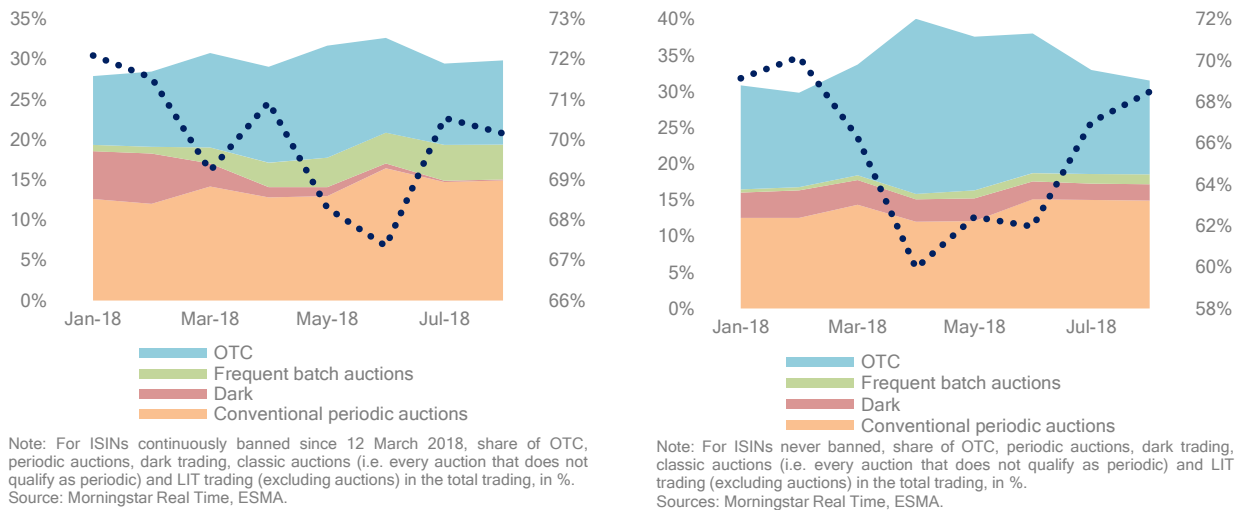
48. As highlighted in section 3.2, it appears that some of the trading under the suspended waivers has moved to frequent batch auctions. In addition, some trading has moved to conventional periodic auctions and, presumably, to SIs. Figure 5<sup>7</sup> shows the development of trading from January to August 2018 for ISINs that were suspended under the DVC as well as ISINs that were not suspended under the DVC. The chart on the left side includes only ISINs that were continuously banned from 12 March 2018 until the end of August 2018, whereas the chart on the right side includes only ISINs that were never suspended under the DVC.
49. The dotted line representing lit trading in percentage of total EU trading volume, excluding trading under conventional periodic auctions and frequent batch auctions, is shown on the right vertical axis of each chart. The EU trading volume on periodic auctions, conventional auctions, under a waiver from pre-trade transparency and OTC in percentage of the total trading volume is shown on the left vertical axis of both charts. The trading volume under both the right vertical axis and the left vertical axis always adds up to 100 percent.
50. It can be observed that the lit trading volume has been volatile over the last months with no obvious trend. In particular, for ISINs not suspended under the DVC, a sharp drop in lit trading, excluding auctions, accompanied by a parallel increase in OTC trading can be seen in March/April 2018. The lit trading volume for non-suspended ISINs gradually recovered over the last months with a parallel decrease of the OTC activity.
51. Figure 5 also highlights the increased market share of frequent batch auctions for both suspended and non-suspended ISINs, but in particular for ISINs suspended under the DVC. Furthermore, the trading volume under conventional periodic auctions has been increasing since January for both suspended and non-suspended ISINs from about 13% of total EU trading volume in January 2018 to 15% in August 2018.
52. For both suspended and non-suspended ISINs the dark trading volume has decreased, with, as expected after the suspension of trading under the DVC waivers, a much sharper drop for suspended ISINs compared to non-suspended ISINs. The OTC-trading volume (including SI-trading and other OTC-trading) has been subject to fluctuations since January 2018, in particular for non-suspended ISINs, and no obvious trend can be observed.

---

<sup>7</sup> Please note that the figures are based on a sub-sample of ISINs (600 ISINs based on the constituents of the STOXX Europe 200 LARGE/MIC/SMALL caps) which are then extrapolated to the whole universe of ISINs within the scope of the DVC.



**FIGURE 5: DEVELOPMENT OF TRADING FOR ISINS SUSPENDED UNDER THE DVC (LEFT FIGURE) VS. ISINS NOT SUSPENDED UNDER THE DVC (RIGHT FIGURE)**



53. Concerning the expected increase of trading volumes of SIs, this is supported by anecdotal evidence. While market participants highlight that the trading volume concluded on SIs may be currently overstated and also include a significant amount of non-addressable liquidity, overall it appears that SIs attracted significant trading flow under MiFID II.

**Q20 How do you determine on which execution venues to conclude transactions? Please explain.**

**Q21 Which execution venues attracted the most trading volume following the suspension of dark trading venues under the DVC and why? Please substantiate your answer by quantitative data where available.**

**Q22 Should trading under frequent batch auctions become subject to stricter requirements in the future, to which type of execution venues do you expect the current trading volume under frequent batch auctions to migrate to?**

## 6 Annexes

### 6.1 Annex 1

#### Summary of questions

- Q1** Do you agree with the two main differences identified to distinguish conventional periodic auctions from frequent batch auctions? If not, please explain why.
- Q2** Do you agree with the observation of a rising market share for equity trading on frequent batch auctions?
- Q3** What are in your view the main factors driving this development?
- Q4** Do you agree with the four characteristics identified by ESMA? Please explain.
- Q5** Do you consider that other characteristics of frequent batch auctions may explain their success and/or raise questions in terms of compatibility with the MiFID II transparency provisions? Please explain.
- Q6** What is your view on the level of pre-trade transparency applied by systems that initiate auctions upon the receipt of a first order? In particular, should pre-trade transparency already be applied as of the start of an auction, irrespectively of whether there is a potential match or not? Please explain.
- Q7** What is your view on the level of pre-trade transparency applied by systems that initiate auctions upon the identification of a possible match? In particular, do you consider that systems locking in prices at the beginning and/or allowing the submission of orders pegged to the midpoint meet the pre-trade transparency requirements? Please explain.
- Q8** Would you see benefit in frequent batch auction systems providing information on market/order imbalance? Please explain.
- Q9** Do you consider the auction length of frequent batch auctions as appropriate? In particular, how does the short auction length contribute to fair and orderly trading? Please explain.
- Q10** Would you see benefits in having a longer auction duration? Do you consider that the auction duration should take into account the liquidity and/or type of instruments traded (e.g. a longer auction duration for less liquid instruments)? Please explain.
- Q11** In your experience, how often do frequent batch auctions result in a match, and how many transactions are executed per frequent batch auction on average?

- Q12 Do you consider frequent batch auction systems as non-price forming systems? Please explain. Should a characteristic of any trading system be that it is always price forming in order to operate without a waiver? Please explain.**
- Q13 Do you consider that these functionalities resemble reference price systems (in particular when matching transaction at mid-point)? Please explain.**
- Q14 How do frequent batch auctions ensure multilaterality and interactions of trading interests in the price formation process (e.g. diversity of participating members, average number of participants, distribution of orders involved per transaction)?**
- Q15 Do you consider that the possibility of pegged orders might weaken the price determination logic? If yes, which measures would you recommend?**
- Q16 How frequently are mechanisms used to prevent an auction uncross at a price outside the EBBO or PBBO (e.g. patterns and occurrences)?**
- Q17 What are your views on self-matching functionalities, and in particular member preferencing, in the context of frequent batch auction systems taking into account their short auction length? Do self-matching functionalities, and in particular member preferencing, coupled with other features of frequent batch auctions (short duration, locked-in prices) contribute to fair and orderly trading?**
- Q18 Do you consider that self-matching functionalities, and in particular member preferencing, on frequent batch auction systems may be used to formalise privately negotiated transactions?**
- Q19 In your opinion, is the feature of member preferencing indispensable for the success observed in frequent batch auction systems since the application of MiFID II?**
- Q20 How do you determine on which execution venues to conclude transactions. Please explain.**
- Q21 Which execution venues attracted the most trading volume following the suspension of dark trading venues under the DVC and why? Please substantiate your answer by quantitative data where available.**
- Q22 Should trading under frequent batch auctions become subject to stricter requirements in the future, to which type of execution venues do you expect the current trading volume under frequent batch auctions to migrate to?**