

# Call for evidence

## Periodic auctions for equity instruments

### **Please note:**

In order to provide the full context of the consultation questions and ITG's responses we have combined both the ESMA consultation document and questions, while denoting ITG's responses in **blue text**.

## 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.

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# 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.

## Content

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.

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# 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.

#### **ITG Introduction**

Investment Technology Group (ITG) welcomes the opportunity to provide a response to ESMA in relation to its call for evidence on periodic auctions for equity instruments. ITG is a global financial technology company that helps leading brokers and asset managers improve returns for investors around the world. We empower traders to reduce the end-to-end cost of implementing investments via technology-enabled liquidity, execution, analytics and workflow solutions.

ITG has just under 1,000 employees in 14 offices in nine countries in Asia Pacific, Europe and North America. It offers execution services in more than 50 countries.

ITG has been a pioneer in technology-enabled trading solutions since 1987, when we launched the first point-in-time anonymous block crossing network, POSIT. Other ITG innovations that remain category leaders today include the first system for managing large portfolio trading lists, transaction cost analysis for asset managers, and client self-directed trading algorithms.

ITG in Europe, includes Investment Technology Group Limited (“ITGL”). ITGL is authorised and regulated by the Central Bank of Ireland. ITGL operates POSIT<sup>®</sup>, a multilateral trading facility. POSIT MTF comprises both POSIT Auction, a pre-trade transparent frequent batch auction segment, and POSIT Dark which utilises the Reference Price Waiver and Large In Scale Waiver.

As we will outline in our response, periodic auctions, or frequent batch auctions as described in the consultation, represent just 1.1% of European trading. Given this limited level of activity and the centralised, publicly accessible, pre-trade transparent trading they provide, we believe that any intervention in this developing area is unnecessary, curbs innovation and has the potential to negatively impact market structure.

ITG will be happy to provide further details of any of the source materials referenced in this submission and also to answer any follow-on questions that you may have. If you wish to discuss any aspect of this submission, please contact Duncan Higgins ([duncan.higgins@itg.com](mailto:duncan.higgins@itg.com)).

## 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. 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'.<sup>1</sup>
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.**

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

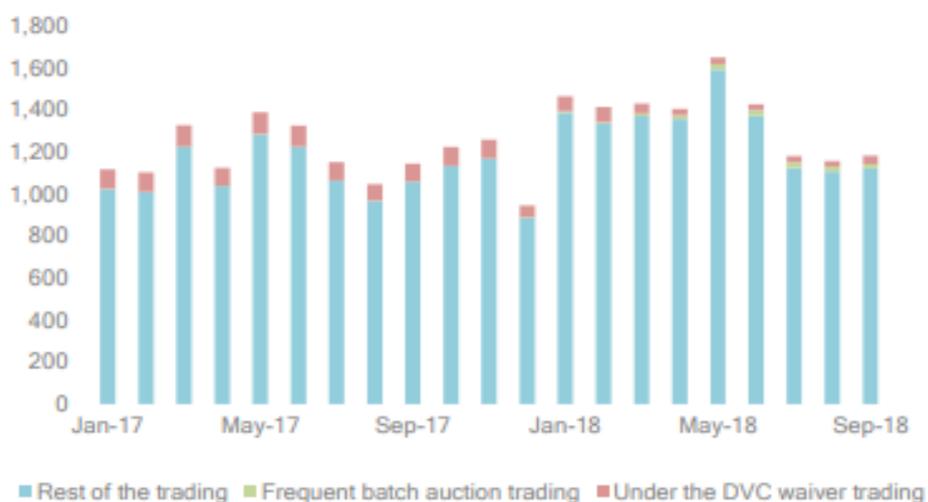
**A1** In general we agree with the identification of the two differences. We would note that the conventional periodic auctions are not all scheduled by the venue. In particular, the auction held following a volatility event is triggered by the movement of a stock beyond its accepted price band, which itself is the result of the placement of an order into a market. Therefore we would contend that conventional periodic auctions are also, at times, initiated by the arrival of an order into the market.

### 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**



Note: Total trading volumes broken down by type of trading, in EUR bn.  
Sources: ESMA.

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**



<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.

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.

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

**A2** We agree that there has been a rising market share for frequent batch auctions, but the observations are being made with the exclusion of large amounts of trading activity resulting in too small a denominator and an inflated view of periodic auction activity. MiFID II and MiFIR allow for multiple ways of trading, including venue trading and off venue trading within Systematic Internalisers (SIs) or Over-The-Counter (OTC). The assessment of the volumes in frequent batch auctions should be undertaken in this context. When we assess the European market in this context and, using trade reported data from Fidessa, examine the first 6 months of the implementation of the Double Volume Caps (DVC), we find that frequent batch auctions represent only 1.2% of the overall market. Even if OTC is excluded, this rises to just 1.6%. If an argument were somehow to be made to exclude SI trades, the figure is in line with those quoted at 2.2%

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

**A3** We believe that frequent batch auctions are an excellent innovation born of a regulated environment that places more onus on transparency. The long anticipated limitations on dark trading and automated OTC trading led the market to search for methods whereby investors could seek liquidity in block size or in pre-trade transparent venues without excess price impact and execute high quality trades. This led to the introduction of conditional orders in Europe with the addition of Turquoise Plato Block Discovery in 2014 and the arrival of the periodic batch auction through Cboe Periodic Auction Book in 2015. In addition, many banks and brokers have created SI structures to allow for similar goals to be met, while others have used the flexibility provided by being an on-exchange market maker to continue to execute off order book for their clients without being impacted by the caps on the use of the Reference Price Waiver (RPW) and Negotiated Trade Waiver (NTW). Frequent batch auctions allow investors to seek liquidity without moving the price as the arrival of a single order does not result in disclosure of the trading intention. Only the arrival of a contra order results in the flow of pre-trade information to the market. This mechanism, when combined with the randomisation of the auction uncrossing and other features designed to protect investors from adverse selection, has resulted in a group of venues that allow investors to execute in centralised, publicly accessible, pre-

trade transparent trading venues with a very low incidence of price movement around their trades. The trading outcomes of frequent batch auctions compared to other trading types are covered in a recent analysis by ITG<sup>3</sup> which is provided in Annex 1. The positive performance delivered by frequent batch auctions has led to the adoption of this venue type by banks and brokers providing algorithmic execution services in order that they may provide best execution to their clients. This adoption process, when combined with the restrictions placed on other non-pre-trade transparent venue types through the introduction of the DVC on use of RPW and NTW, has resulted in the increased volumes observed.

We disagree that use of frequent batch auctions is an attempt to circumvent the transparency requirements of MiFID II. To facilitate product innovation and improved markets MiFID II allows for a range of execution methods and has determined the transparency requirements for different ways of executing. We believe that frequent batch auctions operate within both the spirit and rule of MiFID II with regards to pre and post-trade transparency and will cover this further in our responses.

Regarding Figure 4 and the accentuated growth of frequent batch auction market share for certain stocks, we would like to question the nature of the causal relationship, and put forward that the variation in adoption of frequent batch auctions for different groups of stocks is not necessarily attributable to the implementation of the DVC. We contend that the liquidity and trading pattern of stocks is a confounding variable that contributes to certain stocks both being likely to hit the DVC threshold and seeing fast growth in frequent batch auction volumes.

First, we should consider the determination of the groups of stocks. On the one hand, we have the stocks that have become subject to the DVC (DVC Stocks). This group has an investor base, is traded by a group of banks, brokers and other market participants and the stocks have characteristics that, in combination, have led to a high level of trading under the RPW and NTW. On the other hand, the contra group, being stocks which have not become subject to the DVC (non-DVC Stocks) has an investor base, is traded by market participants and has stock characteristics that have not led to such high volumes traded under the RPW and NTW. We hypothesize that these varied characteristics of investor, market participant and stock features are also likely to lend themselves to increased adoption and usage of frequent batch auctions for DVC Stocks when compared to non-DVC Stocks.

We believe any drop in frequent batch auctions market activity when a stock is no longer capped can be explained based on trading mechanics. To illustrate this with an example, suppose that when investor A uses an algorithm to seek liquidity from the market they are likely to represent their order in multiple venues. If three of the venues are RPW venues and two are frequent batch auction venues and the order is distributed equally, then if a large opposing order from investor B arrives in the market and is split between one of the RPW venues and one of the auction venues (and perhaps other venues where investor A's order is not represented), we would expect the following chain of events to occur:

1. A trades against B in the RPW venue (1/5 of A's order completes)
2. A cancels their orders in the other two RPW venues in order to trade against B in the RPW venue. Neither A nor B cancel their order in the frequent batch auction venues (this may be either because they see an auction is taking place from the quote feed, or because the venue does not allow cancellations). (3/5 of A's order complete)

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<sup>3</sup> <https://www.itg.com/assets/ITG-Venue-landscape-shifts-under-MiFID-II-Nov-12-2018.pdf>

3. When able to do so, A cancels their order from the frequent batch auction venue where there is no ongoing auction to trade with B in the RPW venue where all of A's orders have so far been completed. (4/5 of A's order complete)
4. A trades the remaining 1/5 of their order against B in the frequent batch auction venue when an uncrossing event finally occurs.

While this chain of events is greatly simplified, it is representative of the behaviours and relative timescales involved in RPW and frequent batch auction venues. In this scenario we would likely see 4/5 of investor A's order executed in the RPW venue and 1/5 in the auction venue. This assumes that the immediate execution of the RPW order would likely result in withdrawal of unexecuted orders from the other venues and their being sent to the RPW venue for execution. It also assumes that the orders that will execute at the end of the uncrossing period in the auction are left to complete rather than being withdrawn. In the same scenario, less sophisticated algorithms using an auction venue that allows cancellation might result in none of the order executing in the auction venue and all of the order executing under the RPW due to the immediate nature of the initial and following executions.

Over the coming months and years, we believe that the adoption of frequent batch auctions will increase further and be preferred due to the high quality of executions with low incidence of price reversion that are obtained from such venues and investors may change the way they use RPW venues. At such a point the impact on auction market share of a stock going into or out of the DVC will likely be less pronounced.

## 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.**

**A4** Yes, these are characteristics that the various auctions offer differently.

**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.

**A5** One of the key drivers for the success of auctions is the ability to protect orders from the potential adverse effects on execution quality of greater information disclosure. This comes through the disclosure of only the indicative price and quantity once a potential trade has been identified and the ability of participants to, in some of the auctions, ensure they only participate in an auction when a trade of sufficient size will occur. The use of minimum quantity in the auction enables this control.

## 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>4</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

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<sup>4</sup> All systems assessed that initiate an auction based on one order allow the modification and cancellations of orders during the auction period.

**transparency already be applied as of the start of an auction, irrespectively of whether there is a potential match or not? Please explain.**

**A6** Pre-trade transparency should not occur at the start of an auction in such a system where there is no potential match. We agree with the view that, if there is only one order in the book, then there will be no indicative uncrossing price and no indicative volume and therefore there is no information to disclose that would be consistent with the pre-trade transparency requirements. Such a system is providing pre-trade transparency on all and any potential matching volumes rather than an indication of the start of an auction that may not give rise to any potential match. If the indication of the start of an auction were required, we suggest that such a system would change to run auctions continuously rather than initiated on the arrival of a first order. Where an auction completes shortly after the arrival of a matching order, it could be argued that pre-trade transparency is very limited. In practice this would be a relatively low proportion of matches and in any case compares favourably to the length of many quotes on central limit order books (CLOB). In order to provide a comparison between the speed of frequent batch auctions and the speed of changes to central limit order books during continuous trading we analysed the market data changes on Euronext Paris on 13th December 2018. We limited our analysis to the top of the order book ignoring any changes to orders away from the best bid or offer. We assessed each change to price or quantity at the best bid or offer and determined the length of time in milliseconds since the prior update. The time for each top of book change was then aggregated across the whole of the Paris market for the single day. Our analysis found that 13% of top of book updates occurred within 1 millisecond since the prior top of book change for that security. An additional 7% occurred within 5ms. In total 32% of top of book updates occurred within 50ms of the prior change. This time value is the same as the minimum pre-trade transparency period for several frequent batch auctions which begin their auction period upon identification of a potential match.

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<sup>5</sup> may be perceived as limiting de facto pre-trade transparency to the indicative 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**

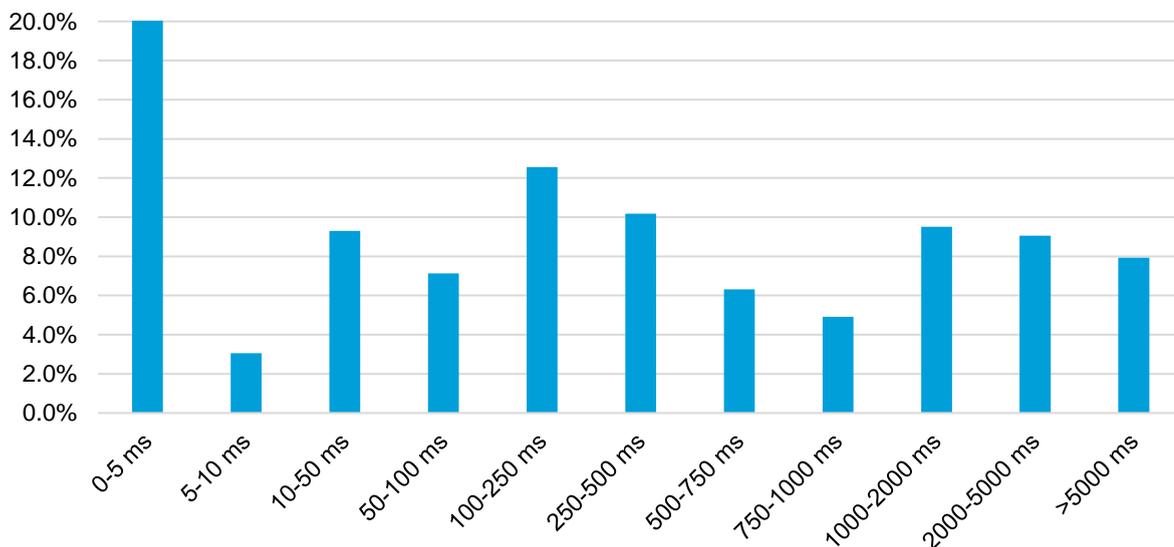
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<sup>5</sup> All systems assessed that initiate an auction based on one order allow the modification and cancellations of orders during the auction period.

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.

**A7** Systems such as POSIT Auction initiate an auction upon the identification of a possible match. There is then a minimum period of pre-trade transparency during an order collection phase of 50ms prior to a randomised uncrossing phase of 0 – 50ms. Such a period of pre-trade transparency allows for algorithmic traders to join an auction prior to uncrossing occurring. As we referred to earlier, an analysis of trading activity on Euronext Paris on a particular date shows that 13% of level 1 price or volume updates occur within 1ms of the prior level 1 update and an additional 7% of updates occur within 5ms of the prior change. In such a frequent batch auction as we outline here the minimum pre-trade transparency is 10-50 times longer than the behaviour we observe in an example CLOB.

### DISTRIBUTION OF TOP OF BOOK CHANGES



Source: ITG Analysis of time between top of book changes on 13 December 2018 for Euronext Paris

Where systems lock in prices at the start of the auction, only the volume can change from that point onwards, which is made transparent through a change to the indicative quantity. We understand that such auctions offer further constraints to prevent execution if the consolidated market moves during the auction. Orders in frequent batch auctions can also be constrained to trade only at prices equal to or better than midpoint. When such constraints are reached and orders will execute at midpoint, then the indicative price and volume disclosed are the midpoint price and volume that could execute at such a price. It is our view that this disclosure of indicative price and volume meets the pre-trade transparency requirements in RTS 1. Were the ability to constrain orders to only trade at prices equal to or better than midpoint to be removed from frequent batch auctions, then it is our view that it would create a venue type that would, potentially, expose itself to intermediation and arbitrage. Investors holding themselves out as willing to buy at the offer would invariably trade with an intermediary at the offer. The subsequent investor arriving in

the market and offering their liquidity for sale at the bid price would then likely meet an intermediary with both investors paying away the spread at a greater cost to the individuals invested in the funds. We are not aware of any global developed market removing the ability of investors to meet at a fair price of the midpoint of the market. Such restrictions would also likely result in a further shift of liquidity to less transparent trading structures such as SIs when trading above Standard Market Size (SMS) or the trading services operated by on-exchange market makers.

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.**

**A8** Frequent batch auctions should not display information on orders or information on an imbalance. This would disclose excess information about the orders in the book during a period when continuous trading is ongoing across many systems. This is unlike the operation of a conventional periodic auction when continuous trading is generally halted. Such a disclosure would allow other market participants to trade in other markets ahead of the orders in the auction or otherwise manipulate the price to the detriment of those using the auction. This would lead to higher costs for investors and an increase in the potential for market abuse.

## 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>6</sup>

**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.**

**A9** We consider the auction lengths to be appropriate. The average durations of frequent batch auctions far exceed the duration of a significant proportion of orders on CLOB markets. The durations and randomisation of the time period also enable an execution process that results in little opportunity for trading at a moment that is advantageous to a single party. Lastly, the duration is short enough to bring together matching interests without undue delay. A longer duration could result in the withdrawal of orders and each party seeking liquidity in alternative venues.

**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.**

**A10** We find the auction durations to be sufficient. As an example, ITG algorithms are able to receive market data from Cboe Periodic Auction Book, decide to trade, and send an order that reaches the venue in just a few milliseconds. Longer durations for less liquid instruments would be unnecessary as algorithms operate consistently across liquid and illiquid instruments. There may be other opportunities for venues to offer less frequent trading in less liquid instruments via different mechanisms and this should not be precluded, but the frequent batch auctions as available suit their purpose for both illiquid and liquid instruments.

**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?**

**A11** ITG algorithms monitor activity in frequent batch auctions and, where appropriate, send orders to seek to participate in an ongoing auction. Of the orders sent from ITG's smart order routing infrastructure to frequent batch auctions in Q4 2018, 80% of the orders that were executed were filled in full, with 20% being partially executed. During Q4 2018, trading activity in POSIT Auction resulted in a trade in 97.4% of auctions, with only 2.6% of auctions terminating without a trade being undertaken due to a movement of the EBBO or PBBO. In Q3 2018 in POSIT Auction 9.6% of auctions that resulted in a trade had multiple buy and/or sell orders in the match.

### 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

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<sup>6</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.

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>7</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.**

**A12** We do not regard frequent batch auctions as non-price forming. At every match of orders an indicative quantity is matching at an indicative price being formed for that auction. These are updated on the arrival of any new orders or updates to orders into the auction that cause a new price or volume to be determined. Even systems that do not update their indicative price upon the arrival of new orders have still formed a price based on the demands of the orders in the system and the trading mechanism of the auction in question.

The indicative price of the matches occurring in POSIT Auction can and does change based on the submission of additional orders, increases to quantity or due to changes based on order constraints versus the market price.

We could also envisage a system that trades only at a reference price and on a pre-trade transparent basis. Such a system would not require a waiver to operate, as it would be meeting the pre-trade transparency requirements. Where the reference price was based on a derived price, such as midpoint, the system would be forming a new price at which parties were prepared to match and thereby contributing to price formation. If the reference price was not a new price to the market, such a system would nonetheless contribute to price formation through disclosure of the volume parties were prepared to transact at such that price.

**Q13 Do you consider that these functionalities resemble reference price systems (in particular when matching transaction at mid-point)? Please explain.**

**A13** We do not consider that these functionalities resemble reference price systems. Execution is not limited to a reference price, execution does not occur immediately and is subject to an auction period, during which indicative price and volume are disclosed, which allows for algorithmic traders to join the auction prior to execution occurring with the auction being recalculated accordingly.

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

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<sup>7</sup> It should be noted that those systems somewhat limit the possibility of order cancellations/amendments during an auction.

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 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)?**

**A14** As an executing broker, ITG has various strategies for trading in venues. One of these is to identify opposing demand and send orders into a single venue for execution against each other. During Q3 2018, 3.5% of the value traded by algorithms operated by ITG in frequent batch auctions was executed using this method. Other strategies for trading in venues that operate without regard to other order flow accounted for 96.5% of value traded in frequent batch auction venues and therefore traded on a basis that is multi-lateral in its trading objective. As noted in Q11, in Q3 2018 in POSIT Auction 9.6% of auctions that resulted in a trade had multiple buy and/or sell orders in the match.

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?**

**A15** Frequent batch auctions operate while other continuous markets are in operation. Auctions disclose indicative quantity and price to the market during the auction window. Constraining the auction price using the EBBO or similar prevents trading occurring at a price outside of the EBBO which could allow sophisticated trading firms to execute in the auction outside of the EBBO and offset their position immediately in another market for an immediate risk free profit. We suggest that allowing for such a scenario would be to invite disorderly trading to a market. We note that a statement is made in point 41 about periodic auction systems not being compliant with the mandatory tick-size regime. In the case of POSIT Auction, all limit orders that are sent into the book are validated against the ESMA tick size requirements. Furthermore, it is our view that the use of order constraints in periodic auction systems, such as midpoint constraints, are entirely consistent with the objectives of the tick-size regime.

We note the analysis<sup>8</sup> published by the Autorité des Marchés Financiers (AMF), in which they summarised the importance of the tick-size regime as follows:

**“If the tick size is too small (i.e. a spread equivalent to a high number of ticks), the outbidding cost is no longer significant (it costs next to nothing to outbid) and liquidity does not aggregate effectively as there are too many increments of possible prices. Insertions, modifications and cancellations of orders are therefore more frequent, affecting book legibility and price formation. On the other hand, too large a tick size (i.e. a spread that is equivalent to a low number of ticks) increases the passive execution latency and can discourage investors from placing orders in the book.”**

The use of midpoint constraints within frequent batch auctions does not appear to contribute to the above stated negative effects of a small tick size. The introduction of an order constrained to midpoint does not result in a new bid (which in any case would have a significant outbidding cost at 50% of the spread) and liquidity can aggregate effectively, since there is only one published indicative price from the venue. The unwanted impacts of order insertions, modifications and cancellations of orders would also not occur because pre-trade transparency occurs only following identification of matched volume, which then results in a trade for a high percentage of activity. Such an “order to trade” ratio compares very favourably to the often very high ratios seen in CLOB venues.

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

**A16** As noted in A11, during Q4 2018 trading activity in POSIT Auction resulted in a trade in 97.4% of auctions with only 2.6% of auctions terminating without a trade being undertaken due to a movement of the EBBO or PBBO.

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

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<sup>8</sup> [https://www.amf-france.org/technique/multimedia?docId=workspace://SpacesStore/4ee6cbf6-c425-4537-ab74-ef249b9d316d\\_en\\_1.0\\_rendition](https://www.amf-france.org/technique/multimedia?docId=workspace://SpacesStore/4ee6cbf6-c425-4537-ab74-ef249b9d316d_en_1.0_rendition)

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>9</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?**

**A17** Member preferencing allows for more executions to take place in centralised transparent markets. We believe this is true for both auctions and the other market types where member preferencing is available. The removal of member preferencing from frequent batch auctions and other market types could lead to much greater fragmentation of liquidity across a plethora of new venues created to support the trading needs of multiple participants, resulting in a more complex and less transparent market structure as the pre- and post-trade information from such fragmented systems would not be used in most consolidated data feeds. In this case, we would anticipate that the demand for a mandatory consolidated tape for both pre- and post- trade information would exponentially increase.

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?**

**A18** We do not consider that member preferencing enables the formalising of privately negotiated transactions. Any orders placed by a participant will be subject to the price determination and allocation logic of the venue and will not prevent interaction with other orders already resident in the book or arriving after the start of the auction. We note the detailed analysis performed by Turquoise<sup>10</sup>, which assesses the frequency of matches that could have been negotiated outside of their auction system. Of the executions in Turquoise Lit Auctions in October 2018, 18% had the same member on both sides of the trade. However, just 0.7% of trades were from the same member with the orders arriving within 100ms of each other, i.e. suggestive of coordinated order placement. When considering matched order sizes in addition to member and timing,

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<sup>9</sup> [https://markets.cboe.com/europe/equities/trading/periodic\\_auctions\\_book](https://markets.cboe.com/europe/equities/trading/periodic_auctions_book)

<sup>10</sup> Data presented at Turquoise Customer Roundtable 3 December 2018

just 29 trades or 0.03% of the total number of trades were executed with the same member with the orders arriving within 100ms and being of the same size. In our view, the Turquoise analysis evidences a very low incidence of potential situations where transactions may be being negotiated privately and formalised on Turquoise Lit Auctions.

**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?**

**A19** We do not regard member preferencing as indispensable to the success of frequent batch auctions. However, as noted earlier member preferencing allows for more executions to take place in centralised transparent markets. We believe this is true for both auctions and other market types. The removal of member preferencing in frequent batch auctions and other market types could lead to much greater fragmentation of liquidity across a plethora of new venues created to support the trading needs of multiple participants resulting in a more complex and less transparent market structure.

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

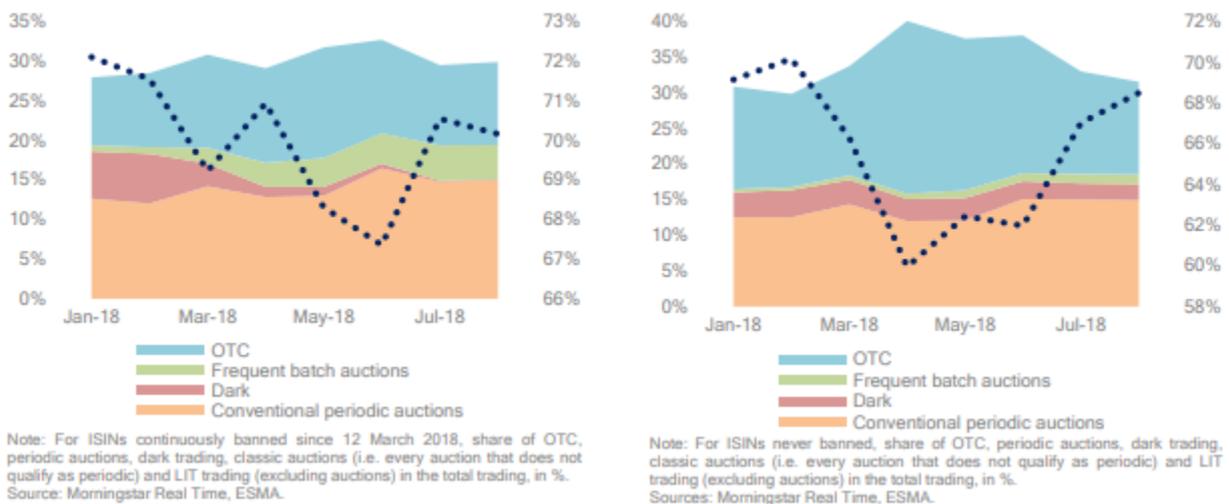
45. MiFID II aims at increasing the transparency of equity markets and introduces various provisions in order to deliver on this objective. Most notably, MiFID II introduces the DVC mechanism, the trading obligation for shares, extends the pre- and post-trade transparency regime to equity instruments 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 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>11</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

<sup>11</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.

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.

**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.**

**A20** During the execution of an order, ITG the broker may use a combination of various approaches for order placement and venue selection. In employing these approaches, the determination of venue will depend on the instructions of the client, the characteristics of the client order, the characteristics of the financial instrument concerned, and the characteristics of the execution venues to which the order may be directed.

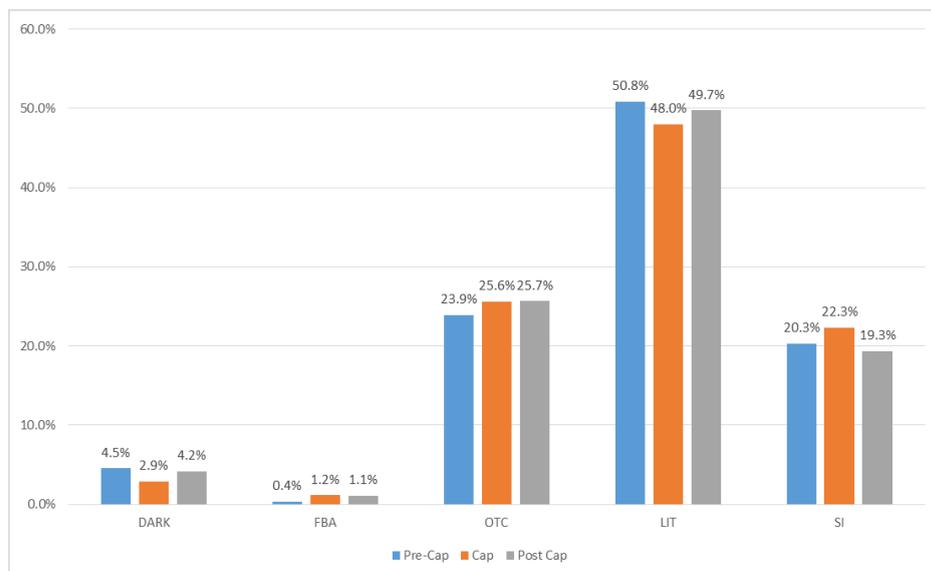
**Q21 Which execution venues attracted the most trading volume following the suspension of dark trading venues under the DVC and why? Please substantiate your answer by quantitative data where available.**

**A21** When we assess the European market following the expiration of the first set of DVC using trade reported data sourced from Fidessa we find that there is a small change to the level of activity in frequent batch auctions. During the initial DVC period (mid-March 2018 to mid-September 2018), frequent batch auctions represented 1.2% of the overall market. From mid-September to the end of December 2018 (post DVC period), this dropped slightly to 1.1% of the overall market. If OTC is excluded this calculates at 1.4% (1.6% in the DVC period) and with the exclusion of SI the calculation comes in at 2% (2.2% in DVC period).

During the initial DVC period OTC and SI trading increased the most. OTC trading rose from 23.9% to 25.6% and SI trading increased from 20.3% to 22.3%.

Surprisingly, traditional Lit trading (CLOB and Auction activity excluding Frequent Batch Auctions) dropped from 50.8% to 48%, but gained after the ending of the DVC to 49.7%.

#### TRADE REPORTED VOLUMES BY TRADE CATEGORY



Source: Fidessa data and ITG analysis, FY2018

Of particular interest should be the use of various venue types by algorithms, in particular given that the restriction of automated OTC trading was a key goal of MiFID II. In an analysis<sup>12</sup> published in April 2018 and provided as Annex 2, ITG highlights the dramatic increase in algorithmic trading occurring on traditional Lit markets (CLOB and Auction activity excluding Frequent Batch Auctions). For stocks that became subject to the DVC during the initial DVC period, the level of Lit market activity increased from 57% in Q4 2017 to 78% in the initial weeks after the DVC were implemented in March 2018.

Algorithmic use of frequent batch auctions had a similar pattern to that observed in the overall market. Given that most use of frequent batch auctions will be facilitated by algorithmic trading, we consider this is unsurprising. ITG's analysis shows frequent batch auctions accounting for 5.5% of value traded during the initial DVC period, falling to 5.2% in the post DVC period.

**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?**

**A22** We believe that frequent batch auctions are an excellent innovation born of a regulated environment that places a greater onus on transparency. Venues of this type allow investors to execute in a centralised, publicly accessible, pre-trade transparent way, with trade execution largely uncorrelated with price movements. This positive performance characteristic has led to adoption of these venues by banks and brokers providing algorithmic execution services in order that they may provide best execution to their clients.

Subjecting frequent batch auctions to stricter requirements in the future could limit the performance benefits observed in these venues. In particular, if the ability to constrain orders to only trade at prices equal to or better than midpoint were removed from frequent batch auctions, it would create a venue type that would potentially expose itself to intermediation and arbitrage. Investors holding themselves out as willing to buy at the offer would invariably trade with an intermediary at the offer. The subsequent investor arriving in the market and offering their liquidity for sale at the bid price would then likely meet an intermediary with both investors paying away the spread at a greater cost to the individuals invested in the funds. We are not aware of any global developed market removing the ability of investors to meet at a fair price of the midpoint of the market.

Constraining the use of broker priority in frequent batch auctions and other marketplaces could lead to an increase in fragmentation as each bank or broker of significance sets up their own venue. Any decision to lengthen the auction call or uncrossing period to create a minimum time period for pre-trade transparency would also need to be considered for orders in CLOB markets. We recall that the intention to introduce a minimum order resting time for all markets in MiFID II was perhaps the only issue that all parties in the trading community, from buy-side to exchanges, agreed would have negative implications.

Generally, we consider that further restrictions that limit the effectiveness of these venues could also lead to more trades being undertaken in less transparent bilateral trading structures, such as systematic internalisers or as off-book trades by on-exchange market makers. The CLOB is not a one size fits all venue suitable for the execution of all types of orders with investors trading in these markets reporting a high degree of negative price movement associated with their trades. Due to these trading

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<sup>12</sup> [https://www.itg.com/assets/ITG\\_Analytics\\_Venue\\_Changes\\_20180430-FINAL-1.pdf](https://www.itg.com/assets/ITG_Analytics_Venue_Changes_20180430-FINAL-1.pdf)

challenges, we do not expect the current CLOB venues to gain significant market share as a result of any stricter requirements placed on frequent batch auctions. We could however envisage trading fragmenting to CLOB venues that do not currently trade the most liquid stocks.

As detailed in our answer to Q21, activity in frequent batch auctions represents just 1.1% of European trading. Given this limited level of activity and the centralised, publicly accessible, pre-trade transparent trading they provide, we believe that any intervention in this developing area is unnecessary, curbs innovation and has the potential to negatively impact market structure.

## 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?

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