

Reply Form

Call for evidence on the market structure of European equity markets.

Responding to this Consultation Paper

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

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

ESMA will consider all comments received by **30 June 2026**.

All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

Instructions

In order to facilitate analysis of responses to the Consultation Paper, respondents are requested to follow the below steps when preparing and submitting their response:

- Insert your responses to the questions in the Consultation Paper in this reply form.
- Please do not remove tags of the type < ESMA_QUESTION_MSEM_0>. Your response to each question has to be framed by the two tags corresponding to the question.
- If you do not wish to respond to a given question, please do not delete it but simply leave the text "TYPE YOUR TEXT HERE" between the tags.
- When you have drafted your responses, save the reply form according to the following convention: ESMA_CP1_ MSEM_nameofrespondent.

For example, for a respondent named ABCD, the reply form would be saved with the following name: ESMA_CP1_ MSEM_ABCD.

- Upload the Word reply form containing your responses to ESMA's website (**pdf documents will not be considered except for annexes**). All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

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 publicly 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 under the heading '[Data protection](#)'.

Who should read this paper?

This paper is primarily addressed to all financial market participants, including trading venues and investment firms, as well as to asset management, data reporting service providers, trade associations, issuers and other stakeholders involved in financial regulation, investor education, and retail investment market developments.

1 General information about respondent

Name of the company / organisation	Deutsche Boerse Group (DBG)
Activity	Trading Venues
Are you representing an association?	☐
Country / Region	Germany

2 Questions

- Q1 Do you agree with the description of the market structure summarised in Figure 1 for the purpose of the study in sections 3 and 4 based on transaction reporting data? If not, could you provide an alternative description that you consider more adapted to the reality of the European trading landscape for shares?**

<ESMA_QUESTION_MSEM_1>

Deutsche Boerse Group (DBG) appreciates the extensive and very insightful work that ESMA has achieved with this Call for evidence. The results presented are highly informative and we do appreciate that ESMA is reaching out for comments and with the aim to produce an accurate picture of the equity trading landscape in the EU.

Specifically regarding Figure 1, we find that the ESMA's proposition to classify the different types of transactions based on the distinction between on-book trading and off-book trading together with the classification between addressable and non-addressable liquidity on the basis of transaction reporting data is very valuable and understand that numerous constraints do not allow for a more granular classification; to this aim, we make some remarks but also proposals to amend RTS 22 in order to strengthen the quality and accuracy of the analysis and ensure that regulators, the finance industry and market participants have at hand a most useful tool when it comes to legislative initiatives. In particular, we would advocate where possible to align between RTS 22 and RTS 1, whether it is about deleting flags or introducing new ones.

We do appreciate that addressable liquidity is not limited to on-book trading only, and that bilateral trading involving a systematic internaliser (SI) is also considered addressable. We would however have appreciated more information on the identification on intragroup transactions from SIs, especially as those transactions are indeed not automatically non-addressable.

We would also question that the term “dark trading” is restricted to transactions under the reference price waiver (RPW) and the large in scale (LIS) only. Indeed “dark trading” is usually covering all transactions which are not pre-trade transparent and would then also cover, from a conceptual perspective, all transactions under the negotiated trade waiver (NTW) or transactions executed with an SI above the “twice-the-Standard Market Size” threshold. We discuss this aspect further in our response to Q9.

We would also appreciate consistency between Figure 1 and Figures 13-14, where dark trading comprises either transactions under the RPW and the LIS waiver only or combined with transactions under the NTW. On the topic of waivers, we understand that the transactions under the LIS waiver are identified by a combination of the MIC and the transaction size; we would however advise introducing a dedicated LIS flag for transactions executed under the LIS waiver. This flag shall also be introduced under RTS 1.

On the topic of negotiated transactions, we do agree that transactions under the NT1 and the NT2 waiver are addressable, but we would object to NT3 transactions being considered as non-addressable: in particular transactions flagged as BENC are addressable. Here, a more refined classification of transactions under the NT3 waiver would be more accurate with the transactions being classified according to their underlying flags to identify benchmark, portfolio and contingent trades separately.

Regarding the categories covering periodic auctions:

- It is understood that under RTS 22, closing auctions cannot be distinguished from after-close mechanisms, with the closing price as the referenced price, when both mechanisms exist on the same platform. The models are, however, very different in terms of price formation with closing auctions being price forming, whereas trade-at-close mechanisms are not (this is also problematic in Figure 36 with all models classified under ‘price forming’). We would therefore suggest introducing the flagging of the trading phase similar to the one in RTS 1, but this time post trade. The alternative would be to simply flag transactions which are executed outside of regular trading hours (CLSE flag, less disruptive than a comprehensive set of flags) – see also our response to Q23.
- In the absence of the CLSE flag, we would still consider it beneficial to have a separate category for all trade-at-close mechanisms which can be identified, namely all mechanisms which run either in parallel or immediately after closing auctions.
- We would also need confirmation that the term ‘intraday auctions’ covers both opening auctions and intraday auctions. Does ESMA for instance include the current trade-at-close mechanisms which can be identified in this category?

- We would like to reiterate that frequent batch auctions (FBAs) are indeed distinct from traditional periodic auctions but also that they should be taken out of the periodic auctions basket altogether. As we explained in our response to the ESMA Call of evidence on periodic auctions for equity instruments from January 2019, we believe that given their characteristics in terms of length and price referencing, FBAs shall constitute a separate category under RTS 1 which would make it possible that they are captured under the RPW (see also our responses to Q15 to Q19).

Given the very valuable insights provided by this Call for evidence, DBG would find it very beneficial to conduct the analysis on an annual basis to facilitate ongoing monitoring. We do take note of the recent letter on the prioritisation of ESMA's 2026 deliverables and wonder whether certain deprioritised, postponed, or potentially repealed mandates could be replaced with this type of analysis. Even in a less extensive format than the present Call for evidence, such an exercise would provide a valuable reference point.<ESMA_QUESTION_MSEM_1>

Q2 Do you have any insights on the XOFF transactions reported by investment firms who also act as an SI (SI-OTC trades)?

<ESMA_QUESTION_MSEM_2>

No, DBG does not have any insight, which is why we are calling for clear flagging and control of compliance by investment firms on this as those do not necessarily appear as technical trades.

<ESMA_QUESTION_MSEM_2>

Q3 Do you agree with the general trends identified regarding on-book vs. off-book trading, and addressable vs. non-addressable liquidity? What other trends do you consider relevant, also in terms of competitive pressures?

<ESMA_QUESTION_MSEM_3>

In principle, the overall trends identified by ESMA are broadly recognised from our perspective. However, Deutsche Boerse Group (DBG) would like to point out that the data available to market participants does not allow for a full cross-check of ESMA's figures. This is notably due to methodological differences, including the exclusion of UK data and the lower level of granularity compared to transaction reporting data.

A key concerning trend is the decline in lit multilateral activity. We observe a continued shift of activity away from price-forming venues (i.e., regulated markets and MTFs, including central limit order books and closing auctions) towards bilateral (e.g., systematic internalisers) and dark execution mechanisms. This trend is not limited to the period since 2022 but can be observed since the implementation of MiFID II in 2018.

While the MiFID II/MiFIR framework has supported innovation and competition, it has also contributed to a progressive fragmentation of liquidity across various execution channels, including towards less transparent environments. This development raises concerns from the perspective of transparency, price formation, investor access and protection, and the attractiveness of EU primary markets, and would warrant regulatory adjustments.

It is crucial to consider the methodological impact of excluding UK activity in EEA shares from the analysis. The UK represents a significant centre for trading in EEA shares, particularly in bilateral and dark segments (including SIs, OBOE, and OTC trading). Its exclusion may therefore lead to an underestimation of the overall share of off-venue trading on EEA shares and a partial view of competitive dynamics.

Enhanced data cooperation between ESMA and the UK FCA would contribute to a more comprehensive and evidence-based assessment of market structure developments. Specifically, incorporating UK data is important for several key reasons:

- **Material activity outside the EEA:** A significant portion of trading in EEA shares takes place on UK bilateral and dark channels. Given the close interlinkages between markets, visibility across jurisdictions is essential for a complete and accurate picture.
- **Implications for issuers and market efficiency:** These trading flows directly affect EU market dynamics. Insufficient depth and liquidity on EU lit venues may increase capital costs for EEA issuers, reduce investor visibility, and weaken price discovery in EU markets.

- Assessment of market structure and regulatory effectiveness: Incorporating UK data would improve the calibration of transparency regimes (including waivers and volume caps) and support the assessment of whether the Share Trading Obligation (STO) and reverse solicitation mechanisms are operating and being enforced as intended.
- Transaction reporting and supervision: Greater visibility on UK-related activity would support the verification of transaction reporting quality by EU investment firms and the consistent application of trade flags, particularly in cross-border trading scenarios, thereby strengthening the overall supervisory framework.

Given the economically and operationally interconnected nature of EU and UK markets, current analyses provide only a partial representation of effective liquidity and substitution effects across execution mechanisms without incorporating this dimension.

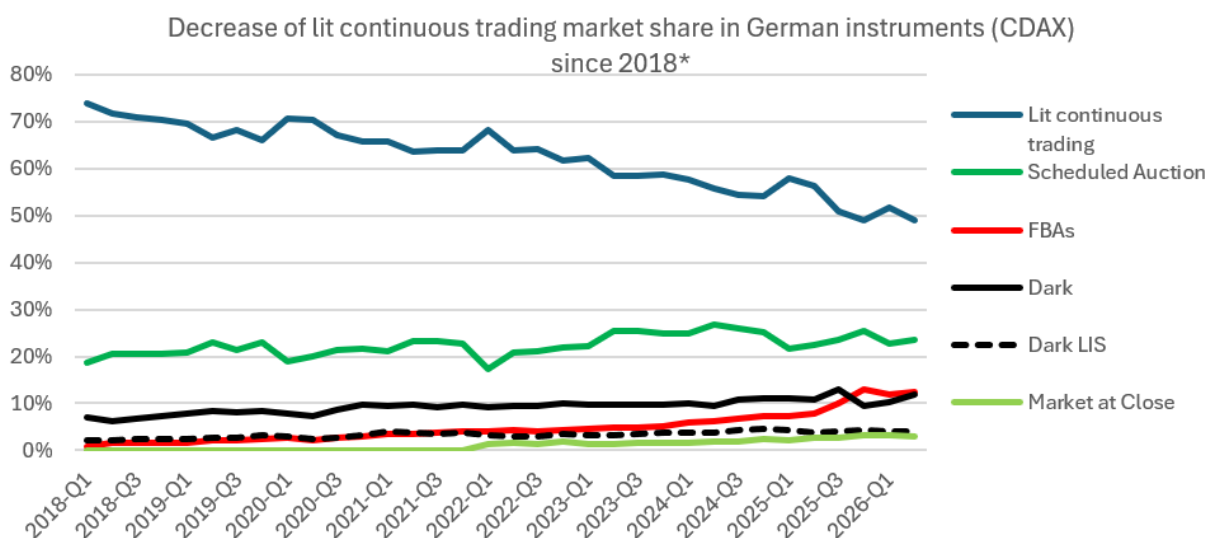
<ESMA_QUESTION_MSEM_3>

Q1 Do you have any concerns on the impact of the identified trends on the general functioning of the EEA markets for shares? In your view, what are the implications of the relative decreasing trend in trading on CLOB for the effective price formation in the EEA markets for shares? What are the implications on price formation should this trend persist or even accelerate?

<ESMA_QUESTION_MSEM_4>

Firstly, Deutsche Boerse Group (DBG) would mention that we do regret that UK data on EEA shares has not been included in the analysis. We do concur with ESMA's assessment that UK activity is mainly OTC and SI trading however we would, to the contrary, consider that this is important information. It would allow the deletion of duplicate transactions, those transactions reported twice over the two blocks, which would give a more accurate picture of transaction reporting. It would also provide the full picture of bilateral trading for the relevant instrument, which is useful information from an issuer's perspective. Where the STO does apply to EEA investors, EEA companies and EEA shares, it does not apply to non-EEA investors, nor does it apply to EEA UCITS for example.

We also understand that ESMA does not have access to transaction reporting data before 2022 and we appreciate that four years is a significant analysis period however we would underline that some trends have started before that date and provide below the evolution of the different trading model market shares since 2018.



* Based on exchange turnover excluding German regional exchanges, off-book on-exchange, SI and OTC.
 Source: xyt, Deutsche Börse.

We do note the overall decrease in continuous lit order book trading and do appreciate that ESMA mentions that the “lit continuous trading plays a critical role in the functioning of equity markets, contributing to efficient price formation and price discovery, including by providing a reference price for other execution methods”. ESMA touches here the core issue currently, which is the combination of an increasingly fragmented landscape and the increased use of the reference price on some venues. We would refer to our response to Q7 on the issuers’ perspective on the matter of fragmentation.

In addition, our analysis for German instruments (CDAX) above provides a longer-term perspective that complements the trend ESMA identified in its own analysis (Figure 3). While ESMA’s analysis focuses on the last few years, our data shows the development since the implementation of MiFID II in 2018. This longer time horizon is crucial to see the full extent of the erosion of lit continuous trading. This development is particularly concerning because it shows that even robust markets are not immune to the Europe-wide shift towards less transparent trading mechanisms that do not contribute to the health and quality of capital markets. In this chart, “Scheduled Auction” includes opening, intraday, and closing auctions that occur at predefined times. The “Dark” category covers trading on regulated markets and MTFs under all waivers (Reference Price Waiver, Negotiated Trade Waiver, LIS Waiver), but excludes SI activity. “Dark LIS” is shown as a subset of the overall “Dark” volume.

This erosion of the lit market is not a trivial matter; it directly threatens the quality of the reference price, which is the foundation of the entire market structure. A reliable reference price, formed through the broad interaction of diverse market participants in a transparent environment, is essential for primary markets (e.g., for IPO valuations) and for secondary markets (e.g., for derivatives, ETFs, and best execution). If this trend continues, fewer participants and less order flow will contribute to the central price discovery process. Our chart clearly shows a worrying downward trend in the long run, which, if no action is taken, will continue and lead to the detrimental consequences outlined. This leads to a vicious circle: as price referencing in dark and bilateral venues increases and the reference price loses its informational value, the attractiveness of lit markets declines further, which in turn accelerates the fragmentation and migration of flow. The ultimate consequence is a less efficient, less transparent, and less attractive European market for issuers and investors alike.

Finally, we would caution against the idea of rebalancing the flow between different types of trading models as long as they qualify as “on book” (see paragraphs 38 and 39). Indeed, where there is a tendency to an increase of volumes on closing auctions, the causality is not proven. The analysis of the causality would be more meaningful when it comes to FBAs which are mainly price referencing venues, with a limited to nil contribution to the price discovery process. In that sense we do support the assessment from ESMA admitting that the decline of trading on multilateral lit venues can be a cause of concern. In order to make informed decisions in the future, DBG would strongly recommend that an analysis assessing the contribution of various trading models to the price formation process and the impact of dark and bilateral trading on price efficiency is conducted. To that end, ESMA could mandate independent academic research teams with the relevant analyses through the allocation of sufficient and appropriate research grants and draft a report based on the input received.

<ESMA_QUESTION_MSEM_4>

Q2 As the choice of trading facility has increased, it is important for ESMA to understand why market participants are choosing the execution facilities that they do. What are the drivers that you consider most relevant when choosing on which execution venue and with which execution method to trade?

<ESMA_QUESTION_MSEM_5>

As a market infrastructure, Deutsche Boerse Group (DBG) understands that the different trading models and mechanisms do respond to specific needs from market participants. All alternative models are meant to compete in a healthy and balanced framework, where regulatory loopholes and benefits to one model will reduce the attractiveness of other models, moving away from a level playing field. In particular, regulatory asymmetries between SIs and multilateral trading venues create distortions in incentives and competitive conditions. Where SIs benefit from more flexible regulatory treatment compared to trading venues, irrespective of order sizes (e.g., the ability to select counterparties and execute each counterparty differently, to execute off-tick, etc.), the incentives to internalise the order flow may be heightened, while there are limited mechanisms to steer activity towards lit multilateral markets. This may have implications for overall market quality, including price formation and transparency (see response to Q20).<ESMA_QUESTION_MSEM_5>

Q3 What are your experiences with regard to gaining access to liquidity? To what extent are you, either directly or via a broker, able to access liquidity on relevant trading venues or relevant systematic internalisers? If not, please explain what stands in the way of gaining such access.

<ESMA_QUESTION_MSEM_6>

Deutsche Boerse Group (DBG) would note that regulated markets and multilateral trading facilities are designed to provide open, transparent, and non-discriminatory access, enabling all participants, whether directly or via brokers, to interact with available liquidity on equal terms. This principle is fundamental to a fair and efficient market structure.

However, we observe that access to the overall market liquidity is increasingly affected by significant market fragmentation. A growing share of trading volume is migrating towards bilateral and less transparent environments. Access to these liquidity pools is not universally open but is often restricted to a select group of participants who have established specific connections, for instance through their Execution Management Systems, with certain off-exchange liquidity providers.

Consequently, liquidity is not equally accessible across the entire market. Participants who lack access to these bilateral networks may face a diminished ability to interact with certain liquidity pools, which can lead to disparities in execution quality and opportunity. This trend challenges the principle of a level playing field and can ultimately impact the overall efficiency and fairness of the European equity markets.

<ESMA_QUESTION_MSEM_6>

Q4 If you are an issuer, how do you see these market developments? Do you consider this an attractive environment for listing? If not, why?

<ESMA_QUESTION_MSEM_7>

Deutsche Boerse Group (DBG), as a market operator, offers a large primary market to companies wanting to go public. As such, we regularly receive direct feedback from listed companies and IPO candidates on their experience of European equity market structure.

We do observe that the listing decision is inseparable from secondary market confidence. Issuers do not evaluate a listing venue in isolation: their advisors, shareholders, and boards assess the full ecosystem through fair pricing, research coverage with good understanding of the business model, the market, the technology, as well as the opportunities and challenges.

Crucial questions also systematically arise on the liquidity available on day one but also over the following months, efficient building and exit of positions efficiently on secondary markets.

The choice of listing venue is made by the company and its owners which will look at the market offering the most credible valuation at IPO, and sufficient secondary market liquidity for subsequent sell-downs. Deep, visible liquidity on lit venues directly supports the owners' ability to monetise their position in a predictable and efficient manner. In that sense, the dispersion of liquidity across bilateral, dark, and off-exchange channels creates a credibility problem for the listing environment. Investors report as a core challenge the difficulty of reliably accessing deep, visible, consolidated liquidity at the moments that matter most: around IPO, around index inclusion, around results events not a shortage of investable assets. Particularly when alternatives appear to offer deeper liquidity pools and higher valuations: if we want to retain Europe's most dynamic growth companies rather than see them seek listings across the Atlantic, consolidating liquidity around transparent, lit venues is not a technical preference but a strategic necessity.

<ESMA_QUESTION_MSEM_7>

Q5 What conclusions would you draw from the distribution of liquidity across EEA ISINs? Do you identify any policy recommendations in this context, with a view to enhancing price formation while ensuring a level playing field across different types of venues? Do you have explanations for the high share of OTC trading observed in the ISIN's of some jurisdictions?

<ESMA_QUESTION_MSEM_8>

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<ESMA_QUESTION_MSEM_8>

Q6 What is your view on the evolution of dark trading on EU trading venues? Are there any structural shifts that you noticed, which you believe should be further monitored?

<ESMA_QUESTION_MSEM_9>

Deutsche Boerse Group (DBG) understands that ESMA differentiates between the different types of waivers and that in particular the NTW relates to off-book transactions compared to other waivers like the RPW and the LISW which would then cover on-book transactions. We would however not agree with the denomination of “dark trading” only for the latter two waivers; dark trading has a more general meaning and does encompass all transactions done under a pre-trade transparency waiver as well as a number of bilateral transactions, in particular SI transactions above the transparency threshold (twice the SMS). It is also misleading as it implies that the rest of traded volumes on any other trading model is lit trading which is not the case. We would suggest to use the denomination like ‘on-book under-waiver transactions’. Figure 13 in particular illustrates the need to be more precise in the classification as the chart includes also transactions under the NTW.

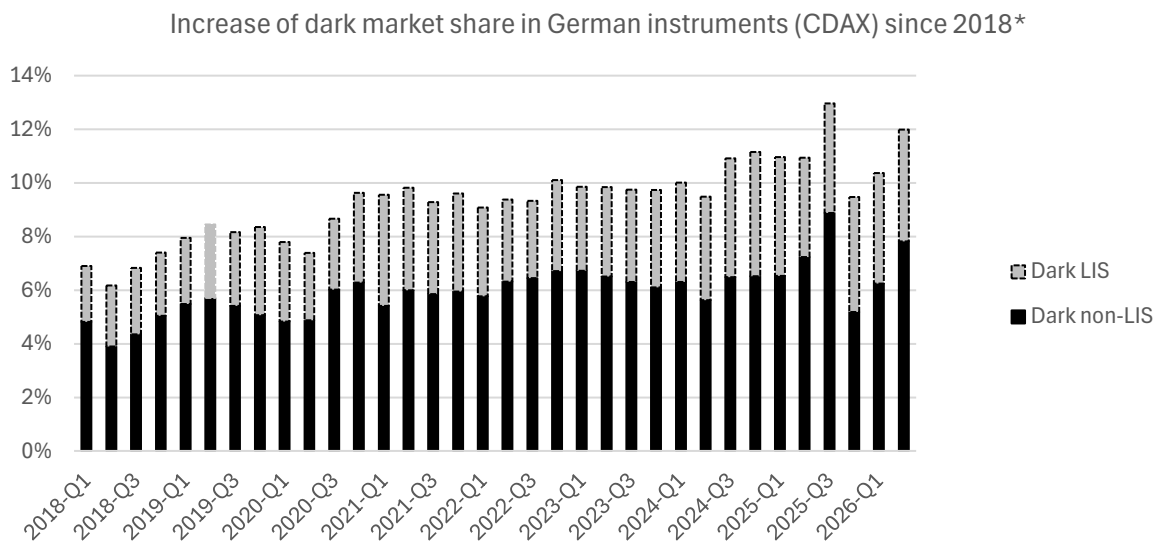
To the remark from ESMA in para 52 that data availability is limited for the LIS waiver, we would refer back to our response to Q1. As we understand the flag used on only a post-trade LIS flag related to publication deferrals, we do see some benefit to have a pre-trade LIS flag, which should also appear in RTS 1.

We would also highlight that for the specific case of Frequent Batch Auctions (FBA) and notwithstanding our response to Q15 to Q19, FBAs have a very limited level of transparency (potentially very short transparent call auction) and can have up to 99pc of orders pegged to the midpoint of a reference price which is largely the one of the most relevant market in terms of liquidity. Given that those models act as a substitute for the venues under the RPW when the caps are breached, we would consider that they shall be classified as either dark venues or semi-dark venues.

Based on those considerations, we would caution against drawing conclusions from the figures provided in the Call for evidence covering “dark trading”: Indeed,

- 1- The volumes under the RPW are anyway capped because of the single volume cap (SVC);
- 2- FBA volumes shall be included especially as they tend to increase when thresholds are breached;
- 3- The LIS volumes are only an approximation and;

- 4- The charts are only provided for 2025 but no time series over the past years. Our own observations show that dark trading has increased substantially since 2018, reaching levels above 10%. The SVC mechanism reduced the market share of non-LIS dark trading only temporarily during Q4 2025. For example, as of June 2026, no DAX instruments are subject to suspension under the SVC mechanism.



* Based on exchange turnover excluding German regional exchanges, off-book on-exchange, SI and OTC; Dark LIS estimated by reported trade size.
 Source: xyt, Deutsche Börse.

<ESMA_QUESTION_MSEM_9>

Q7 What concerns/issues do you highlight at this stage? Do you see a need for specific regulatory interventions also in consideration of evidence available regarding practices related to dark trading functionalities (please provide details)?

<ESMA_QUESTION_MSEM_10>

As per our response to Q9, dark trading functionalities do not comprise only transactions under the RPW and LISW but also under the NTW and all SI transactions above twice the SMS since no pre-trade transparency applies. Looking at a more comprehensive set of trading protocols, effectively characterising the full breadth of dark trading, academic analyses set the thresholds

of dark trading detrimental to price formation at rather low levels: 10 to 17pc (cf Aquilina M. et al., 2017, *Aggregate market quality implications of dark trading*, FCA Occasional Paper 29 and Comerton-Forde C. and Putnins T., 2015 *Dark Trading and Price Discovery* Journal of Financial Economics). We would strongly recommend that an analysis assessing the contribution of various trading models to the price formation process and the impact of dark and bilateral trading on price efficiency is conducted. To that end, ESMA could mandate independent academic research teams with the relevant analyses through the allocation of sufficient and appropriate research grants and draft a report based on the input received.<ESMA_QUESTION_MSEM_10>

Q8 What is your view on the evolution and effects of trading in closing auctions on the EU markets? Do you agree with the presented rationale for trading in closing auctions or do you consider other drivers more important for explaining the growth and increasing significance of closing auctions trading?

<ESMA_QUESTION_MSEM_11>

Deutsche Boerse Group (DBG) appreciates that ESMA does recognise the “pivotal role [of closing auctions] in the functioning of equity markets and we would agree with the arguments of liquidity fragmentation, growth of passive investment and price formation detailed by ESMA. Closing auctions indeed benefit the market by concentrating liquidity, reducing cost and safeguarding the price formation process. The popularity of closing auctions shows that there is a significant demand from investors for this highly transparent and non-discriminatory mechanism which is in the best interest of investors, public companies and the market as a whole.

Closing auctions, as their name indicates, determine the closing price that is in line with the stock’s intraday performance, in the best interest of public companies and investors. They are relevant to set the reference price for a high number of financial instruments (ETFs, traditional funds etc.) and allow market participants to replicate exactly the price at which index rebalances are done. In addition, it is the official closing price that is used for calculations for corporate actions and other transactions, and indeed is the generally accepted reference price for many other purposes, such as tax matters or for the determination of settlement prices by CCPs.

Closing auctions contribute to making companies listed in the EU visible and tradeable at large quantities with a certain degree of execution probability and reliable price (as EU closing auctions take place when US markets are open). The global reference for each relevant stock is guaranteed by the robust price formation process carried out by primary exchanges, based on high quality matching algorithms that determine the closing price that maximizes the

turnover. These auctions have a fixed schedule defined by trading venues and processes are transparent as the theoretical auction price is continuously published. They do not substitute continuous trading which facilitates all orders as rapidly as possible during regular trading hours so that the trades are executed on a continuous basis at the prevailing market price but instead serve different purposes.<ESMA_QUESTION_MSEM_11>

Q9 What is your view on the effects of alternative closing mechanisms offered by MTFs and SIs?

<ESMA_QUESTION_MSEM_12>

Competitive alternatives to closing auctions on primary markets already exist, notably from a business perspective. Closing mechanisms and internalisation practices by SIs and brokers using the closing price set on primary markets as a reference price risk undermining the price formation process within closing auctions. While price formation occurs across a range of venues, such alternative venues do not make investments in the full range of activities necessary to contribute to the core price formation process, but rather use the data provided by exchanges to run their own commercial business models competing with the data sources for the same order flow at lower cost. As evidence, when system outages occur on primary exchanges in Europe – be it for central limit order books, opening or closing auctions – MTFs (both lit and dark), SIs and OTC markets usually halt their trading. The same outcome is observed during volatility interruptions on primary venues.

We would here address a more generic concern regarding price referencing venues, as underlined by ESMA in paragraph 42. Indeed, as shown by research conducted by researchers from University St Gallen and reported by SIX Swiss Exchange, a removal of liquidity from the closing auction results in a shift in the closing auction price: A removal of 10% of the bid or ask liquidity dislocates the closing price between 8 and 12 bps across Blue Chips stocks. Furthermore, trading participants are reactive to incoming liquidity in the call phase; fragmentation of closing auction liquidity would result in a dilution of closing order interaction and a subsequent weakening of price discovery (Frauendorfer, K. & Müller, L., 2020, *Liquidity-related Price Sensitivities of Closing Auctions in Equity Markets*, Institute for Operations Research and Computational Finance, University of St. Gallen). In that sense Deutsche Boerse Group would call for a stronger monitoring of referencing systems, especially at the close and with systems which are less transparent than periodic auctions. We have been calling for instance for the introduction of the CLSE flag, as introduced by the UK FCA, which would identify all transactions done at the closing auction price.

Regarding competitive venues from a price formation perspective, the MTFs would actually increase fragmentation of the current trading landscape and trading venues replicating exchange closing auctions still present a risk that could ultimately result in the existence of several closing prices. Because price deviations would be likely due to the low liquidity available on those platforms, we would not support the proposal from the European Commission in the Market Integration and Supervision Package to introduce in the consolidated tape the *volume-weighted closing price* (VWCP) resulting from all closing auctions operated by trading venues that are data contributors. Firstly, the term closing auction is currently not defined in the regulation and tends to refer to the primary market auction, not alternative models on MTFs, and secondly, in the event of a distortion between the closing

auction price on the primary market and the *volume-weighted closing price*, the best execution cannot be met, especially if the VWCP becomes a benchmark that cannot be traded anyway (the VWCP is artificial). In the event of a default, the VWCP would also ignore ESMA's principles, according to which a primary market can postpone its closing auction (see ESMA Final Report on Market Failures, ESMA70-156-6458).<ESMA_QUESTION_MSEM_12>

Q10 What will be in your view the effects of 24h/ extended trading ours on closing auctions?

<ESMA_QUESTION_MSEM_13>

At this stage, Deutsche Boerse Group (DBG) does not have concerns nor sees any impact of the extended trading hours for retail investors on closing auctions. The move towards extended trading hours/24h is material in the US with many exchanges having launched a 24/5 model, supported by similar extension at clearing and settlement levels, as well as for the consolidated tape. The situation is different in Europe with a push initiated mainly by retail investors, and influenced by the development of the crypto assets, which can trade any time and any day. We do hence rather foresee, for the time being, an extension of the trading hours in Europe on selected platforms/offerings (earlier opening, later closing) rather than a switch to trading 24/22 hours and 5/7 days a week. DBG – beyond some derivatives products already tradable on Eurex between 2am CET and 10pm CET aiming at APAC and US investors – extended the trading hours on their platforms, namely Deutsche Boerse Xetra and Deutsche Boerse Frankfurt. On the latter, trading hours were extended end 2021 from 8am til 10pm and similar trading hours are now proposed for the Deutsche Boerse Xetra Retail offering since December 2025. On Deutsche Boerse Xetra, the retail model, which allows retail investors to obtain price improvement and interact with all orders in the CLOB, was designed such as there is no disruption of the closing mechanisms: Deutsche Boerse Xetra Retail/ Extended Retail Trading Service do not run during the closing auction, the model with mini-auctions starts after the end of the closing auction and the Trade-at-Close phase if available for the relevant instrument.

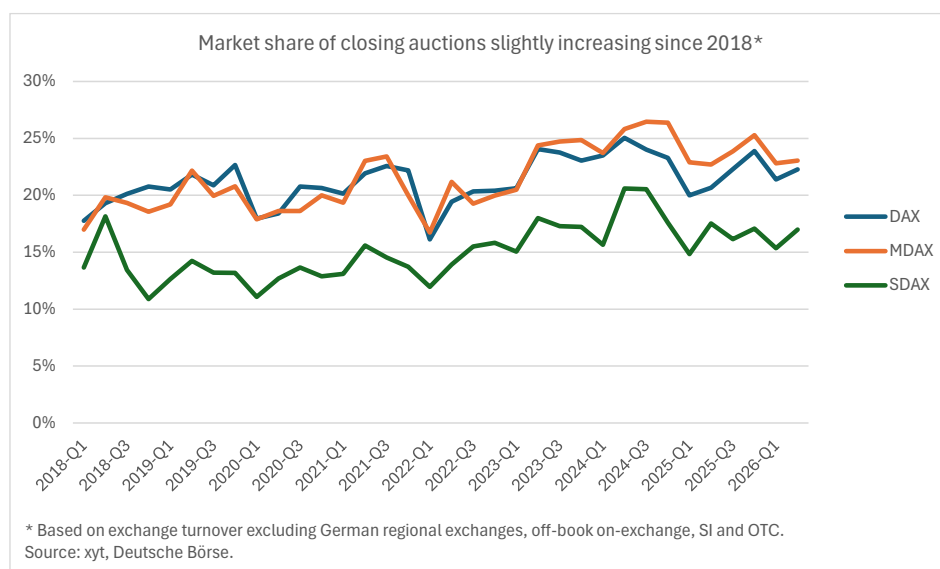
During normal trading hours, Deutsche Boerse Xetra Retail offering allows for Retail Liquidity Providers to provide binding quotes in the system, those quotes having to match or improve the spread in the main order book; in case there is no adequate quote available, the Retail order will be sent to the main order book. During extended hours, there is no possibility for the Retail orders to execute in the CLOB, and they can only face other Retail orders of Retail LP quotes. The Retail auction model is based on mini auctions triggered as soon as there is a crossed order book. The auction lasts one second and the retail auction price is the price with the highest executable order volume and the lowest surplus at or within the RLP quote spread. Orders are executed according to price-RLP-time priority.

Note that in particular in Germany, exchanges which are rather retail focused have been proposing extended hours for a long time and we have not seen any impact on the closing auction on Deutsche Boerse Xetra. However, during extended trading hours we have observed that spreads increase significantly on some platforms and that the costs are much higher for investors. That is problematic obviously for investors and all the more if there is no competition between liquidity providers during those extended hours.<ESMA_QUESTION_MSEM_13>

Q11 Are there any structural shifts that you noticed, which you believe the competent authorities should monitor? Would you like to highlight any concerns/issues at this stage? Do you see a need for specific regulatory interventions (please provide details relating them possibly to the data and observations available)?

<ESMA_QUESTION_MSEM_14>

Deutsche Boerse Group (DBG) observes that historically, closing auctions have always concentrated a significant share of the turnover on trading venues in Europe. Since 2018, the market share of closing auctions in German instruments (CDAX), when compared to all other execution venue types (excluding German regional exchanges due to limitations in historical data availability), grew slightly from 19% to 22% YTD May 2026. Participation in closing auctions is higher for large- and mid-caps. In DAX instruments, closing auctions account for 19% of turnover in 2018 and 22% in 2025. Similarly, closing auction participation in MDAX instruments increased from 19% to 24% over the same period. By contrast, closing auction shares for less liquid SDAX instruments were consistently lower, accounting for 14% in 2018 and 16% in 2025 (and only 12% when German regional exchanges are included).



DBG would like to underline that we do not believe any regulatory intervention shall be specifically directed towards closing auctions (traditional closing auctions on primary markets). Because of all the benefits highlighted in the Call for evidence itself and our response to Q13, closing auctions have become critical to the price discovery and the stability and transparency of Europe's capital markets in a highly fragmented trading landscape.

The upward trend in closing auction volumes we underline in our response to Q11 is highlighted by ESMA albeit for a moderate growth rate between 2022 and 2025. We would also mention that the growth is not linear and subject to cyclical events with the most pronounced one being the index rebalancing affecting market participants with portfolios trades associated with those episodic index rebalances. Recently, the semi-annual rebalancing of MSCI indices effective after close on 29 May 2026 brought the Deutsche Boerse Xetra auction volume shares in Europe (of total trading venues' volume) to 53% for DAX stocks and 44% for MDAX stocks. Earlier, the latest semi-annual rebalancing effective after 24 November 2025 close brought the same market shares to 46% and 55%, respectively. But if the way portfolios are designed can be constrained by the "index balancing effect", other effects exist and might not reflect on closing auctions. As an example, we observe a hedging effect with derivative contracts during intraday auctions on Deutsche Boerse Xetra every third Friday of the month on the so called Double Witching Day, but more pronounced every third Friday of the last month in the quarter (March, June etc.) when derivative contracts on indices expire, so called Triple Witching Day. Because the strike price for Deutsche Boerse Xetra underlyings is mostly defined as the price of the intraday auction, market activity surges during the said auction due to program trading associated with index futures arbitrage and the order imbalances resulting from the unwinding of cash positions when options or futures expire (at 13:00 CET on settlement days). Equity futures and options also expire on the same days and derivatives

trading is authorized until the closing auction on spot market. But the increase in trading before closing does not seem much higher than on usual Fridays.

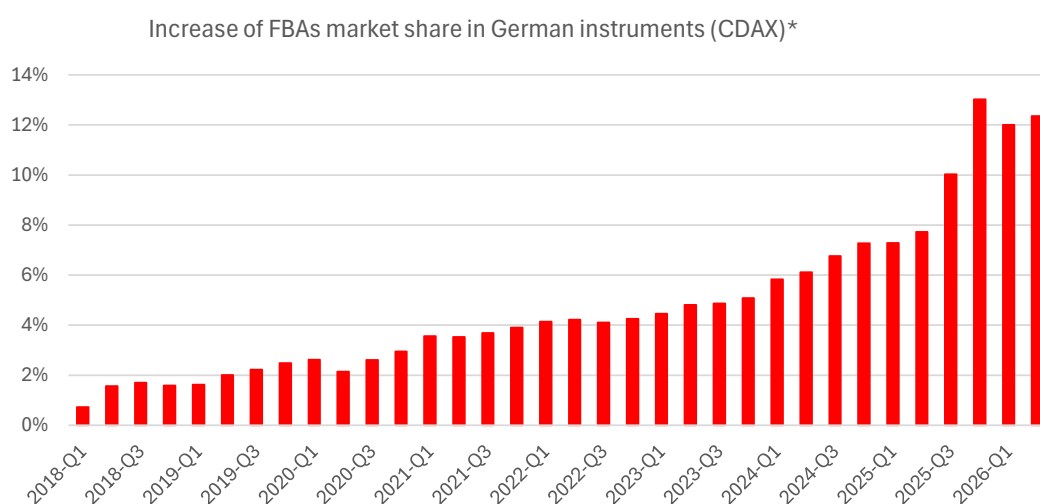
The economic conditions also influence participation in closing auctions. This is valid not only for closing auctions; it is in general one of the arguments why market participants might prefer to trade in lit continuous trading than using auctions or dark venues. The Covid-19 crisis and the announcement of U.S. trade tariffs in that sense are a good example: in times of uncertainty and higher volatility, market participants express a need for immediacy since prices move quickly and immediate access to liquidity is preferable to waiting for the end of the trading session or even the few minutes the auction will last; the same way market participants turned away from SIs and dark venues in the EU during this period of high volatility. The need for immediacy is also reflected in the drop in the share of closing auctions compared to continuous trading. When the closing auction usually shows a market share of 20-25%, it was down to 9% on 7 April 2025 for example for DAX instruments (announcement of U.S. trade tariffs).

<ESMA_QUESTION_MSEM_14>

Q12 What is your view on the evolution of trading in FBAs on EU markets? Why are those mechanisms gaining traction in your view? Which are the benefits and shortcomings they offer? (please elaborate)

<ESMA_QUESTION_MSEM_15>

Deutsche Boerse Group (DBG) can confirm the volumes on FBAs we observe are consistent with the results provided by ESMA; moreover, looking back to 2018, we observe an even steeper increase of the activity of FBAs, with one venue clearly dominating (10% out of 12% total FBAs market share YTD May 2026). We do understand that auctions are an attractive mechanism: they would protect market participants against predatory trading and hence exhibit low toxicity. We do however believe that other features of FBAs make them even more attractive compared to more transparent, price forming models; in particular, we would consider carefully the limited pre-trade transparency, the possibility to use member preferencing and the pegging at the midpoint of the reference market. The combination of those features can resemble trading under the RPW with no pre-trade transparency and execution at midpoint of the reference market, whereas the allocation priority 'Broker x Price x Volume x Time' applied by some venues would allow for the matching of pre-arranged trades. Under MiFID II/MiFIR rules, pre-arranged transactions are normally hosted under the NTW.



* Based on exchange turnover excluding German regional exchanges, off-book on-exchange, SI and OTC.
 Source: xyf, Deutsche Börse.

DBG has expressed previously its concerns regarding FBAs back in 2018 and the trigger of the first suspensions under the Double Volume Cap (see our response to the ESMA Call for evidence on periodic auctions for equity instruments from January 2019). We observed the same trend in 2025 with the launch of the Single Volume Cap, and continue to claim that FBAs are partly used to circumvent the cap of volumes under the RPW (see our response to Q16).

<ESMA_QUESTION_MSEM_15>

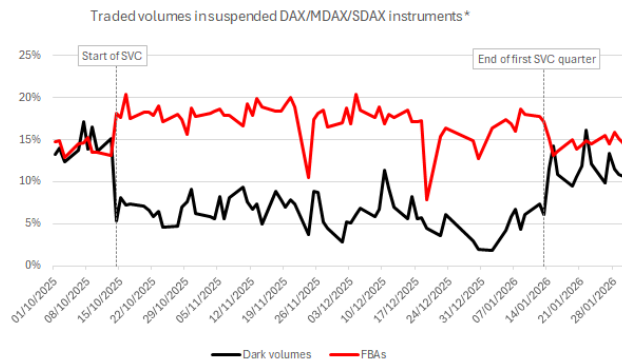
Q13 Do you have any particular observations as regards the impact of SVC on FBAs?

<ESMA_QUESTION_MSEM_16>

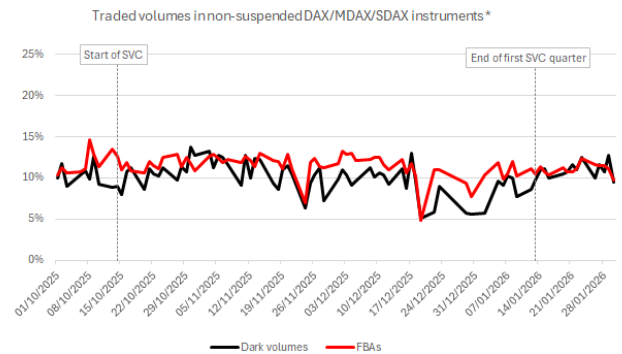
Deutsche Boerse Group (DBG) does not have an FBA platform and hence can only report on volumes traded on other platforms. In our response to the ESMA Call for evidence on periodic auctions for equity instruments, we highlighted that the market share of FBAs in the DAX, MDAX and SDAX indices almost tripled between January and October 2018. Looking at all FBA venues, trading increased from 1.15% to 4.3% between February and May 2018 for instruments banned from dark venues. At the same time, for all other instruments still traded on dark venues, the market share of FBAs increased more modestly from 0.52% to 1.41% on the same period. Those results were confirmed by the analysis conducted by Rosenblatt Securities who observed a “seesaw effect” with an immediate shift back to dark pools in September 2018 once the ban was lifted.

The impact of the SVC is noticeable with dark volumes migrating to periodic auctions (FBAs). Dark market share in suspended instruments immediately migrates at least partially to periodic auctions at the start of the SVC mechanism in suspended instruments and reverts after the end of the first quarterly SVC period. Such a migration is not noticeable for instruments that are not suspended under the SVC mechanism. Hence, we do consider that periodic auctions

(FBAs) in the SVC, like earlier in the DVC, are used to circumvent the cap on volumes under the RPW.



* Based on exchange turnover excluding German regional exchanges, off-book on-exchange, SI and OTC.
Source: xyt, Deutsche Börse.



* Based on exchange turnover excluding German regional exchanges, off-book on-exchange, SI and OTC.
Source: xyt, Deutsche Börse.

<ESMA_QUESTION_MSEM_16>

Q14 Are there any emerging structural shifts which you believe would warrant closer monitoring? (please elaborate)

<ESMA_QUESTION_MSEM_17>

Deutsche Boerse Group (DBG) is overall concerned with the increase in bilateral trading and price-referencing, two aspects which we believe harm the price formation and the attractiveness of European markets. As developed in our response to Q7, the decrease in lit trading in particular since 2018 and the increase of fragmentation are not attractive to issuers and stakeholders putting emphasis on the liquidity of their shares; the increase of bilateral trading and price-referencing do both question how expensive trading can become (with a widening of spreads) and how economically relevant is the price of an asset. We believe the growth of FBAs is part of this evolution where price referencing needs to be assessed and monitored to avoid deterioration of price formation.<ESMA_QUESTION_MSEM_17>

Q15 What is your view regarding the contribution of FBAs to price formation and transparency? Should those mechanisms be generally considered as price forming/ non price forming or this assessment should be done on a case-by-case basis depending on the specific design of the auction? (please elaborate, supplementing your views with data evidence when available)

<ESMA_QUESTION_MSEM_18>

Deutsche Boerse Group (DBG) concludes at this stage that FBAs have little to no contribution to price formation. Given the impact of the triggering of the transparency caps on FBA volumes, we do consider them as substitutes for models under the RPW, hence not contributing to the price formation process. Looking at the share of volume traded at midpoint, we note the observations from Besson P. et al., 2019, *The Benefits of European Periodic Auctions beyond MiFID Dark Trading Caps*, The Journal of Investing 28(6), who conclude that “using the EBBO midpoint as a reference point, we find that the proportion of Periodic Auction trades that settle at the midpoint ranges between 96% and 99%. This result shows that the main use of Periodic Auctions is for midpoint trading, as was the case for Dark trading.”

We understand that FBAs have evolved over the past years but given the increase in volumes after the suspension of trading under the SVC, we would conclude that execution at the reference price remains one of the crucial features of FBAs. This is why we are reluctant to use the term of dark trading for volumes traded under the RPW and the LISW only. We would at this stage consider relevant to measure the volumes on various systems which are price referencing. In the case of FBAs we would consider them to be non-price forming if the share of volumes at midpoint exceeds 50pc for instance.

Another way to consider the effectiveness of price formation on FBAs is to look at the transparency offered by the different trading protocols. We do understand that FBAs offer a limited pre-trade transparency window which is partly due to the fact that transparency is triggered only when there is a crossed order book; we remain of the opinion that this transparency window shall be long enough to allow for more than two orders to interact in the auction, thereby ensuring a truly price forming process. It is unknown to us at this stage how long the call auction should be, but this could constitute a criterion to distinguish between price forming and non-price forming platforms, based on the average call auction length.<ESMA_QUESTION_MSEM_18>

Q16 Please highlight any concerns/issues you may have at this stage. Do you see a need for specific regulatory interventions, particularly regarding the tick size regime and its application to transactions and periodic auctions (please provide details)?

<ESMA_QUESTION_MSEM_19>

As highlighted by ESMA in paragraph 68, FBAs do execute off-tick for a significant portion of their trades. For DAX instruments, we observe that for the three largest FBAs in the EU, 42 percent of the volumes are executed off tick, which represents 50 percent of the transactions. This results from the non-application of the now-repealed Q10 subjecting FBAs to the tick size regime and is a practice much older than the possibility of SIs to trade at midpoint (March 2024). Whereas we do understand the point of view from ESMA considering that the level playing field is ensured with allowing SIs and FBAs to execute at off-tick midpoint, we would have two major concerns: firstly, the unlevel playing field is not between trading venues and SIs, it is now between FBAs and lit multilateral venues and appears problematic. Secondly, fundamentally, the supposed loophole that justified the execution of orders at off-tick midpoint is set at Level 2.

On the first point, and from the tick size regime perspective, trade executions at midpoint are not a problem as long as the transaction price is compliant; however executions at midpoint off-tick can only take place under specific circumstances which are when done with an SI or under a pre-trade transparency waiver on a trading venue. The point is not to determine whether the pre-trade transparency is needed or not, just that the only exemption possible to the tick size regime is for transactions under waivers. ESMA did clarify those aspects soon after the entry into application of MiFID II with two Q&As on market structure (10 and 11), explaining that orders under the LISW could not execute against orders in the lit book because of the risk to execute off-tick, and that FBAs were fully subject to the tick size regime. The current trend with the repeal of Q&A 11 would indicate that executions at midpoint off-tick are now possible on FBAs, meaning in systems considered as lit under RTS 1 (since no waiver applies). We would actually consider that there is now an official unlevel playing field between trading venues that do not operate under a pre-trade transparency waiver: continuous trading models are subject to the tick size regime, FBAs (and SIs) are not; the only way for a trading venue to propose execution off-tick at midpoint, excluding models under waivers, is to operate an FBA, which is a bizarre way to ensure fair competition. Alternatively, the off-tick midpoint execution could be allowed of all execution venues, lit or dark, bilateral or multilateral; this would mean de facto that at this stage CLOBs would be the last systems having to adjust. DBG has serious concerns about this option, as the relevance of the bid-ask spread on trading venues would be questioned. In the theoretical literature, it means that no asymmetry of information exists, no stock management for dealers can take place. When it is agreed that the fair price is somewhere between the bid and the ask price, non-informed or retail investors having the possibility to avoid losing against informed traders will only accept to trade at midpoint and informed market participants will increase in density, enlarging significantly the quoted spreads. In those conditions, the fair price won't necessarily be the midpoint price and price formation will be significantly deteriorated.

The other possibility, which we do favour, would be to ensure the level playing field while keeping midpoint executions off the lit CLOBs. Trading venues can execute at midpoint under the LIS and the RPW. The volumes executed under the latter are however capped under the SVC; it appears that lifting the volume cap would be the best way to allow market participants to trade at midpoint, without requiring significant adjustments of existing systems.

On the second point, Q&A 11 was clarifying that the tick size regime applies both to orders and subsequently to transaction price. The confusion emerged from the sentence “Trading venues shall apply to orders in shares or depositary receipts a tick size [...]” in the Commission Delegated Regulation 2017/588 Article 2(1); the understanding was that as long as the order price is compliant with the tick size regime, the effective price does not have to, which allowed for instance an order under the LISW to be executed against lit orders once the executable size had passed below the LIS threshold, and for the lit orders to then trade at midpoint. As long as it is not clear how the tick size regime under RTS 11 applies, it will be possible to propose trading models ignoring the tick size regime entirely, and this not only for midpoint execution, but for any price level.<ESMA_QUESTION_MSEM_19>

Q17 What is your view on the evolution of trading of SIs on the EEA markets? What are the main drivers of their growth?

<ESMA_QUESTION_MSEM_20>

Deutsche Boerse Group (DBG) does greatly appreciate the analysis done by ESMA on SI activity. It is of particular interest and importance to analyse granular data and we agree with the observations from ESMA regarding the growth of SIs market share but also that the quality of reported SI data is not on par with the one of trading venues. Since 2018, the absolute market share of SIs has varied partly because of the reporting itself. For instance, clarification on the nature of transactions to be reported by the FCA early on caused a significant drop in volumes reported by SIs. We also observed in 2021, after the removal of reporting from UK entities, a significant drop of SI activity in the EU, showing the importance of bilateral activity located in the UK. SI activity in the UK on EEA shares remains high, as noticed by ESMA in paragraph 8. As per our response to Q4, we would repeat that the inclusion of UK data on SI activity would be beneficial as it would allow for a comprehensive view of trading activity on EEA shares, but also because it would allow for the removal of duplicate reporting for instance between the two blocks. This could be achieved by recognizing UK APAs for example.

Overall, the increase in the number of SIs and of their market share reflects the increasing attractivity of bilateral trading. Looking at the market share of SIs from 2018 onwards, we would concur with ESMA that the market share of SIs indeed increased in the past year and we would mention the differences in regulatory treatment between SIs and trading venues which create

distortion in incentives and competitive conditions, potentially diverting order flow away from lit multilateral venues. Key drivers include the more lenient tick-size regime and midpoint execution flexibility for SIs, but also the low level of pre-trade transparency for SIs. The revised MiFIR/D framework and RTS 1 have not fully addressed this issue. Persisting differences in transparency and oversight, combined with weaker data quality in SI reporting, including insufficient pre- and post-trade information and inconsistent flagging, limit supervisors' ability to monitor activity effectively and contribute to fragmentation. This points to the need for a stronger transparency and supervisory framework for SIs.

We are also concerned with the increasing capacity of SIs to capture smaller and more frequent order flow in a bilateral setting as this reflects a structural drift away from the intended role of SIs in executing larger orders and raises concerns regarding liquidity fragmentation, the weakening of price formation, and investor protection risks (see response to Q21). We would however caution against the assumption that small orders are automatically retail activity; to our knowledge the slicing of institutional orders can bring the order size to rather low values.<ESMA_QUESTION_MSEM_20>

Q18 Does this picture reflect the trends you observe in SI trading? Do SI offer trading for both large and small sizes? Do these different trade size reflect different types of clients / SI businesses?

<ESMA_QUESTION_MSEM_21>

Whereas the status of SI was initially created to allow for large trades on fixed income products, the attractiveness of this model increased in 2018 thanks to limited transparency and the non-applicability of the tick size regime for the first years; it was reinforced by the inclusion of SIs in the STO, putting them on par with trading venues, subjects to the tick size regime and full transparency in the CLOB. The level playing field on the application of the tick size regime was achieved mid-2020 with the SIs being now subject to the tick size regime under new Art 17(a) MiFIR however repealed with the relaxation of the regulation in March 2024 and the possibility to execute off-tick midpoint for SIs. Proper SI trading activity did develop indeed around trading at midpoint and increasingly targets, to our understanding, small sizes, in particular by ELP SIs. With the reintroduction of trading at midpoint for SIs without limitation in March 2024, it is understandable why those models are attractive especially with SIs interacting directly with market participants, without the intermediation of an investment firm acting as a broker. To identify and analyse further this trend we would suggest ESMA to identify based on transaction reporting data, the SIs which are bank SIs on one side and those ELP SIs on the other side.

DBG appreciates the detailed analysis of SI activity, especially the breakdown at individual level. The observation that a limited number of SIs concentrate a large number of transactions and volume (10pc, 80pc, 83pc) should also be of consideration for market participants: the characteristic of SI activity is the full transparency of the client activity towards the SI. With only a small number of SIs controlling the market, SI clients should consider the asymmetry of information in favour of the SI which is able to see and analyse the client flow and operate back-to-back transactions.

We would also caution ESMA against the assumption that “a significant proportion of SI trading activity is comprised of relatively small-sized trades, which may reflect the execution of retail orders which is usually typical of on-venue trading (RMs and MTFs)” in paragraph 80. Firstly, regarding the trade size, it appears that the average trade size is below 5,000 EUR in Europe: According to Rosenblatt Securities the pan-European average execution size was 4,534 EUR in May 2026 with Deutsche Boerse Xetra being an outlier with an average trade size of 11,300 EUR. With dedicated retail venues excluded from the calculations, it appears that an average trade size below 5,000 EUR is also valid for institutionals, we assume being the result of the slicing of orders from the parent order to child orders which would execute of different execution venues and trading models. In the specific case of SIs, we would then challenge the conclusion that SIs would execute retail orders when the size is below the SMS.

The growth of bilateral trading should be a cause for concern for legislators and market participants in general. When small trades – below the Standard Market Size – represent 60 percent of SI activity, one deducts that that flow is taken away from multilateral venues; when some SIs execute up to 60 percent of their flow at midpoint off-tick, it means that executions at midpoint, hence price referencing are rather the norm than the exception on SIs. The latter point does question the role of bilateral trading in the price formation process and the risks of deterioration of the price efficiency, caused by the reduction of the flow on multilateral lit venues, especially the primary markets, which bear the process of price formation, by aggregation of all types of investors (retail, informed, liquidity, non-informed, passive etc.). This is why we make some proposals in our response to Q25.<ESMA_QUESTION_MSEM_21>

Q19 What is your perception of the application of price improvement by SIs? Does the data analysis reflect the reality, or do you believe that there are some data quality issues in the flagging of transactions subject to price improvement?

<ESMA_QUESTION_MSEM_22>

We would like to recall that ESMA has mentioned in their previous Consultation Paper on the review of RTS 1 (equity transparency) and RTS 2 (non-equity transparency), paragraph 189: “From the feedback that ESMA received through the OTC data quality questionnaire that it carried out in 2020 with APAs and SIs, it appeared that SIs themselves noted that these flags are rarely used and that there are questions on the accuracy of the use of these flags.” Given this observation and the deletion of these flags from the RTS 1, it is unknown to us how reliable the observations are under RTS 22. ESMA also mentions in paragraph 87 that: “the majority of SI turnover is generated through transactions that do not carry any of these specific flags. This suggests that, for most trades, SIs operate within standard market conditions, without engaging in particularly large orders, price improvement strategies, or trading in illiquid instruments.” We would be cautious about this conclusion as the absence of flags might be because SIs do not use the flags available to classify their transactions, rather than the lack of specific conditions.

Moreover, we would also be quite wary of the conclusion carried in paragraph 89, stating that “the majority of SI trading is executed subject pre-trade transparency.” As it is in theory the case, we would recall that as per Article 15 (2) MiFIR, “[...] in justified cases, they [SIs] may execute those orders at a better price provided that the price falls within a public range close to market conditions.” This condition applies since March 2024 for quotes up to twice the SMS, meaning 10,000 EUR for most instruments. It is therefore possible for SIs to execute for example at midpoint which we see is the case for a number of cases as per paragraph 78, but does not seem to be reflected in the flagging given the very low usage of the RPRI flag. We

would therefore strongly question the conclusions drawn from the transaction reporting data.<ESMA_QUESTION_MSEM_22>

Q20 Which flags do you consider important to identify certain trade related to SI trading?

<ESMA_QUESTION_MSEM_23>

Following the remark from ESMA in paragraph 75, DBG believes that strengthening data quality, consistency, and the enforcement of reporting obligations for SIs should be a priority. We do regret that the flags dedicated to SIs, namely SIZE, ILQD, RPRI, have been repealed from RTS1 and would suggest that new flags are introduced in order to ensure that the regulator is able to analyse and monitor adequately SI activity. In particular, it remains difficult to distinguish the extent to which SI volume is executed at midpoint, off-tick or in a retail driven context and what is also done at the closing price. This lack of granularity limits the ability to take informed decisions on key market structure parameters, including dark caps, tick size regimes, and the calibration of SI rules.

In this context, the following flags are considered particularly important to capture SI activity:

- Retention (or replacement) of SIZE and RPRI flags in RTS 22 and RTS 1: In the absence of suitable alternative indicators, these flags would provide, if used consistently, valuable information to both supervisors and market participants and should either be retained or replaced with equivalent, sufficiently granular measures. For example, the “SIZE” flag or an alternative “above or below SMS” flag, remains important to provide greater visibility on the distribution of trade sizes in SI activity, helping to assess whether SIs are aligned with their intended use case of facilitating larger transactions.
- Midpoint flag (MIDP) in RTS 22 and RTS 1: In light of the increased midpoint trading possibilities available to SIs following the Level 1 review, a MIDP flag would allow regulators to monitor developments in this area. This is particularly relevant given the need to ensure a level playing field with trading venues, as highlighted in Recital 13 of the MiFIR review.
- Closing price flag (CLSE) in RTS 22 and RTS 1: This flag would allow to better map volumes executed at the closing price across execution venues, similarly to the UK present regime.

Finally, and also linked to post-trade transparency reporting, we also consider crucial that, similar to trading venues, SIs are also required to use a unique, venue-like identifier in all post-trade transparency reports, which a Delegated Act specifying which identifier should be used (e.g., a dedicated MIC). Such an SI identifier in post-trade feeds could be deferred if needed,

following a system similar to that in place for bonds (Article 11 MiFIR), enriching the SI post-trade feeds to fill after a specific delay (e.g. one month) the field related to the SI identifier.

Venue-like SI identifiers (rather than generic labels such as “SINT” or “OTC”) would enhance market transparency by making SI activity visible to the market. This would also support better analysis of fragmentation and execution quality and allow more targeted and proportionate policy responses. Without clear identification, market participants cannot accurately measure how much volume individual SIs internalise or how this affects lit markets and retail execution and cannot perform granular transactions costs analysis.<ESMA_QUESTION_MSEM_23>

Q21 What is your view on the evolution of SI trading on the EU markets? Are there any structural shifts that you noticed, or envisage, which you believe should be further monitored?

<ESMA_QUESTION_MSEM_24>

For our views on the evolution of SI trading in EU markets, please refer to our response to Q21, as our assessment of EU markets is consistent with that for EEA markets.

Regarding observable structural shifts, which we consider concerning and which should be closely monitored, please refer to our responses to Q20–23 and Q25. We believe the trends described therein warrant both continued scrutiny and regulatory action. In short, this would concern the continued increase in SI activity, often at the expense of continuous order books, reinforced by existing regulatory asymmetries and not sufficiently supported by reliable data or adequate scrutiny. If these deficiencies are not addressed, they may further exacerbate these concerning developments, with potential negative consequences for price formation, as well as the efficiency, transparency, and competitiveness of EU capital markets.<ESMA_QUESTION_MSEM_24>

Q22 Please highlight any concerns/issues you may have at this stage? Do you see a need for specific for regulatory interventions (please provide details possibly relating to the information and data available or observed)?

<ESMA_QUESTION_MSEM_25>

As per our response to Q21, we have concerns regarding the reliability of the data collected from SIs and we do observe contradicting outcome. We believe that transactions via an SI remain largely untransparent, and that some results from ESMA like the quasi-absence of the RPRI flag seem to contradict other outcomes like the significant share of transactions executed off tick midpoint, hence all the more on tick midpoint. When considering the added value from

SIs, one shall consider their function as contributor to the price formation process which can only be assessed for instance via the executions of small transactions (below 5,000 EUR) with a significant price improvement. Those improvements shall be visible, and public and firm quotes truly transparent and effective. We hence propose the following measures, at Level 1, to allow for transparent activity from SIs, be it from a trading perspective but also from a reporting and compliance perspectives:

- Quotes below twice the SMS are effectively firm and public with a modification of Article 15(2) MiFIR subparagraph one: below twice the standard market size, the quotes shall be firm and public and SIs would only be able to offer meaningful price improvements offered (e.g. at least one tick relative to the Primary Best Bid and Offer (PBBO)) to ensure that it justifies the bilateral nature of execution and effectively contributes to best execution outcomes. Moreover, quote update obligations should apply to all orders subject to SI quoting requirements, not only to retail orders. This would ensure that any price improvement is reflected in firm and public quotes prior to execution.
- Strengthen SI reporting discipline and post trade data quality in conjunction with a reinforced supervisory framework: Reliable, granular post trade data is a prerequisite for effective market monitoring and evidence-based supervision. This, in turn, requires stronger supervisory expectations and enforcement, including the provision of more standardised information to competent authorities on SI execution models and stricter compliance with reporting and flagging obligations, so that observed discrepancies can be credibly assessed and addressed.

<ESMA_QUESTION_MSEM_25>

Q23 Have you witnessed an increase in the use of benchmark trades? If so, what are the drivers of such increase on venue and on SI?

<ESMA_QUESTION_MSEM_26>

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<ESMA_QUESTION_MSEM_26>

Q24 Should the use of transactions from multiple trading venues be allowed when calculating the benchmark?

<ESMA_QUESTION_MSEM_27>

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<ESMA_QUESTION_MSEM_27>

Q25 When performing benchmark trades, on how many transactions is the calculation of the benchmark trade based (on average, min, max, liquid vs. illiquid instruments)?

<ESMA_QUESTION_MSEM_28>

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<ESMA_QUESTION_MSEM_28>

Q26 To what extent SI take advantage of the provision in Article 15(3) of MiFIR? Please share any data you may be informative in this context to understand the extent to which SIs use this provision.

<ESMA_QUESTION_MSEM_29>

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<ESMA_QUESTION_MSEM_29>

Q27 Would you be supportive of ESMA issuing guidance on benchmark trades? If yes, should it encompass quantifying the minimum requirements (e.g. minimum number of transactions to be included when calculating a benchmark price, minimum time period to cover).

<ESMA_QUESTION_MSEM_30>

Yes, Deutsche Boerse Group (DBG) would appreciate that ESMA defines quantitative criteria to assess what constitutes a “sufficiently long period as to ensure there is no relation to the current market price” for the benchmark used under NT3. Currently some offerings from trading venues in the UK propose a five-minute volume-weighted average price (VWAP), which is calculated from lit continuous reference market trades, with a minimum of two trades over the period. We do consider that indeed a sufficient multi-minute interval is necessary for that type of offering; because prices are sourced from reference lit markets and because the benchmark

price needs to be not related to the current market price, the benchmark price shall also be based on a sufficient number of transactions, especially for highly liquid stocks which by construct appear to be main target shares to that type of offering.

We would support a time interval sufficiently long combined with a high enough number of transactions. We could suggest as an empirical analysis to calculate on Most Relevant Market in terms of Liquidity (MRMTL) the percentage of VWAP prices which, according to different combinations of time-interval/number of transactions, would fall outside of the BBO on the relevant market (the BBO being the one at the end of the time interval). The highest the probability to be outside of the BBO, the less the benchmark price can correspond to the current market price.

<ESMA_QUESTION_MSEM_30>

Q28 Does member preferencing lead to unfair outcomes for end-investors, other members or the markets? Please explain, if possible on the basis of data.

<ESMA_QUESTION_MSEM_31>

Deutsche Boerse Group (DBG) agrees with ESMA's view that member preferencing results in trading practices that are closer to internalization than to on-venue trading, as indeed it is not a matching and price formation principle that is multilateral by nature. Member preferencing is usually used to facilitate "intra-broker" matches, i.e. users do not trade against "preferred" third parties, but against other orders placed by the same firm, e.g. for a different end client or by a different trading desk. Whether this means it produces unfair outcomes depends on the trading and price formation mechanism where member preferencing is applied, and whether the end-investor has the possibility to instruct their broker to execute their order via a member preferencing or internalization mechanism as opposed to a multilateral trading venue. Member preferencing as opposed to e.g. price-time priority or volume-time priority may lead to different resulting trade prices where the price formation depends on the limit prices of the orders. This is usually the case in auctions and continuous trading. However, if the respective trading mechanism is not "price-forming", i.e. the execution price is determined by factors that are not inherent to the orders, member preferencing does not have an impact on the resulting prices but may only change the allocation of orders in the matching process. For example, in "Trade-at-Close", "Auction Volume Discovery", and in midpoint trading (under RPW), the execution price is exogenous.

<ESMA_QUESTION_MSEM_31>

Q29 To what extent do you see evidence that member preferencing extends in practice beyond jumping the queue and may also violate price priority principles?

<ESMA_QUESTION_MSEM_32>

The above considerations are theoretical i.e. DBG does not have data on this. Conceptually, whether member preferencing (potentially) violates price priority depends on the nature of the execution mechanism and, in case of price-forming mechanisms, whether member preferencing is actually a superior prioritization principle compared to order price limits. Usually, trading venues have tie-breaker rules in case the first / superior order prioritization criterion does not lead to a clear ranking of available orders to execute. As such, jumping the queue could be understood as “violating” price priority, but also others like for example time priority or volume priority.<ESMA_QUESTION_MSEM_32>

Q30 Should member preferencing be (a) prohibited, (b) should there be rules restricting the practice, or (c) should nothing be done? If you suggest there should be rules (b), which rules would you suggest? Please explain.

<ESMA_QUESTION_MSEM_33>

DBG does not see the need to prohibit or restrict the practice. However, trading venues offering member preferencing must disclose where exactly it is enabled and how member preferencing is applied within the overall order prioritization and matching rules.

<ESMA_QUESTION_MSEM_33>

Q31 What would be the consequence of prohibiting certain forms of member preferencing? Please explain, if possible on the basis of data.

<ESMA_QUESTION_MSEM_34>

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<ESMA_QUESTION_MSEM_34>

Q32 Are you aware of other similar and common practices, for example on RFQs, where on venue competition is limited to the detriment of other investors or members? Please explain, if possible with data.

<ESMA_QUESTION_MSEM_35>

While RFQs are typically bilateral or multilateral (one party requests quotes from one or several other parties), member preferencing typically refers to a “self-matching preference”. RFQs are typically used if the displayed liquidity on other venues is insufficient (i.e. for larger orders) and / or the requestor does not want to publicly reveal their trading interest. Given that also the responder to an RFQ knows who the requestor is, price improvements compared to displayed straight liquidity in an order book can be achieved based on (perceived) lower adverse selection risk from the responder’s point of view, i.e. the responder can adjust pricing in case they believe the requestor does not have an information advantage.

<ESMA_QUESTION_MSEM_35>

Q33 Do you agree with the above three approaches?

<ESMA_QUESTION_MSEM_36>

Deutsche Boerse Group (DBG) understands that ESMA would want to clarify some concepts by providing a definition for selected concepts, and notes that the definitions were already part of the consultation on the review of RTS 1 (equity transparency) and RTS 2 (non-equity transparency) in 2021 (ESMA70-156-4236). We would have two comments mainly on the definitions proposed.

Firstly, ESMA introduces the definition of technical trades which to our knowledge only appears in Recital 11 MiFIR and is directly linked to trades which do not contribute to the price discovery process (“[...]Those legitimate reasons are where trades are non-systematic, ad-hoc, irregular and infrequent, or are technical trades such as give-up trades which do not contribute to the price discovery process.[...]”). We would then understand that those technical trades are at least a subset of all transactions that do not contribute to the price discovery process; we hence would question why ESMA does not link both definitions and only refers to addressable/non-addressable liquidity for both concepts.

Secondly, the concept of non-addressable liquidity trades is mentioned on a single occasion in the MiFIR text, namely in Article 23 on the Trading obligation for shares for investment firms and seems to constitute a subset of those transactions in shares that do not contribute to the price discovery process (“[...]ESMA shall develop draft regulatory technical standards to specify the particular characteristics of those transactions in shares that do not contribute to

the price discovery process as referred to in paragraph 1, taking into consideration cases such as: (a) non-addressable liquidity trades [...]” – that does not mean that all transactions not contributing to the price discovery process are non-addressable. RTS 1 and in particular Article 2 provides a list of the transactions in shares that do not contribute to the price discovery process without identifying explicitly those which would be non-addressable. We would then question why ESMA would need to define what are those non-addressable trades as there is no other regulatory requirement in later related texts to do so.

Moreover, addressable liquidity vs. non-addressable liquidity is not a prerequisite categorisation before the one of price forming versus non-price forming (to the contrary). Addressable liquidity refers to the interactive nature of liquidity and encompasses both categories. For example, a significant number of non-price forming transactions (like those executed under the RPW for instance) are addressable; or trades occurring outside of trading hours or large in scale transactions can be of addressable nature – the potentially absence of information content of those trades does not mean they are not addressable.

In general, DBG is of the opinion that most of – if not all – transactions executed (not just reported) on a trading venue are addressable liquidity; in particular because trading venues – RMs and MTFs – are multilateral systems which allow for interaction between multiple counterparts which makes trades intrinsically addressable liquidity. We would however beyond that point caution against the idea that addressable liquidity is limited then to CLOBs hence ringfenced to pre- and post-trade transparent trades and trading venues’ trading hours. This overly simplified view risks unforeseen major consequences on equity market structure: where MiFID II/MiFIR looks at increasing market transparency, a narrow definition of addressable liquidity would be at odds with this main objective and question the concept of efficient price discovery process. Hence it is crucial that the trades which are brought on – reported on – a trading venue are also considered carefully and should be considered as addressable especially when price forming however not only.

We believe that ESMA could have a more detailed definition of what constitutes addressable liquidity considering in particular trading venues and link it to the concept of price forming transactions. Our reading of the definitions proposed does not provide this and the definitions are not linking directly to the Table 1.<ESMA_QUESTION_MSEM_36>

Q34 Do you agree with this first part of the table on addressable liquidity and price forming?

<ESMA_QUESTION_MSEM_37>

DBG agrees with ESMA's classification in the first part of the table.
<ESMA_QUESTION_MSEM_37>

Q35 Do you agree with this second part of the table on addressable liquidity and price forming?

<ESMA_QUESTION_MSEM_38>

DBG believes that benchmark transactions are addressable liquidity, however we would consider that they are non-price forming. The trades are indeed based on prices determined on another platform and are price-referenced.

<ESMA_QUESTION_MSEM_38>

Q36 Would you consider that some benchmark transactions should be classified as non-addressable and non-price forming? If so, provide a clear description of the case and rationale.

<ESMA_QUESTION_MSEM_39>

Deutsche Boerse Group (DBG) does believe that some of the negotiated transactions benefiting from the NT3 should be considered as addressable liquidity like BENC trades. Moreover, the waiver can be used to report some transactions arranged outside a trading venue however it does not mean that the trade was effectively bilateral. It is currently unclear how the waiver is used in particular by liquidity providers interacting directly with the buy-side via automated systems (not voice trading systems), with quotes broadcasting. In that sense we would encourage ESMA to look again into the guidelines on the Trading Venue Perimeter, and what constitute a multilateral venue.<ESMA_QUESTION_MSEM_39>

Q37 Do you agree with this third part of the table on addressable liquidity and price forming?

<ESMA_QUESTION_MSEM_40>

Deutsche Boerse Group (DBG) agrees that transactions executed under the RPW and the NT1 and NT2 waivers are addressable. Due to their nature of price-referenced transactions, they are also by nature non-price forming.

We are however unsure if transactions under the LGRS flag shall be considered as non-price forming. Indeed, this flag does not allow for the distinction between transactions under the LISW and/or transactions benefiting from a post-trade deferral. As we would concur that economically speaking transactions under the LISW would be non-price forming, we cannot conclude on those benefiting from the deferral.<ESMA_QUESTION_MSEM_40>

Q38 Do you agree that all transactions without a flag should be considered addressable liquidity and price forming?

<ESMA_QUESTION_MSEM_41>

DBG agrees with the proposal that all transactions without a flag should be considered addressable liquidity and price forming.<ESMA_QUESTION_MSEM_41>

Q39 Do you agree with this fourth and last part of the table on addressable liquidity and price forming?

<ESMA_QUESTION_MSEM_42>

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<ESMA_QUESTION_MSEM_42>

Q40 Do you agree with the approach on the combination of flags in the case of addressable liquidity?

<ESMA_QUESTION_MSEM_43>

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<ESMA_QUESTION_MSEM_43>

Q41 Do you agree that intragroup transactions executed by SIs should not constitute addressable liquidity and therefore, could be flagged (i.e. a new flag in RTS 1 could be added to disentangle those transactions)? Do you agree that

intragroup transactions executed by SIs should be classified as non-price forming?

<ESMA_QUESTION_MSEM_44>

Deutsche Boerse Group (DBG) would appreciate more information on how ESMA did identify the intragroup transactions as we believe that some intragroup activity is addressable. We would support the flagging of intragroup transactions if it were accompanied with a clear definition meaning that intragroup transactions would cover activity that is conducted purely for position/risk management purposes like moving inventory between group entities to facilitate client orders. Other types of activity might appear like intragroup activity, however, are not by nature and should be identified as addressable.<ESMA_QUESTION_MSEM_44>

Q42 Do you believe that other transactions should be flagged and excluded from the calculation of addressable liquidity (i.e. a new flag in RTS 1 should be added to disentangle those transactions)?

<ESMA_QUESTION_MSEM_45>

Deutsche Boerse Group (DBG) refers back to our response to Q23 as we believe that some of the trading activity would benefit from more granularity in particular regarding off-book trading. Additional flags could be introduced both in RTS 1 and RTS 22 with the aim to allow both regulators and market participants to analyse the trading landscape more accurately. In particular, we believe that the activity on SIs should become transparent post-trade with the adequate deferrals, the identification being enabled through the attribution of a MIC to each SI. As explained in the DBG response to the *ESMA consultation paper technical advice (Section 3), RTS 1 (Section 4), the RTS on input/output data for shares and ETFs CTP (Section 8) and the flags under RTS 2*, we would welcome flags which would provide additional insight in particular on addressable liquidity and price forming trades:

- CLSE: Market closing price flag for benchmark transactions executed at the market closing price. This flag would allow to identify the flow which is done potentially bilaterally however addressable and non-price forming as price-referenced.
- MIDP: Midpoint transaction flag for transactions executed at midpoint under Article 17(a)(2) of Regulation (EU) No 791/2024. Bearing in mind price referencing, this flow bilateral in essence is executed off venue.
- NTLS: Pre-trade large in scale trade flag for transactions executed as a result of the application of the LISW for at least one of the matched orders for the purpose of Article 4.1 c) of Regulation (EU) No 600/2014 except if deferred publication applies.

- NI flag for Non-Immediate Publication flag for transactions for which publication has been deferred for other reasons than their size for the purpose of Article 7.1 of Regulation (EU) No 600/2014. This flag would introduce more transparency on bilateral trading and allow regulators to monitor better its development.

We would also support the proposal from FIX for a mandated disclosure of trade execution methodology (manual versus automated) through the FIX ExecMethod flag 2405 for all off-venue trade reports in order to enable proper assessment of trade accessibility.

<ESMA_QUESTION_MSEM_45>