



European Securities and
Markets Authority

Consultation Paper

MiFID II/ MiFIR review report on the transparency regime for equity and equity-like instruments, the double volume cap mechanism and the trading obligations for shares



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 **17 March 2020**.

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 document will be of interest to all stakeholders involved in the securities markets. It is primarily of interest to competent authorities and firms that are subject to MiFID II and MiFIR – in particular, investment firms and credit institutions performing investment services and activities. This paper is also important for trade associations and industry bodies, institutional

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and retail investors and their advisers, and consumer groups, as well as any market participant because the MiFID II and MiFIR requirements seek to implement enhanced provisions to ensure the transparency and orderly running of financial markets with potential impacts for anyone engaged in the dealing with or processing of financial instruments.

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Acronyms used

ADT	Average daily turnover
AVT	Average value of transactions
ADTNE	Average daily number of transactions
CA	Competent Authority
CP	Consultation Paper
ESMA	European Securities and Markets Authority
LIS	Large in scale
MiFID I	Directive 2004/39 of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directive 85/611/EC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC
MIFID II	Directive 2014/65/EU of the European Parliament and the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU
MiFIR	Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012
MRM	Most relevant market in terms of liquidity
MTF	Multilateral trading facility
NCA	National competent authority
NT	Negotiated transaction
OJ	Official Journal
RM	Regulated market
RP	Reference price
SI	Systematic internaliser
SMS	Standard market size

1 Executive Summary

Reasons for publication

This consultation paper covers mandates under Article 52(1) to (3) of MiFIR, which require ESMA to submit a report to the European Parliament and to the Council on the impact in practice of the transparency obligations established pursuant to Articles 3 to 13 of MiFIR and, in particular, on the impact of the volume cap mechanism established under Article 5 of MiFIR. In order to provide for a comprehensive and meaningful assessment, ESMA has decided at its own initiative to also include an assessment of other key transparency provisions and, in particular, the share trading obligation (Article 23 of MiFIR) and the transparency provisions applicable to SIs (Articles 14-21 of MiFIR).

Contents

For practical reasons, ESMA has decided to publish two consultation papers. The report below focuses on the transparency regime applicable to equity and equity-like instruments. Another report analysing the transparency regime applicable to non-equity instruments will be published later.

This consultation paper (transparency regime for equity and equity-like instruments) contains proposals aiming at simplifying the structure of the transparency regime while trying to improve the overall trade transparency available to market participants. It is structured as follows: after a brief introduction in Section 2, Section 3 starts with the analysis of the pre-trade transparency regime for equity and equity-like instruments (3.1). In particular, three dimensions are investigated: (i) the evolution of trading executed on- and off-venue (including on systematic internalisers), (ii) the split between lit and dark trading on-venue through the use of waivers and (iii) the evolution in the use of the different types of waivers. In particular, three main conclusions can be drawn from the analysis. First, contrary to expectations, considering the introduction of the share trading obligation by MiFID II/ MiFIR, for shares, there has not been a significant change in the share of trading volume executed on-venue, on SIs and OTC and a large portion of the trading volume is still executed off-venue. Secondly, the trading volume executed on-venue has increased but not enough to compensate the increase in the volume executed under the waivers. Consequently, a large share of trading volume executed on-venue is not subject to pre-trade transparency. Last but not least, the use of waivers, mainly due to the application of the DVC has changed. The LIS waiver is now the one most in use. Section 3.2 focuses on the systematic internaliser regime while Section 3.3 covers the double volume cap mechanism. Section 3.4 analyses the post-trade transparency regime for equity and equity-like instruments and Sections 3.5 and 3.6 close the consultation paper with, respectively, analyses of the trading obligation for shares and the recent development of closing auctions.

Next Steps

ESMA will consider the feedback it received to this consultation in Q1/Q2 2020 and expects to publish a final report to the European Commission in July 2020.

2 Introduction

1. This Consultation Paper (CP) covers the report to be delivered to the Commission under the following article:

Article 52(1) of MiFIR:

By 3 March 2020, the Commission shall, after consulting ESMA, submit a report to the European Parliament and to the Council on the impact in practice of the transparency obligations established pursuant to Articles 3 to 13, in particular on the impact of the volume cap mechanism described in Article 5, including on the cost of trading for eligible counterparties and professional clients and on trading of shares of small and mid-cap companies, and its effectiveness in ensuring that the use of the relevant waivers does not harm price formation and how any appropriate mechanism for imposing sanctions for infringements of the volume cap might operate, and on the application and continued appropriateness of the waivers to pre-trade transparency obligations established pursuant to Article 4(2) and (3) and Article 9(2) to (5).

Article 52(2) of MiFIR:

The report referred to in paragraph 1 shall include the impact on European equity markets of the use of the waiver under Article 4(1)(a) and (b)(i) and the volume cap mechanism under Article 5, with particular reference to:

- (a) the level and trend of non-lit order book trading within the Union since the introduction of this Regulation;
- (b) the impact on the pre-trade transparent quoted spreads;
- (c) the impact on the depth of liquidity on lit order books;
- (d) the impact on competition and on investors within the Union;
- (e) the impact on trading of shares of small and mid-cap companies;
- (f) developments at international level and discussions with third countries and international organisations.

Article 52(3) of MiFIR:

If the report concludes that the use of the waiver under Article 4(1)(a) and (b)(i) is harmful to price formation or to trading of shares of small and mid-cap companies, the Commission shall, where appropriate, make proposals, including amendments to this Regulation, regarding the use of those waivers. Such proposals shall include an impact assessment of the proposed amendments, and shall take into account the objectives of this Regulation and the effects on market disruption and competition, and potential impacts on investors in the Union.

2. Given the overarching scope of the report under Article 52(1) of MiFIR, ESMA has decided to tackle this issue under two separate reports, one focusing on equity and equity-like instruments whilst the other, which should be published in the next weeks, focusing on non-equity instruments.
3. This consultation includes analysis and proposals for targeted changes to MiFIR in the areas of pre- and post-trade transparency requirements, the Double Volume Cap mechanism (DVC) and the trading obligation for shares, covering Articles 2 to 7 and Article 23 of MiFIR. The consultation also includes an analysis on the systematic internaliser (SI) regime for equity instruments (Articles 14, 15 and 20 of MiFIR).
4. The CP includes various proposals to address shortcomings identified and some of these proposals may not be compatible with other proposals in this CP (e.g. the option to simplify the waiver regime would render the DVC unnecessary while the DVC itself is the subject of some review proposals). Nevertheless, ESMA considers it useful to have an open discussion at this stage on the issues identified and the various measures proposed to address these issues. For the final report ESMA will analysis possible interlinkages between the various proposals and will propose a consistent way forward.
5. Section 3.1 will focus on the pre-trade transparency requirements including an assessment of the current level of pre-trade transparency available and how trading has evolved throughout the first months of application of MiFID II/ MiFIR. Section 3.2 analyses the SI regime and its importance within equity markets. The analysis in this consultation is limited to its transparency obligations. The analysis on the DVC and its impact on cost of trading and market structure is included in section 3.3. Section 3.4 focuses on post trade requirements for equity instruments. Lastly, section 3.5 analyses the trading obligation for shares and its scope of application and section 3.6 focuses on the evolution of closing auctions.
6. The mandate under Article 52(1) also includes a review of Article 12 and 13 on the obligation to make pre- and post- trade data available separately and on a reasonable commercial basis, respectively. ESMA notes that these topics were covered under ESMA's consultation paper on the development in prices for pre- and post-trade data and on the post-trade consolidated tape (CT) published on 12 July 2019¹ and in the related final report published on 5 December 2019².
7. A number of difficulties were encountered when drafting this report, including (i) the access to MiFID I data since this regulatory framework was not in place for all equity and equity-like instruments and, (ii) the difficulty to disentangle and forecast the effect of Brexit over the different provisions.

¹ https://www.esma.europa.eu/sites/default/files/library/esma70-156-1065_cp_mifid_review_report_cost_of_market_data_and_consolidated_tape_equity.pdf

² https://www.esma.europa.eu/sites/default/files/library/mifid_ii_mifir_review_report_no_1_on_prices_for_market_data_and_the_equity_ct.pdf

8. On 16 January 2019, ESMA proposed to the Commission to postpone the delivery of the reports foreseen under Article 19, 26 and 52 of MiFIR and 90 of MiFID II. It was, in particular, proposed to postpone the reports foreseen under 52(1) to (3) of MiFIR by 4 months (to July 2020) so as to allow ESMA to base its analysis on a sufficient amount of feedback on the application of the MiFIR transparency regime and, hence, achieve more efficient results. This has also allowed ESMA to collect data for longer periods of time leading to more accurate analysis and recommendations.
9. Last but not least, the postponement of the reports was also made with the hope to better take into account the decision by the UK to leave the Union. However, remaining uncertainty about the timing and conditions of Brexit has not allowed ESMA to have full clarity on the changes in market structures due to Brexit and the potential impact of the relocations of investment firms and trading venues to the EU27. ESMA is following developments around Brexit closely.

3 Equity and equity-like-instruments

10. Pre- and post-trade transparency requirements for shares admitted to trading on regulated markets were already applicable under MiFID I. MiFIR has aligned the transparency rules of regulated markets (RMs) and multilateral trading facilities (MTFs). MiFIR also expands the transparency requirements applicable to those shares that were admitted to trading on a RM to those that are only traded on a trading venue (i.e. a RM or an MTF). Therefore, all trading conducted on organised trading venues is now subject to the same pre- and post-trade transparency requirements.
11. Furthermore, given that trading in depository receipts, ETFs, certificates and other similar financial instruments (equity-like instruments) is done in a similar way than shares, MiFIR also extends the transparency provisions to those financial instruments.

3.1 Pre-trade transparency regime for trading venues in respect of shares, depository receipts, ETFs, certificates and other similar financial instruments

3.1.1 Legal framework

12. MiFID II / MiFIR built on the pre-trade transparency requirements already present in MiFID I in order to create a stronger transparency regime. Article 3 of MiFIR requires market operators and investment firms operating a trading venue to make public current bid and offer prices and the depth of trading interests at those prices that are advertised through their systems for equity and equity like instruments.
13. MiFIR also allows trading venues to benefit, in clearly defined circumstances, from waivers for their pre-trade transparency obligations. However, the use of the waivers should not undermine the sound transparency framework and the efficiency of the price formation process.

14. Article 4 provides for four different types of waivers available to trading venues:

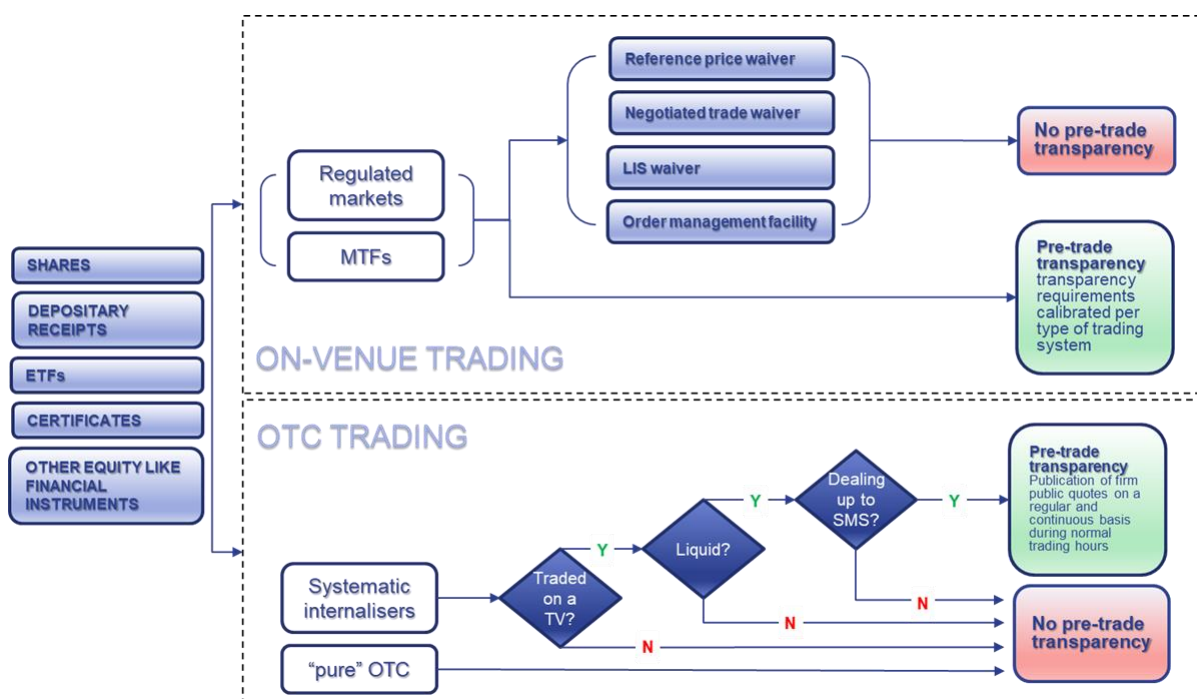
- the reference price (RP) waiver: for systems that match orders based on a trading methodology by which the price of the financial instrument referred is derived from the trading venue where that financial instrument was first admitted to trading or the most relevant market in terms of liquidity, where that reference price is widely published and is regarded by market participants as a reliable reference price. The reference price shall be either the mid-point of the current bid and offer prices where the instrument was first traded or the most relevant market in terms of liquidity, or, when this price is not available, the opening or closing price of the relevant trading session;
- the negotiated transaction (NT) waiver: for systems that formalise negotiated transactions which are:
 - made within the current volume weighted spread reflected on the order book or the quotes of the market makers of the trading venue operating that system (liquid equity instruments);
 - are dealt within a percentage of a suitable reference price (illiquid equity instruments); or,
 - subject to conditions other than the current market price of that financial instrument, which are further specified in RTS 1 (for both liquid and illiquid equity instruments);
- the large-in-scale (LIS) waiver: for orders that are large in scale compared with normal market size;
- the order management facility (OMF) waiver: for orders held in an order management facility of the trading venue pending disclosure.

15. In order to ensure that the waivers available to trading venues are applied in a uniform way, national competent authorities (NCAs) are required to notify ESMA of the intended use of a waiver. In their notification, NCAs should include an explanation on the functioning of the waiver. Taking into consideration the information submitted by NCAs, ESMA has to issue an opinion assessing the compatibility of the use of the waiver with the relevant regulatory requirements.

16. Furthermore, ESMA had to issue an opinion assessing the continued compatibility of each waiver already approved under MiFID I by 3 January 2020. The objective of this review is to ensure supervisory convergence to the extent that those waivers that applied under MiFID I and continued to apply after 3 January 2018, are compatible with the new requirements established under MiFIR and the relevant technical standards.

17. The transparency regime for equity instruments has been further calibrated through Level 2 measures, in particular Commission Delegated Regulation (EU) 2017/587³ (RTS 1), which is based on draft RTS developed by ESMA. RTS 1 calibrates the pre-trade transparency requirements of the various trading systems and determines which orders or quotes may be eligible for one of the waivers described above. In particular, RTS 1 further specifies the characteristics of negotiated transactions and the calculation methods for orders that are large in scale.
18. There are also pre-trade transparency requirements for over-the-counter (OTC) transactions executed by SIs. MiFID II / MiFIR requires SIs to publish firm public quotes on a regular and continuous basis when dealing up to standard market size (SMS) in liquid instruments that are traded on a trading venue.
19. RTS 1 calibrates the SMS below which pre-trade transparency obligations apply for SIs.
20. Figure 1 below provides for an overview of the pre-trade transparency requirements for trading venues and OTC trading, in particular for SIs.

FIGURE 1 – PRE-TRADE TRANSPARENCY REGIME IN EQUITY AND EQUITY-LIKE INSTRUMENTS



³ Commission Delegated Regulation (EU) 2017/587 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on transparency requirements for trading venues and investment firms in respect of shares, depository receipts, exchange-traded funds, certificates and other similar financial instruments and on transaction execution obligations in respect of certain shares on a trading venue or by a systematic internaliser (OJ L 87, 31.3.2017, p. 387–410).

3.1.2 ESMA's assessment of the pre-trade transparency framework

21. MiFID II expands the pre-trade transparency framework from MiFID I applicable to equity instruments as a reaction to the financial crisis which exposed deficiencies in the way information on trading opportunities and prices were made available to market participants. The new pre-trade transparency requirements, in conjunction with the post-trade transparency requirements, aim at increasing the transparency for equity and equity-like instruments, thereby contributing to an improved dissemination of information, a more efficient price formation process and, ultimately supporting the accurate valuation of products.
22. This section presents ESMA's initial assessment of how the pre-trade transparency framework delivered on the objectives of MiFID II / MiFIR and includes some recommendations on how shortcomings identified could be addressed in the future. The assessment focuses in particular on the Level 1 text. However, since the Level 2 provisions are key for applying the pre-trade transparency regime, the assessment covers at times also the Level 2 framework.

3.1.2.1 Assessment of the current level of pre-trade transparency

A. Analysis

23. The level of pre-trade transparency can be assessed in different ways. Firstly, by comparing the pre-trade transparency information available before and after the application of MiFID II / MiFIR. Secondly, assessing the volume and number of trades not executed on-venue. Thirdly, given the possibility for pre-trade transparency obligations to be waived, it is important to understand the volume and number of orders that are subject to real time pre-trade transparency compared to those that benefit from a waiver.

Have the level of pre-trade transparency and the use of waivers changed with MiFID II/MiFIR?

24. As regards the first dimension, given that the scope of instruments⁴ under MiFID I was much smaller, ESMA can easily conclude that the level of pre-trade transparency has significantly expanded following the application of MiFID II in January 2018.
25. However, a more in-depth quantitative analysis is necessary. Despite MiFID I already provided for a pre-trade transparency regime for shares, ESMA only started collecting transparency data under MiFID II through the Financial Instruments Transparency System (FITRS) making it difficult to perform a data-driven analysis of the level of pre-trade transparency available for MiFID I. Furthermore, the data collected through FITRS does not allow to disentangle the volume executed under each individual waiver.

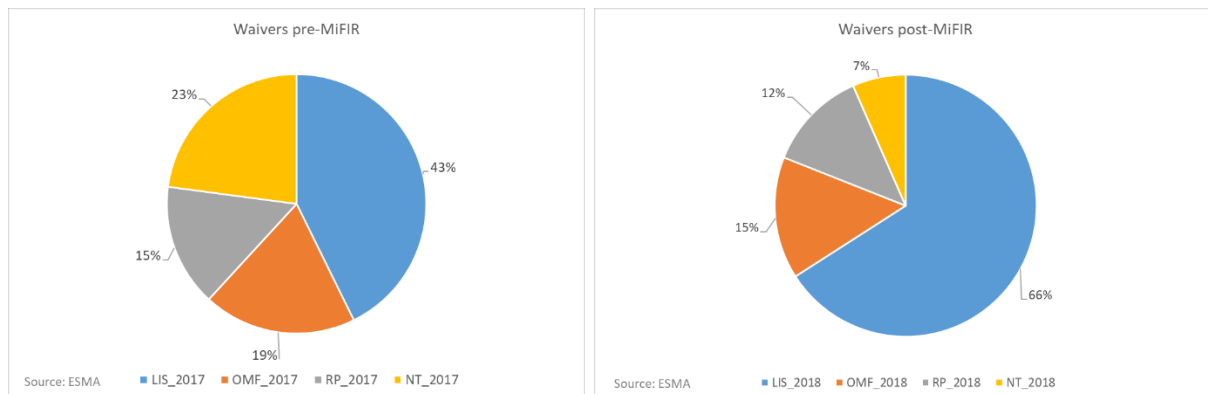
⁴ Under MiFID I, pre-trade transparency requirements only applied to shares that were admitted to trading in a RM. MiFID II increased the scope by subjecting all equity and equity-like instruments traded on a RM or MTF to the same pre-trade transparency requirements.

26. Consequently, ESMA performed an ad-hoc data collection from RMs and MTFs in order to gather data related to the volumes and number of transactions executed under each waiver across equity and equity-like instruments before and after application of MiFID II / MiFIR, i.e. over the years 2017 and 2018 respectively. In this respect, the data provided for year 2017 includes not only the volume traded under the pre-trade waivers provided under MiFID I for shares admitted to trading on RMs but also the volume executed under waivers available under national regimes before MiFID II / MiFIR.

27. In this regard, Figure 2 shows the evolution of the percentage of volume executed under each waiver pre- and post- MiFID II / MiFIR application. Overall, we note a significant increase in the percentage of trading under the LIS waiver following the implementation of MiFID II / MiFIR, in contrast with the decrease, to almost half of its previous values, for the RP and NT waivers.

28. The introduction of the DVC, which limits the amount of trading under the RP and NT waivers for liquid instruments is a key element to explain the evolution on the use of waivers⁵ and it appears that the DVC had the desired effects as to the limitation of trading under the RP and NT waivers.

FIGURE 2 – PERCENTAGE OF TURNOVER UNDER PRE-TRADE TRANSPARENCY WAIVERS FOR EQUITY AND EQUITY-LIKE INSTRUMENTS BEFORE AND AFTER MiFID II/MiFIR

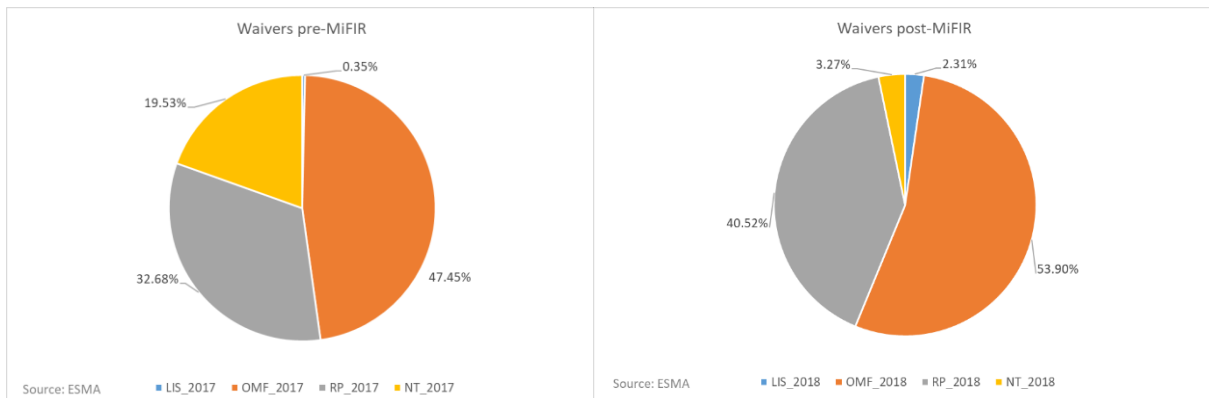


29. Furthermore, between years 2017 and 2018, the total turnover traded under the waivers has increased by 22% overall and, the total turnover executed under the LIS after MiFID II / MiFIR has increased by 56% by contrast to a decrease in the total turnover executed under the OMF, RP and NT waivers which dropped by 3%, 1% and 65% respectively. Nevertheless, on the basis of the data in the DVC system, the total turnover executed on-venue in equity and equity-like instruments increased by 14% between 2017 and 2018. This results in an increase in the percentage of turnover under the waiver over total turnover on-venue from 24 to 26% from 2017 to 2018.

⁵ The Double Volume Cap (DVC) mechanism will be analysed in section 3.3.

30. If we investigate the evolution in the use of waivers focusing only on shares, the trend in terms of volume is very similar to that of all equity and equity-like instruments (see Figure 2), with a significant increase in the use of the LIS waiver compared to, in particular, the NT and RP waivers. Furthermore, there is also a slight decrease in the use of the OMF waiver but to a lesser extent.
31. The trend in the use of the waivers in terms of number of transactions for all equity and equity-like instruments is presented in Figure 3 below. It is evident that in terms of number of transactions the use of the LIS waiver has not increased to the extent of the volume hinting that the average size of transactions executed under this waiver has increased. Consistently with the expected effects of the DVC we have an important decrease, from 13 to 3%, for the number of transactions subject to the NT waiver.
32. The use of the RP waiver seems to be characterised by a decrease in the average size of the transactions due to the decrease in turnover from 16 to 8% and a decrease by roughly 3% in terms of number of transactions. Finally, the use of the OMF waiver has been characterised by an increase of small size trades (since decrease in volume but increase in number of transactions).

FIGURE 3 – PERCENTAGE OF NUMBER OF TRANSACTIONS UNDER PRE-TRADE TRANSPARENCY WAIVERS FOR EQUITY AND EQUITY-LIKE INSTRUMENTS BEFORE AND AFTER MiFID II/MiFIR



How has the on-venue, OTC and SI trading volume developed under MiFID II/MiFIR?

33. We continue to investigate the level of pre-trade transparency by further analysing the turnover and number of trades executed on- and off-venue.
34. In this regard, we have first analysed the percentage of turnover executed on-venue (which includes lit and dark trading), OTC and on SIs. From Figure 4 below it is evident that the more liquid the shares are, the higher the percentage of trading executed on-venue over the period between January 2018 and August 2019 is. Nevertheless, and despite the trading obligation for shares which requires investment firms (IFs) to execute transactions in shares on a trading venue or with an SI, a large portion of

volume is still executed OTC. This might be due to technical trades or transactions which are non-systematic, ad-hoc, irregular and infrequent.

FIGURE 4 – PERCENTAGE OF TURNOVER EXECUTED ON VENUE, OTC AND ON SI ACROSS SHARES OF DIFFERENT LIQUIDITY PROFILES

	TV	OTC	SI
ADT < 50000	41%	39%	19%
50000 < ADT <= 100000	43%	31%	26%
100000 < ADT <= 500000	42%	28%	30%
500000 < ADT <= 1000000	46%	26%	28%
1000000 < ADT <= 5000000	40%	27%	33%
5000000 < ADT <= 25000000	47%	25%	28%
25000000 < ADT <= 50000000	52%	24%	24%
50000000 < ADT <= 100000000	56%	23%	22%
ADT >= 100000000	57%	26%	17%

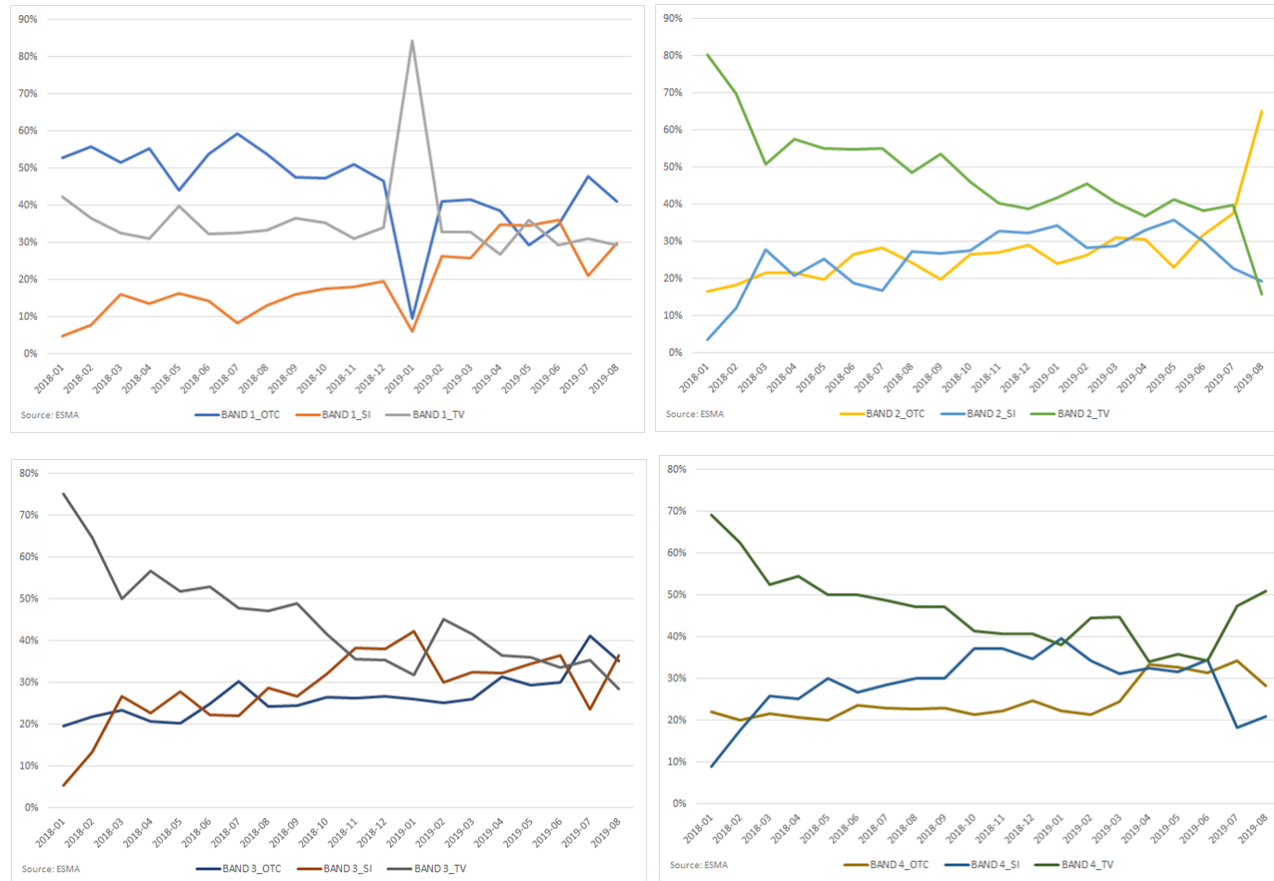
Source: ESMA

35. In the series of charts below (Figure 5) ESMA has further analysed the evolution of the turnover over time for shares of different liquidity profiles. The liquidity profiles used are the same as those in the table above⁶.
36. It can be noted that even if the percentage of on-venue, OTC and SI trading is similar across shares of different liquidity profiles, the trend across execution venues is different amongst the various liquidity bands measured by the ADT. More specifically:
 37. for liquidity band 1 (ADT < EUR 50,000), the share of SI trading is increasing over the course of 2018 while the share of OTC trading has decreased and that of on-venue trading remained overall stable;
 38. for liquidity band 2 (50,000<= ADT < EUR 100,000), the share of OTC and SI trading have increased over the course of 2018 at the expense of on-venue trading which has decreased;
 39. liquidity band 3 (100,000<= ADT < EUR 500,000), liquidity band 4 (500,000<= ADT < EUR 1,000,000), liquidity band 5 (1,000,000<= ADT < EUR 5,000,000) and liquidity band 6 (5,000,000<= ADT < EUR 25,000,000), all show the same trend as the one for liquidity band 2;
 40. for liquidity band 7 (25,000,000<= ADT < EUR 50,000,000) the share of OTC trading is increasing over the course of 2018 while the share of on-venue trading has decreased and that of SI trading remained overall stable;

⁶ e.g. band 1 refers to shares with ADT < EUR 50,000, band 2 refers to shares with ADT between EUR 50,000 and EUR 100,000, etc.

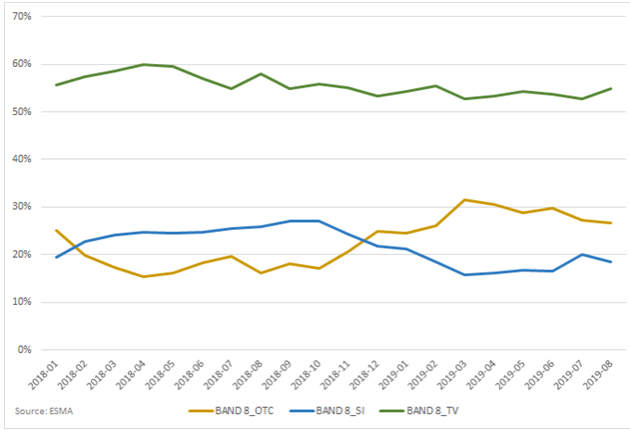
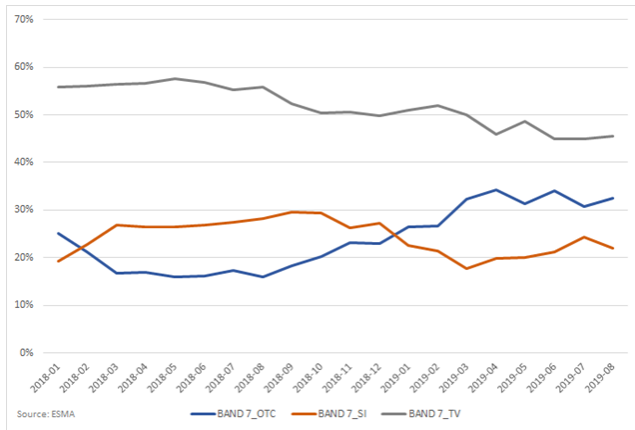
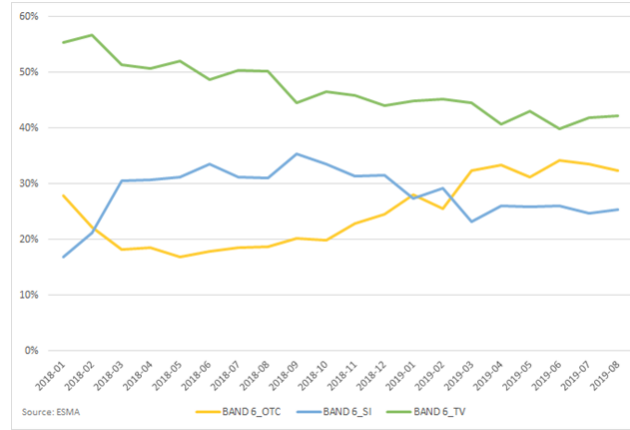
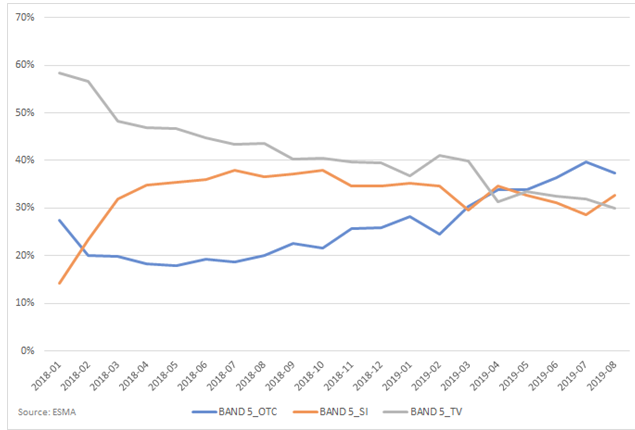
41. for liquidity band 8 ($50,000,000 \leq \text{ADT} < \text{EUR } 100,000,000$) the share of OTC trading is increasing over the course of 2018 while the share of SI trading has decreased and that of on-venue trading remained overall stable;
42. for liquidity band 9 ($\text{ADT} \geq \text{EUR } 100,000,000$) the share of on-venue trading is increasing over the course of 2018 while the shares of SI and OTC trading remained overall stable.

FIGURE 5 – PERCENTAGE OF TURNOVER EXECUTED ON-VENUE, OTC AND ON SI ACROSS SHARES OF DIFFERENT LIQUIDITY PROFILES OVER JANUARY-2018 TO AUGUST -2019]



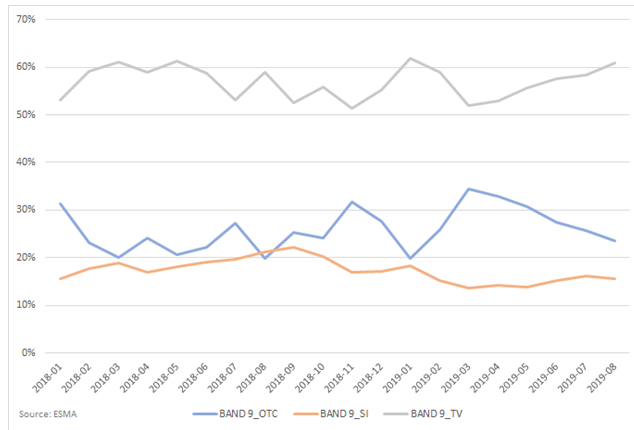


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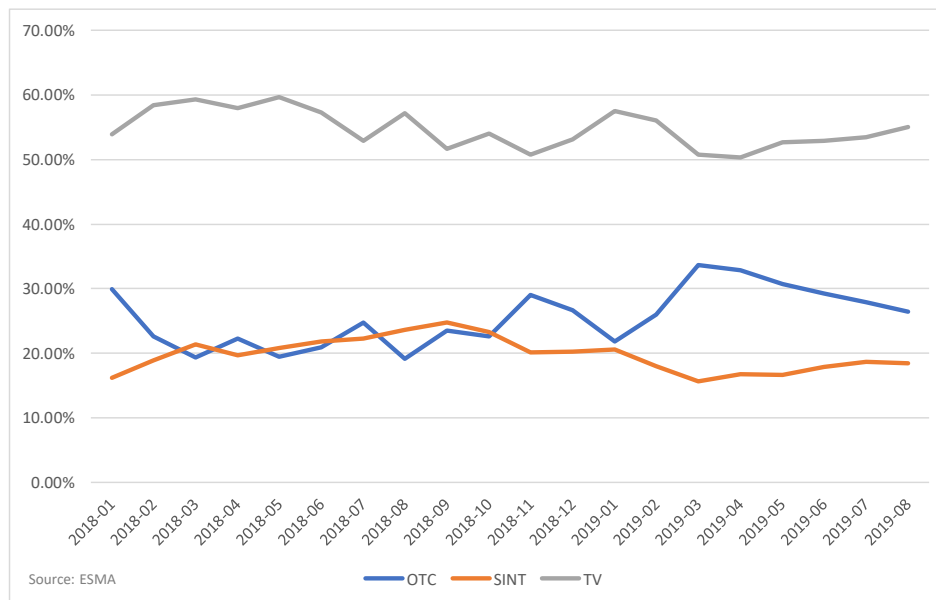


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43. The overall evolution of SI, OTC and on-venue trading in shares is presented by Figure 6 below which shows that there was a slight increase in SI trading from 16% to 19%.

FIGURE 6 – PERCENTAGE OF TURNOVER EXECUTED ON-VENUE, OTC AND ON SI FOR SHARES OVER JANUARY-2018 TO AUGUST-2019



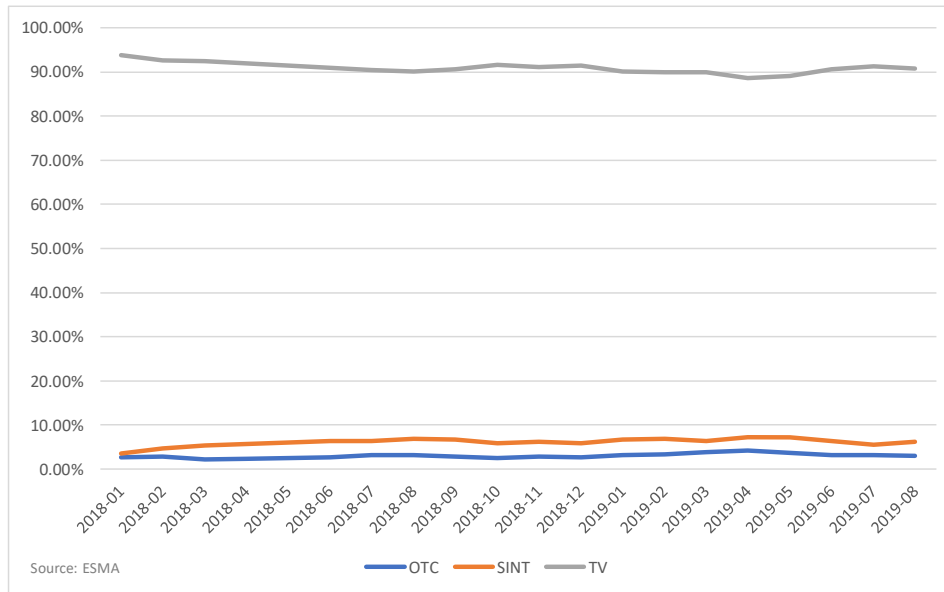
44. With regard to the trading volume executed OTC, ESMA has also been notified by market participants that a large portion of the volume of transactions in shares is still executed OTC. ESMA confirms this statement as evident from Figure 6 above, where OTC trading accounts in general to 1/3 of the overall volume.

45. Nevertheless, trading is expected to be executed on-venue under the share trading obligation unless in clearly defined circumstances. The provision on the trading obligation for shares requires that trades in shares admitted to trading on a RM or traded on a trading venue take place on a RM, MTF or SI or an equivalent third country trading venue unless (i) they are non-systematic, ad-hoc, irregular and infrequent or (ii) are carried out between eligible and/or professional counterparties and do not contribute to the price discovery process (as further specified under Article 2 of RTS 1). In other words, trading is not expected to be executed OTC unless in limited circumstances.

46. In conclusion, considering the provision of the share trading obligation and the exemption of post-trade transparency to certain types of transaction executed outside a trading venue, the percentage of OTC trading recorded for shares seems to be high.

47. A similar evolution, presented in Figure 7 below, is also evident in terms of number of transactions despite the percentage of transactions executed on-venue being above 90%. The percentage of trades executed on SIs has increased from 3.6% to 6%, while OTC trading is relatively stable over the period.

FIGURE 7 – PERCENTAGE OF NUMBER OF TRANSACTIONS EXECUTED ON-
VENUE, OTC AND ON SI FOR SHARES OVER JANUARY- 2018 TO AUGUST- 2019



48. As far as ETFs are concerned, MiFID II/ MiFIR changed the competitive landscape of this market. BlackRock estimates ETF trading volumes were \$1.44tn in the first half of 2019, up 35% year-on-year. That compared with \$533bn for all of 2017. Part of the reason for the higher reported turnover of deals is that more of the market is rapidly shifting away from being opaquely traded over the phone — a practice MiFID II/ MiFIR has attempted to tighten up on⁷. Indeed, trading in ETFs before MiFID II/ MiFIR took effect was often non-transparent. The increased use of trading venues for ETF trading is also due to the new regulatory framework which imposed transparency also on OTC trading and thereby overall improved transparency information available to market participants. Indeed, transparency on pricing does drive increased demand for low-cost products such as ETFs.

49. From Figure 8 below, it can be observed that the percentage of on-venue turnover is similar across ETFs of different liquidity profiles.

⁷ Source: <https://www.ft.com/content/0543cca6-91a9-11e9-8ff4-699df1c62544>

FIGURE 8 - PERCENTAGE OF TURNOVER EXECUTED ON VENUE, OTC AND ON SI ACROSS ETFs OF DIFFERENT LIQUIDITY PROFILES

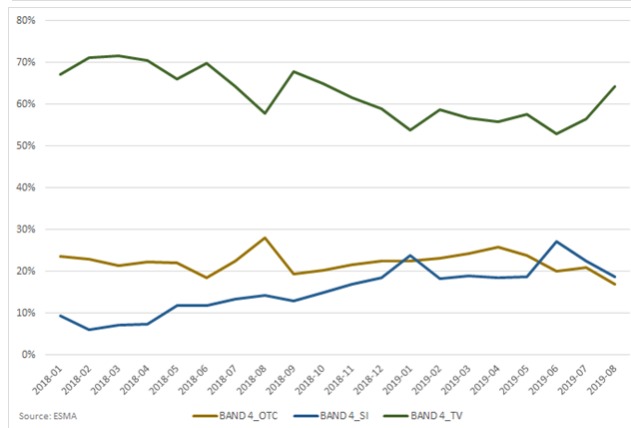
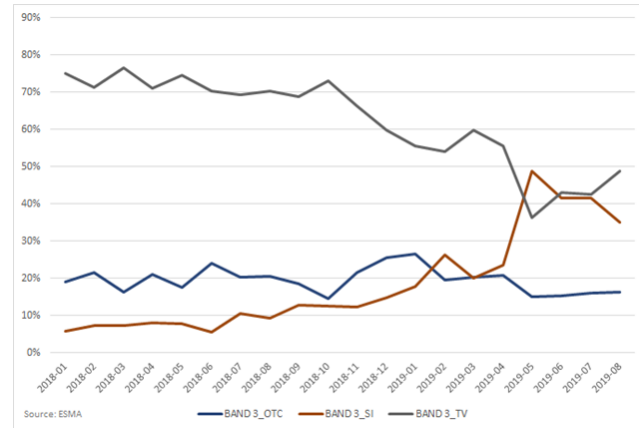
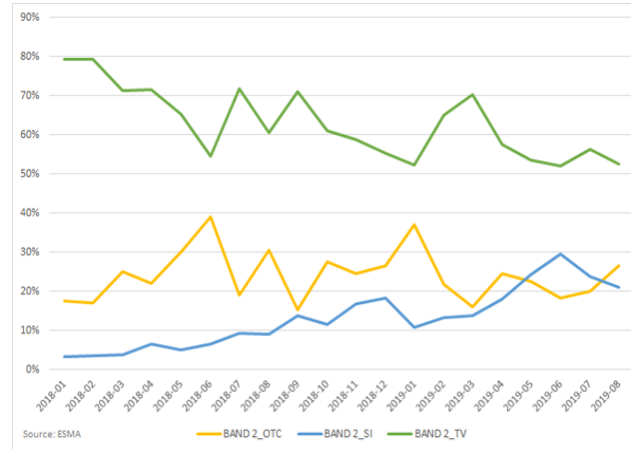
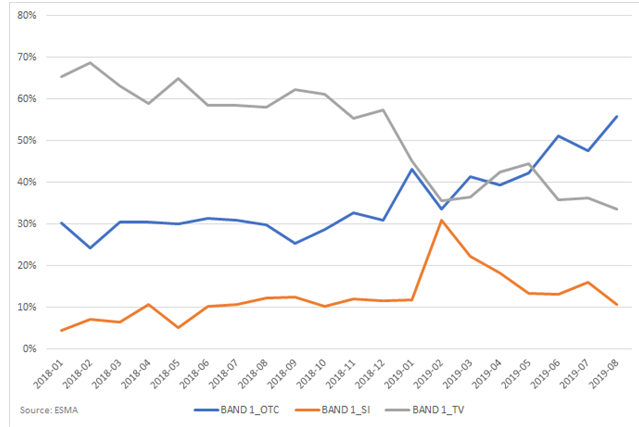
	TV	OTC	SI
ADT < 50000	44%	15%	40%
50000 < ADT <= 100000	61%	16%	24%
100000 < ADT <= 500000	58%	23%	19%
500000 < ADT <= 1000000	61%	17%	22%
1000000 < ADT <= 5000000	62%	16%	22%
5000000 < ADT <= 25000000	61%	16%	23%
25000000 < ADT <= 50000000	69%	16%	14%
50000000 < ADT <= 100000000	62%	16%	22%
ADT >= 100000000	55%	16%	29%

Source: ESMA

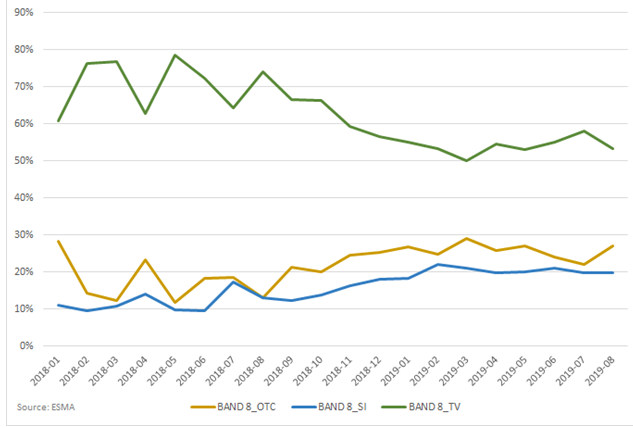
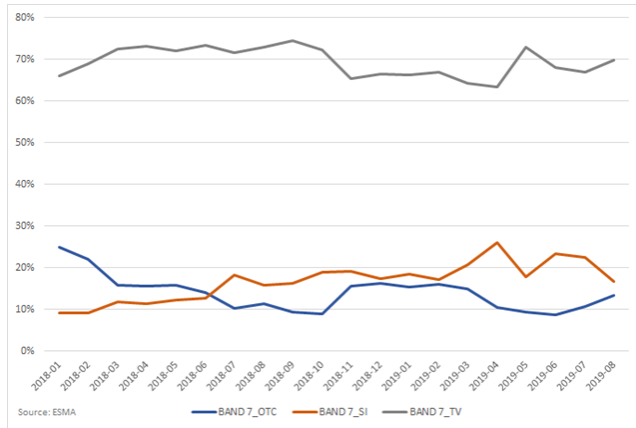
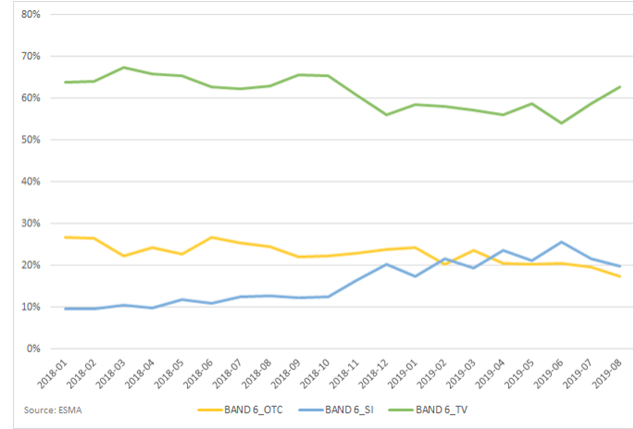
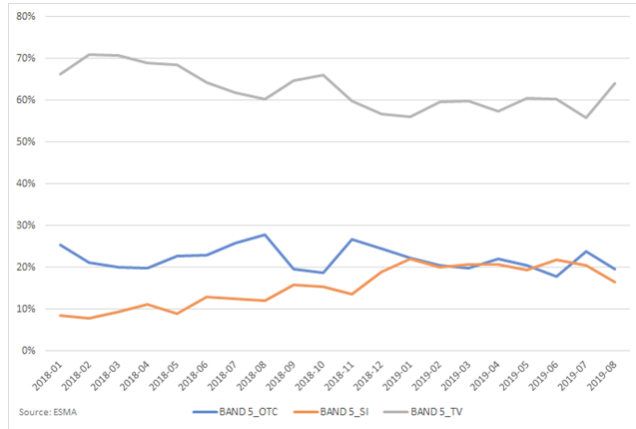
50. However, as in the case of shares, the trend over time is different across them as it can be noted in the sequence of charts below (Figure 9). More specifically:

- for liquidity band 1 (ADT < EUR 50,000), the shares of SI and OTC trading have increased over the course of 2018 while the share of on-venue trading has decreased;
- liquidity band 2 (50,000<= ADT < EUR 100,000) shows the same trend as the one for liquidity band 1;
- for liquidity band 3 (100,000<= ADT < EUR 500,000) the share of SI trading is increasing over the course of 2018 while the share of on-venue trading has decreased and that of OTC trading remained overall stable;
- liquidity band 4 (500,000<= ADT < EUR 1,000,000), liquidity band 5 (1,000,000<= ADT < EUR 5,000,000) and liquidity band 6 (5,000,000<= ADT < EUR 25,000,000), all show the same trend as the one for liquidity band 3;
- for liquidity band 7 (25,000,000<= ADT < EUR 50,000,000) the share of SI trading has increased over the course of 2018 while the share of OTC trading has decreased and that of on-venue trading remained overall stable;
- liquidity band 8 (50,000,000<= ADT < EUR 100,000,000) shows the same trend as the one for liquidity band 3;
- for liquidity band 9 (ADT >= EUR 100,000,000) the shares of on-venue and SI trading have increased over the course of 2018 while the shares of OTC trading decreased.

FIGURE 9 – PERCENTAGE OF TURNOVER EXECUTED ON VENUE, OTC AND ON SI ACROSS ETFs OF DIFFERENT LIQUIDITY PROFILES OVER JANUARY-2018 TO AUGUST-2019

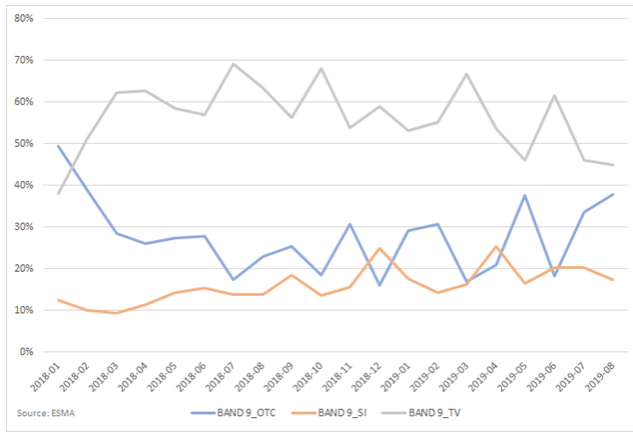


ESMA PUBLIC USE



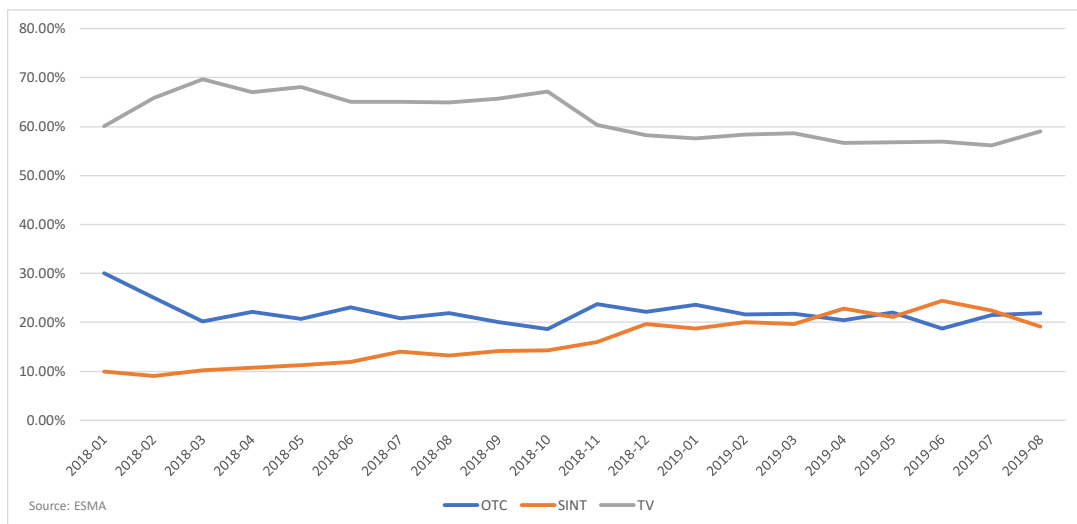


ESMA PUBLIC USE



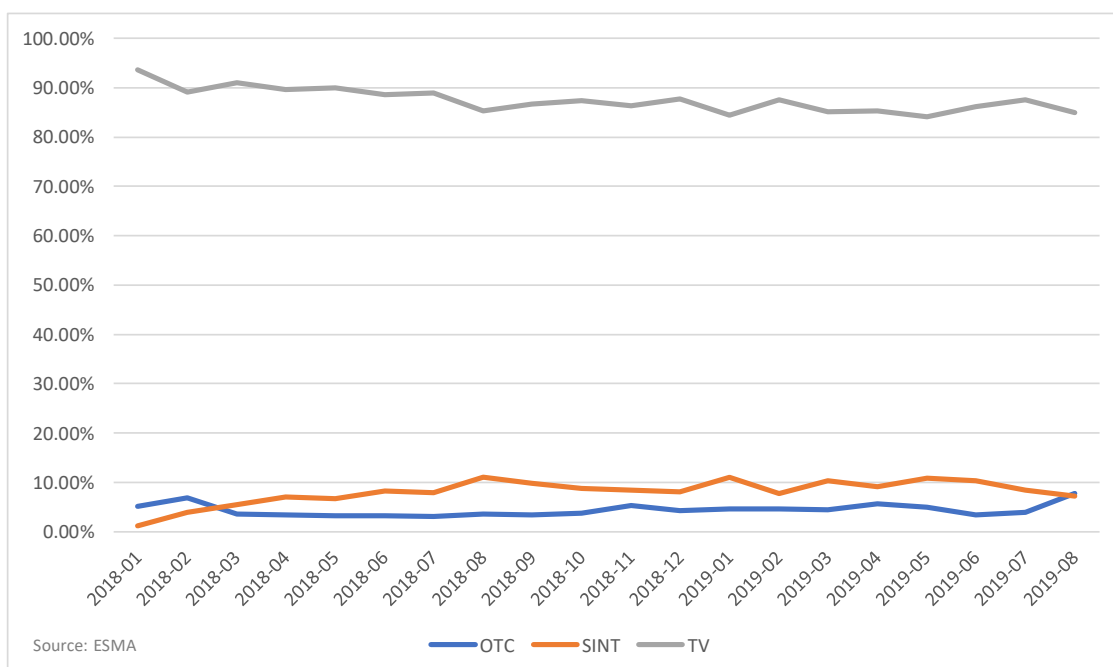
51. The overall evolution of SI, OTC and on-venue trading in ETFs is presented by Figure 10 below which shows that there was an increase in SI trading from 10% to 19%, mainly at the expense of OTC trading which decreased from 30% to 22%.

FIGURE 10 – PERCENTAGE OF TURNOVER EXECUTED ON-VENUE, OTC AND ON SI FOR ETFs OVER JANUARY-2018 TO AUGUST-2019



52. In terms of number of transactions, the overall evolution of SI, OTC and on-venue trading in ETFs is presented by Figure 11 which shows that, again, there was an increase in SI trading from 1% to 7%, mainly at the expense of on-venue trading which decreased from 94% to 85%.

FIGURE 11 – PERCENTAGE OF NUMBER OF TRANSACTIONS EXECUTED ON-VENUE, OTC AND ON SI FOR ETFs OVER JANUARY-2018 TO AUGUST-2019

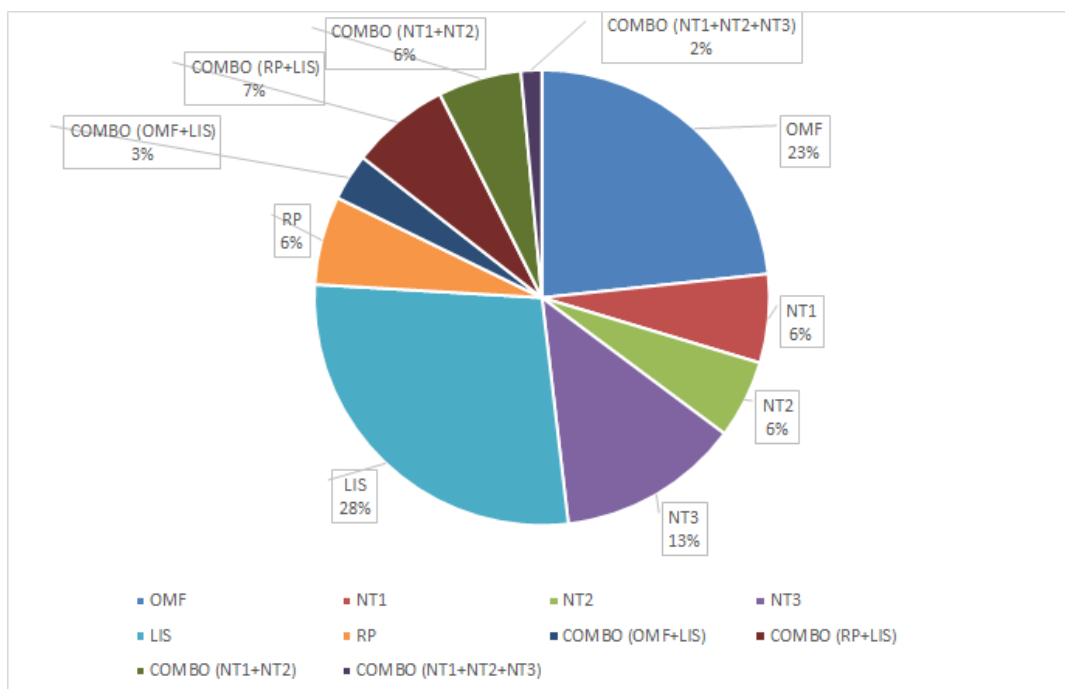


How has the pre-trade transparency on-venue changed under MiFID II/MiFIR?

53. The last aspect to consider is the level of pre-trade transparency on-venue under MiFID II / MiFIR. In particular, the extent to which trading is not made pre-trade transparent due to the use of the waivers.

54. Since the application of MiFID II ESMA received a high number of waiver applications. As provided in ESMA’s Annual Report⁸ for waivers and deferrals, ESMA received 330 equity waiver notifications from 29 EEA countries. The majority of those applications relate to orders that are LIS and orders held in an OMF. Furthermore, despite most waiver applications being for a single type of waiver, there was still a significant number of waiver requests for combinations of two or more waivers. Combinations of waivers are used, in the case of NT waivers, to be more practical and send one request for two or three different types of waivers. However, in all other cases, combinations reflect the mix of trading systems allowing for orders subject to different waivers to match as in the case of combinations of RP and LIS waivers. Those systems allow orders that benefit from different waivers to match at mid-point. The resulting transactions benefit from a preferential regulatory treatment since they are considered to be executed under the LIS waiver and therefore do not count for the DVC. Figure 12 below shows the split between the different types of waivers used by trading venues.

FIGURE 12 – PERCENTAGE OF WAIVER REQUESTS FOR EQUITY AND EQUITY-LIKE INSTRUMENTS PER WAIVER TYPE

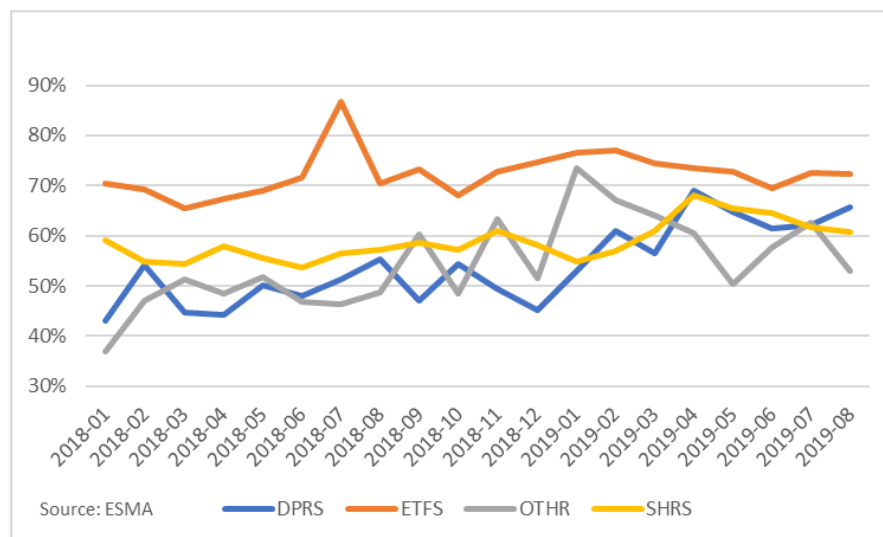


Source: ESMA

⁸ https://www.esma.europa.eu/sites/default/files/library/esma70-156-1010_annual_report_2019_waivers_and_deferrals.pdf

55. Not only the number of waiver requests received by ESMA was high but also the volume executed under the waivers represents a high percentage of the total volume executed on-venue.
56. Figure 13 presents the percentage of turnover executed without being subject to pre-trade transparency requirements, i.e. either by benefiting from a waiver or executed OTC or on an SI⁹.
57. From the analysis of the data provided to ESMA under FITRS, following the application of MiFID II in 2018, just under 60% of the total turnover in shares is not subject to pre-trade transparency. Contrary to the policy intent of the legislation to bring more trading into lit trading venues, it is noticeable that the trend is upward and close to 70% of trading volume executed in the market is not subject to any pre-trade transparency in the second quarter of 2019 before stabilizing at just above 60% in the third quarter.
58. For ETFs, the percentage has been consistently above 70% throughout the application of MiFID II after a short period in the first few months of application where it slightly dropped.
59. For DRs and other equity-like instruments, the trend seems to be similar to shares. In particular, the data available to ESMA shows that more than half of the trading volume executed in these instruments is not subject to a pre-trade transparency requirement.

FIGURE 13 – PERCENTAGE OF TURNOVER NOT SUBJECT TO PRE-TRADE TRANSPARENCY OVER JANUARY-2018 TO AUGUST-2019



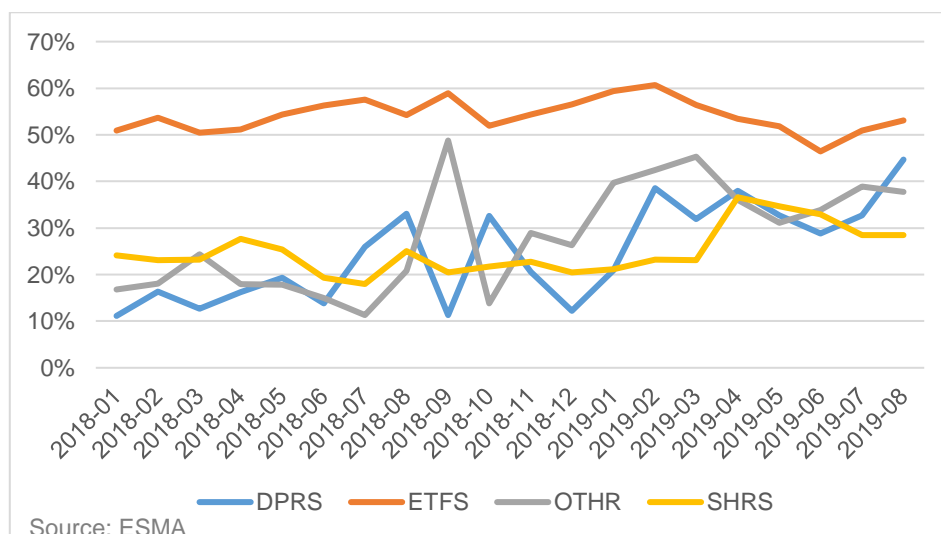
⁹ It should be noted that SI are only required to publish firm quotes for instruments that are considered to have a liquid market and up to standard market size (SMS). However, the FITRS database does not distinguish SI-transactions that are not subject to transparency obligations. Therefore, the total SI-trading might include some trades that were made pre-trade transparent under the SI regime.

60. Figure 14 below focuses on the trading executed under the waivers versus the total trading volume executed on-venue.

61. It is evident that more than half of the turnover of ETFs is executed under a waiver over the whole period from January 2018 until August 2019. As far as shares are concerned, the use of waivers is increasing over time, reaching the top in April 2019 with 37% of turnover executed under the waivers. The trend is also increasing for DRs and other equity financial instruments.

62. Therefore, it is clear that there is a significant amount of trading volume benefiting from a pre-trade transparency waiver and therefore not subject to real-time pre-trade transparency.

FIGURE 14 – PERCENTAGE OF TURNOVER EXECUTED UNDER THE WAIVER OVER TOTAL TURNOVER EXECUTED ON-VENUE OVER JANUARY-2018 TO AUGUST-2019



B. Conclusions and Proposals

63. Although transparency has increased for some instruments, in particular those outside the scope of MiFID I, the overall objective of MiFIDII/MiFIR has not been fully achieved. As described above the main objective of the MiFID II framework is to promote market transparency and a robust price formation process. At the same time, to prevent disorderly markets, MiFID II provides for a degree of protection for market participants by including a number of waivers from pre-trade transparency available to trading venues. Following the analysis above on the practical use of the waivers where we note a clear prominence of the use of the LIS and OMF waivers, and the use of a complex combinations of waivers, ESMA is looking at ways of how to simplify the regime with a view to improve transparency.

64. Following feedback from market participants from different sides of the spectrum and the practical use of waivers by trading venues, the importance of the LIS waiver seems

to be clear. Given that the main purpose of the waiver regime is to protect market participants from adverse market movements following the execution of large orders, one way to simplify the regime could be to only allow pre-trade transparency requirements to be waived under the LIS. In addition, the OMF waiver would be maintained as an order in an OMF facility ultimately becomes pre-trade transparent and therefore contribute to the price formation process. Indeed, as required by Article 8(1)(b) and (c) of RTS 1, orders in an OMF cannot interact with other trading interest before disclosure and, once disclosed, have to interact with other orders in accordance with the rules applicable to orders of that kind. Last but not least, the waiver for NT subject to conditions other than the current market price of that financial instrument would be maintained in order to allow for the execution of technical trades. This waiver applies to transactions that are by design executed at a price which does not reflect the actual market conditions and the disclosure of information would therefore not be of use for other market participants.

65. Therefore, ESMA considers it relevant to consider the removal of the reference price (Article 4(1)(a) of MiFIR) and negotiated trade waivers for liquid (Article 4(1)(b)(i) of MiFIR) and illiquid instruments (Article 4(1)(b)(ii) of MiFIR) as an option to increase transparency and to simplify the currently complex regime of pre-trade transparency waivers in MiFIR. ESMA is asking market participants about (i) their views in this respect, (ii) what would be their assessment of the consequences such a removal may have and (iii) what alternative proposals market participants can think of to improve and simplify the regime.
66. ESMA is aware that removing the reference price and negotiated trade waivers would have an impact on market structure even though the exact impact of such removal is difficult to predict. The main objective would be to increase the amount of pre-trade transparency available in the market, but the net gain in transparency might eventually be marginal if orders would migrate to be executed under the LIS waiver. Another result could be a migration to SI-trading resulting in increased liquidity fragmentation.
67. This change would require a change in Article 4 MiFIR and the relevant RTS 1 provisions. Furthermore, this proposal would also make the DVC redundant, hence resulting in the deletion of Article 5 of MiFIR.
68. An alternative to the complete removal of the NT and RP waivers would be to allow the trading under such the NT and/or the RP waives only for orders above certain sizes. The logic here would be that market participants ordinarily choose execution via, for instance, a reference price waiver facility to avoid a potential negative price impact from trading on the lit market.
69. However, such negative price impact should only occur if the order is of a significant size and there seems little justification for trading small orders via reference price facilities. Reference price facilities do benefit from the price determination process on the lit market but if ever more trading moves to reference price facilities that price determination function is weakening.

70. This is the reason why MiFID II implemented the double volume caps in the first place and this would also serve as the justification for only allowing orders from a certain size to be executed via the RP and/or the NT waiver. ESMA considers that the minimum order size should be below the current LIS and is seeking stakeholders views on what an adequate level for such minimum order size could be.

Q1: What is your view on only allowing orders that are large in scale and orders in an order management facility to be waived from pre-trade transparency while removing the reference price and negotiated trade waivers? Instead of removing the RP and NT waivers, would you prefer to set a minimum threshold above which transactions under the RP and NT waivers would be allowed? If so, what should be the value of such threshold? What alternatives do you propose to simplify the MiFIR waivers regime while improving transparency available to market participants? Please explain.

71. Under the assumption that we maintain the current set of waivers allowed under Article 4 of MiFIR, ESMA is considering other measures in order to promote transparency.

72. Firstly, ESMA acknowledges that for ETFs 50% of the volume executed on-venue benefits from a LIS waiver. Furthermore 88%¹⁰ of volume and 11%¹¹ of transactions executed under the waivers for ETFs are executed under the LIS waiver. In addition, considering that the market for ETFs is mainly characterised by large transactions, ESMA proposes to increase the pre-trade LIS threshold for ETFs from EUR 1,000,000 to EUR 5,000,000.

73. ESMA wishes to highlight that this would require a change of Level 2 legislation but is proposing it in this paper as it comes as a result of the data analysis performed for this MiFID report.

Q2: Do you agree to increase the pre-trade LIS threshold for ETFs to EUR 5,000,000? Please explain.

74. Secondly, ESMA acknowledges the importance of the DVC¹² to achieve the objective of increasing trading in the lit markets. However, under the NT waiver, currently only instruments that are considered to have a liquid market are subject to the DVC. ESMA considers that given the substantial number of illiquid instruments, this condition considerably reduces the scope of the DVC.

75. Therefore, in addition to proposing a change to the definition of liquidity¹³ ESMA suggests amending Article 5 of MiFIR to broaden the scope of application of the DVC to waivers provided under Article 4(1)(b)(ii) of MiFIR, i.e. to also encompass negotiated trades in illiquid instruments in order to also efficiently limit the amount of dark trading permitted for the larger part of the population of instruments within the scope of MiFIR.

¹⁰ Percentage not presented in any Figure of this CP

¹¹ Percentage not presented in any Figure of this CP

¹² Detailed analysis on the DVC is presented in Section 3.3

¹³ See ESMA's proposal on the definition of liquid market in Section 3.1.2.2

76. However, ESMA acknowledges that extending the DVC to illiquid instruments might be detrimental to trading in shares of smaller issuers.

Q3: Do you agree with extending the scope of application of the DVC to systems that formalise NT for illiquid instruments?

77. Thirdly, throughout the application of the waiver regime, ESMA noted a significant number of waiver requests that are made for two or more different types of waivers in combination.

78. These complex systems are used in a way that reduces the possibility of orders to be subject to pre-trade transparency which is in contradiction with the objectives of MiFID II. The introduction of the waiver regime aimed at protecting market participants and should be the exception and not the norm that it appears to be as shown by the data analysis provided. In this context, ESMA sees merit in reflecting whether the available waivers should be used in isolation and whether trading venues should not be allowed to request waiver combinations.

79. As a consequence, trading venues would have to change their trading systems so that orders benefitting from one waiver could not interact with orders benefitting from another waiver. For example in the case of a combination between RP and LIS waivers, a LIS order which matches at mid-point would no longer be able to match with another order below LIS.

Q4: Would you agree to remove the possibility for trading venues to apply for combination of waivers? Please justify your answer and provide any other feedback on the waiver regime you might have.

80. Finally, ESMA notes that trading venues are only required to report the trading volumes under the waivers to ESMA on an aggregate basis. Therefore, it is not possible to analyse the exact distribution between the volumes traded for each waiver type and better monitor the use of those waivers. Consequently, ESMA proposes to slightly change the reporting requirements to FITRS for trading venues in order to be able to collect the amount of volume traded per waiver type.

Q5: Do you agree with the proposal to report the volumes under the different waivers separately to FITRS? Please explain.

81. ESMA has provided above different proposals to modify the pre-trade transparency regime. However, ESMA is open to alternative views not presented above.

Q6: What would be in your view an alternative way to incentivise lit trading and ensure the quality and robustness of the price determination mechanism for shares and equity-like instruments? Please explain.

3.1.2.2 Definition of liquid market

A. Analysis

82. Article 2(1)(17) of MiFIR provides for the definition of a liquid market which is further specified in Commission Delegated Regulation (EU) 2017/567. Such definition is relevant to determine the instruments for which SIs are subject to pre-trade transparency (up to the SMS), for the application of the different NT waivers for the on-venue trading which in turn also affects the application of the DVC regime that limits the use of the NT waiver for liquid instruments.

83. In particular, for the purposes of pre-trade transparency in equity and equity-like instruments, a financial instrument is considered liquid when it satisfies certain conditions concerning:

- the free float¹⁴;
- the average daily number of transactions (ADNTE);
- the average daily turnover (ADT); and
- whether it is traded on a daily basis.

84. Following the implementation of the transparency regime and the liquidity calculations performed over the last months, ESMA sees merit in slightly adjusting the assessment of what a liquid market is to more accurately capture those instruments that should be considered as liquid.

85. The free float criterion has proven difficult to apply in practice as accurate information about the free float is not easily available particularly for third-country instruments. In addition, the free float is not a valid indicator for the liquidity of ETFs.

86. As a consequence, despite being a valid measure to assess liquidity, ESMA is considering to remove the free float from the definition of what constitutes a liquid market and is looking at simpler methods for testing liquidity which are based on data which is easier to retrieve thereby rendering the application of the MiFID II regime less onerous and more proportionate for market participants.

87. The current requirement for shares to trade daily in order to be considered liquid, despite being a valid measure to assess liquidity, is very demanding and does not take into account that even “liquid” instruments can, for various technical reasons, stop trading for one or a few days. It has therefore proven too stringent as indicator of liquidity.

¹⁴ The free-float is interpreted to be market capitalisation for DRs, number of units issued for ETFs and issuance size for certificates.

88. Therefore, ESMA considers that in order for an instrument to be considered liquid it is not necessary that this instrument trades daily. As such, ESMA provides for an assessment which excludes such parameter for the liquidity determination. An alternative to deleting the “traded daily” criterion could also be to require trading for a minimum percentage of days traded when an instrument is available for trading. ESMA is looking for feedback what such minimum percentage threshold could be.

89. Moreover, in order to facilitate the calculations and to cater for the differences between shares and other equity-like instruments, ESMA assesses different options that aim at simplifying the liquidity test described under Article 2(1)(17)(b) of MiFIR and to reduce the different criteria used to focus only on those that have revealed the more meaningful.

Shares

90. For shares ESMA evaluates two options on how liquidity should be assessed:

- Option 1: assess the liquidity in accordance with the average daily number of transactions and the average daily turnover;
- Option 2: assess the liquidity in accordance with the market capitalisation, the average daily number of transactions and the average daily turnover;

91. ESMA has also considered a third option, i.e. to assess the liquidity in accordance with the turnover velocity¹⁵. However, since this proves to be the most expensive option in terms of IT costs and due to the fact that there seems to be no clear correlation between turnover velocity and market capitalisation for caps which are medium, small or extra small, this option was discarded.

92. All these options relate to the liquidity test to be performed on a yearly basis and after the first four weeks of trading.

93. Before presenting the results for all options, a more in-depth description of the ultimately discarded Option 3 is necessary. In particular, Option 3 provides for the determination of liquidity using a unique parameter, i.e. the turnover velocity, which should be computed as the ratio between the total share turnover in EUR over the year 2018 and its market capitalisation in EUR as of 31/12/2018.

94. In order to determine the appropriate turnover velocity thresholds some statistical measures have been computed for the different types of shares determined according to their market capitalisation as follows:

- shares with a market cap smaller than EUR 50 m have been determined to be extra-small caps;

¹⁵ Turnover velocity of a share is the ratio between a share turnover and its market capitalisation.

- shares with a market cap greater than EUR 50 m and smaller than EUR 1 bn have been determined to be small caps;
- shares with a market cap greater than EUR 1 bn and smaller than EUR 5 bn have been determined to be medium caps;
- shares with a market cap greater than EUR 5 bn and smaller than EUR 10 bn have been determined to be large caps;
- shares with a market cap greater than EUR 10 bn have been determined to be extra-large caps.

FIGURE 15 - STATISTICS OF THE TURNOVER VELOCITY PARAMETERS FOR SHARES

	Extra Large caps	Large caps	Medium caps	Extra small caps	Small caps
Number of ISINs	1,053	803	1,054	9,280	6,841
Average	51.83%	61.92%	80.01%	40095089.01%	29.69%
Median	4.68%	4.30%	4.04%	0.61%	1.24%
s.d.	1.02	1.26	1.40	21,274,017.20	1.68
Num of zero	9	10	17	2,442	850

Source: ESMA

95. The Figure 15 above provides for each market capitalisation profile, the number of ISINs included in the group, the average value of the turnover velocity, its median, its standard deviation (s.d.) and the number of ISINs with a turnover velocity value of zero.
96. From the statistics, it is evident that the high number for the standard deviation for extra small caps proves a great dispersion in values. In other words, this group of shares is not homogeneous and there are values for the turnover velocity which are far above and below the average. For this reason, it is difficult to determine an appropriate turnover velocity threshold which correctly discriminates between liquid and illiquid shares in this group. The turnover velocity threshold has been set, for each group of shares, close to the average value and for extra small caps equal to the one for small caps.
97. The results of the different options are presented in Figures 16 and 17 below. In order to compare the results with the current definition of a liquid market (as per Article 1 of CDR 2017/567), Option 4 provides the results of the annual transparency calculations based on such definition.
98. In all cases the number of liquid shares is greater than 2,000 which is also greater than the number of liquid shares under the current definition of liquidity (Option 4).
99. Last but not least, the impact that each option would have on FITRS and the reporting entities delivering data to the system has to be considered. All three options would not have an impact on reporting entities since they would not have to change the information to be reported to FITRS. However, all have an impact on the ESMA system which would have to be adapted to the new regulatory requirements. Furthermore, it can be considered that while under Options 1 and 2 it would be a matter of excluding

some parameters from the calculations, under Option 3 it would be also necessary to include the calculation process of a new parameter which requires more complicated and onerous adjustments of the ESMA system.

FIGURE 16 - LIQUIDITY ASSESSMENT OF SHARES UNDER DIFFERENT OPTIONS

COUNTRY CODE	COUNTRY	Liquidity Option 1		Liquidity Option 2		Liquidity Option 4	
		ADT >= 1,000,000 EUR ADNTE >= 20		ADT >= 1,000,000 EUR ADNTE >= 20 MKT CAP >= 200,000,000 EUR		ADT >= 1,000,000 EUR ADNTE >= 20 FREE-FLOAT >= 100,000,000 EUR or MKT CAP >= 200,000,000 EUR DAILY TRADED	
		Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid
AT	AUSTRIA	29	58	27	60	25	62
BE	BELGIUM	48	341	45	344	44	345
BG	BULGARIA	1	234	-	235	-	235
CY	CYPRUS	-	99	-	99	-	99
CZ	CZECH REPUBLIC	6	38	6	38	5	39
DE	GERMANY	893	9,677	868	9,702	250	10,320
DK	DENMARK	44	126	42	128	42	128
EE	ESTONIA	-	19	-	19	-	19
ES	SPAIN	90	214	82	222	80	224
FI	FINLAND	44	133	43	134	41	136
FR	FRANCE	166	835	158	843	151	850
GB	THE UK	676	2,799	626	2,849	437	3,038
GR	GREECE	15	213	14	214	13	215
HR	CROATIA	-	130	-	130	-	130
HU	HUNGARY	6	39	5	40	4	41
IE	IRELAND	39	1,078	36	1,081	12	1,105
IS	ICELAND	1	19	1	19	-	20
IT	ITALY	115	310	101	324	99	326
LI	LIECHTENSTEIN	-	-	-	-	-	-
LT	LITHUANIA	-	32	-	32	-	32
LU	LUXEMBOURG	1	39	1	39	-	40
LV	LATVIA	-	27	-	27	-	27
MT	MALTA	-	26	-	26	-	26
NL	THE NETHERLANDS	66	64	62	68	59	71
NO	NORWAY	73	152	61	164	57	168
PL	POLAND (*)	NA	NA	NA	NA	NA	NA
PT	PORTUGAL	15	47	14	48	14	48
RO	ROMANIA	3	374	3	374	1	376
SE	SWEDEN	150	1,134	142	1,142	144	1,140
SI	SLOVENIA	-	101	-	101	-	101
SK	SLOVAK REPUBLIC	-	79	-	79	-	79
		2,481	18,437	2,337	18,581	1,478	19,440

(*) Poland is a non-deleting country, consequently ESMA does not provide calculations for this NCA

Source: ESMA

COUNTRY CODE	COUNTRY	Liquidity Option 3		Extra small caps		Small caps		Medium caps		Large caps		Extra Large caps			
		TURNOVER VELOCITY for: Extra small caps >= 30% Small caps >= 30% Medium caps >= 80% Large caps >= 60% Extra Large caps >= 50%		Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid
		Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid	Liquid	Not Liquid
AT	AUSTRIA	26	61	4	25	12	22	6	14	2	-	2	-		
BE	BELGIUM	74	315	36	257	18	38	11	19	5	1	4	-		
BG	BULGARIA	7	228	6	223	1	4	-	-	-	1	-	-		
CY	CYPRUS	5	94	5	83	-	11	-	-	-	-	-	-		
CZ	CZECH REPUBLIC	2	42	-	23	-	12	2	4	-	2	-	1		
DE	GERMANY	696	9,874	354	3,581	186	3,341	80	1,870	30	473	46	609		
DK	DENMARK	75	95	24	50	23	35	14	8	5	1	9	1		
EE	ESTONIA	-	19	-	8	-	11	-	-	-	-	-	-		
ES	SPAIN	113	191	25	91	39	65	26	26	8	3	15	6		
FI	FINLAND	79	98	26	33	30	55	14	9	3	-	6	1		
FR	FRANCE	368	633	167	395	99	199	35	29	26	2	41	8		
GB	THE UK	1,128	2,347	402	810	450	737	162	485	58	129	56	186		
GR	GREECE	35	193	19	145	14	38	2	9	-	1	-	-		
HR	CROATIA	3	127	3	90	-	33	-	4	-	-	-	-		
HU	HUNGARY	19	26	13	14	4	10	1	1	1	1	-	-		
IE	IRELAND	36	1,081	12	594	15	436	4	40	3	9	2	2		
IS	ICELAND	15	5	-	2	15	2	-	1	-	-	-	-		
IT	ITALY	235	190	95	70	81	104	35	16	10	-	14	-		
LI	LIECHTENSTEIN	-	-	-	-	-	-	-	-	-	-	-	-		
LT	LITHUANIA	-	32	-	16	-	16	-	-	-	-	-	-		
LU	LUXEMBOURG	-	40	-	17	-	20	-	3	-	-	-	-		
LV	LATVIA	3	24	3	18	-	6	-	-	-	-	-	-		
MT	MALTA	-	26	-	10	-	16	-	-	-	-	-	-		
NL	THE NETHERLANDS	78	52	13	23	26	15	22	9	3	-	14	5		
NO	NORWAY	137	88	43	35	68	42	17	10	6	-	3	1		
PL	POLAND (*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
PT	PORTUGAL	16	46	1	30	6	13	6	2	1	1	2	-		
RO	ROMANIA	18	359	16	329	2	25	-	5	-	-	-	-		
SE	SWEDEN	748	536	539	365	142	143	38	22	15	2	14	4		
SI	SLOVENIA	4	97	3	66	1	29	-	2	-	-	-	-		
SK	SLOVAK REPUBLIC	-	79	-	68	-	9	-	2	-	-	-	-		
		3,920	16,998	1,809	7,471	1,232	5,487	475	2,590	176	626	228	824		

(*) Poland is a non-dealing country, consequently ESMA does not provide calculations for this NCA

Source: ESMA

FIGURE 17 – NUMBER OF LIQUID INSTRUMENTS WITH DIFFERENT LIQUIDITY PROFILES MEASURED BY ADT UNDER EACH OPTION

COUNTRY CODE	COUNTRY	Liquidity Option 1	ADT < 1,000,000	1,000,000 =< ADT < 5,000,000	5,000,000 =< ADT < 25,000,000	25,000,000 =< ADT < 50,000,000	50,000,000 =< ADT < 100,000,000	ADT >= 100,000,000
		ADT >= 1,000,000 EUR ADNTE >= 20						
AT	AUSTRIA	29	-	10	13	4	1	1
BE	BELGIUM	48	-	23	13	4	5	3
BG	BULGARIA	1	-	-	1	-	-	-
CY	CYPRUS	-	-	-	-	-	-	-
CZ	CZECH REPUBLIC	6	-	2	3	1	-	-
DE	GERMANY	893	-	429	288	78	48	50
DK	DENMARK	44	-	11	12	6	10	5
EE	ESTONIA	-	-	-	-	-	-	-
ES	SPAIN	90	-	25	33	10	7	15
FI	FINLAND	44	-	16	10	7	3	8
FR	FRANCE	166	-	42	36	25	19	44
GB	THE UK	676	-	273	166	72	51	114
GR	GREECE	15	-	9	6	-	-	-
HR	CROATIA	-	-	-	-	-	-	-
HU	HUNGARY	6	-	3	2	1	-	-
IE	IRELAND	39	-	19	15	4	-	1
IS	ICELAND	1	-	1	-	-	-	-
IT	ITALY	115	-	42	38	11	14	10
LI	LIECHTENSTEIN	-	-	-	-	-	-	-
LT	LITHUANIA	-	-	-	-	-	-	-
LU	LUXEMBOURG	1	-	1	-	-	-	-
LV	LATVIA	-	-	-	-	-	-	-
MT	MALTA	-	-	-	-	-	-	-
NL	THE NETHERLANDS	66	-	16	17	12	6	15
NO	NORWAY	73	-	33	26	5	4	5
PL	POLAND (*)	NA	NA	NA	NA	NA	NA	NA
PT	PORTUGAL	15	-	4	7	2	2	-
RO	ROMANIA	3	-	3	-	-	-	-
SE	SWEDEN	150	-	55	49	13	12	21
SI	SLOVENIA	-	-	-	-	-	-	-
SK	SLOVAK REPUBLIC	-	-	-	-	-	-	-
		2,486	-	1,020	737	255	182	292

(*) Poland is a non-dealeating country, consequently ESMA does not provide calculations for this NCA

Source: ESMA



ESMA PUBLIC USE

COUNTRY CODE	COUNTRY	Liquidity Option 2	ADT < 1,000,000	1,000,000 =< ADT < 5,000,000	5,000,000 =< ADT < 25,000,000	25,000,000 =< ADT < 50,000,000	50,000,000 =< ADT < 100,000,000	ADT >= 100,000,000
		ADT >= 1,000,000 EUR ADNTE >= 20 MKT CAP >= 200,000,000 EUR						
AT	AUSTRIA	27	-	9	12	4	1	1
BE	BELGIUM	45	-	20	13	4	5	3
BG	BULGARIA	-	-	-	-	-	-	-
CY	CYPRUS	-	-	-	-	-	-	-
CZ	CZECH REPUBLIC	6	-	2	3	1	-	-
DE	GERMANY	868	-	408	284	78	48	50
DK	DENMARK	42	-	10	11	6	10	5
EE	ESTONIA	-	-	-	-	-	-	-
ES	SPAIN	82	-	19	32	9	7	15
FI	FINLAND	43	-	15	10	7	3	8
FR	FRANCE	158	-	35	35	25	19	44
GB	THE UK	626	-	233	161	69	50	113
GR	GREECE	14	-	9	5	-	-	-
HR	CROATIA	-	-	-	-	-	-	-
HU	HUNGARY	5	-	2	2	1	-	-
IE	IRELAND	36	-	18	13	4	-	1
IS	ICELAND	1	-	1	-	-	-	-
IT	ITALY	101	-	31	35	11	14	10
LI	LIECHTENSTEIN	-	-	-	-	-	-	-
LT	LITHUANIA	-	-	-	-	-	-	-
LU	LUXEMBOURG	1	-	1	-	-	-	-
LV	LATVIA	-	-	-	-	-	-	-
MT	MALTA	-	-	-	-	-	-	-
NL	THE NETHERLANDS	62	-	13	16	12	6	15
NO	NORWAY	61	-	21	26	5	4	5
PL	POLAND	NA	NA	NA	NA	NA	NA	NA
PT	PORTUGAL	14	-	3	7	2	2	-
RO	ROMANIA	3	-	3	-	-	-	-
SE	SWEDEN	142	-	48	48	13	12	21
SI	SLOVENIA	-	-	-	-	-	-	-
SK	SLOVAK REPUBLIC	-	-	-	-	-	-	-
		2,342	-	904	715	251	181	291

(*) Poland is a non-de-leating country, consequently ESMA does not provide calculations for this NCA

Source: ESMA

COUNTRY CODE	COUNTRY	Liquidity Option 3 TURNOVER VELOCITY for: Extra small caps >= 30% Small caps >= 30% Medium caps >= 80% Large caps >= 60% Extra Large caps >= 50%	ADT < 50,000	50,000 <= ADT < 100,000	100,000 <= ADT < 500,000	500,000 <= ADT < 1,000,000	1,000,000 <= ADT < 5,000,000	5,000,000 <= ADT < 25,000,000	25,000,000 <= ADT < 50,000,000	50,000,000 <= ADT < 100,000,000	ADT >= 100,000,000
		Tot num of liquid shares									
AT	AUSTRIA	26	1	2	-	3	6	8	4	1	1
BE	BELGIUM	74	30	1	9	1	13	8	4	5	3
BG	BULGARIA	7	6	-	-	-	-	1	-	-	-
CY	CYPRUS	5	5	-	-	-	-	-	-	-	-
CZ	CZECH REPUBLIC	2	-	-	-	-	-	1	1	-	-
DE	GERMANY	696	244	53	100	40	77	72	39	29	42
DK	DENMARK	75	13	6	12	5	8	10	6	10	5
EE	ESTONIA	-	-	-	-	-	-	-	-	-	-
ES	SPAIN	113	4	7	16	11	17	28	8	7	15
FI	FINLAND	79	13	13	13	4	10	9	7	3	7
FR	FRANCE	368	102	22	70	31	28	31	21	19	44
GB	THE UK	1,128	215	65	213	110	178	127	64	48	108
GR	GREECE	35	14	2	5	6	5	3	-	-	-
HR	CROATIA	3	3	-	-	-	-	-	-	-	-
HU	HUNGARY	19	5	2	8	-	2	1	1	-	-
IE	IRELAND	36	6	-	7	2	11	5	4	-	1
IS	ICELAND	15	-	-	6	4	5	-	-	-	-
IT	ITALY	235	46	24	49	21	28	32	11	14	10
LI	LIECHTENSTEIN	-	-	-	-	-	-	-	-	-	-
LT	LITHUANIA	-	-	-	-	-	-	-	-	-	-
LU	LUXEMBOURG	-	-	-	-	-	-	-	-	-	-
LV	LATVIA	3	3	-	-	-	-	-	-	-	-
MT	MALTA	-	-	-	-	-	-	-	-	-	-
NL	THE NETHERLANDS	78	5	2	9	4	13	13	11	6	15
NO	NORWAY	137	21	6	25	20	29	22	5	4	5
PL	POLAND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PT	PORTUGAL	16	-	1	3	-	2	6	2	2	-
RO	ROMANIA	18	16	-	1	1	-	-	-	-	-
SE	SWEDEN	748	428	66	99	33	40	38	13	11	20
SI	SLOVENIA	4	3	-	1	-	-	-	-	-	-
SK	SLOVAK REPUBLIC	-	-	-	-	-	-	-	-	-	-
		3,920	1,183	272	646	296	472	415	201	159	276

(*) Poland is a non-deleting country, consequently ESMA does not provide calculations for this NCA
Source: ESMA



ESMA PUBLIC USE

COUNTRY CODE	COUNTRY	Liquidity Option 4	ADT < 1,000,000	1,000,000 =< ADT < 5,000,000	5,000,000 =< ADT < 25,000,000	25,000,000 =< ADT < 50,000,000	50,000,000 =< ADT < 100,000,000	ADT >= 100,000,000
		ADT >= 1,000,000 EUR ADNTE >= 20 FREE-FLOAT >= 100,000,000 EUR or MKT CAP >= 200,000,000 EUR DAILY TRADED						
AT	AUSTRIA	25	-	8	11	4	1	1
BE	BELGIUM	44	-	19	13	4	5	3
BG	BULGARIA	-	-	-	-	-	-	-
CY	CYPRUS	-	-	-	-	-	-	-
CZ	CZECH REPUBLIC	5	-	1	3	1	-	-
DE	GERMANY	250	-	58	75	46	30	41
DK	DENMARK	42	-	10	11	6	10	5
EE	ESTONIA	-	-	-	-	-	-	-
ES	SPAIN	80	-	18	32	8	7	15
FI	FINLAND	41	-	13	10	7	3	8
FR	FRANCE	151	-	31	33	25	19	43
GB	THE UK	437	-	99	128	59	42	109
GR	GREECE	13	-	8	5	-	-	-
HR	CROATIA	-	-	-	-	-	-	-
HU	HUNGARY	4	-	1	2	1	-	-
IE	IRELAND	12	-	4	3	4	-	1
IS	ICELAND	-	-	-	-	-	-	-
IT	ITALY	99	-	29	35	11	14	10
LI	LIECHTENSTEIN	-	-	-	-	-	-	-
LT	LITHUANIA	-	-	-	-	-	-	-
LU	LUXEMBOURG	-	-	-	-	-	-	-
LV	LATVIA	-	-	-	-	-	-	-
MT	MALTA	-	-	-	-	-	-	-
NL	THE NETHERLANDS	59	-	11	15	12	6	15
NO	NORWAY	57	-	18	25	5	4	5
PL	POLAND	NA	NA	NA	NA	NA	NA	NA
PT	PORTUGAL	14	-	3	7	2	2	-
RO	ROMANIA	1	-	1	-	-	-	-
SE	SWEDEN	144	-	51	48	13	12	20
SI	SLOVENIA	-	-	-	-	-	-	-
SK	SLOVAK REPUBLIC	-	-	-	-	-	-	-
		1,478	-	383	456	208	155	276

(*) Poland is a non-deleting country, consequently ESMA does not provide calculations for this NCA

Source: ESMA

ETFs, Depository receipts and Certificates

100. For ETFs and DRs, ESMA has assessed one alternative option (new approach in Figure 18) which also excludes from the determination of liquidity two parameters: (i) the free-float and (ii) the requirement for the instrument to be daily traded. In other words, liquidity would be assessed using the average daily number of transactions and the average daily turnover.

101. The results of this new approach are presented in Figure 18 below and compared with the results of the annual transparency calculations using the current definition of liquidity. For both, ETFs and DRs the new approach results in an increase in the number of liquid instruments even if to a much lesser extent for DRs.

FIGURE 18 – LIQUIDITY ASSESSMENT OF ETFs AND DEPOSITORY RECEIPTS

INSTRUMENT TYPE	New approach		Current approach	
	ADT ≥ 500,000 EUR ADNTE ≥ 10		Liquid	Not Liquid
	Liquid	Not Liquid		
ETFs	915	3,752	635	4,032
DRs	59	943	51	951

Source: ESMA

102. The assessment of the new approach for certificates is not proposed due to (i) the extremely small data sample and (ii) the fact that the results would not have changed.

103. Last but not least, the impact on FITRS and the reporting entities is identical to that of Options 1 and 2 for shares.

B. Conclusions and Proposals

104. Considering that the purpose of MiFID II / MiFIR is to increase transparency and that SIs, which have dramatically increased in number, largely contribute to the transparency available in the market by providing pre-trade information for liquid instruments up to the SMS, ESMA considers appropriate to limit the parameters for the liquidity assessment for equity and equity-like instruments only to those that appear to be relevant also with the purpose to increase the number of instruments that can adequately be considered as liquid.

105. In particular, for shares ESMA proposes to limit the choice to the options presented below:

- Option 1 which would use as parameters to assess liquidity (i) the average daily number of transactions and (ii) the average daily turnover. This proposal would

require the modification of Level 1 and in particular, the deletion of the (i) daily traded condition (ii) use of the free-float within Article 2(1)(17)(b) of MiFIR;

- Option 2 which would use as parameters to assess liquidity (i) the average daily number of transactions, (ii) the average daily turnover and (iii) the market capitalisation. This proposal would also require the modification of Level 1 and in particular, (i) the deletion of the daily traded condition (ii) the modification of the use of the free-float with that of the market capitalisation within Article 2(1)(17)(b) of MiFIR.

Q7: Which option do you prefer for the liquidity assessment of shares among Option 1 and 2? Do you have an alternative proposal? Do you think that the frequency of trading should be kept as a criterion to assess liquidity? If so, what is in your view the appropriate thresholds for the percentage of days traded measured as the ratio between number of days traded and number of days available for trading (e.g. 95%, 90%, 85% etc.)? Please explain.

106. For ETFs and DRs ESMA proposes to change the current approach and to assess liquidity using only the average daily number of transactions and the average daily turnover. This change would require the modification of Level 1 and in particular, the deletion of the (i) daily traded condition and (ii) the use of the free-float within Article 2(1)(17)(b) of MiFIR.

Q8: Do you agree in changing the approach for ETFs, DRs as proposed by ESMA? Do you have an alternative proposal? Please explain.

107. As far as certificates are concerned, considering the limited number of instruments belonging to this category and the uncertainties related to their definition and identification, ESMA proposes to remove such category from the equity-like transparency scope.

Q9: Do you agree in removing the category of certificates from the equity-like transparency scope? Please explain.

108. Beyond the change in MiFIR highlighted above, the new proposed definitions would require also related adjustments in the Commission Delegated Regulation (EU) 2017/567 which specifies further the liquidity parameters to be used.

109. Finally, for other equity financial instruments the provision for the liquidity assessment in the Commission Delegated Regulation (EU) 2017/567 is not provided. Consequently, ESMA proposes that these instruments are deemed to be illiquid by default.

Q10: Do you agree in deeming other equity financial instruments to be illiquid by default? Please explain.

3.1.2.3 Emergence of new trading systems – Frequent Batch Auctions (FBA)

A. Analysis

110. Frequent Batch Auction (FBA) systems for equity instruments are a new type of periodic auction trading system, which started gaining market share with the application of MiFID II in 2018, in particular following the first suspension of trading under the DVC. Most FBA systems do not operate under a waiver from pre-trade transparency and apply the pre-trade transparency requirements for ‘periodic auction trading systems’.
111. In order to ensure consistent application of the relevant requirements by FBA systems across the Union and to avoid that FBA systems are used to circumvent the application of the DVC, ESMA recently published an Opinion¹⁶ to provide further clarification regarding the application of the pre-trade transparency requirements by FBA systems and the price determination process of FBA systems. ESMA also provides further analysis on the relation between FBAs and the DVC in the next section.
112. Periodic auction trading systems are described in Table 1 of Annex I of RTS 1 as “a system that matches orders on the basis of a periodic auction and a trading algorithm operated without human intervention”. This description reflects the description of periodic auction trading systems as included in MiFID II.
113. In conventional auction systems, e.g. opening and closing auctions, orders are aggregated before and during the auction call without leading to a trade and at a specified point in time buy and sell orders are matched and executed at a single equilibrium price. The description of periodic auctions contained in RTS 1 aims at capturing these characteristics.
114. The description above aimed at capturing conventional periodic auctions and did not take into account FBA systems which did not exist at the time. Whilst FBA systems are similar to periodic auction systems, they are also characterised by very short durations (typically between 25-150 milliseconds while closing auctions can last for several minutes). In addition, the way an auction is triggered on FBA systems is based on the orders sent by market participants at any time of the trading day – closing auctions, for example, occur at a pre-determined time set in advance by the trading venue.
115. Furthermore, FBA system price determination process is characterised by the use of pegged auctions, the use of price band limitations to ensure that the uncross price is always within the EBBO/PBBO, and the practice of locking in prices at the beginning of the auction. ESMA is of the view that such characteristics undermine the price formation process.

¹⁶ [ESMA70-156-1355](#)

B. Conclusions and Proposals

116. Considering the implications that the development of FBAs has on the implementation of the DVC, since one of the reasons of the rise of FBA trading system is the circumvention of the DVC regime, these systems need specific considerations.
117. In ESMA's view, given the broad wording used at the time of the development of regulatory technical standards, FBA systems currently fit within the definition of periodic auctions as described in RTS 1 despite having different characteristics.
118. Therefore, ESMA sees merit in further specifying the definitions in RTS 1 of both conventional auctions and FBA by acknowledging that these should be two separate systems with different descriptions and post trade transparency obligations. ESMA suggests that all orders (volume and price) submitted to FBAs should be disclosed to meet the MiFIR pre-trade transparency requirements.
119. ESMA wishes to highlight that the proposal in this section would require a change of Level 2 legislation but is mentioning it in this paper to provide a holistic view of how ESMA is proposing to deal with FBAs at the legislative level.

Q11: Do you agree in separating the definition of conventional periodic auctions and frequent batch auctions? Do you agree with ESMA's proposal to require the disclosure of all orders submitted to FBAs? Please explain.

120. Pre-trade transparency was introduced in order to assist with and ensure a meaningful price formation process. ESMA is of the view that all trading systems should be genuinely price-forming in order to operate without a waiver. Therefore, ESMA is proposing to amend Article 4 MiFIR in order to ensure that any system considered to be non-price forming should always operate under a pre-trade transparency waiver.
121. ESMA would also propose the inclusion of a Level 2 mandate to further specify the definition and characteristics of a price forming system to ensure a convergent application of this provision.

Q12: Do you agree that all non-price forming systems should operate under a pre-trade transparency waiver? Please explain.

3.2 The Systematic Internaliser Regime

A. Analysis

122. The concept of SI was already introduced under MiFID I and has increased in scope under MiFID II. The overall objective of the regime is twofold. Firstly, it is to make transactions which take place outside of a trading venue more transparent. Secondly, it is meant to level the playing field between the rules applicable to trading venues and to investment firms which trade on own account.

123. MiFID II extended the scope of the SI regime beyond shares to include other equity instruments as well as non-equity instruments. It introduced a quantitative threshold meaning that investment firms need to perform a calculation in order to assess whether they, “on an organised, frequent, systematic and substantial basis, deal on own account when executing client orders outside a regulated market, an MTF or an OTF” and, therefore, have to register as an SI. Finally, MiFID II also substantially increased the relevance of SIs by including them as an eligible execution place to comply with the share trading obligation.

124. The pre-trade transparency regime applicable to SIs is different from the one applicable to trading venues. According to MiFIR, SIs need to make public firm quotes in equity and equity-like instruments that are traded on a trading venue and for which there is a liquid market. A key aspect of the regime is the concept of the SMS. MiFIR requires SIs to comply with pre-trade transparency requirements when dealing in sizes up to the SMS and to make public quotes for sizes of at least 10% of the SMS for equity instruments for which they are SIs.

125. As evident from Figure 19 below, which provides for the distribution of liquid instruments across different AVT levels, 70% of shares and DRs have a SMS equal to EUR 10,000. For ETFs 10% of instruments have the smallest SMS, 26% have a SMS equal to EUR 30,000, another 26% have a SMS of EUR 50,000, another 15% of ETFs have a SMS of EUR 70,000 and 7% of ETFs have a SMS of EUR 90,000.

FIGURE 19 – DISTRIBUTION OF LIQUID EQUITY AND EQUITY-LIKE INSTRUMENTS ACROSS DIFFERENT AVT RANGES¹⁷

SMS	AVT range		SHRS	DPRS	ETFs	CRFT	OTHR
	AVT = 0		0%	0%	0%	NA	0%
10,000	0.00000001	2,500	5.14%	7.84%	0%	NA	0%
	2,500	5,000	35.81%	19.61%	0.16%	NA	33.33%
	5,000	10,000	38.85%	49.02%	0.47%	NA	33.33%
	10,000	20,000	16.15%	19.61%	10.08%	NA	0%
30,000	20,000	30,000	2.23%	3.92%	13.07%	NA	0%
	30,000	40,000	0.74%	0%	13.39%	NA	33.33%
50,000	40,000	50,000	0.20%	0%	13.23%	NA	0%
	50,000	60,000	0.20%	0%	12.91%	NA	0%
70,000	60,000	70,000	0.20%	0%	9.45%	NA	0%
	70,000	80,000	0.07%	0%	5.98%	NA	0%
90,000	80,000	90,000	0.14%	0%	4.41%	NA	0%
	90,000	100,000	0%	0%	3.78%	NA	0%
110,000	100,000	110,000	0%	0%	1.57%	NA	0%
	110,000	120,000	0.14%	0%	2.68%	NA	0%
130,000	120,000	130,000	0%	0%	1.42%	NA	0%
	130,000	140,000	0%	0%	1.42%	NA	0%
Etc.	>= 140,000		0.14%	0%	5.98%	NA	0%
Total number of instruments			1,480	51	635	-	3

Source: ESMA

¹⁷ Based on the 2019 annual transparency calculations for equity and equity-like instruments

126. A similar distribution is obtained when also illiquid instruments are considered as presented in Figure 20 below. Most of the instruments are in the smallest AVT classes.

FIGURE 20 – DISTRIBUTION OF LIQUID AND ILLIQUID EQUITY AND EQUITY-LIKE INSTRUMENTS ACROSS DIFFERENT AVT RANGES¹⁸

SMS	AVT range		SHRS	DPRS	ETFS	CRFT	OTHR
	AVT = 0		18.49%	24.95%	18.71%	0%	22.22%
10,000	0.00000001	2,500	41.27%	24.65%	2.79%	50.00%	32.16%
	2,500	5,000	14.40%	14.37%	2.38%	0%	14.62%
	5,000	10,000	11.52%	13.17%	5.40%	0%	5.26%
	10,000	20,000	6.25%	6.79%	11.27%	50.00%	7.02%
30,000	20,000	30,000	2.46%	3.49%	9.43%	0%	1.17%
	30,000	40,000	1.24%	1.40%	6.81%	0%	2.34%
50,000	40,000	50,000	0.91%	0.60%	5.59%	0%	3.51%
	50,000	60,000	0.56%	0.90%	4.91%	0%	0.58%
70,000	60,000	70,000	0.44%	0.80%	3.66%	0%	0.58%
	70,000	80,000	0.30%	0.50%	2.81%	0%	1.17%
90,000	80,000	90,000	0.18%	0.50%	1.91%	0%	1.17%
	90,000	100,000	0.24%	0.20%	1.78%	0%	0.58%
110,000	100,000	110,000	0.14%	0.60%	1.41%	0%	0.58%
	110,000	120,000	0.14%	0.30%	1.39%	0%	0.58%
130,000	120,000	130,000	0.12%	0.20%	1.01%	0%	1.17%
	130,000	140,000	0.10%	0.30%	0.92%	0%	0.58%
Etc.	>= 140,000		1.24%	6.29%	17.83%	0%	4.68%
Total number of instruments			21,919	1,002	4,667	2	171

Source: ESMA

127. Furthermore, given the significant changes brought in by MiFID II/MiFIR, SIs started taking a more prominent role following the application of this regulatory package. In fact, the number of SIs in shares increased from ten, mostly from the UK, to above 70 with a much more even geographical distribution (Figure 21).

FIGURE 21 – NUMBER OF SIs BEFORE AND AFTER MiFID II/ MiFIR

	2017	2019 "shares" only
AUSTRIA		2
CZECH REPUBLIC		1
DENMARK	2	9
FRANCE	1	8
GERMANY		17
IRELAND		5
ITALY	1	1
NETHERLANDS		3
NORWAY		3
SPAIN		1
SWEDEN		3
UNITED KINGDOM	6	19
Total	10	72

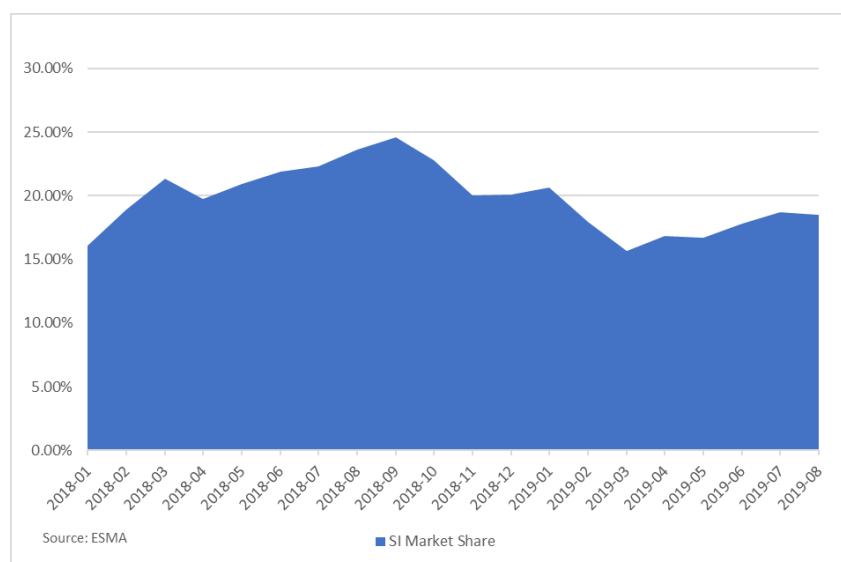
Source: ESMA

¹⁸ Based on the 2019 annual transparency calculations for equity and equity-like instruments

128. The increasing importance of SIs in the equity trading landscape is also demonstrated by the increasing market share of this activity after the application of MiFID II/MiFIR. Figure 22 shows the market share of SIs increasing from just above 15% to close to 25% in the first 9 months of application of the MiFID II/MiFIR SI regime.

129. We note a decrease in the market share in the end of 2018 and beginning of 2019, mainly due to a clarification¹⁹ on how some trades should be reported under the SI regime. However, since then the SI market share has returned to an increasing trend with now close to 20% of share trading volume being executed on an SI.

FIGURE 22 – SI MARKET SHARE IN TERMS OF TURNOVER



130. Given the specificities of the SI regime, i.e. its application only to liquid instruments up to SMS, and the fact that most of the instruments fall in the smallest AVT band, the majority of these trades are not subject to pre-trade transparency. Therefore, there is a significant amount of trading activity in the market under the SI category which falls outside of the scope of transparency.

B. Conclusions

131. The changes introduced by MiFID II/MiFIR increased the importance of SIs as an execution venue. The extension of transparency requirements to SIs attempted to level the playing field with trading venues but the regime seems to fall short of that intention given the increasing market share of SI trading. Most of that trading is still not subject pre-trade transparency requirements. This makes SIs a more attractive execution venue for market participants to the detriment of lit trading venues thereby reducing market transparency.

¹⁹See Q&A 4 on Equity Transparency Section of ESMA Transparency Q&A https://www.esma.europa.eu/sites/default/files/library/esma70-872942901-35_qas_transparency_issues.pdf

132. The first main reason for the lack of transparency available under the SI regime relates to the absence of any pre-trade transparency requirements for illiquid instruments. The latest transparency calculations resulted in just under 1,500 liquid shares in the EU. In contrast, the number of illiquid shares amounts to over 20,000 instruments. This significantly reduces the scope of instruments subject to transparency.
133. Secondly, as the transparency obligations in liquid instruments only apply below the SMS, there is still a significant amount of trading not made pre-trade transparent. It should be noted that the calculation methodology of the SMS thresholds is significantly different than that applicable to the LIS thresholds for trading venues. MiFIR requires that the SMS is based on the average size of transactions resulting in low applicable SMS and therefore reducing the number of quotes subject to transparency.
134. The conjunction of the reasons stated shows that there is not only a significant amount of trading currently taking place under the SI regime but also that most of that trading is not being subject to pre-trade transparency requirements.

C. Proposals

135. To promote a level playing field between execution venues, ESMA proposes some enhancements to the SI regime, in particular in the Level 1 text to improve market transparency and add to levelling the playing field between on-venue and SI trading.
136. Firstly, ESMA considers that the current minimum quoting size of 10% of the SMS leads to very small quoting sizes in the majority of cases and as a consequence to only limited mandatory transparency for SIs. Due to the small SMSs those minimum quoting sizes often only amount to 1,000 or 2,000 EUR.
137. ESMA therefore believes that this minimum quoting size can be increased without any detrimental effect for SIs while at the same time increasing transparent liquidity available to the market and to an extent levelling the playing field. ESMA proposes to amend the minimum quote size determined in Article 14(3) of MiFIR to:
- either 50% of the SMS (Option 1);
 - or 100% of the SMS (Option 2).

Q13: What is your view on increasing the minimum quoting size for SIs? Which option do you prefer?

138. Secondly, ESMA is considering whether to extend the transparency obligations to illiquid instruments. This suggestion would significantly increase the number of instruments in scope of pre-trade transparency obligations under the SI regime. On-venue trading requires transparent trading also in illiquid instruments unless a waiver from pre-trade transparency is available.

139. At the same time, it needs to be taken into consideration that SIs trade at risk and that SI trading in equity instruments is not eligible to waivers from pre-trade transparency. Therefore, indiscriminately imposing transparency obligations on SIs for trading in illiquid instruments may be overly burdensome for SIs.
140. Furthermore, in practical terms this proposal would require the calculation of the AVT or the ADT (as per Option A below) and the related SMS for illiquid instruments.
141. ESMA would like to invite views from market participants on the extension of transparency obligations to the trading of SIs in illiquid instruments and how such an extension could be implemented in a proportionate manner. A proposal to that effect is suggested by ESMA in Option A below.
142. Thirdly, ESMA proposes to change the SMS approach thereby making a significant increase in the amount of quotes subject to pre-trade transparency under the SI regime. At the time of development of RTS 1 ESMA was bound by the clear definition in Article 14(4) of MiFIR of how the SMS should be calculated.
143. ESMA suggests to amend MiFIR in order to create a more effective transparency regime. In particular, it is evident from the tables in Annex I, that the average AVT of illiquid instruments is higher than the average AVT of liquid ones. The depth of the order book of liquid instruments however is on average clearly higher than that of the illiquid ones.
144. Consequently, trading larger sizes in liquid instruments should have less of a market impact. Therefore, ESMA proposes to amend the methodology on which the SMS is determined and develop a table based on the ADT which is in line with the system in place for determining large trades on-venue. The following options are considered:
- Option A: determine the SMS on the basis of the ADT as per Table 1 for illiquid instruments and as per Table 2 for liquid instruments (see Annex I for supporting analysis). The idea would be that the SMS determined for illiquid instruments would lead to less onerous transparency requirements than the SMS calibrated for liquid instruments:

Table 1 – SMS for illiquid instruments

ADT range	SMS				
	SHRS	DPRS	ETFS	CRFT	OTHR
ADT < 50,000	7,500	7,500	7,500	7,500	7,500
50,000 =< ADT < 100,000	10,000	10,000	10,000	10,000	10,000
100,000 =< ADT < 500,000	15,000	15,000	15,000	15,000	15,000
500,000 =< ADT < 1,000,000	20,000	20,000	20,000	20,000	20,000
1,000,000 =< ADT < 5,000,000	20,000	20,000	30,000	20,000	20,000
5,000,000 =< ADT < 25,000,000	30,000	30,000	40,000	20,000	20,000
25,000,000 =< ADT < 50,000,000	40,000	40,000	50,000	20,000	20,000
50,000,000 =< ADT < 100,000,000	50,000	50,000	60,000	20,000	20,000
ADT >= 100,000,000	60,000	60,000	70,000	20,000	20,000

Table 2 – SMS for liquid instruments

ADT range	SMS				
	SHRS	DPRS	ETFS	CRFT	OTHR
ADT < 50,000	NA	NA	NA	NA	NA
50,000 =< ADT < 100,000	NA	NA	NA	NA	NA
100,000 =< ADT < 500,000	NA	NA	NA	NA	NA
500,000 =< ADT < 1,000,000	NA	NA	300,000 or 400,000	20,000	NA
1,000,000 =< ADT < 5,000,000	40,000	40,000	400,000 or 500,000	20,000	20,000
5,000,000 =< ADT < 25,000,000	50,000	50,000	400,000 or 500,000	20,000	20,000
25,000,000 =< ADT < 50,000,000	50,000	50,000	400,000 or 500,000	20,000	20,000
50,000,000 =< ADT < 100,000,000	60,000	60,000	400,000 or 500,000	20,000	20,000
ADT >= 100,000,000	60,000	60,000	400,000 or 500,000	20,000	20,000

This option would apply in the case the SI regime is extended to illiquid instruments since the SMS in the table was calibrated on the basis of the average AVT of each specific ADT class composed by liquid and illiquid instruments.

- Option B: determine the SMS for liquid instruments only on the basis of a new table calibrated on the ADT as per Table 2 under Option A above (see Annex I for supporting analysis):

Q14: What is your view on extending the transparency obligations under the SI regime to illiquid instruments?

Q15: With regard to the SMS determination, which option do you prefer? Would you have a different proposal? Please explain.

3.3 Article 5 – Double Volume Cap (DVC)

3.3.1 Legal framework

145. The purpose of the DVC is to ensure that the use of certain waivers does not unduly harm price formation by limiting the trading under the RP waiver, provided in Article 4(1)(a) of MiFIR, and the NT waiver for liquid instruments, set out in Article 4(1)(b)(i) of MiFIR.

146. In particular, Article 5 of MiFIR provides that the trading volume under the waivers against the total volume traded on EU trading venues over the last 12 months for a specific instrument should not be higher than 4% at the level of a single trading venue, or higher than 8% for all the venues combined. In such cases NCAs have to suspend the use of the authorised waivers for the relevant instruments for a period of 6 months.

3.3.2 International developments

A. Analysis

147. Over the years dark pools came under increasing regulatory scrutiny globally. In particular, in 2016 Hong Kong banned retail investors in dark pools, thus limiting anonymous trading platforms to institutional investors and portfolio managers. This measure led to a drop in dark trading in February 2016 when, automated trading services — a catchall term that includes dark pools — generated turnover of just 15.9 billion Hong Kong dollars (US\$2 billion), representing 1.3% of total market volume on the exchange and a record low in absolute terms, according to data from Hong Kong Exchanges & Clearing Ltd. going back to 2012. The previous record low had been set in December, the first month after the new rules were implemented²⁰.

²⁰ Source: <https://www.wsj.com/articles/hong-kong-dark-pool-trading-volume-sinks-after-new-rules-rolled-out-1457095088>

148. Furthermore, in 2012 in Canada the Investment Industry Regulatory Organization of Canada (IIROC) implemented a dark liquidity framework. Amendments to the Universal Market Integrity Rules (UMIR) required that small orders which interact with dark orders must receive meaningful price improvement, and lit orders must trade before dark orders at the same price on the same marketplace. The regulatory objective of this change was to establish a framework that recognized the contribution of dark orders to the post-trade price discovery process and their value to certain investors, while balancing this against the need to protect lit market price discovery, ensure meaningful price improvement and establish a level playing field between transparent marketplaces and dark pools. In introducing this new regulatory framework, IIROC recognized there might be a cost to certain trading segments; however, the policy was proactive in protecting the integrity of the price discovery process²¹.

B. Conclusions

149. In conclusion, there is currently no jurisdiction limiting dark trading similarly to the DVC in Europe. After Brexit the UK will be a third-country and the future application of the DVC raises concerns regardless of the exact timing of the UK leaving the EU. These concerns are based on the assumptions that:

- there will still be a large number of instruments that will be traded in the EU 27 as well as in the UK;
- if and how the DVC will be applied in the UK.

3.3.3 Analysis of the impact of the DVC on cost of trading and market structure

A. Analysis

Has the DVC changed the structure of financial markets? Has the DVC moved trading to lit venues?

150. Over the last years, trading venues without pre-trade transparency became particularly appealing with the increase in HFT and algorithmic trading, which raised the cost of executing orders on lit venues and led to the expansion of trading systems executing at the reference price.

151. In order to incentivise lit trading, decrease market fragmentation, reduce the cost of trading and avoid negative impact on the price formation process, MiFIR introduced the DVC regime.

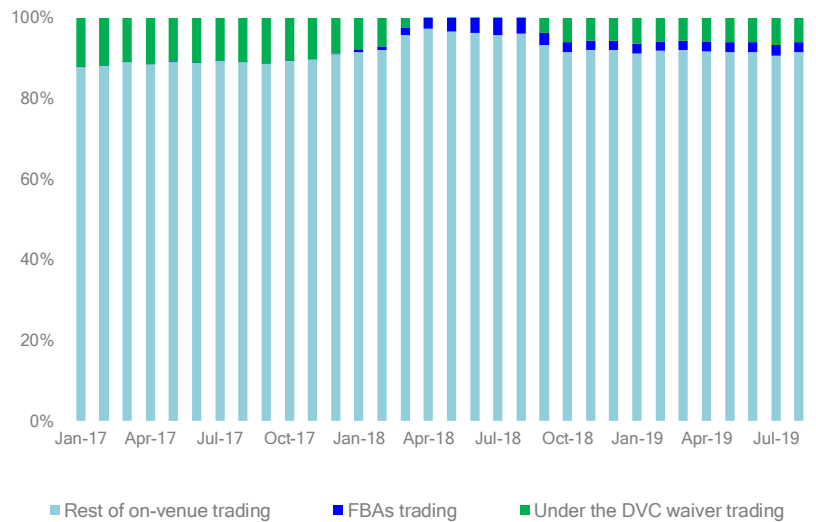
²¹ Source: https://www.iiroc.ca/Documents/2015/d215afed-a01e-453d-8f24-bd8ed2b948bf_en.pdf

152. As mentioned in the previous section, the new regulatory framework led to a significant growth of FBAs²² right after the application of MiFID II / MiFIR. ESMA determined that FBAs are used to avoid HFTs trading but also with the 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 behaviour is in contradiction to the spirit of MiFID II / MiFIR and for this reason, ESMA issued an opinion specifying which types of trading functionality are to be considered price forming and those that cannot. For the latter it is also specified how they can meet the RP waiver requirements²³.
153. Evidence of the connection between FBAs and DVC is clear from Figure 23 below where the percentage of volume of shares subject to the DVC suspension from March to September 2018 is presented. In particular, the market share in terms of the total trading volume of periodic auction trading for those instruments reached around 4% in June 2018 from a market share close to 0% in 2017.
154. At the same time, it can be observed that in line with expectations, following the suspension of dark trading for several instruments in March 2018, lit trading increased by roughly 7%, up to 97% of the total trading, in April 2018 and trading under the waivers subject to the DVC decreased significantly. Whereas in January 2018 trading under the two waivers subject to the DVC represented 7.83% of the overall trading volume, it re-gained momentum after the end of the first suspension period for 618 instruments in September 2019 reaching a market share of 3.68% and after a low in April 2018 close to 0%.
155. After the end of the first suspension the trading of periodic auctions remained stable (around 2.5%) as well as the trading under the DVC waivers (around 6%).

²² For further details on FBAs refer to ESMA Final Report ([ESMA70-156-1035](#)) and Opinion ([ESMA70-156-1355](#))

²³ [ESMA70-156-1355](#)

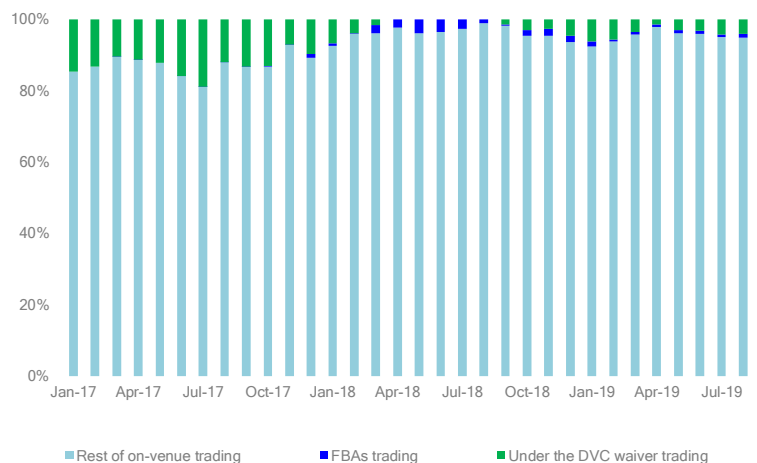
FIGURE 23 - DEVELOPMENT OF TOTAL TRADING VOLUME IN SHARES UNDER DVC SUSPENSION FROM MARCH TO SEPTEMBER 2018 ON EU TRADING VENUES



Note: Total trading volume shares broken down by type of trading, in %.
Sources: ESMA.

156. Figure 24 below, provides for the same analysis for small mid-cap companies. The sample includes only 13 ISINs but it is evident that, as expected, while the trading under the DVC waivers decreased this is counterbalanced by an increase of the percentage of FBAs trading which reached 3.9% in May 2018. Furthermore, also lit trading increased up to 98.87% in August 2018. However, both, FBAs and lit trading decreased and remained roughly stable after September 2018.

FIGURE 24 - DEVELOPMENT OF THE TRADING IN SMALL MID-CAP COMPANIES SHARES UNDER DVC SUSPENSION OVER MARCH-SEPTEMBER 2018 ON EU TRADING VENUES



Note: Total trading volume shares broken down by type of trading, in %.
Sources: ESMA.

Has the DVC affected the use of waivers?

157. The second effect of the DVC is evident from Figure 2 presented in section 3.1.2 that shows that the trading under the LIS waivers has increased from MiFID I to MiFID II/MiFIR across all equity and equity-like instruments.
158. A greater use of the LIS waiver was one of the expected consequences of the application of the DVC. In particular, the turnover traded under the LIS waiver has increased by 62%²⁴ from 2017 to 2018 as shown by Figure 26 below²⁵. Such increase is evident, among other countries, particularly in the UK, the country where most dark-pools are located. The UK is also the country with the majority of trading under the RP waiver and the NT waivers amounting to 78% and 88% of the total trading in each respective waiver (see Figure 25).

²⁴ This figure is computed as percentage change of the total turnover executed under the LIS waiver in 2018 across all countries with respect to the total turnover executed under the LIS waiver in 2017 across all countries.

²⁵ In Figure 25 below, the yellow cells are related to percentages above 10% and the red cells to percentages above 50%.

FIGURE 25 - PERCENTAGE OF TRADING PER WAIVER TYPE AND COUNTRY FOR SHARES

COUNTRY CODE	COUNTRY	LIS_2017	LIS_2018	OMF_2017	OMF_2018	RP_2017	RP_2018	NT_2017	NT_2018
AT	AUSTRIA	0%	0%	0.480%	0.461%	0%	0%	0%	0%
BE	BELGIUM	0%	0.910%	1.951%	1.781%	0%	0%	0.139%	0.560%
BG	BULGARIA	0%	0%	0.002%	0.004%	0%	0%	0%	0%
CY	CYPRUS	0.001%	0.002%	0%	0%	0%	0%	0%	0%
CZ	CZECH REPUBLIC	0%	0%	0.000%	0.000%	0%	0%	0.000%	0%
DE	GERMANY	0.036%	0%	16.417%	18.500%	0.008%	0%	1.480%	1.341%
DK	DENMARK	0.837%	0.512%	3.840%	3.525%	0.088%	0.040%	1.776%	0.578%
EE	ESTONIA	0.001%	0.003%	0.007%	0.004%	0%	0%	0.000%	0.001%
ES	SPAIN	17.876%	9.700%	8.680%	6.132%	0%	0%	0%	0.723%
FI	FINLAND	0.650%	0.387%	1.996%	1.830%	0.061%	0.041%	0.200%	0.218%
FR	FRANCE	0%	8.925%	17.378%	13.777%	0%	0%	1.802%	2.371%
GB	THE UK	77.758%	70.006%	17.933%	26.165%	75.623%	92.810%	91.761%	89.217%
GR	GREECE	0.138%	0.119%	0.001%	0.001%	0%	0%	0.003%	0.010%
HR	CROATIA	0%	0%	0%	0%	0%	0%	0%	0%
HU	HUNGARY	0%	0%	0.122%	0.114%	0%	0%	0.000%	0.002%
IE	IRELAND	0%	3.936%	0.161%	0.144%	23.952%	6.879%	0.026%	0.003%
IS	ICELAND	0.001%	0.001%	0.006%	0.006%	0%	0%	0.548%	1.192%
IT	ITALY	0%	0.140%	7.962%	8.053%	0%	0%	0.176%	0.060%
LI	LIECHTENSTEIN	0%	0%	0%	0%	0%	0%	0%	0%
LT	LITHUANIA	0.001%	0.001%	0.006%	0.002%	0%	0%	0.000%	0.000%
LU	LUXEMBOURG	0%	0%	0.003%	0.003%	0%	0%	0.002%	0%
LV	LATVIA	0.002%	0.000%	0.001%	0.000%	0%	0%	0.000%	0.000%
MT	MALTA	0%	0%	0%	0%	0%	0%	0%	0%
NL	THE NETHERLANDS	0%	3.613%	8.384%	6.598%	0%	0%	1.578%	1.999%
NO	NORWAY	0.004%	0.002%	3.631%	3.879%	0.019%	0.014%	0.107%	0.209%
PL	POLAND	0.442%	0.266%	2.251%	1.581%	0%	0%	0%	0.508%
PT	PORTUGAL	0%	0%	0%	0%	0%	0%	0%	0%
RO	ROMANIA	0.025%	0.014%	0.003%	0.008%	0%	0%	0%	0.049%
SE	SWEDEN	2.217%	1.461%	8.778%	7.425%	0.249%	0.216%	0.401%	0.958%
SI	SLOVENIA	0.008%	0.002%	0.007%	0.007%	0%	0%	0%	0%
SK	SLOVAK REPUBLIC	0%	0%	0%	0%	0%	0%	0.000%	0.000%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: ESMA data collection from reporting entities

FIGURE 26 – CHANGE IN PERCENTAGE OF TRADING PER WAIVER TYPE AND COUNTRY FOR SHARES

COUNTRY CODE	COUNTRY	LIS_2017	LIS_2018	OMF_2017	OMF_2018	RP_2017	RP_2018	NT_2017	NT_2018
AT	AUSTRIA	zero volume in 2017 and 2018			-9.10%	zero volume in 2017 and 2018		zero volume in 2017 and 2018	
BE	BELGIUM	zero volume in 2017			-13.56%	zero volume in 2017 and 2018		33.43%	
BG	BULGARIA	zero volume in 2017 and 2018			97.49%	zero volume in 2017 and 2018		zero volume in 2017 and 2018	
CY	CYPRUS	157.82%		zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018	
CZ	CZECH REPUBLIC	zero volume in 2017 and 2018			2.24%	zero volume in 2017 and 2018		-100.00%	
DE	GERMANY	-100.00%			6.72%	-100.00%		-69.94%	
DK	DENMARK	-1.15%			-13.06%	-54.92%		-89.20%	
EE	ESTONIA	216.45%			-38.66%	zero volume in 2017 and 2018		-30.45%	
ES	SPAIN	-12.24%			-33.09%	zero volume in 2017 and 2018		zero volume in 2017 and 2018	
FI	FINLAND	-3.76%			-13.16%	-32.14%		-63.93%	
FR	FRANCE	zero volume in 2017			-24.92%	zero volume in 2017 and 2018		-56.35%	
GB	THE UK	45.61%			38.18%	22.40%		-67.75%	
GR	GREECE	39.28%			-17.97%	zero volume in 2017 and 2018		29.36%	
HR	CROATIA	zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018	
HU	HUNGARY	zero volume in 2017 and 2018			-11.36%	zero volume in 2017 and 2018		603.54%	
IE	IRELAND	zero volume in 2017			-15.53%	-71.36%		-96.16%	
IS	ICELAND	-36.33%			-13.82%	zero volume in 2017 and 2018		-27.85%	
IT	ITALY	zero volume in 2017			-4.22%	zero volume in 2017 and 2018		-88.70%	
LI	LIECHTENSTEIN	zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018	
LT	LITHUANIA	27.78%			-67.18%	zero volume in 2017 and 2018		-59.21%	
LU	LUXEMBOURG	zero volume in 2017 and 2018			22.16%	zero volume in 2017 and 2018		-100.00%	
LV	LATVIA	-71.42%			-72.12%	zero volume in 2017 and 2018		-93.67%	
MT	MALTA	zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018	
NL	THE NETHERLANDS	zero volume in 2017			-25.46%	zero volume in 2017 and 2018		-57.98%	
NO	NORWAY	-29.13%			1.18%	-28.24%		-35.34%	
PL	POLAND	-2.58%			-33.47%	zero volume in 2017 and 2018		zero volume in 2017	
PT	PORTUGAL	zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018	
RO	ROMANIA	-10.26%			175.62%	zero volume in 2017 and 2018		zero volume in 2017	
SE	SWEDEN	6.56%			-19.90%	-13.39%		-20.69%	
SI	SLOVENIA	-49.61%			-9.28%	zero volume in 2017 and 2018		zero volume in 2017 and 2018	
SK	SLOVAK REPUBLIC	zero volume in 2017 and 2018		zero volume in 2017 and 2018		zero volume in 2017 and 2018		-74.47%	
		61.73%			-5.29%	-0.27%		-66.83%	

Source: ESMA data collection from reporting entities

Has the average value of transactions (AVT) increased with the DVC after MiFID II/MiFIR?

159. The average value of transactions (AVT), computed as the total turnover excluding post-trade LIS transactions divided by the related number of trades, dramatically decreased before the application of MiFID II/MiFIR.

160. Figure 27 below shows that pre-MiFID II/MiFIR the number of shares falling within the smallest class (i.e. AVT < € 10,000) has risen from less than 35% (2008) to over 95% (2013). Furthermore, the average AVT for shares within the smallest class has declined from around € 7,600 in 2008 to € 3,700 in 2013. As of 2013, 75% of the shares admitted to trading on a regulated market have an AVT of less than € 5,000.

FIGURE 27 - DEVELOPMENT OF THE AVERAGE VALUE OF TRANSACTIONS (AVT) IN LIQUID SHARES BEFORE APPLICATION OF MIFID II/MIFIR²⁶

Current Classes	AVT range		2008	2009	2010	2011	2012	2013
<10,000 [SMS = 7,500]	AVT = 0		0.00%	0.97%	0.00%	4.53%	4.11%	0.42%
	0,0000001	2,500	0.53%	0.00%	7.02%	6.05%	34.56%	31.47%
	2,500	5,000	1.50%	9.54%	42.55%	42.95%	35.98%	43.22%
	5,000	10,000	32.51%	47.72%	36.96%	36.78%	20.25%	20.56%
10,000 <= AVT < 20,000 [SMS = 15,000]	10,000	20,000	41.71%	30.01%	12.18%	8.31%	4.25%	4.20%
20,000 <= AVT < 30,000 [SMS = 25,000]	20,000	30,000	12.62%	9.27%	0.72%	0.88%	0.57%	0.14%
30,000 <= AVT < 40,000 [SMS = 35,000]	30,000	40,000	5.88%	1.80%	0.43%	0.13%	0.14%	0.00%
40,000 <= AVT < 50,000 [SMS = 45,000]	40,000	50,000	3.10%	0.69%	0.00%	0.25%	0.14%	0.00%
50,000 <= AVT < 70,000 [SMS = 60,000]	50,000	60,000	1.18%	0.00%	0.00%	0.00%	0.00%	0.00%
	60,000	70,000	0.64%	0.00%	0.00%	0.13%	0.00%	0.00%
70,000 <= AVT < 90,000 [SMS = 80,000]	70,000	80,000	0.32%	0.00%	0.00%	0.00%	0.00%	0.00%
	80,000	90,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
etc.	> 90,000		0.00%	0.00%	0.14%	0.00%	0.00%	0.00%
N. of liquid shares			935	723	698	794	706	715

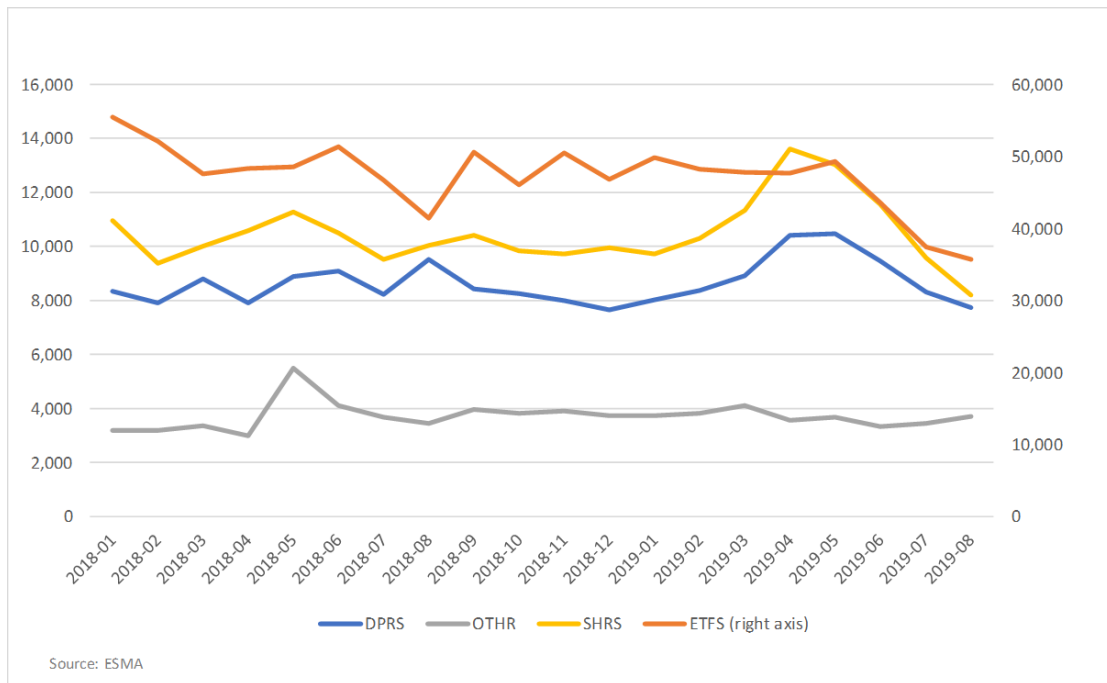
161. However, after the application of MiFID II / MiFIR, the AVT increased. In particular, over the period January-2018 until August-2019 the average AVT was around EUR 10,500 for liquid shares and reached its top in April 2019 with a value of EUR 13,600 as evident from Figure 28 below.

162. Unfortunately, the comparison of the AVT pre- and post-MiFID II / MiFIR cannot be performed for the other equity-like instruments. Nevertheless, the trend over the

²⁶ Source: Discussion Paper on MiFID II/MiFIR https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-548_discussion_paper_mifid-mifir.pdf

period January-2018 until August-2019 has followed the one of shares but at a different AVT level.

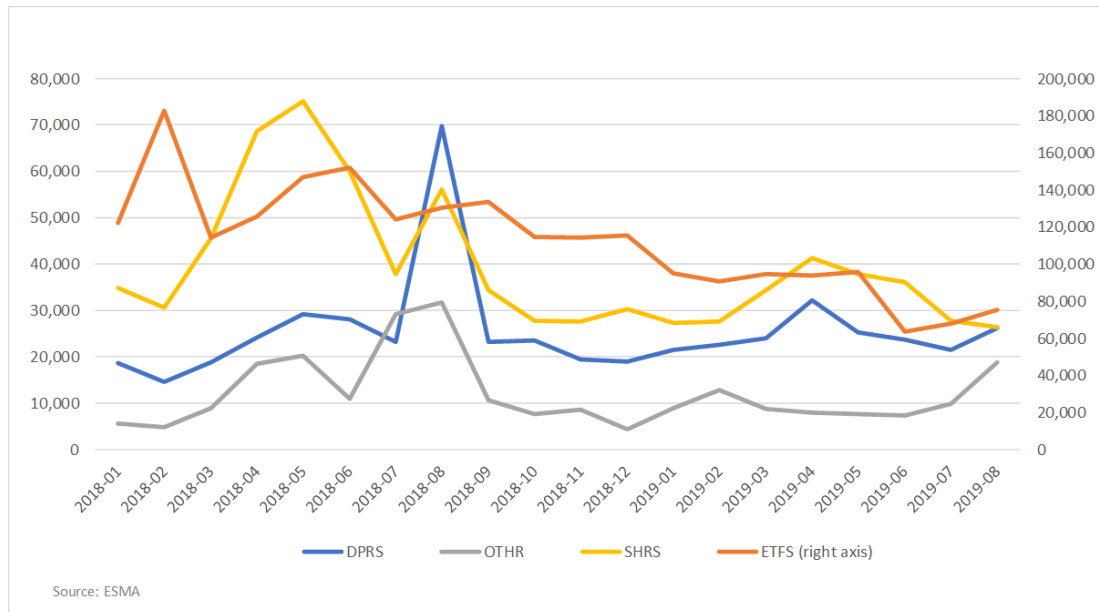
FIGURE 28 - DEVELOPMENT OF THE AVERAGE VALUE OF TRANSACTIONS (AVT) IN LIQUID EQUITY AND EQUITY-LIKE INSTRUMENTS AFTER APPLICATION OF MIFID II / MIFIR



163. In order to understand the effects of the DVC on the AVT we analyse the AVT for liquid instruments on dark-pools. It has decreased over time but, the average AVT on dark-pools²⁷ is higher than the average AVT across all trading venues.

²⁷ Dark-pools refer to segment MICs which allow trading only under waivers

FIGURE 29 - DEVELOPMENT OF THE AVERAGE VALUE OF TRANSACTIONS (AVT) IN LIQUID EQUITY AND EQUITY-LIKE INSTRUMENTS AFTER APPLICATION OF MIFID II / MIFIR IN DARK-POOLS



164. The decrease of the AVT on dark-pools can be read as consistent with the shift of trading from RP and NT waiver pools, which are subject to the DVC, to LIS pools. Further analysis on the effects of the DVC on the size of transactions, defined as total volume divided by the number of transactions, is provided in the following section on the effects of DVC on market liquidity.

What are the effects of the DVC on market liquidity?

165. In order to consider the impact of the DVC on market liquidity ESMA has performed a regression analysis on a number of variables. There are several dimensions to market liquidity: tightness, depth, breadth immediacy and resilience.

166. Tightness is the possibility of executing transactions at low cost and it is measured by the bid-ask spread. Depth refers to the existence of a certain number of orders at prices below (above) the best bid (ask). In the analysis this measure is proxied by the volume of trades. Breadth can be defined as the ability to trade large volumes with a minimum price impact and it is proxied by the Amihud illiquidity index, the turnover ratio and by the average trade size. Finally, liquidity is also measured by market resilience and immediacy. Immediacy is considered an order’s time to execution and resilience refers to the availability of liquidity in periods of higher volatility and market stress, since both require order level data, they were therefore not investigated in this data analysis.

167. As far as the data set used, it includes 473 liquid shares out of which 209 were ISINs suspended in March 2018 and 264 ISINs which were not suspended over the reference period used – from 1 January to 12 September 2018.

168. The table below provides some basic statistics of the data sample. In particular, the shares suspended have a tighter bid-ask spread and are on average smaller in size measure by the market capitalisation.

FIGURE 30 – STATISTICS OF THE DATA SAMPLE

The dataset: ISIN level information

Suspended ISINs	P25	Median	Mean	P75
Bid-ask spread	0.0006	0.0015	0.0024	0.0031
Returns	-0.88%	-0.10%	-0.04%	0.72%
Market capitalization	1.3609	3.1201	7.7161	7.4445
Number of ISINs	209	209	209	209

Non-suspended ISINs	P25	Median	Mean	P75
Bid-ask spread	0.0008	0.0021	0.0033	0.0048
Returns	-0.98%	-0.14%	-0.08%	0.71%
Market capitalization	0.7377	1.9112	8.5344	7.0350
Number of ISINs	264	264	264	264

Note: The summary statistics represent 25th percentile, median, mean and 75th percentile of each variable referring to the months of January and February 2018, before the implementation of DVC. Bid-ask spread in basis points; Market capitalization in EUR billion. Returns are first computed averaging on a weekly basis and are expressed in percentage.

Sources: Refinitiv database, ESMA.

169. As far as the regression model is concerned, it is as follows:

$$Y_{it} = \alpha_i + \beta Treatment_i + \gamma Event_t + \delta Treatment_i * Event_t + \theta ISIN_{it} + \epsilon_{it}$$

where:

- i represents the respective ISINs included in the analysis and t is a time index for each trading day between 1 January 2018 and 12 September 2018;
- Y_{it} is one of our liquidity measures. To obtain a comprehensive assessment of the impact on market liquidity, more than one dependent variable measuring its different dimensions

are used: turnover, bid-ask spreads, turnover ratio, average trade size and Amihud illiquidity index;

- α_i indicates ISIN fixed effects;
- $Treatment_i$ is a dummy variable equal to one over all trading days for ISINs that were suspended from dark trading by the DVC;
- $Event_t$ is a dummy variable equal to one for all ISINs after the start of the first suspension under the DVC on 12 March 2018;
- $Treatment_i * Event_t$ is the interaction variable. δ reflects the average treatment effect of DVC suspensions and is hence the most important coefficient of this regression;
- $ISIN_{it}$ includes the other relevant controls at ISIN level which are:
 - o A fragmentation index, calculated as the inverse of the Herfindahl-Hirschman Index, which is a widely used measure to determine the concentration of a market. This is in line with the Fidessa Fragmentation Index. As shown by Degryse et al. (2015) fragmentation may have a significant impact on market liquidity. In particular, fragmentation improves liquidity aggregated over all trading venues but may lower liquidity in the traditional market

$$Fragmentation_{it} = \frac{1}{HHI_{it}} \text{ where for each } t, HHI_{it} = \sum_{j=1}^M (marketshare_{ij})^2$$

with M being the total number of MICs/Trading Venues that displayed trading in that ISIN.

In this empirical analysis, the index was calculated taking into account only the volumes across the regulated markets (thus, disregarding trading in dark pools, OTC and SI platforms).

- o Market capitalization is used to control for firm size. As larger firms generally benefit from larger coverage by financial analysts, they tend to have larger trading volumes and possibly higher market liquidity;
- o The lagged volatility of weekly returns on ISIN level is added to consider market developments and uncertainty in the market.

Finally, we add dummy variables for month fixed effects, as well as country fixed effects (where possible).

170. The table below provides the results of the regression model:

FIGURE 31 – REGRESSION RESULTS

Regression results					
	Log Amihud	Log trade size	Bid ask spread	Log turnover	Turnover ratio
Treatment	-0.110 (0.0824)	-0.236*** (0.0415)	-0.000555 (0.000592)	0.0752 (0.0963)	-0.000753 (0.000535)
Event	0.128*** (0.0216)	-0.0935*** (0.0154)	0.000473*** (0.000104)	-0.168*** (0.0200)	-0.000908*** (0.000217)
Treatment*Event	-0.0551 (0.0354)	0.0924*** (0.0205)	-0.000276** (0.000120)	0.108*** (0.0279)	0.000644*** (0.000249)
Fragmentation	0.258*** (0.0222)	0.808*** (0.0370)	0.000209** (8.70e-05)	-0.0872*** (0.0179)	-0.000912*** (0.000118)
Log capitalization	-0.830*** (0.0307)	0.262*** (0.0121)	-0.00157*** (0.000263)	0.946*** (0.0331)	
Lagged volatility	0.000630 (0.00132)	0.000587 (0.00105)	1.92e-05* (1.14e-05)	0.00404 (0.00286)	2.82e-05* (1.66e-05)
OTC share	-0.288*** (0.0584)	0.00525 (0.0518)	-0.000279 (0.000174)	0.125*** (0.0272)	0.000445** (0.000178)
SI share	-0.179* (0.0962)	-0.568*** (0.0637)	-0.000735** (0.000313)	-0.0230 (0.0657)	-0.000159 (0.000369)
FB auction share	-0.558*** (0.174)	-1.479*** (0.119)	-0.000204 (0.000462)	-0.376*** (0.115)	-0.00179*** (0.000662)
Constant	0.0204 (0.664)	2.464*** (0.249)	0.0400*** (0.00535)	-7.823*** (0.684)	0.0132*** (0.00337)
Observations	74,163	74,609	74,335	74,609	74,609
Number of ISINs	473	473	473	473	473

Note: Robust standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Sources: ESMA.

171. The effects of the suspension of dark trading on market liquidity appear to be positive for suspended ISINs, as indicated by the sign and the statistical significance of the main variable of interest in the regression: the interaction between treatment and event. This result holds for all the different indicators of market liquidity with the exception of the Amihud ratio where the relation is not statistically significant.
172. More specifically, consistently with the scope of the DVC mechanism, the turnover in continuous trading and auctions markets of suspended ISINs increased significantly by about 10% following the DVC suspension compared to non-suspended ISINs, potentially indicating that a portion of trading shifted from dark pools to continuous trading and auctions markets. This contrasts with the overall negative impact on trading volume following the publication of the first DVC mechanism in March (as underlined by the sign, which is negative, and the statistical significance of the coefficient of the Event variable). Results are very similar when market liquidity is measured by the turnover ratio.
173. Furthermore, suspended instruments experienced a decrease in the bid-ask spread compared to the ISINs not affected by the DVC suspension, reflecting less tightness in the market for suspended ISINs.
174. The trade size variable has a positive sign indicating that the average trade size increases with the DVC suspension. This points to an improvement of market liquidity.
175. Last but not least, the effect on price responsiveness to trading as measured by the Amihud illiquidity index stays insignificant, though exhibiting a negative (liquidity enhancing) sign.
176. ESMA has also carried out a number of robustness checks by means of two additional estimation methods. The results hold and point to a general improvement of market liquidity in lit markets for suspended ISINs.
177. In this respect, AMAFI has published a paper analysing the impact of the DVC on the microstructure of the European equity markets²⁸. The paper confirms that the DVC tightened the bid-ask spread, i.e. decreased the cost of trading and increased the availability of interest at the best limit, i.e. improved market depth. Nevertheless, in the paper it is stated that these effects are positive but limited in impact on the lit market microstructure because the major impact is given by the general level of low volatility which characterised the period of suspension of dark trading.

²⁸ See [AMAFI – Impact of the MiFIR volume cap mechanism on the microstructure of European equity markets – AMAFI / 19-103](#)

178. In this respect, ESMA has also further analysed the volatility over the period and despite the period of the first DVC suspension (March - September 2018) there seems to be a period of low volatility as shown by Figure 32 below. Figure 33 demonstrates that during this specific period volatility increased relative to the previous six months, more specifically by 4% for VSTOXX and by 17% for VIX despite being lower than the volatility of the subsequent six months period.

FIGURE 32 – VSTOXX AND VIX EVOLUTION

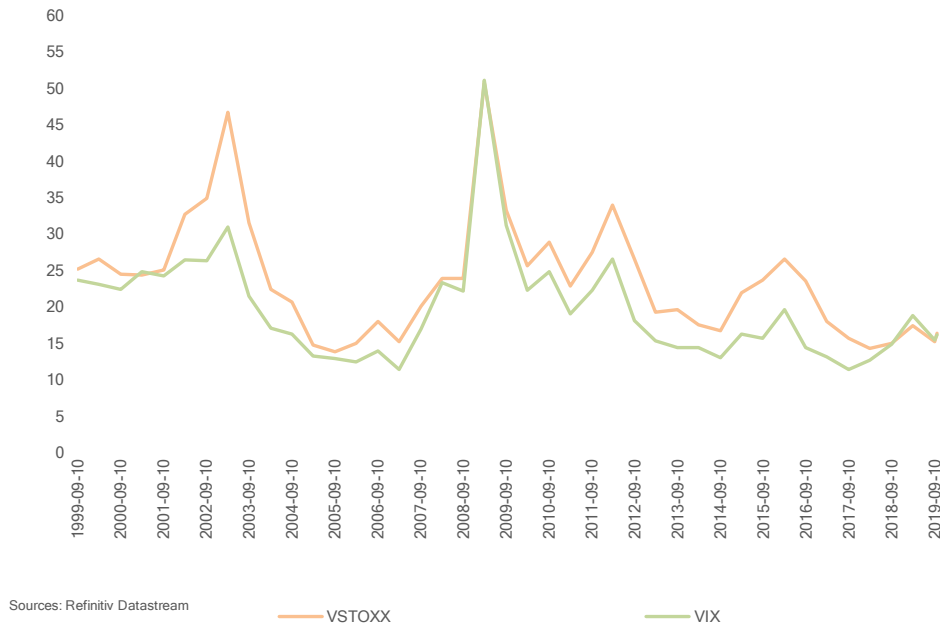


FIGURE 33 – VSTOXX AND VIX EVOLUTION OVER YEARS 2017-2019

FROM	TO	VSTOXX	% change VSTOXX	VIX	% change VIX
2017-03-13	2017-09-12	15.67	-13%	11.41	-13%
2017-09-13	2018-03-09	14.33	-9%	12.71	11%
2018-03-12	2018-09-12	14.96	4%	14.86	17%
2018-09-13	2019-03-11	17.43	16%	18.88	27%
2019-03-12	2019-09-12	15.22	-13%	15.43	-18%
2019-09-13	2019-10-04	16.44	8%	16.18	5%

179. In conclusion, the DVC does not appear to have harmed price formation.

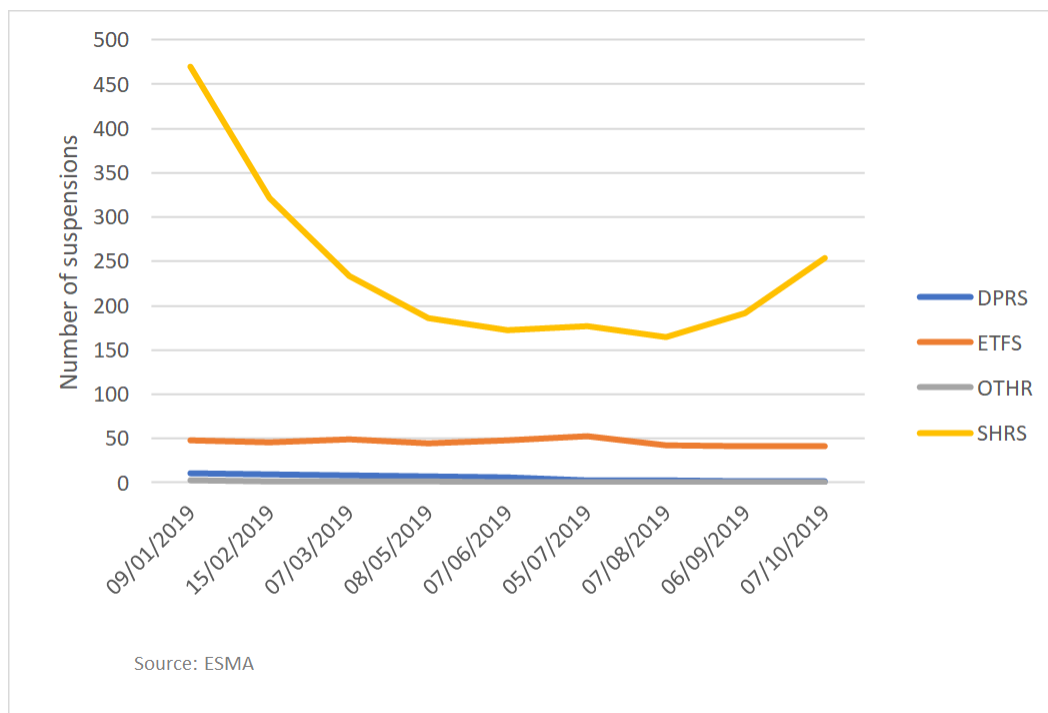
Impact of the DVC on the cost of trading for eligible counterparties and professional clients

180. In order to assess the cost of trading for eligible counterparties and professional clients, ESMA has drafted a questionnaire whose results will be presented in the final report.

What would be the effect of different DVC thresholds?

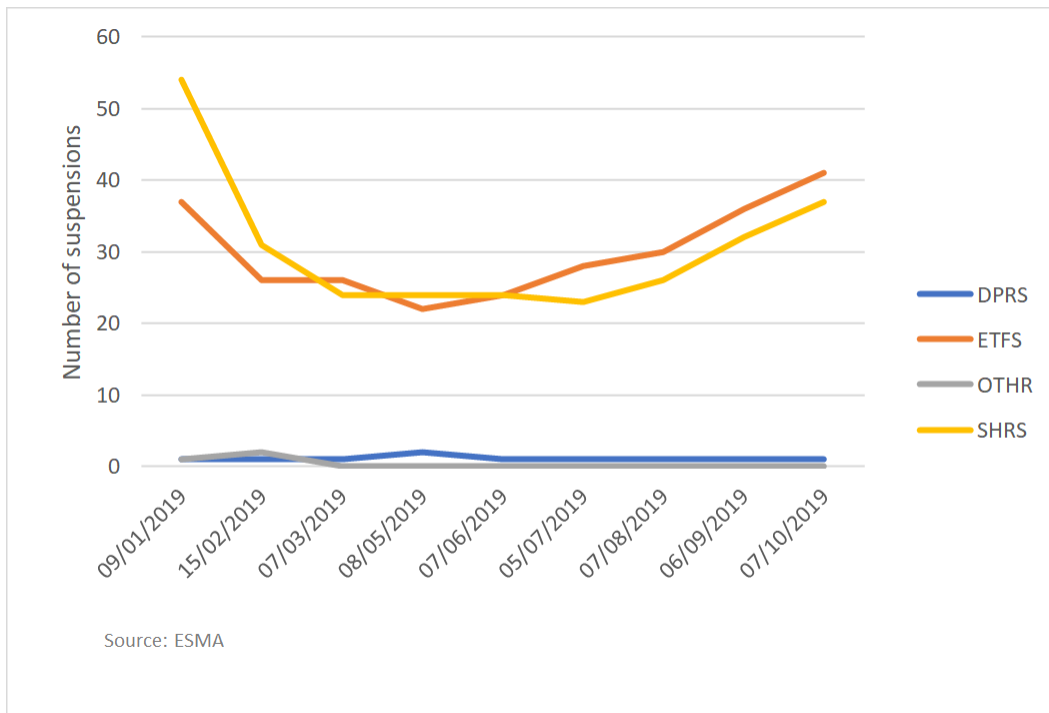
181. Article 5(3) of MiFIR requires the suspension of dark trading in the case the percentage of dark trading of the total trading activity executed on the instrument over the past 12 months is above 4% at TV level or 8% at EU level.
182. As of 7 August 2019, 56 new suspensions at EU level and 28 new suspensions at TV level were triggered. However, over time the total number of suspensions²⁹ at EU level has decreased. In particular, those related to shares (65%), while for other instruments the total number of suspensions has remained stable. A similar pattern is evident for TV level suspensions, however those related to ETFs show a slight increase over the last two publications.

FIGURE 34 - SUSPENSIONS PER TYPE OF INSTRUMENT AT EU LEVEL



²⁹ The total number of suspensions includes the active suspensions as of the publication date and the new suspensions triggered on the month of publication

FIGURE 35 - SUSPENSIONS PER TYPE OF INSTRUMENT AT TV LEVEL



183. Nevertheless, it can be noticed that the number of EU-level re-suspensions over the last nine months has been stable, around 2 to 5% of the number of ISINs suspended, with peaks of 8.7 and 8.1% in February and in August respectively (see Figure 36). At the same time, the number of trading venues that triggered a re-suspension at the end of the first 6-month period are in general few (see Figure 37). This analysis leads to the question if the set thresholds are appropriate and disincentivise too high level of dark trading.

FIGURE 36 - NUMBER OF ISINS RE-SUSPENDED AT EU LEVEL

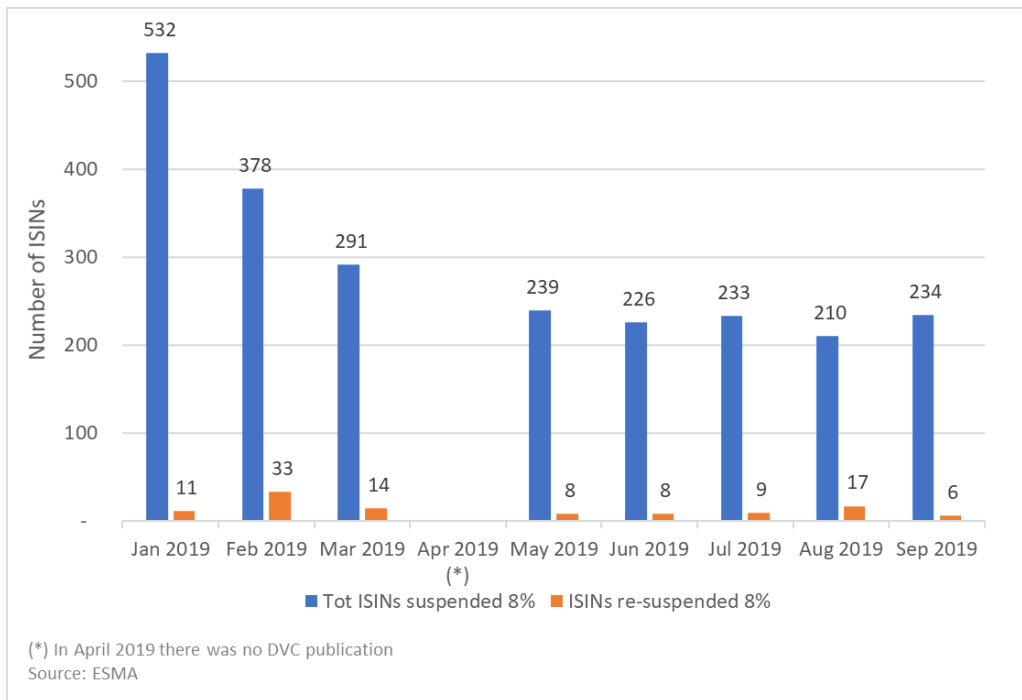
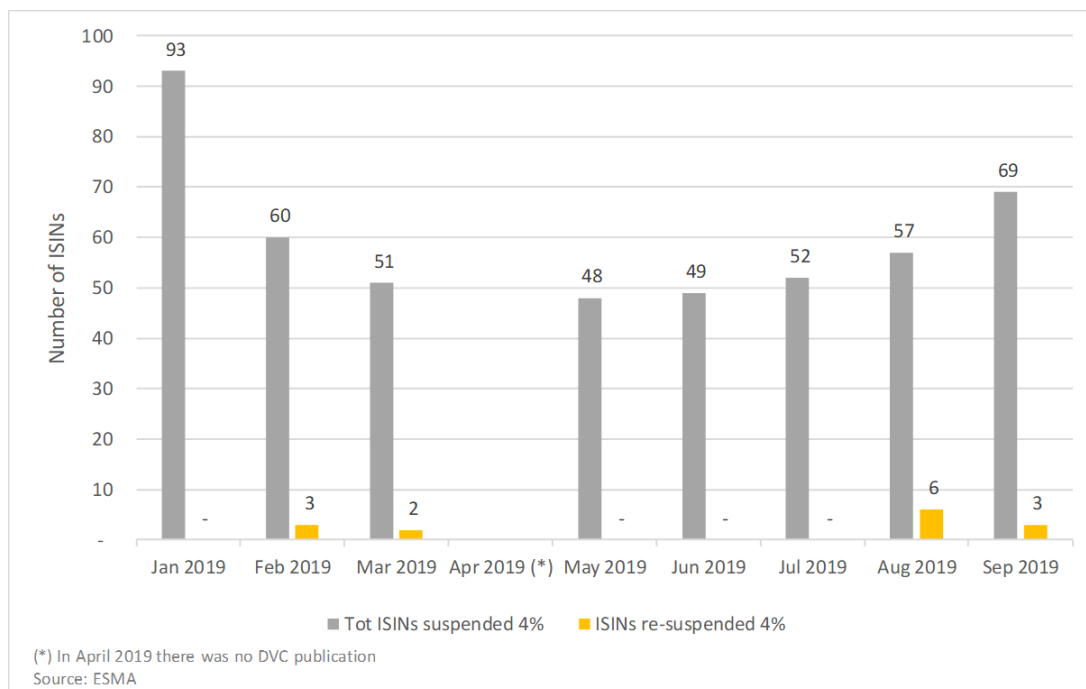


FIGURE 37 - NUMBER OF ISINS RE-SUSPENDED AT TV LEVEL



184. While the TV-level threshold seems to have positive effects, since in most of the cases there are no re-suspensions or very few, the EU-level threshold does not seem to be a deterrent for re-suspensions. The percentage of re-suspensions at EU level is present every month with a percentage ranging from 2 to 9%.

185. Furthermore, the percentage of suspensions from TV level to EU level is much larger than the re-suspensions at TV level. This means that due to the dark trading suspension on a venue (4% breach), dark trading was re-distributed on the other dark-pools, thus leading to a breach of the 8% cap. This is evident from Figure 38 below which shows that across all months except in August 2019, the percentage of ISINs re-suspended at TV level over the total number of TV level suspensions of the month is lower than the percentage of suspension which were at TV level (t) in month and at EU level the following month (t+1).

FIGURE 38 - PERCENTAGE OF EU LEVEL RE-SUSPENSIONS VS. FROM TV TO EU LEVEL SUSPENSIONS VS. TV LEVEL RE-SUSPENSIONS

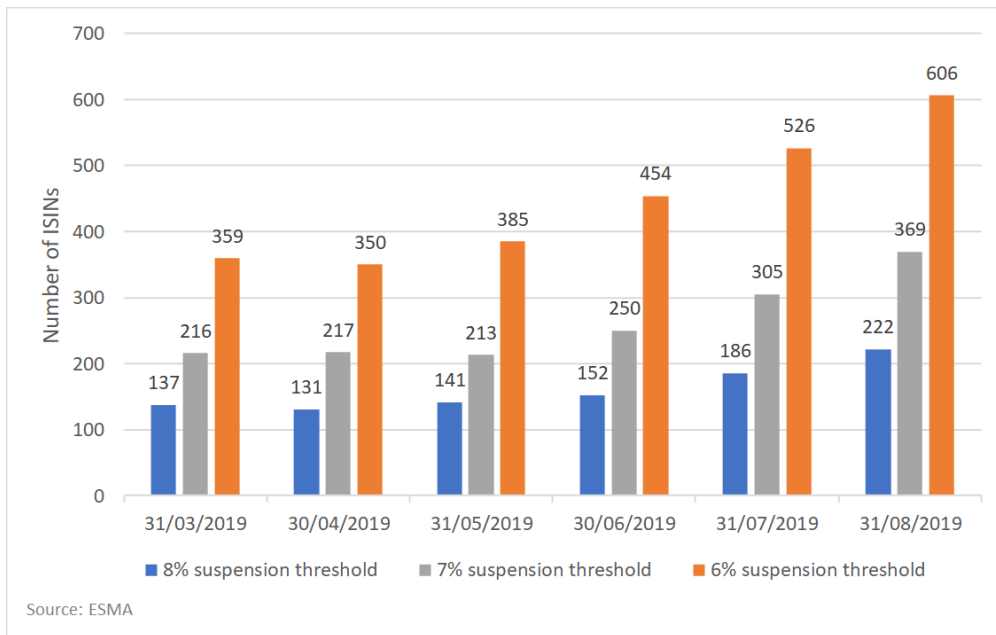
t =>	Jan 2019	Feb 2019	Mar 2019	Apr 2019 (*)	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019
Tot ISINs suspended at 8% (a) <i>[including suspensions at 8%, re-suspensions at 8%, from TV to EU level suspensions]</i>	532	378	291		239	226	233	210	234
ISINs re-suspended at 8% (b)	11	33	14		8	8	9	17	6
% [(b)/(a)]	2.07%	8.73%	4.81%		3.35%	3.54%	3.86%	8.10%	2.56%
Tot ISINs suspended at 4% (c) <i>[including suspensions at 4%, re-suspensions at 4%, from EU to TV level suspensions]</i>	93	60	51		48	49	52	57	69
ISINs re-suspended at 4% (d)	-	3	2		-	-	-	6	3
% [(d)/(c)]	0.00%	5.00%	3.92%		0.00%	0.00%	0.00%	10.53%	4.35%
ISINs suspended at 4% in month (t) and suspended at 8% in month (t+1), i.e. From TV Level to EU Level (e)	6	12	5	-	5	2	4	1	3
% [(e)/(c)]	6.45%	20.00%	9.80%	NA	10.42%	4.08%	7.69%	1.75%	4.35%

(*) In April 2019 there was no DVC publication

Source: ESMA

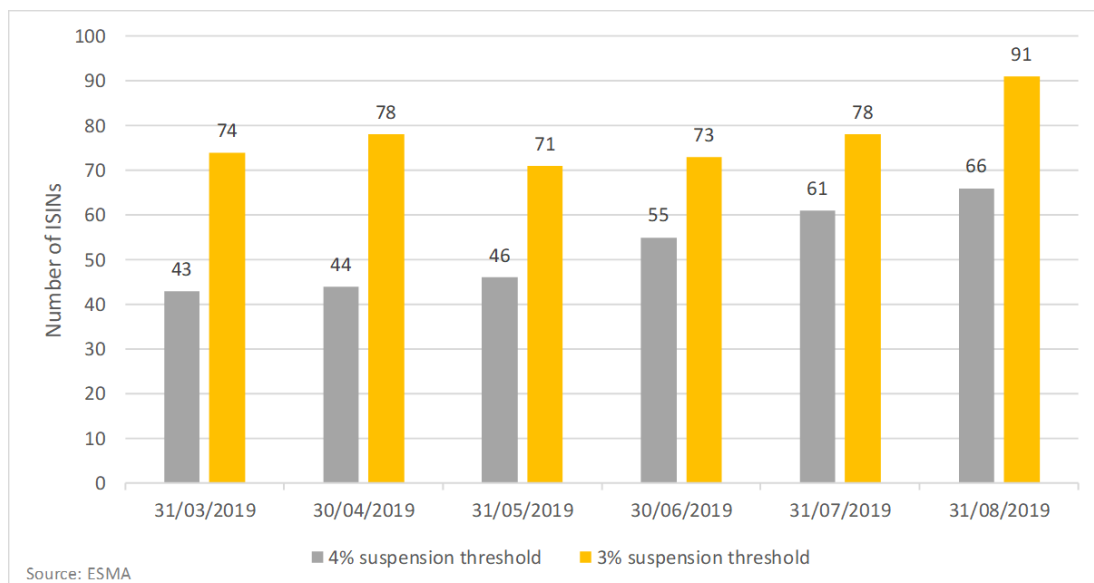
186. Considering the high number of suspensions at EU level and the fact that the EU level threshold does not seem to prevent re-suspensions, ESMA considers whether there is merit in changing the DVC thresholds. For this reason, the figures below show the number of instruments that would be captured using different EU level thresholds (6% and 7%) and TV level threshold (3%).

FIGURE 39 - NUMBER OF EU LEVEL SUSPENSIONS WITH DIFFERENT THRESHOLDS



187. Under the assumption that the market does not adapt to the change of thresholds, from the figure above it is evident that the number of instruments (unique ISINs) that would be suspended at EU level using a threshold set to 6% is between 2 and 3 times the number of instruments suspended using the 8% threshold. While using a 7% threshold the number is 1.6 times the number of instruments suspended using the 8% threshold.

FIGURE 40 - NUMBER OF TV LEVEL SUSPENSIONS WITH DIFFERENT THRESHOLDS



188. From the figure above it is evident that the number of instruments (unique ISINs) that would be suspended at TV level using a threshold set to 3% is between 1.5 and 2.5 times the number of instruments suspended using the 4% threshold.

B. Conclusions and Proposals

189. From the analysis above it can be inferred that the DVC, as expected, led to a decrease in the use of the RP and NT waivers which are then substituted by the LIS waiver. In this regard, ESMA proposes to limit the available waivers under the transparency regime to the LIS and OMF (see Section 3.1.2.1 – B. Conclusions and Proposals). In this case, the DVC mechanism would disappear.

190. The proposals in this section (3.3.3) are however defined under the assumption that the RP and NT waivers remain in place.

191. The DVC has also led to the development of FBAs for which ESMA proposes to define an appropriate transparency regime and disentangle them from traditional auctions (see Section 3.1.2.3 – B Conclusions and Proposals).

192. As already mentioned, in order to achieve the objective of increasing trading in the lit markets, ESMA is proposing to extend the DVC to the waiver provided under Article 4(1)(b)(ii) of MiFIR, i.e. to also encompass negotiated trades in illiquid instruments (see Section 3.1.2.1 – B. Conclusions and Proposals).

193. Finally, it has been demonstrated that the DVC had positive effects. More specifically, market liquidity benefits from the DVC even if to a limited extent. In particular, instruments experience a decrease in the bid-ask spread and an increase in the average trade size. However, the benefits need to be balanced against the complexity of the DVC system.

194. ESMA considers the following options for maintaining or adjusting the current DVC system. Option A would retain the status quo. The proposals under Options B and C focus on removing the trading venue level cap of 4% (i.e. turning the DVC into a single volume cap) and on lowering the EU level threshold since the DVC goal is to overall limit dark trading at EU level in order to ensure an efficient and solid price determination mechanism via lit markets:

- Option A: to keep the 4% TV level threshold and the 8% EU level threshold;
- Option B: to eliminate the 4% TV level thresholds and keep the EU level threshold at 8%.
- Option C: to eliminate the 4% TV level threshold and reduce the EU level threshold to 7%;

Option B and C require a change of Article 5 of MiFIR.

Q16: Which option do you prefer among Options A, B and C? Would you suggest a different alternative? Please explain.

Q17: Would you envisage a different system than the DVC to limit dark trading? Please explain.

195. Moreover, in order to simplify the process and considering that ESMA is already voluntarily publishing a file containing the detailed information on the instruments subject to suspensions on top of the Level 1 requirement, ESMA would propose to modify Article 5 MiFIR so that NCAs do not need to issue a suspension notification based on the ESMA publications.

196. In this case, the results published by ESMA would be immediately enforceable and trading venues would need to suspend trading under the waiver if required to directly following ESMA's publication without waiting for the NCA suspension notice.

Q18: Do you agree in removing the need for NCAs to issue the suspension notice and require trading venues to suspend dark trading, if required, on the basis of ESMA's publication? Please explain.

197. Furthermore, considering that in order to calculate the value of the turnover executed under the DVC waivers on a trading venue over the total turnover executed under the DVC waivers on all EU trading venue the denominator is only available when ESMA publishes such calculations, ESMA proposes to remove the requirement under Article 5(7)(b) of MiFIR. Indeed, this sub-paragraph requires trading venues to monitor that the trading under the waivers does not exceed the 4%. However, this is only technically possible at ESMA level.

Q19: Do you agree in removing the requirement under Article 5(7)(b)? Please explain.

Q20: Please provide your answer to the following [survey](#) (<= click here) on the impact of DVC on the cost of trading for eligible counterparties and professional clients.

3.3.4 Application of the DVC to instruments without 12 months of data

A. Analysis

198. MiFIR does not explicitly provide for a specific rule of suspension of dark trading for new instruments for which there is no data over a period of 12 months.

199. In 2016, ESMA issued a Q&A clarifying that since according to Article 5(1) of MiFIR the DVC can only apply where the relevant thresholds are breached over the previous 12 months, the suspension of waivers when the thresholds are breached can only be triggered when at least 12 months of data for the volume of total trading and the percentage carried out under the waivers is available.

B. Conclusions and Proposals

200. ESMA acknowledges that in many cases these new instruments are not genuine new instruments, but they are old instruments which result in new ISINs resulting from a corporate action. Furthermore, considering that the thresholds are in relative and not absolute terms it seems appropriate to apply them also when there is not a period of 12 months of available data.

Q21: Do you agree in applying the DVC also to instruments for which there are not 12 months of available data yet? Please explain

3.3.5 Publication within 5 working days

A. Analysis

201. Articles 5(4) and 5(5) of MiFIR require ESMA to publish end-of-the-month reports and mid-month reports within 5 working days from the end of the relevant reporting period of the report.
202. However, since the beginning of the publication of the DVC results in March 2018, due to late submission of data and the time needed to perform all technical operations required to make the publication available, ESMA is publishing the results with one-month delay.
203. Furthermore, the technical operations to carry out the calculations are still relatively time consuming. It is therefore suggested to increase the number of working days available for the publication. This would also allow to face technical issues that might require delays in the publication under the scenario of 5 working days available.

B. Conclusions and Proposals

204. In conclusion, with the experience gained in the publication of over 20 publications, it is advisable to increase the number of working days available to publish the DVC results to 7 working days. This proposal requires an amendment of Article 5 of MiFIR.

Q22: Do you agree foresee any issue if the publication occurs after 7 working days instead of 5? Please explain.

3.3.6 Mid-month reports

A. Analysis

205. Article 5(5) of MiFIR requires ESMA to publish mid-month reports of those instruments which reached the threshold of 3.75% at TV level or 7.75% at EU level at the end of month. These reports should have a warning function and alert about the possibility to reach the 4% or the 8% thresholds at the end of the following month, thus triggering the relevant suspension of dark trading.

206. Due to data quality issues and the necessary time to publish those reports, ESMA is currently not publishing the mid-month reports.
207. ESMA has performed an analysis, presented here below, to assess the number of instruments breaching the relevant thresholds to be breached for the inclusion of the instrument in the mid-month report (3.75% or 7.75%) and the number of those instruments breaching the relevant thresholds to trigger the suspension of dark trading (4% or 8%) the following month.

FIGURE 41: NUMBER OF BREACHES AFTER REACHING THE MID-MONTH THRESHOLDS

		May publication	June publication	July publication	August publication	September publication
How many instruments are above 7.75% at the end of the month?	$\geq 7.75\%$	142	132	155	162	206
How many instruments are above 3.75% at the end of the month?	$\geq 3.75\%$	55	45	50	59	66
		June publication	July publication	August publication	September publication	October publication
How many of instruments above 7.75% the previous month are above 4% and 8% the next month?	$\geq 7.75\%$ $\geq 8\%$	102	97	113	136	173
	$\geq 7.75\%$ $\geq 4\%$	10	8	9	6	10
		78.87%	79.55%	78.71%	87.65%	88.83%
How many of instruments above 3.75% the previous month are above 4% and 8% the next month?	$\geq 3.75\%$ $\geq 8\%$	2	6	1	2	2
	$\geq 3.75\%$ $\geq 4\%$	26	29	33	44	47
		50.91%	77.78%	68.00%	77.97%	74.24%

208. The figure above displays the number of instruments (unique ISINs) which are in breach of the 3.75% and 7.75% thresholds in month (t) and are above the 4% or 8% thresholds the following month. The scope of this analysis is to measure the effectiveness of the 3.75% and 7.75% thresholds as alert measures.

209. It is evident that in most cases the threshold is breached thus, it seems that being close to the 3.75% and 7.75% thresholds does not discourage trading in dark in the following period. Indeed, market participants could monitor the end-of-the-month reports, even if publishing with one-month delay. Nevertheless, it is clear that However, they should be alerted before the values are close to the 3.75% and 7.75% due to the one-month delay publication which does not allow the time to react to the publication if the values are already so close to the 4 and 8% thresholds.

B. Conclusions and Proposals

210. Considering that (i) the mid-month publication does not trigger any new suspension and (ii) this additional publication per month means additional burden when more time to publish is needed, it is proposed to remove the publication of the mid-month reports. This proposal requires an amendment of Article 5 of MiFIR.

Q23: Do you agree that the mid-month reports should not be published? Please explain.

3.3.7 Sanctions for infringements

A. Analysis

211. Article 5 of MiFIR does not require neither NCAs nor ESMA to impose sanctions for the infringements of the obligations prescribed under such article.

212. Nevertheless, ESMA has conducted a survey among NCAs to better understand which sanctions, if any, are in place for DVC infringements.

213. From the table below it is evident that the majority of the jurisdictions provide some sort of sanction to prevent DVC infringements. Furthermore, across the different types of administrative sanctions the most recurrent is the order requiring to cease the conduct and to desist from a repetition of that conduct, followed by administrative fines and a public statement.

214. Nevertheless, even if the majority of the jurisdictions provide for sanction to prevent DVC infringements, none of them has applied them so far even if it seems that, due to technical issues, some trading venues allowed trading under the waiver during a DVC suspension.

FIGURE 42 - SANCTION SCHEMES IN EEA COUNTRIES

COUNTRY CODE	COUNTRY	Q1	Q2						
		In the case of infringement of DVC suspensions, do you have measures to sanction and prevent this behaviour occurring again?	If yes to Q1, which type of sanctions do you impose?						
			Public statement	Order requiring to cease the conduct and to deist from a repetition of that conduct	Withdrawal or suspension of the authorisation to opearate a TV	Temporary or permanent ban of tradin under the waivers	Administrative fine	Other (including non-administrative sanctions)	
AT	AUSTRIA (*)	Yes	No	Yes	No	No	Yes	Yes	
BE	BELGIUM	Yes	Yes	Yes	Yes	No	Yes	Yes	
BG	BULGARIA	No	NA	NA	NA	NA	NA	NA	
CY	CYPRUS								
CZ	CZECH REPUBLIC	Yes	Yes	Yes	Yes	No	Yes	No	
DE	GERMANY (*)	Yes	Yes	Yes	Yes	Yes	Yes	No	
DK	DENMARK	Yes	Yes	Yes	Yes	Yes	No	Yes	
EE	ESTONIA	Yes	No	Yes	No	No	Yes	No	
ES	SPAIN	Yes	No	Yes	Yes	Yes	Yes	No	
FI	FINLAND	Yes	Yes	Yes	No	No	Yes	No	
FR	FRANCE	Yes	Yes	Yes	Yes	Yes	Yes	No	
GB	THE UK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
GR	GREECE								
HR	CROATIA	No	No	No	No	No	No	No	
HU	HUNGARY	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
IE	IRELAND	Yes	Yes	Yes	Yes	Yes	Yes	No	
IS	ICELAND								
IT	ITALY	Yes	No	Yes	No	No	No	Yes	
LI	LIECHTENSTEIN								
LT	LITHUANIA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
LU	LUXEMBOURG	Yes	Yes	Yes	Yes	Yes	Yes	No	
LV	LATVIA	Yes	Yes	Yes	No	No	Yes	No	
MT	MALTA (*)	No	NA	NA	NA	NA	NA	NA	
NL	THE NETHERLANDS	Yes	Yes	Yes	Yes	Yes	Yes	No	
NO	NORWAY	Yes	Yes	Yes	Yes	No	No	Yes	
PL	POLAND (*)	Yes	No	No	No	Yes	No	No	
PT	PORTUGAL	Yes	No	Yes	No	No	Yes	Yes	
RO	ROMANIA	Yes	Yes	No	No	No	Yes	No	
SE	SWEDEN	Yes	No	Yes	No	Yes	Yes	No	
SI	SLOVENIA	Yes	No	Yes	No	Yes	No	No	
SK	SLOVAK REPUBLIC	Yes	Yes	Yes	Yes	No	Yes	No	
	Yes =>	24	16	22	14	13	19	9	
	No =>	3	8	3	10	11	6	16	
			66.67%	91.67%	58.33%	54.17%	79.17%	37.50%	

(*) DVC waivers are not in place

215. ESMA has also performed an analysis on how many trading venues were in breach of the suspensions. From the table below it is evident that 11 trading venues did trade instruments under the waivers during a DVC suspension and one MIC was in breach of the DVC suspension for 122 different ISINs. The breaches occurred over the period March 2018 – June 2019. However, almost all breaches occurred over the same 2-week period, suggesting that there was probably a technical issue at trading venue level.

FIGURE 43 - TRADING VENUES BREACHING TRADING INSTRUMENTS UNDER THE WAIVERS DURING A SUSPENSION

MIC	Number of ISINs
MIC1	122
MIC2	56
MIC3	43
MIC4	21
MIC5	17
MIC6	3
MIC7	2
MIC8	2
MIC9	1
MIC10	1
MIC11	1

Source: ESMA

B. Conclusions and Proposals

216. It appears that even if a framework to sanction DVC infringements is in place in almost all jurisdictions, none of them has applied such framework despite the presence of infringements. Therefore, ESMA suggests to include in Article 70 of MiFID II the infringements of the DVC suspensions. This change would make sure that all jurisdictions will have in place a sanction regime to prevent infringements of the DVC suspensions.

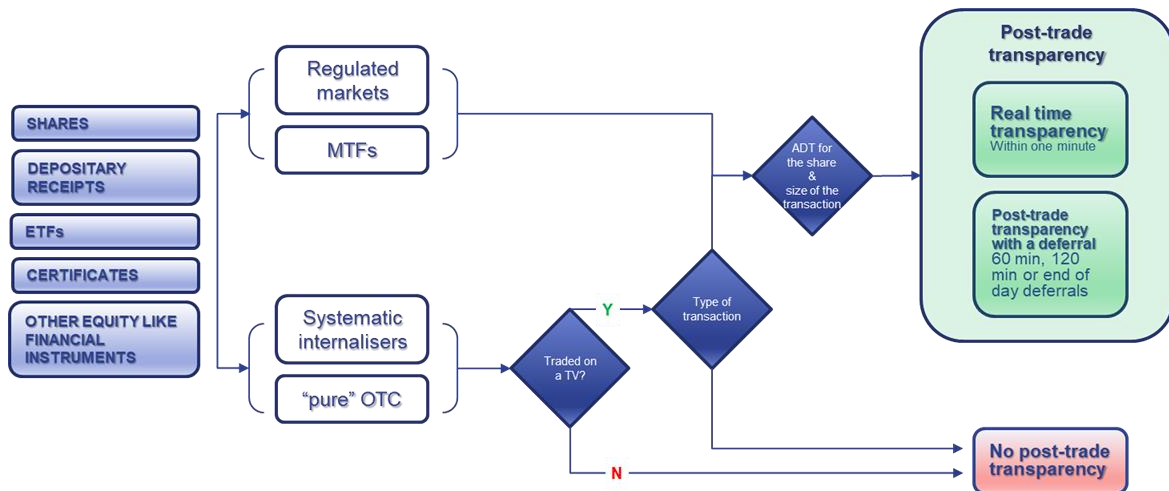
Q24: Do you agree with ESMA’s proposal to include in Article 70 of MiFID II the infringements of the DVC suspensions? Please explain.

3.4 Post-trade transparency regime in respect of shares, depositary receipts, ETFs, certificates and other similar financial instruments

3.4.1 Legal framework

217. In line with the approach taken for pre-trade transparency requirements, MiFIR expanded on the provisions already set out in MiFID I and created a regime intended to promote post-trade transparency, market efficiency and facilitate the price formation process. Therefore, Article 6 of MiFIR requires market operators and investment firms operating a trading venue to make public the price, volume and time of publication of the transactions executed in equity and equity-like instruments. These details should be made public as close to real time as technically possible.
218. In order to protect market participants, competent authorities can authorise trading venues to provide for deferred publication of the details of certain transactions according to their type or size in accordance with Article 7 of MiFIR. In particular, deferred publication can be authorised for transactions that are large in scale when compared to the normal size for that instrument. The qualifying size and additional technical details that should be satisfied are specified in Level 2, more specifically in RTS 1. Article 15 of RTS 1 specifies in particular, the sizes of transactions that are LIS compared with the normal market size and for which deferred publication is allowed.
219. The authorisation process for deferred publication is fundamentally different than that for pre-trade transparency where ESMA is required to issue a non-binding opinion. For deferrals, trading venues need to request approval from their NCA and clearly disclose their arrangements to market participants and the public. In this case, ESMA is only required to monitor the application of those arrangements and not to assess the compatibility of the deferral with the requirements established under RTS 1.
220. Finally, Article 20 of MiFIR also includes provisions for OTC transactions relating to post-trade transparency. As such, OTC trades on instruments that are traded on a trading venue are subject to the same post-trade transparency requirements as on-venue transactions. Investment firms are required to make their transactions public through approved publication arrangements (APA).
221. The diagram below summarizes the application of the post-trade transparency regime for both on-venue and OTC trading.

FIGURE 44 – POST-TRADE TRANSPARENCY REGIME APPLICABLE TO EQUITY AND EQUITY-LIKE FINANCIAL INSTRUMENTS

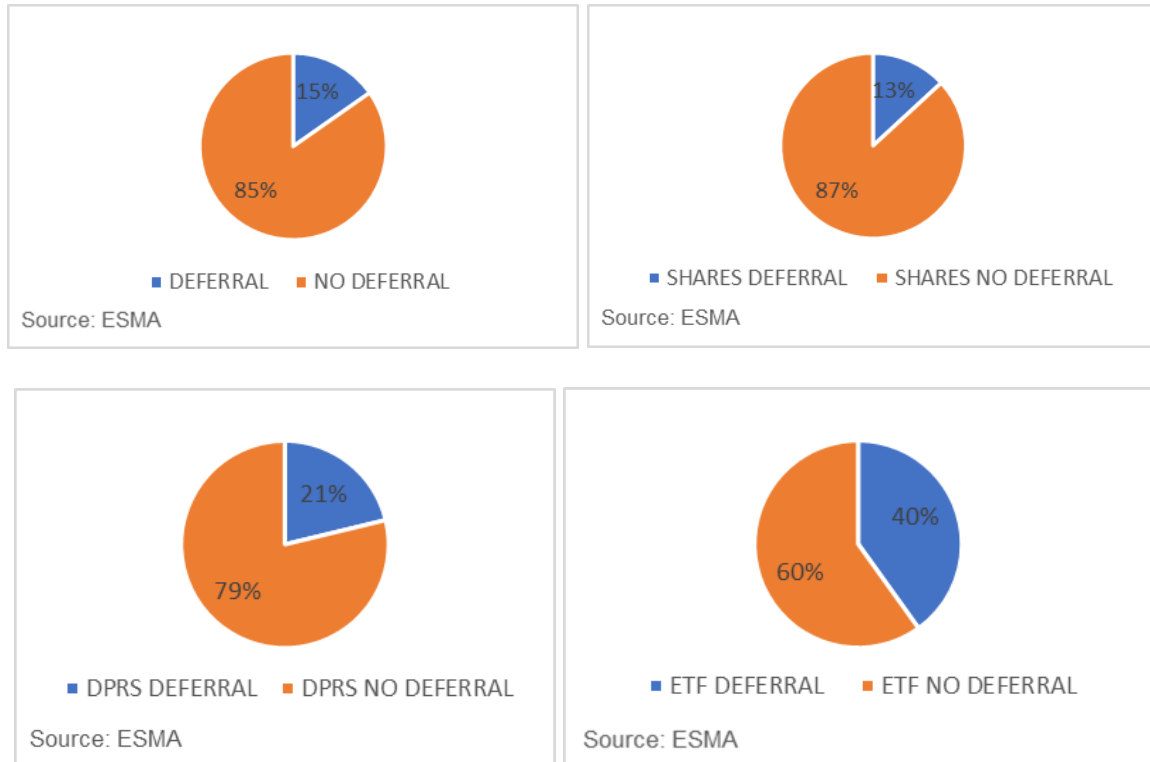


3.4.2 Assessment of the post-trade transparency framework for trading venues

A. Analysis

222. The objective of MiFIR is to increase post-trade transparency but at the same time, to offer through deferrals appropriate protection to market participants and in particular those executing large trades.
223. The Annual Report published by ESMA assessing the application of waivers and deferrals noted that 24 jurisdictions have authorised trading venues to benefit from deferred publication of transactions for equity instruments. The remaining did not yet authorise or apply deferred publication.
224. In order to assess the level of post-trade transparency for equity instruments, ESMA analysed volumes traded in equity instruments throughout the application of the MiFID II / MiFIR regime comparing volumes of transactions subject to real-time publication against those benefitting from a deferral. Figure 45 shows that the vast majority of turnover executed on a trading venue (85%) does not benefit from a deferral and are therefore made post-trade transparent real-time. However, there are noticeable difference between the different types of equity instruments.

FIGURE 45 – PERCENTAGE OF TURNOVER BENEFITTING FROM A DEFERRAL VS TRADED TURNOVER PUBLISHED REAL-TIME FOR EQUITY AND EQUITY LIKE INSTRUMENTS



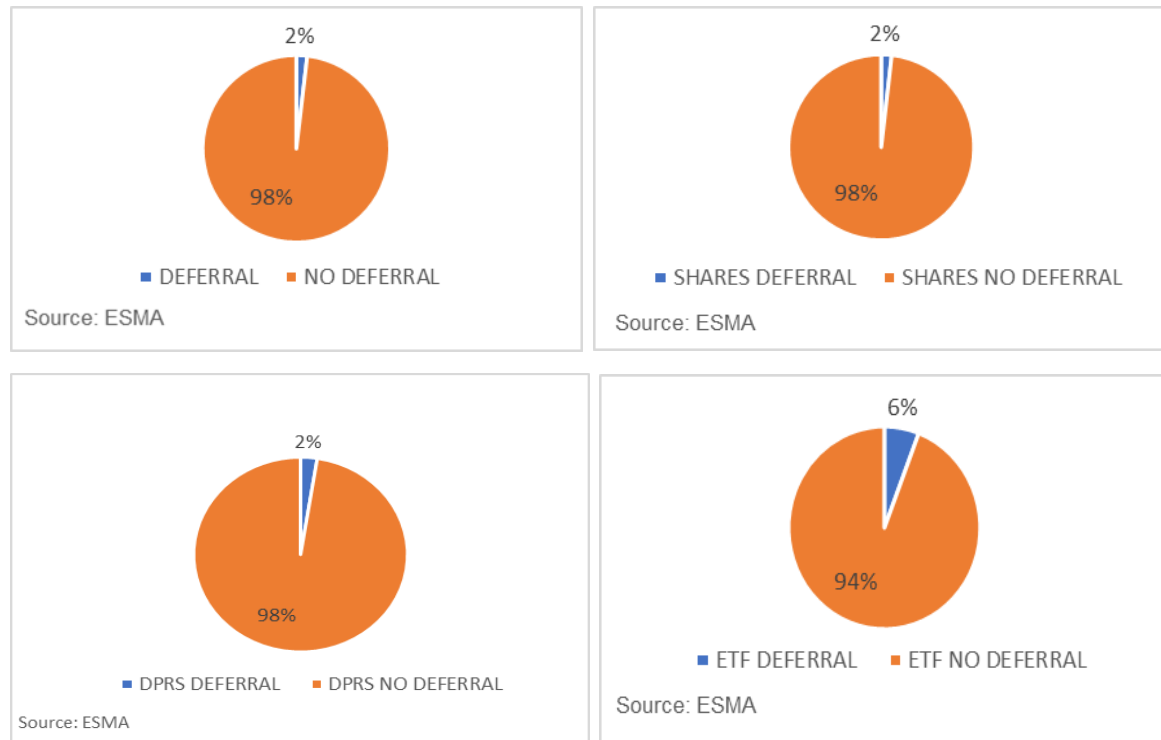
225. With respect to shares, i.e. the most traded and liquid type of equity instruments, the trend is more pronounced with 87% of the total turnover not benefiting from a deferral from post trade transparency. Looking at DRs, while a large majority of on-venue trades are not subject to a deferral, their proportion remains slightly lower than that for shares, i.e. 79%.

226. The case seems to be slightly different for ETFs; the turnover of ETF transactions undertaken on a trading venue benefiting from a deferral is significantly higher than other equity and equity-like instruments. The analysis shows that throughout the period of application of MiFID II / MiFIR, 40% of the volume traded was subject to deferred publication.

227. Due to the limited number of transactions executed over the period, ESMA has not replicated its analysis for certificates and other equity financial instruments.

228. In terms of number of trades an even smaller proportion of trades is currently benefiting from a deferral as described in Figure 46 below. With respect to all equity and equity-like instruments as well as shares, and DRs only 2% of executed transactions were subject to deferred publication. For ETFs, only a small proportion of trades (6%) are currently benefiting from a deferral - even if slightly higher than for shares and equity instruments more generally.

FIGURE 46 – PERCENTAGE OF TRANSACTIONS BENEFITTING FROM A DEFERRAL VS TRANSACTIONS PUBLISHED REAL-TIME FOR EQUITY AND EQUITY LIKE INSTRUMENTS



B. Conclusions and Proposals

229. The higher percentage in volume of on-venue transactions benefitting from a deferral compared to the number of transactions indicates that only a small portion of large trades benefit from deferred publication. It therefore appears that in general the MiFIR deferral regime has delivered on its objectives, i.e. to protect large trades while maintaining a high level of real-time transparency.

230. For shares, the volume of on-venue transactions having been subject to a deferral remains low, - i.e. 13 % of the total executed volumes. ESMA would consider this to be a satisfying outcome and would propose to maintain the regime and the applicable thresholds.

231. The volume of deferred transactions is higher for depositary receipts with 21% of the total volume of transactions not being subject to real-time publication. However, these instruments were not subject to any transparency before the implementation of MiFID II / MiFIR and having 79% of the total volume made post-trade transparent in real-time remains very positive. ESMA would propose here as well to maintain the current requirements in place.

232. Regarding ETFs, the volume of transactions subject to deferred publication is however significantly higher amounting to 40% of the total volume of ETFs executed

on-venue. ESMA notes that the percentage of deferred transactions in ETFs is also higher than for other equity instruments (6% vs 2%).

FIGURE 47 – CURRENT APPLICABLE DEFERRED PUBLICATION THRESHOLDS AND DELAYS FOR ETFs

Minimum qualifying size of transaction for permitted delay in EUR	Timing of publication after the transaction
10 000 000	60 minutes
50 000 000	End of the trading day

233. ESMA would therefore see merit in revisiting the thresholds set out for ETFs to ensure that the proportion of deferred transactions is more closely aligned with the other types of equity instruments and in particular shares and DRs.

234. More specifically, ESMA would propose to increase the minimum qualifying size of transaction for permitted delay with a 60 minutes delay from EUR 10,000,000 to EUR 20,000,000.

235. ESMA wishes to highlight that this proposal would require a change of Level 2 legislation but is proposing it in this paper as it comes as a result of the data analysis performed for this MiFID report.

Q25: Do you agree with ESMA’s assessment that the conditions for deferred publication for shares and depositary receipts should not be subject to amendments? If not, please explain.

Q26: Do you agree with ESMA’s proposal to increase the applicable threshold for ETFs and request for real-time publication for transactions that are below 20,000,000 EUR? If not, please explain.

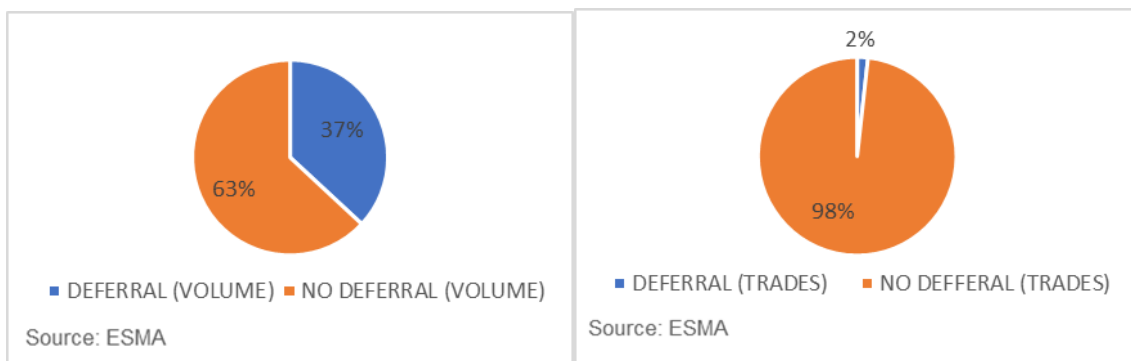
3.4.3 Assessment of the post-trade transparency framework for OTC transactions

A. Analysis

236. Article 20 of MiFIR requires investment firms to make information on transactions in financial instruments traded on a trading venue public through APAs. Furthermore, as with transactions undertaken on a trading venue, Article 20(2) provides for deferred publication for certain categories of transactions.

237. ESMA has analysed the impact of the use of deferrals for OTC and SI transactions to understand how the deferral regime is being applied in practice for such trades. The figure below presents the results of this analysis. While the results look similar to those presented above for on-venue transactions regarding the number of trades benefitting from deferred publication, the picture is quite different regarding executed turnover. The turnover of transactions benefitting from a deferral is indeed significantly higher for OTC transaction compared to on-venue transactions (15% vs 37%).

FIGURE 48 –PERCENTAGE OF TURNOVER AND NUMBER OF OTC TRANSACTIONS BENEFITTING FROM A DEFERRAL VS. SUBJECT TO REAL-TIME TRANSPARENCY



B. Conclusions and Proposals

238. As mentioned above, the turnover of deferred transactions is significantly higher on the OTC segment compared to the on-venue segment while the number of transactions is the same (in percentage terms).

239. This difference seems to indicate a difference in terms of distribution of transactions between on-venue and OTC trading (e.g. for OTC segment, the largest transactions are much bigger relatively to other transactions). However, ESMA also notes that the deferral thresholds for OTC and on-venue transactions are the same and considers that there is no reason to apply different ones. For this reason, ESMA considers that the applicable deferrals thresholds for OTC and SI transactions should be maintained aligned to those applied on-venue.

240. Key issue that still remain for OTC post trade data relate to availability and data quality. ESMA is of the view that there are significant shortcomings on data quality in particular for OTC trades and work needs to be done in this area. This report however does not further develop this issue given that it was covered in the MiFID II / MiFIR Review Report No.1. This report includes an assessment and recommendations for improving data quality, in particular for OTC trades.

Q27: Do you agree with ESMA assessment of the level of post trade transparency for OTC transactions?

241. As mentioned in the pre-trade transparency section, despite a widening in the scope of instruments subject to pre- and post-trade transparency, including those that were previously not subject to mandatory transparency requirements, the majority of turnover is not made pre-trade transparent, either by being subject to a waiver or by taking place on an SI or OTC.
242. Furthermore, the percentage of OTC trading for shares seems to be high considering the trading obligation for shares. Consequently, in order to further investigate this issue and ensuring compliance with the Regulation, ESMA proposes that the transactions not subject to the trading obligation for shares but subject to post-trade transparency requirements should be reported to FITRS and flagged and be considered for the transparency calculations i.e. the liquidity assessment, the determination of the LIS and SMS thresholds as well as the determination of the tick-size regime.

Q28: Do you agree with the proposal to report and flag transactions which are not subject to the share trading obligations but subject to post-trade transparency to FITRS? Please explain.

243. Last but not least, Article 6 of MiFIR requires market operators and investment firms operating a trading venue to publish post-trade transparency information as close to real-time as technically possible. Furthermore, Article 14 of RTS 1 defines “as close to real-time as technically possible” to be maximum one minute after the relevant transaction. In this regard, ESMA would like to collect feedback on the experience of market participants in relation to this technical specification.

Q29: What is your experience related to the publication of post-trade transparency information within 1 minute from the execution of the transaction? Do you think that the definition of “real-time” as maximum 1 minute from the time of the execution of the transaction is appropriate/too stringent/ too lenient? Please explain.

3.4.4 Transparency Requirements applicable to third country transactions

A. Analysis

244. The post-trade transparency requirements applicable in Article 20 of MiFIR require EU investment firms to make information on transactions in financial instruments traded on a trading venue public through approved publication arrangements (APA). However, Articles 20 and 21 of MiFIR do not clarify whether this obligation applies also to transactions concluded on a third-country trading venue that are not covered by a Commission’s equivalence decision.
245. During the implementation period of MiFID II, market participants and NCAs have called upon ESMA to provide guidance on the treatment of those transactions, in particular, on those third-country trading venues that are subject to transparency provisions that are similar to the post-trade transparency requirements applicable to EU trading venues as set out in Articles 6(1) and 10(1) of MiFIR.

246. In order to provide clarity and prevent different supervisory approaches across NCAs in the application of the transparency provisions, ESMA considered it necessary to provide guidance. Therefore, ESMA published an Opinion³⁰ in December 2017 to contribute to supervisory convergence and strengthen the legal certainty required for the application of MiFID II.

247. In the Opinion, ESMA considers that the purpose of MiFID II should not mean that investment firms should republish information in the EU about transactions concluded on a third-country trading venue, which are subject to similar provisions to those under the MiFID II framework. To that purpose, the Opinion sets out objective criteria that a third-country trading venue has to meet in order to be considered as a trading venue for the purposes of the MiFIR transparency regime:

- it operates a multilateral system, i.e. a system or facility in which multiple third-party buying and selling interests in financial instruments are able to interact;
- it is subject to authorisation in accordance with the legal and supervisory framework of the third-country;
- it is subject to supervision and enforcement on an ongoing basis in accordance with the legal and supervisory framework of the third-country by a competent authority that is a full signatory to the IOSCO Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information (MMoU); and,
- it has a post-trade transparency regime in place which ensures that transactions concluded on that trading venue are published as soon as possible after the transaction was executed or, in clearly defined situations, after a deferral period.

248. In order to ensure legal certainty ESMA committed to publish a list of third-country trading venues that meet the criteria set out above when an appropriate number of assessments have been completed.

B. Conclusions and Proposals

249. ESMA acknowledges a clear Level 1 mandate would have ensured further legal certainty for market participants and trading venues. However, even in the absence of such a mandate, ESMA considers that the use of its supervisory tools (i.e. an Opinion) has allowed to achieve the objectives of the legislation whilst promoting supervisory convergence within the EU. Therefore, it does not see the need to amend Level 1 provisions for this specific purpose.

Q30: Do you agree with ESMA's approach to third-country trading venues for the purpose of transparency requirements under MiFID II? If no, please explain.

³⁰ https://www.esma.europa.eu/sites/default/files/library/esma70-154-165_smsc_opinion_transparency_third_countries.pdf

3.5 Trading obligation for shares

250. Article 23 of MiFIR requires investment firms (IFs) to conclude transactions in shares admitted to trading on a regulated market or traded on an EU trading venue on RMs, MTFs, SIs or third-country trading venues assessed as equivalent by the Commission. This requirement is not applicable to transactions in shares that are either (i) non-systematic, ad-hoc, irregular and infrequent or (ii) carried out between eligible and/or professional counterparties and do not contribute to the price discovery process. Regarding the latter, Article 2 of Commission Delegated Regulation (EU) 2017/587 (RTS 1) clarifies the concept of transactions that are “not contributing to the price discovery process” and that are therefore exempted from Article 23 MiFIR.

251. As explained above, while Article 23 of MiFIR, is not explicitly mentioned in the review clauses (Article 52 of MiFIR), ESMA considers that it is essential to review this MiFIR provision which has revealed challenging to implement in practice for both supervisors and market participants.

3.5.1 Scope of the trading for shares

A. Analysis

252. Under Article 23 of MiFIR, all shares that are “admitted to trading or traded on a trading venue” are subject to the trading obligation. While ESMA concurs with the objective pursued by co-legislators to ensure that more trading in shares is executed on venue, this wide scope of application and its practical application have created challenges.

253. In particular, the application of the share trading obligation to third country shares (i.e. shares with the main pool of liquidity located outside the EU) has revealed challenging in practice for three main reasons: (i) the lack of liquidity in those shares on EU trading venues, (ii) the equivalence regime used for the purposes of the share trading obligation, and (iii) overlap with equivalent trading obligations applicable in other third countries with respect to third country shares.

Liquidity of third country shares in the EU

254. Article 23 of MiFIR does not take into consideration that certain shares are admitted to trading or available for trading on EU trading venues but in practice hardly ever trade. This is notably the case with respect to third country shares, i.e. shares with the main pool of liquidity located outside the EU.

255. Certain trading venues in the EU offer for trading the widest possible set of third country shares even though in practice those shares have very limited liquidity. ESMA understands that EU trading venues making those shares available for trading target in particular retail investors who execute small positions and therefore do not need to access deep pools of liquidity.

256. According to ESMA's figures, this is the case for more than half of the shares that are currently available for trading: there are more than 10,000 third country ISINs reported to the Financial Instruments Reference Data System (FIRDS) and 85% of them have an average daily number of transactions (ADNT) on the most relevant market in terms of liquidity (MRMTL) smaller than one.
257. This creates however more challenges for MiFID II authorised investment firms and professional investors which are de facto obliged to trade those shares on EU trading venues where there is little or no liquidity. Those investors are therefore dependent on the availability of liquidity for the list of instruments offered by the trading venues even though, given the low level of liquidity available, those trading venues may not be realistic trading platforms for those investors.
258. In this context, ESMA considers that there is merit in reflecting on how to better frame the scope of Article 23 and ensure that the obligation only applies in case where EU investors can adequately comply with the obligation.

Equivalence regime

259. Article 23 authorises EU investment firms to execute their transactions on third-country trading venues assessed as equivalent by the Commission offering, under certain conditions, a legitimate access to third country liquidity pools. However, in practice, this equivalence regime has failed to deliver its expected outcome.
260. The equivalence decision procedure, which is performed by the Commission, is defined under Article 25(4)(a) of MiFID II. It aims at ensuring that the third country legal and supervisory framework is equivalent based on a series of conditions:
- “(i) the markets are subject to authorisation and to effective supervision and enforcement on an ongoing basis;
- (ii) the markets have clear and transparent rules regarding the admission of securities to trading so that such securities are capable of being traded in a fair, orderly and efficient manner, and are freely negotiable;
- (iii) security issuers are subject to periodic and ongoing information requirements ensuring a high level of investor protection; and
- (iv) market transparency and integrity are ensured by the prevention of market abuse in the form of insider dealing and market manipulation.”
261. The Commission has taken equivalence decisions for the US, Hong-Kong, Australia and Switzerland. However, the decision for Switzerland expired on 30 June 2019. The equivalence decision process requires a long and detailed analysis of the regulatory or supervisory regime of the concerned third country and it appears unrealistic to think that the Commission could undertake this analysis for all third-countries in the near future.

262. In this context, there is a question whether shares originating from a third country not covered yet by an equivalence decision should remain with the scope of Article 23 of MiFIR. Article 23 does not provide any guidance in this respect and under a strict interpretation one could consider that, in the absence of an equivalence decision by the Commission, trading in shares on the third country trading venues is not allowed.
263. While it would make sense to restrict the ability of EU investment firms to execute transactions in EU shares on those “not yet” equivalent trading venues, it does not appear appropriate not to allow EU investment firms to execute transactions in shares from the relevant third country (i.e. shares that have their primary market or main pool of liquidity outside the EU) on the venue with the main pool of liquidity. In order to deal with this situation, ESMA and the Commission have therefore clarified, in a statement published in November 2017, that “the absence of an equivalence decision taken with respect to a particular third country's trading venues indicates that the Commission has currently no evidence that the EU trading in shares admitted to trading in that third country's regulated markets can be considered as systematic, regular and frequent” (here).
264. ESMA and the Commission indeed understand that the equivalence decisions are only relevant for EU shares. For those shares, it is important to ensure that they can only be traded on trading venues subject to equivalent regulatory and supervisory standards compared to their EU pairs so as to limit the risk of regulatory arbitrage and circumvention. However, with respect to non-EU shares, it appears less appropriate to limit by default the access to third country venues. For instance, the Commission has not so far analysed the regulatory and supervisory regime applicable in Canada. But it does not appear justified, in the absence of this assessment by the Commission, not to allow EU investment firms to trade Canadian shares on Canadian trading venues. This is what the guidance tries to clarify.
265. ESMA considers that the guidance provided is sufficient for the moment and would not recommend amending the equivalence regime used for share trading obligation purposes. However, ESMA believes that there is merit in reflecting whether third country shares should remain within the scope of Article 23 of MiFIR since this would alleviate a large part of the issue described above.

Possible overlap with third countries' trading obligation

266. The wide scope of application of Article 23 and the inclusion of third country shares within the scope of the trading obligation have also raised questions regarding the possible overlap with the regime applicable in other third countries. This issue became particularly apparent in the context of the decision from the UK to leave the EU and possibly without a withdrawal agreement.
267. ESMA's interpretation is that branches of EU investment firms remain subject to the EU trading obligation even for operations and transactions executed outside the EU. Branches do not have the legal personality and, therefore, are assimilated to their main office (i.e. the EU investment firm) for regulatory and supervisory purposes. As a

consequence, ESMA considers that branches of EU investment firms operating in the UK under a no deal-Brexit scenario remain subject to the EU trading obligation for shares. At the same time, those branches are also subject to the trading obligation applicable in the third country where they operate (e.g. the UK). Conversely, branches of third country firms operating in the EU are both subject to Article 23 of MiFIR (see Article 41(2) of MiFID II) and the rules applicable in their country of origin.

268. ESMA does not put into question that branches of EU investment firms operating outside the EU or that branches of third country firms operating in the EU should be subject to the EU share trading obligation. This is appropriate to ensure (i) effective applications of the rules and (ii) a level playing field between all EU market participants. However, in case of overlapping scope of application the EU and third country trading obligations applicable to third country shares, those branches are subject to conflicting rules whereby complying with EU law would mean breaching the rules of applicable in the relevant third country and, conversely, complying with the rules of the third country would mean ignoring the obligations applicable in the EU.

269. ESMA believes that a better calibrated scope of application of the MiFIR trading obligation to only EU shares would alleviate this concern to a very large extent. It is indeed less likely that third countries will impose a trading obligation to EU shares. Therefore, restricting the application of the Article 23 to those shares only would limit the risk of overlaps.

B. Conclusions and Proposals

270. As described above, there are many reasons justifying an exclusion of third country shares from the scope of the MiFIR trading obligation. However, ESMA agrees that translating this into legal provisions is more challenging, the challenge consisting of identifying third country shares.

271. As explained, ESMA would, in general, consider that a share should be considered a third country share where its main pool of liquidity is located outside the EU. However, determining third-country shares based on this unique criterion requires to have access to data from all relevant third countries so as to compare third-country volumes with volumes executed in the EU.

272. However, ESMA only has access to EU data and, in the past months, had to rely on other criteria and proxies to identify third country shares. More specifically, ESMA has used the first two letters of ISINs as an indicator of where liquidity resides.

273. ISINs are a simple and straightforward method to identify third country shares and this method has allowed ESMA to offer targeted solutions to the implementation issues discovered with respect to the trading obligation for shares. At the same time, ESMA is conscious that an ISIN approach may not solve issues with the share trading obligation in 100% of the cases.

274. In particular, it fails to take into account that some non-EU ISINs are primarily or only traded in the EU (and therefore should be subject to the share trading obligation) while some EU ISINs barely trade on EU trading venues (even though those instruments are available for trading on EU trading venues). This only concerns a limited number of ISINs though and the ISIN approach achieves good results in the majority of cases.
275. ESMA has already considered alternative criteria such as if the legal headquarters of the issuer being is established outside the EU (using for instance the LEI of the issuer as an indicator). However, the headquarters location has not proved to be a better indicator of where liquidity is concentrated and in particular for firms with headquarters located outside the EU for tax reasons but whose shares remain primarily traded in the EU.
276. One alternative to complement the EU ISIN approach could be to consider whether the issuer has actively sought to have its shares admitted to trading on a trading venue in a third country. Where such an issuer has not sought to admit its shares to trading on a trading venue in the EU, it may be reasonable to assume that the main pool of liquidity for the issuer's shares is located outside the EU. ESMA therefore considers that there is merit in reflecting whether such shares could be excluded from the scope of the share trading obligation, even if a certain amount of trading in such shares occurs on EU MTFs. On the one hand, this would ensure that EU investors have no restriction to trade on third country venues and therefore alleviate the concern highlighted above regarding EU ISINs with only limited liquidity on EU trading venues. On the other hand, this might incentivise European issuers to seek for admission to trading only outside the EU to avoid being caught by the trading obligation. ESMA would welcome views from market participants regarding this alternative.
277. Where an issuer has actively sought to have its shares admitted to trading both on a trading venue in a third country and on a trading venue in the EU, the position is more complex. ESMA considers that excluding such shares from the scope of the share trading obligation would not be appropriate as this would mean that there would be no restriction on trading such shares OTC.
278. ESMA would welcome views from market participants as to how to address such scenarios, given that ESMA will not have data to assess the relative liquidity of such shares in the EU versus in third countries. For example, one option could be to include such shares in scope of the share trading obligation, but to create an exception to the share trading obligation to allow such shares to be traded on third country trading venues on which the issuer has sought admission to trading.

Q31: Do you agree that the scope of the share trading obligation in Article 23 of MiFIR should be reduced to exclude third-country shares? If yes, what is the best way to identify such shares, keeping in mind that ESMA does not have data on the relative liquidity of shares in the EU versus in third countries? More generally, would you include any additional criteria to define the scope of the share trading obligation and, if yes, which ones?

3.5.2 Maintaining SIs as eligible execution venues under Article 23 of MiFIR

279. There are two other aspects of the share trading obligation where ESMA would welcome views: (i) whether SIs should remain an execution venue eligible for share trading obligation purposes and (ii) whether the exemptions listed under paragraphs (a) and (b) of Article 23(1) should be maintained.

A. Analysis

280. In particular, ESMA would welcome to receive feedback regarding whether SIs should remain an eligible execution place for the purposes of Article 23 of MiFIR. ESMA notes in this respect that the volumes executed by SIs in shares are relatively high (around 20%, see Figure 19 above). Similarly, and as clarified under section 3.2 above, the number of SIs in shares increased from ten, mostly from the UK, to above 70 with a much more even geographical distribution (Figure 18).

FIGURE 49 –PERCENTAGE OF TURNOVER TRADED BY SIs IN LIQUID AND ILLIQUID SHARES

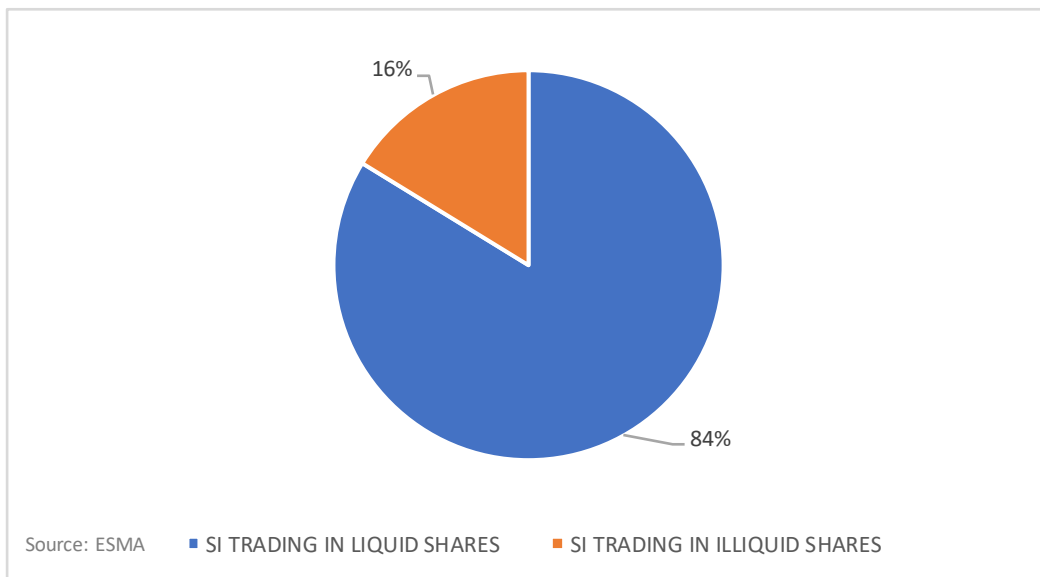


FIGURE 50 –PERCENTAGE OF TURNOVER TRADED BY SIs IN LIQUID SHARES

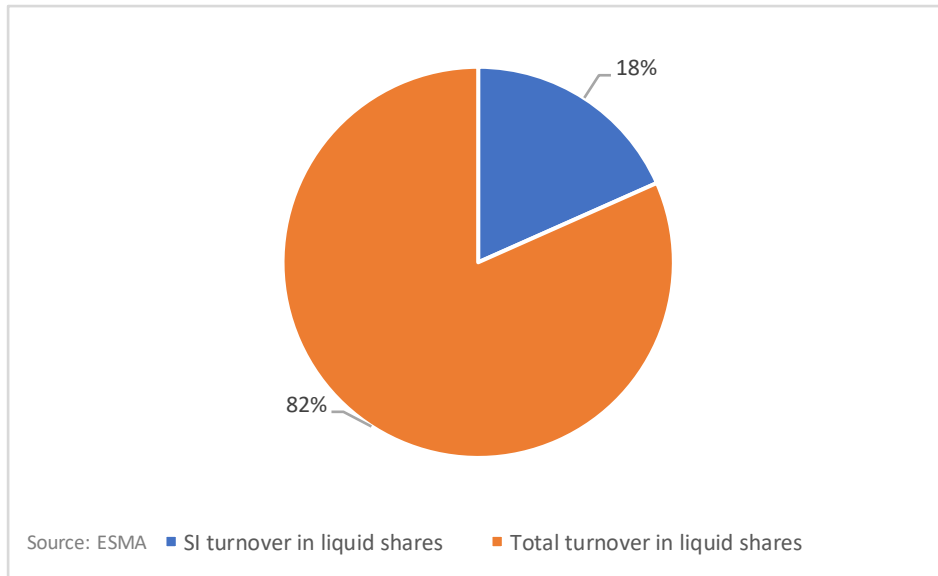
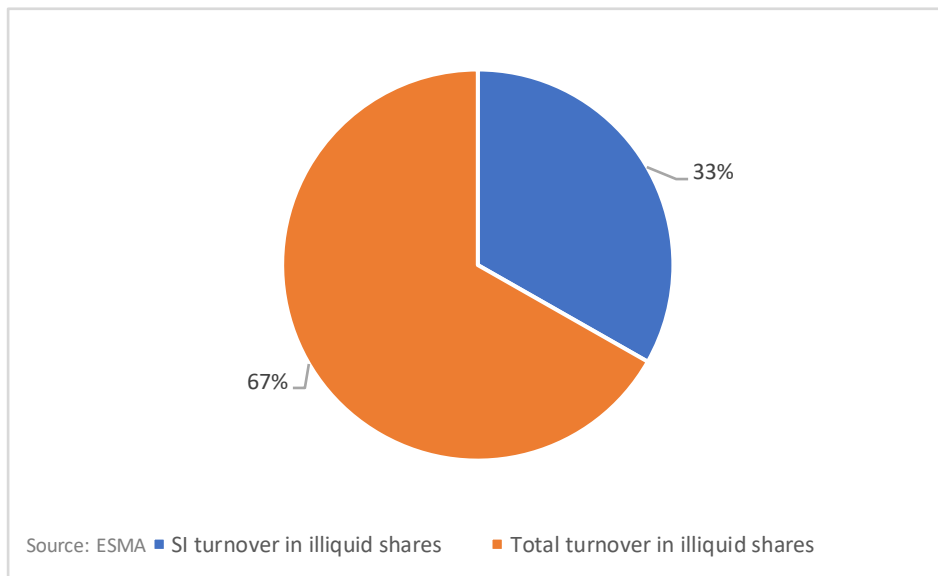


FIGURE 51 –PERCENTAGE OF TURNOVER TRADED BY SIs IN ILLIQUID SHARES



B. Conclusions and Proposals

281. ESMA appreciates that SIs have been an important source of liquidity in the past and have a crucial role in providing efficient trading alternatives to EU investors and ultimately reinforcing the competitiveness of EU trading venues.

282. At the same time, share markets have reached an unprecedented level of maturity and, in this context, one could wonder whether it is appropriate to reconsider how EU market structures for shares should be organised.

283. More specifically, it is a declared objective of MiFIR to reduce the liquidity fragmentation and to offer deeper pools of liquidity to investors. One could wonder whether the significant role of SIs in share trading and their increased number do not run in contradiction with this goal.

284. ESMA is therefore inviting views on whether SIs should remain an eligible execution place under the share trading obligation. An intermediate solution could also be to limit the share trading obligation in liquid shares to venues only whereas SI could remain an eligible execution place for illiquid shares.

Q32: Would you support removing SIs as eligible execution places for the purposes of the share trading obligation? If yes, do you think SIs should only be removed as eligible execution places with respect to liquid shares? Please provide arguments (including numerical evidence) supporting your views.

3.5.3 Exemptions listed under paragraphs (a) and (b) of Article 23(1)

A. Analysis

285. Article 23 offers two possible exemptions to the trading obligation for shares, excluding from the scope transactions that:

- a. are non-systematic, ad-hoc, irregular and infrequent; or
- b. are carried out between eligible and/or professional counterparties and do not contribute to the price discovery process.

286. The second exemption, which has been further specified under Commission Delegated Regulation (EU) 2017/587, appears justified in practice and should in ESMA's view be maintained.

287. However, ESMA believes that there is merit in reflecting on whether the first exemption should be maintained and in particular in light of the amendments suggested above with respect third-country shares (i.e. shares exempted from the trading obligation).

B. Conclusions and Proposals

288. As explained above, the first exemption has revealed a key feature of the regime in order for ESMA and Commission to ensure smooth application of the trading obligation regarding shares from third countries not yet covered by an equivalence

decision. However, should the scope of application of Article 23 be reduced to exclude third country shares in the future, ESMA believes that there are legitimate reasons to reflect on whether the exemption should be maintained. While this exemption does introduce flexibility in the application of the regime, at the same time it creates a risk of circumvention and non-convergent application since this concept of what should be “non-systematic, ad-hoc, irregular and infrequent” has not been specified anywhere.

289. In case the exemption is not deleted, ESMA considers that it may be beneficial to the share trading obligation regime to introduce a mandate in Level 1 requiring ESMA to specify the scope of this exemption in Level 2 measures. This would increase legal certainty for market participants and ensure a more harmonised and consistent application of Article 23 of MiFIR in the EU.

290. In addition, ESMA wishes to check whether the second exemption of Article 23 of MiFIR remains justified. The provision could possibly be simplified by deleting “carried out between eligible and/or professional counterparties” and ESMA is looking for feedback on how market participants are using this exemption.

Q33: Would you support deleting the first exemption provided for under Article 23 of MiFIR (i.e. for shares that are traded on a “non-systematic, ad-hoc, irregular and infrequent” basis)? If not, would you support the introduction in MiFIR of a mandate requiring ESMA to specify the scope of the exemption? Please provide arguments supporting your views.

Q34: Would you support simplifying the second exemption of Article 23 of MiFIR and not limiting it to transactions “carried out between eligible and/or professional counterparties”? Please provide arguments supporting your views.

3.6 Closing auctions

291. Over the last few years, the proportion of shares traded during the closing auctions has increased steadily on all the main European regulated markets, where it can exceed 40%. According to a study of the AMF³¹, this is a mainstream trend that can also be observed, to varying degrees, on all the main markets worldwide. The closing auction comprises a call phase of roughly five minutes during which orders are accumulated in the order book without immediately giving rise to a transaction. They are then all uncrossed at the same closing price. The AMF study explains that the rise in closing auction may stem from four main factors.

292. The first reason the AMF study evidenced is the expansion of passive management (the ETFs in particular) as the creation / redemption of units generally

³¹ Growing importance of the closing auction in share trading volumes, 9 October 2019, Autorité des Marchés Financiers, https://www.amf-france.org/en_US/Publications/Lettres-et-cahiers/Risques-et-tendances/Archives?docId=workspace%3A%2F%2FspacesStore%2Fa16f34e9-6cae-4bd3-adc6-0fb96a559b9e

takes place at the end of the day and uses the net asset value (NAV) as the reference price. In Europe, since these transactions are settled in cash, both issuers and Authorized Participants ("APs") need to effectively trade the underlying basket of the ETFs at the closing price in order to exactly replicate the NAV, thereby increasing the volumes traded at the closing auction.

293. Secondly, the entry into force of MiFID II in January 2018 increased fund managers' "Trade & Cost Analysis" (TCA) reporting obligations which are entitled to their clients. Trading at the closing auction greatly facilitates these regulatory matters and might lead certain fund managers (or any market participants subject to Best Execution requirements) to trade accordingly.

294. Another reason, according to the study, could be a desire from market participants who are concerned with the risk of adverse selection, to avoid facing high-frequency traders. By trading at the closing auction, they may limit their price impact while avoiding potential arbitrage from HFTs, whose presence has traditionally been limited during this phase of the session.

295. Finally, the increasing use of algorithms to execute orders may amplify the phenomenon as they tend to trade when liquidity is historically highest. The most widespread types of algorithm are deemed to be VWAP-like (Volume Weighted Average Price), which adapt their execution volumes to that of the market in general (in order to limit their own impact and be better benchmarked to the market from a TCA perspective). In other words, liquidity attracts liquidity.

Q35: What is your view on the increase of volumes executed through closing auctions? Do you think ESMA should take actions to influence this market trend and if yes which one?

4 Annexes

4.1 Annex I

Tables including liquid and illiquid instruments

Shares

ADT range		SHRS																				Average AVT of the ADT range	ADT range
		Percentage of instruments in the ADT range	AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000		
ADT = 0		17.25%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-		
0.00000001	2,500	27.01%	3.14%	81.79%	8.97%	3.50%	1.44%	0.47%	0.20%	0.19%	0.03%	0.03%	0.03%	0.03%	0.02%	0.03%	0.05%	0%	0.02%	0.05%	1,974	ADT < 50,000	
2,500	5,000	3.77%	2.30%	71.07%	13.08%	5.69%	3.27%	1.45%	0.61%	0.36%	0.36%	0.61%	0%	0%	0%	0.24%	0%	0.12%	0%	0.85%	7,825		
5,000	10,000	4.29%	1.81%	65.14%	16.05%	8.18%	4.14%	1.28%	0.74%	0.32%	0.43%	0.32%	0.43%	0%	0.11%	0.11%	0.11%	0%	0%	0.85%	9,066		
10,000	20,000	4.88%	1.03%	62.77%	19.36%	7.86%	4.40%	1.59%	0.65%	0.47%	0.47%	0.09%	0.19%	0%	0.09%	0.28%	0%	0.19%	0%	0.56%	6,976		
20,000	30,000	2.88%	1.74%	56.74%	19.18%	8.87%	6.50%	1.90%	1.11%	0.63%	0.48%	0.63%	0.32%	0%	0%	0.48%	0.16%	0.16%	0%	1.11%	7,997		
30,000	40,000	2.35%	0.97%	50.97%	21.51%	12.02%	6.20%	3.10%	1.74%	0.58%	0.19%	0.19%	0.39%	0.19%	0.19%	0.19%	0.19%	0%	0.19%	1.16%	10,575	50,000 <= ADT < 100,000	
40,000	50,000	1.71%	1.87%	46.93%	25.07%	13.07%	3.73%	2.67%	0.53%	1.60%	1.60%	0.53%	0.53%	0.27%	0.27%	0%	0%	0%	0%	1.33%	10,772		
50,000	60,000	1.61%	0.85%	41.19%	25.00%	15.91%	8.81%	2.56%	1.42%	0.57%	0.57%	0.57%	0.28%	0%	0.28%	0.28%	0%	0%	0%	1.70%	15,614		
60,000	70,000	1.38%	0.33%	43.05%	29.14%	14.57%	5.63%	2.32%	0.99%	0%	1.32%	0.99%	0.66%	0.33%	0.33%	0%	0%	0%	0%	0.33%	7,379		
70,000	80,000	1.08%	0.84%	36.71%	25.32%	16.88%	10.13%	3.38%	2.95%	0.84%	0%	0.42%	0.42%	1.27%	0%	0%	0.42%	0%	0%	0.42%	28,881		
80,000	90,000	1.06%	0%	36.48%	23.18%	18.45%	10.73%	3.43%	2.15%	2.15%	0.43%	0.86%	0%	0%	0%	0%	0%	0%	0.43%	1.72%	14,394		
90,000	100,000	0.83%	0%	39.78%	25.97%	19.89%	9.39%	1.10%	0.55%	0%	0%	0.55%	0.55%	0.55%	0%	0%	0.55%	0%	0%	1.10%	9,775		

ADT range		Percentage of instruments in the ADT range	SHRS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
100,000	110,000	0.69%	0%	34.44%	28.48%	19.87%	5.96%	3.31%	3.31%	0%	1.32%	0%	0.66%	0.66%	0.66%	0%	0%	0%	0.66%	0.66%	9,992	
110,000	120,000	0.63%	0%	33.09%	28.78%	26.62%	5.04%	1.44%	0.72%	0.72%	0%	0%	0%	0.72%	0%	0.72%	0%	0%	0%	2.16%	13,989	
120,000	130,000	0.63%	0%	29.71%	28.26%	23.19%	10.14%	4.35%	1.45%	0.72%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2.17%	11,716	
130,000	140,000	0.55%	0.83%	30.83%	20.83%	27.50%	10.83%	5.00%	3.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.83%	9,223	
140,000	150,000	0.48%	0%	29.25%	26.42%	18.87%	8.49%	3.77%	2.83%	5.66%	0%	0.94%	0.94%	0%	0%	0%	0%	0%	0%	2.83%	18,470	
150,000	160,000	0.52%	0%	33.63%	22.12%	21.24%	10.62%	6.19%	3.54%	0.88%	0%	0.88%	0%	0%	0%	0%	0%	0%	0%	0.88%	9,476	
160,000	170,000	0.45%	1.02%	36.73%	18.37%	20.41%	15.31%	2.04%	2.04%	2.04%	1.02%	0%	0%	0%	0%	0%	0%	0%	0%	1.02%	9,107	
170,000	180,000	0.47%	1.92%	26.92%	25.00%	21.15%	14.42%	3.85%	1.92%	0.96%	0%	0%	0.96%	0%	0%	0%	0%	0%	0.96%	1.92%	14,089	
180,000	190,000	0.42%	0%	29.03%	26.88%	22.58%	10.75%	3.23%	0%	4.30%	0%	0%	0%	0%	0%	1.08%	0%	0%	2.15%	12,808		
190,000	200,000	0.38%	0%	14.29%	25.00%	28.57%	17.86%	5.95%	2.38%	4.76%	0%	0%	0%	1.19%	0%	0%	0%	0%	0%	0%	11,066	
200,000	210,000	0.41%	1.11%	25.56%	34.44%	16.67%	10.00%	8.89%	1.11%	1.11%	1.11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,898	
210,000	220,000	0.37%	0%	17.07%	25.61%	30.49%	19.51%	3.66%	1.22%	1.22%	0%	0%	0%	0%	0%	0%	0%	0%	1.22%	0%	10,538	
220,000	230,000	0.36%	0%	29.49%	23.08%	25.64%	12.82%	1.28%	5.13%	0%	0%	0%	1.28%	0%	0%	0%	0%	0%	1.28%	0%	12,003	
230,000	240,000	0.31%	0%	27.94%	20.59%	25.00%	13.24%	5.88%	1.47%	0%	1.47%	1.47%	0%	0%	0%	0%	0%	0%	0%	2.94%	17,806	
240,000	250,000	0.30%	1.52%	16.67%	31.82%	22.73%	13.64%	9.09%	1.52%	0%	0%	0%	0%	0%	1.52%	0%	0%	0%	1.52%	0%	11,582	
250,000	260,000	0.26%	0%	28.07%	26.32%	28.07%	8.77%	3.51%	1.75%	1.75%	0%	0%	0%	1.75%	0%	0%	0%	0%	0%	0%	8,541	
260,000	270,000	0.23%	0%	30.00%	16.00%	22.00%	12.00%	6.00%	4.00%	0%	6.00%	0%	2.00%	0%	0%	0%	2.00%	0%	0%	0%	14,040	
270,000	280,000	0.26%	0%	26.79%	16.07%	28.57%	12.50%	10.71%	1.79%	0%	1.79%	0%	0%	0%	0%	0%	0%	0%	1.79%	0%	13,264	
280,000	290,000	0.25%	0%	27.78%	14.81%	25.93%	20.37%	3.70%	3.70%	0%	0%	1.85%	0%	0%	0%	0%	0%	0%	1.85%	0%	14,492	
290,000	300,000	0.28%	0%	20.97%	32.26%	25.81%	8.06%	4.84%	3.23%	0%	3.23%	0%	1.61%	0%	0%	0%	0%	0%	0%	0%	9,764	100,000 =< ADT < 500,000
300,000	310,000	0.21%	0%	14.89%	27.66%	36.17%	10.64%	0%	0%	4.26%	2.13%	0%	0%	2.13%	2.13%	0%	0%	0%	0%	0%	12,331	
310,000	320,000	0.25%	0%	20.00%	23.64%	29.09%	12.73%	3.64%	0%	3.64%	0%	1.82%	0%	0%	1.82%	0%	0%	0%	3.64%	0%	19,716	
320,000	330,000	0.21%	0%	29.79%	19.15%	31.91%	6.38%	6.38%	2.13%	0%	2.13%	2.13%	0%	0%	0%	0%	0%	0%	0%	0%	8,948	
330,000	340,000	0.21%	0%	22.22%	13.33%	28.89%	17.78%	8.89%	6.67%	0%	0%	2.22%	0%	0%	0%	0%	0%	0%	0%	0%	11,250	
340,000	350,000	0.23%	0%	24.00%	24.00%	28.00%	10.00%	6.00%	2.00%	4.00%	0%	2.00%	0%	0%	0%	0%	0%	0%	0%	0%	10,206	
350,000	360,000	0.20%	0%	20.93%	18.60%	27.91%	18.60%	4.65%	2.33%	4.65%	2.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,610	
360,000	370,000	0.18%	0%	25.64%	23.08%	23.08%	10.26%	5.13%	2.56%	2.56%	5.13%	0%	0%	0%	0%	0%	2.56%	0%	0%	0%	13,392	
370,000	380,000	0.21%	0%	21.74%	23.91%	28.26%	17.39%	0%	4.35%	0%	2.17%	0%	0%	0%	0%	0%	0%	0%	2.17%	0%	12,283	
380,000	390,000	0.18%	0%	22.50%	15.00%	35.00%	12.50%	5.00%	2.50%	2.50%	2.50%	2.50%	0%	0%	0%	0%	0%	0%	0%	0%	10,929	
390,000	400,000	0.16%	0%	14.71%	35.29%	32.35%	11.76%	2.94%	0%	0%	0%	2.94%	0%	0%	0%	0%	0%	0%	0%	0%	7,577	
400,000	410,000	0.16%	0%	11.43%	34.29%	22.86%	17.14%	5.71%	0%	5.71%	0%	0%	2.86%	0%	0%	0%	0%	0%	0%	0%	11,639	
410,000	420,000	0.15%	0%	18.75%	28.13%	21.88%	15.63%	0%	9.38%	3.13%	0%	0%	0%	0%	0%	0%	0%	0%	3.13%	0%	14,942	
420,000	430,000	0.13%	0%	20.69%	24.14%	24.14%	13.79%	3.45%	3.45%	3.45%	3.45%	0%	0%	3.45%	0%	0%	0%	0%	0%	0%	12,177	
430,000	440,000	0.16%	0%	19.44%	19.44%	30.56%	8.33%	16.67%	2.78%	0%	2.78%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,777	
440,000	450,000	0.14%	3.33%	16.67%	26.67%	20.00%	20.00%	0%	3.33%	0%	3.33%	0%	0%	3.33%	0%	0%	0%	0%	3.33%	0%	15,952	
450,000	460,000	0.13%	0%	31.03%	6.90%	20.69%	13.79%	10.34%	0%	3.45%	3.45%	0%	0%	0%	0%	0%	3.45%	3.45%	3.45%	0%	24,250	
460,000	470,000	0.14%	0%	12.90%	29.03%	29.03%	12.90%	3.23%	6.45%	0%	6.45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,957	
470,000	480,000	0.09%	0%	25.00%	10.00%	35.00%	20.00%	5.00%	0%	0%	0%	0%	0%	0%	0%	0%	5.00%	0%	0%	0%	13,557	
480,000	490,000	0.12%	0%	29.63%	25.93%	22.22%	11.11%	0%	0%	0%	0%	0%	0%	3.70%	0%	0%	0%	0%	0%	7.41%	25,453	
490,000	500,000	0.12%	0%	23.08%	19.23%	15.38%	11.54%	15.38%	3.85%	0%	0%	0%	3.85%	0%	0%	0%	0%	0%	3.85%	3.85%	23,696	

ADT range		Percentage of instruments in the ADT range	SHRS																	Average AVT of the ADT range	ADT range	
			AVT range																			
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000
500,000	510,000	0.10%	0%	22.73%	18.18%	45.45%	13.64%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,963	500,000 =< ADT < 1,000,000
510,000	520,000	0.16%	0%	19.44%	30.56%	25.00%	22.22%	2.78%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,387	
520,000	530,000	0.16%	0%	13.89%	25.00%	27.78%	16.67%	8.33%	2.78%	0%	0%	0%	0%	2.78%	0%	0%	0%	0%	0%	2.78%	35,381	
530,000	540,000	0.11%	0%	16.00%	12.00%	32.00%	16.00%	12.00%	4.00%	0%	0%	4.00%	0%	0%	0%	0%	0%	4.00%	0%	0%	18,236	
540,000	550,000	0.12%	0%	26.92%	15.38%	26.92%	26.92%	0%	0%	3.85%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,811	
550,000	560,000	0.10%	0%	23.81%	14.29%	38.10%	9.52%	4.76%	4.76%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,207	
560,000	570,000	0.07%	0%	31.25%	25.00%	25.00%	6.25%	6.25%	6.25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,170	
570,000	580,000	0.09%	0%	40.00%	10.00%	30.00%	15.00%	0%	0%	0%	0%	5.00%	0%	0%	0%	0%	0%	0%	0%	0%	9,378	
580,000	590,000	0.07%	0%	13.33%	33.33%	40.00%	6.67%	0%	0%	0%	0%	6.67%	0%	0%	0%	0%	0%	0%	0%	0%	9,511	
590,000	600,000	0.04%	0%	11.11%	11.11%	44.44%	11.11%	0%	0%	0%	0%	22.22%	0%	0%	0%	0%	0%	0%	0%	0%	18,906	
600,000	610,000	0.11%	0%	37.50%	16.67%	33.33%	8.33%	4.17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,653	
610,000	620,000	0.10%	0%	21.74%	17.39%	26.09%	13.04%	13.04%	4.35%	0%	0%	4.35%	0%	0%	0%	0%	0%	0%	0%	0%	12,707	
620,000	630,000	0.13%	0%	14.29%	17.86%	32.14%	14.29%	3.57%	0%	0%	0%	3.57%	3.57%	0%	0%	0%	0%	0%	0%	10.71%	65,058	
630,000	640,000	0.09%	0%	21.05%	26.32%	36.84%	10.53%	0%	0%	0%	0%	5.26%	0%	0%	0%	0%	0%	0%	0%	0%	8,425	
640,000	650,000	0.10%	0%	26.09%	17.39%	21.74%	4.35%	13.04%	8.70%	0%	8.70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,399	
650,000	660,000	0.11%	0%	25.00%	8.33%	20.83%	16.67%	0%	8.33%	4.17%	0%	4.17%	8.33%	0%	4.17%	0%	0%	0%	0%	0%	22,708	
660,000	670,000	0.11%	0%	28.00%	28.00%	24.00%	16.00%	4.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,131	
670,000	680,000	0.07%	0%	13.33%	26.67%	46.67%	6.67%	0%	6.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,183	
680,000	690,000	0.09%	0%	15.00%	20.00%	15.00%	25.00%	10.00%	5.00%	5.00%	0%	0%	0%	0%	0%	0%	0%	0%	5.00%	0%	33,640	
690,000	700,000	0.07%	0%	6.67%	20.00%	40.00%	13.33%	6.67%	6.67%	0%	6.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13,316	
700,000	710,000	0.08%	0%	22.22%	33.33%	22.22%	22.22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,247	
710,000	720,000	0.07%	0%	20.00%	13.33%	40.00%	0%	6.67%	6.67%	6.67%	0%	0%	0%	0%	0%	0%	0%	0%	6.67%	0%	19,770	
720,000	730,000	0.05%	0%	0%	8.33%	33.33%	16.67%	16.67%	0%	8.33%	8.33%	0%	0%	8.33%	0%	0%	0%	0%	0%	0%	26,063	
730,000	740,000	0.06%	0%	7.14%	0%	21.43%	42.86%	14.29%	7.14%	7.14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,446	
740,000	750,000	0.10%	0%	19.05%	23.81%	38.10%	14.29%	4.76%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,891	
750,000	760,000	0.07%	0%	31.25%	18.75%	6.25%	18.75%	0%	0%	6.25%	0%	6.25%	0%	6.25%	0%	0%	0%	0%	6.25%	0%	28,119	
760,000	770,000	0.08%	0%	17.65%	29.41%	17.65%	17.65%	5.88%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11.76%	0%	44,176	
770,000	780,000	0.06%	0%	7.69%	38.46%	38.46%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,585	
780,000	790,000	0.06%	0%	14.29%	42.86%	0%	21.43%	7.14%	0%	0%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,529	
790,000	800,000	0.06%	0%	7.69%	38.46%	30.77%	7.69%	0%	0%	15.38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,953	
800,000	810,000	0.05%	0%	10.00%	40.00%	20.00%	20.00%	0%	0%	10.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,347	
810,000	820,000	0.08%	0%	11.11%	33.33%	5.56%	16.67%	5.56%	11.11%	5.56%	0%	0%	0%	5.56%	0%	0%	5.56%	0%	0%	0%	23,184	
820,000	830,000	0.05%	0%	16.67%	25.00%	16.67%	8.33%	8.33%	0%	8.33%	8.33%	0%	8.33%	0%	0%	0%	0%	0%	0%	0%	20,879	
830,000	840,000	0.06%	0%	15.38%	30.77%	30.77%	23.08%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,715	
840,000	850,000	0.06%	0%	28.57%	28.57%	7.14%	28.57%	7.14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,394	
850,000	860,000	0.06%	0%	14.29%	14.29%	35.71%	21.43%	0%	0%	0%	0%	7.14%	0%	0%	0%	0%	0%	7.14%	0%	0%	21,730	
860,000	870,000	0.05%	0%	20.00%	30.00%	30.00%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,953	
870,000	880,000	0.06%	0%	53.85%	7.69%	0%	15.38%	0%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	7.69%	0%	7.69%	28,552	
880,000	890,000	0.04%	0%	11.11%	33.33%	22.22%	0%	0%	11.11%	0%	22.22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	18,626	
890,000	900,000	0.07%	0%	31.25%	18.75%	18.75%	12.50%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6.25%	0%	16,640	
900,000	910,000	0.06%	0%	23.08%	15.38%	30.77%	23.08%	0%	0%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,124	
910,000	920,000	0.05%	0%	27.27%	9.09%	27.27%	27.27%	0%	0%	9.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,347	
920,000	930,000	0.07%	0%	13.33%	33.33%	13.33%	0%	13.33%	13.33%	0%	6.67%	0%	0%	0%	0%	0%	0%	6.67%	0%	0%	23,325	
930,000	940,000	0.07%	0%	33.33%	6.67%	13.33%	20.00%	6.67%	0%	13.33%	0%	6.67%	0%	0%	0%	0%	0%	0%	0%	0%	17,305	
940,000	950,000	0.03%	0%	16.67%	16.67%	33.33%	16.67%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,533	
950,000	960,000	0.04%	0%	25.00%	25.00%	37.50%	0%	0%	0%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,014	
960,000	970,000	0.08%	0%	0%	17.65%	52.94%	17.65%	5.88%	0%	0%	5.88%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,986	
970,000	980,000	0.05%	0%	25.00%	41.67%	8.33%	16.67%	0%	0%	8.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,667	
980,000	990,000	0.06%	0%	23.08%	7.69%	23.08%	15.38%	23.08%	0%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,010	
990,000	1,000,000	0.06%	0%	21.43%	28.57%	21.43%	7.14%	7.14%	0%	0%	7.14%	0%	0%	0%	0%	0%	0%	7.14%	0%	0%	18,731	

ADT range		Percentage of instruments in the ADT range	SHRS																	Average AVT of the ADT range	ADT range		
			AVT range																				
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000
1,000,000	1,500,000	1.88%	0%	13.59%	23.30%	24.76%	15.05%	6.80%	3.88%	3.16%	0.73%	2.18%	1.70%	0.49%	0.73%	0%	0.97%	0.24%	0%	2.43%	24,943	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	1.24%	0%	9.56%	27.94%	20.96%	16.91%	9.56%	3.68%	2.94%	1.84%	1.10%	1.10%	0.74%	0.74%	0%	0.37%	0%	0.37%	2.21%	21,491		
2,000,000	2,500,000	0.89%	0%	9.79%	26.29%	19.07%	18.04%	8.76%	5.67%	2.06%	3.09%	1.55%	1.55%	1.55%	0.52%	0%	0%	0.52%	0%	1.55%	21,554		
2,500,000	3,000,000	0.79%	0%	8.09%	31.79%	17.34%	16.18%	9.83%	6.36%	2.31%	2.89%	0.58%	0%	0%	1.16%	1.16%	0%	1.16%	0%	1.16%	18,920		
3,000,000	3,500,000	0.47%	0%	6.86%	31.37%	12.75%	19.61%	8.82%	5.88%	2.94%	0.98%	0%	1.96%	1.96%	1.96%	0%	0%	0.98%	0%	3.92%	24,154		
3,500,000	4,000,000	0.51%	0%	8.93%	33.93%	15.18%	12.50%	6.25%	4.46%	7.14%	2.68%	0.89%	0%	0.89%	0.89%	0%	0.89%	0%	0.89%	0%	2.68%		29,426
4,000,000	4,500,000	0.43%	0%	1.06%	34.04%	19.15%	10.64%	11.70%	4.26%	9.57%	3.19%	1.06%	1.06%	0%	1.06%	0%	0%	0%	0%	3.19%	29,714		
4,500,000	5,000,000	0.34%	0%	8.11%	25.68%	12.16%	17.57%	13.51%	5.41%	0%	2.70%	6.76%	0%	1.35%	1.35%	1.35%	0%	0%	0%	4.05%	32,019		
5,000,000	5,500,000	0.31%	0%	1.49%	28.36%	25.37%	14.93%	7.46%	1.49%	2.99%	7.46%	1.49%	1.49%	0%	2.99%	2.99%	0%	1.49%	0%	1.49%	22,486		
5,500,000	6,000,000	0.36%	1.28%	6.41%	34.62%	15.38%	8.97%	8.97%	3.85%	1.28%	2.56%	3.85%	3.85%	0%	2.56%	2.56%	1.28%	0%	1.28%	1.28%	27,656		
6,000,000	6,500,000	0.24%	0%	1.92%	34.62%	15.38%	17.31%	7.69%	5.77%	1.92%	1.92%	1.92%	1.92%	1.92%	0%	0%	0%	0%	0%	7.69%	30,882		
6,500,000	7,000,000	0.25%	0%	3.64%	30.91%	12.73%	9.09%	14.55%	1.82%	3.64%	3.64%	0%	1.82%	0%	1.82%	5.45%	0%	3.64%	0%	7.27%	40,813		
7,000,000	7,500,000	0.20%	0%	0%	34.88%	11.63%	11.63%	11.63%	9.30%	4.65%	2.33%	4.65%	0%	0%	0%	0%	0%	0%	0%	4.65%	31,202		
7,500,000	8,000,000	0.23%	0%	3.92%	35.29%	13.73%	11.76%	9.80%	1.96%	3.92%	5.88%	5.88%	0%	1.96%	0%	0%	3.92%	0%	0%	1.96%	30,169		
8,000,000	8,500,000	0.15%	0%	3.03%	21.21%	33.33%	9.09%	6.06%	6.06%	9.09%	3.03%	0%	3.03%	0%	3.03%	0%	3.03%	0%	0%	0%	22,948		
8,500,000	9,000,000	0.19%	0%	4.76%	28.57%	21.43%	0%	9.52%	9.52%	2.38%	2.38%	0%	0%	2.38%	2.38%	0%	2.38%	2.38%	2.38%	9.52%	42,778		
9,000,000	9,500,000	0.12%	0%	7.41%	29.63%	14.81%	11.11%	3.70%	3.70%	3.70%	3.70%	0%	0%	0%	7.41%	3.70%	0%	0%	0%	7.41%	38,201		
9,500,000	10,000,000	0.16%	0%	2.78%	30.56%	19.44%	5.56%	13.89%	2.78%	5.56%	0%	5.56%	2.78%	0%	0%	2.78%	2.78%	2.78%	0%	2.78%	34,887		
10,000,000	15,000,000	1.02%	0%	2.24%	28.70%	24.22%	9.42%	8.07%	4.93%	4.04%	2.24%	2.24%	1.35%	4.04%	3.59%	0%	0.45%	0.90%	1.35%	5.83%	34,343		
15,000,000	20,000,000	0.58%	0%	0.79%	14.17%	38.58%	4.72%	3.15%	3.94%	4.72%	3.15%	0%	0%	0.79%	3.94%	2.36%	0%	0.79%	2.36%	16.54%	63,992		
20,000,000	25,000,000	0.43%	0%	2.13%	15.96%	38.30%	10.64%	6.38%	5.32%	3.19%	1.06%	2.13%	1.06%	0%	0%	0%	0%	0%	1.06%	12.77%	57,657		
25,000,000	30,000,000	0.45%	0%	2.02%	12.12%	44.44%	8.08%	5.05%	5.05%	3.03%	1.01%	3.03%	2.02%	1.01%	1.01%	0%	0%	2.02%	1.01%	9.09%	55,656		
30,000,000	35,000,000	0.24%	0%	0%	9.62%	51.92%	9.62%	1.92%	1.92%	3.85%	0%	0%	1.92%	0%	1.92%	0%	1.92%	0%	1.92%	13.46%	55,656		
35,000,000	40,000,000	0.30%	0%	3.03%	9.09%	53.03%	10.61%	7.58%	0%	1.52%	3.03%	0%	0%	1.52%	1.52%	0%	0%	1.52%	0%	7.58%	29,873		
40,000,000	45,000,000	0.21%	0%	0%	12.77%	57.45%	8.51%	4.26%	4.26%	0%	0%	0%	0%	2.13%	0%	0%	0%	0%	0%	10.64%	43,793		
45,000,000	50,000,000	0.16%	0%	2.94%	2.94%	52.94%	11.76%	5.88%	0%	2.94%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20.59%	68,701		
50,000,000	55,000,000	0.16%	0%	0%	5.88%	58.82%	8.82%	0%	2.94%	2.94%	0%	0%	0%	0%	0%	2.94%	0%	0%	0%	17.65%	59,683		
55,000,000	60,000,000	0.11%	0%	0%	4.00%	52.00%	20.00%	8.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4.00%	0%	12.00%	61,869		
60,000,000	65,000,000	0.15%	0%	0%	3.13%	62.50%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	3.13%	0%	0%	0%	18.75%	95,812		
65,000,000	70,000,000	0.08%	0%	5.56%	5.56%	55.56%	5.56%	11.11%	0%	0%	0%	0%	5.56%	0%	0%	0%	0%	0%	0%	11.11%	63,949		
70,000,000	75,000,000	0.09%	0%	5.26%	5.26%	68.42%	10.53%	5.26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5.26%	26,116		
75,000,000	80,000,000	0.07%	0%	0%	0%	53.33%	20.00%	0%	0%	0%	6.67%	0%	0%	6.67%	0%	0%	0%	0%	0%	13.33%	126,438		
80,000,000	85,000,000	0.07%	0%	0%	6.67%	66.67%	13.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13.33%	44,905		
85,000,000	90,000,000	0.04%	0%	0%	0%	55.56%	11.11%	0%	0%	0%	0%	0%	0%	0%	11.11%	0%	0%	0%	0%	22.22%	87,114		
90,000,000	95,000,000	0.11%	0%	4.00%	0%	64.00%	16.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16.00%	57,636		
95,000,000	100,000,000	0.03%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,744		



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	SHRS																	Average AVT of the ADT range	ADT range	
			AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000
100,000,000	150,000,000	0.49%	0%	0.93%	5.61%	51.40%	35.51%	0%	0%	0.93%	0%	0%	0%	0%	0%	0%	0%	0.93%	0%	4.67%	47,218	ADT >= 100,000,000
150,000,000	200,000,000	0.17%	0%	0%	0%	32.43%	48.65%	8.11%	2.70%	0%	0%	0%	0%	0%	0%	0%	0%	2.70%	0%	5.41%	43,047	
200,000,000	250,000,000	0.10%	0%	0%	0%	27.27%	59.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9.09%	45,859	
250,000,000	300,000,000	0.08%	0%	0%	0%	23.53%	64.71%	0%	0%	0%	0%	5.88%	0%	0%	0%	0%	0%	0%	0%	5.88%	39,050	
300,000,000	350,000,000	0.11%	0%	0%	0%	8.00%	92.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,193	
350,000,000	400,000,000	0.08%	0%	0%	0%	0%	94.12%	0%	0%	0%	0%	0%	5.88%	0%	0%	0%	0%	0%	0%	0%	17,502	
400,000,000	450,000,000	0.04%	0%	0%	0%	33.33%	44.44%	22.22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,478	
450,000,000	500,000,000	0.05%	0%	0%	0%	0%	81.82%	9.09%	9.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,541	
500,000,000	550,000,000	0.03%	0%	0%	0%	0%	33.33%	50.00%	0%	0%	0%	0%	0%	0%	0%	16.67%	0%	0%	0%	0%	36,586	
550,000,000	600,000,000	0.02%	0%	0%	0%	0%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	0%	42,249	
600,000,000	650,000,000	0.02%	0%	0%	0%	0%	75.00%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,128	
650,000,000	700,000,000	0.00%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,667	
700,000,000	750,000,000	0.02%	0%	0%	0%	0%	75.00%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,581	
750,000,000	800,000,000	0.02%	0%	0%	0%	25.00%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,328	
800,000,000	850,000,000	0.01%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,281	
850,000,000	900,000,000	0.03%	0%	0%	0%	0%	83.33%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17,466	
900,000,000	950,000,000	0.01%	0%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20,802	
950,000,000	#####	0.00%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,919	
#####	#####	0.05%	10.00%	0%	0%	10.00%	60.00%	10.00%	0%	0%	10.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,907	
#####	#####	0.02%	0%	0%	0%	0%	80.00%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,030	
#####	#####	0.01%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,173	
#####	#####	0%																				
#####	#####	0%																				
#####	#####	0.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	153,497	
>= 4,000,000,000		0.01%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,082.90	
Total number of instruments		21,919																				

Source: ESMA

Depository receipts

ADT range		DPRS																				Average AVT of the ADT range	ADT range	
		Percentage of instruments in the ADT range	AVT range																					
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000			
ADT = 0		24.15%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-		
0.00000001	2,500	24.35%	1.23%	56.15%	18.85%	10.66%	3.69%	2.46%	1.23%	1.23%	0.82%	0%	0.82%	0%	0%	0%	0%	0%	0%	0%	1.64%	10,265		
2,500	5,000	4.99%	6.00%	34.00%	24.00%	14.00%	6.00%	4.00%	0%	2.00%	4.00%	0%	0%	2.00%	0%	0%	0%	0%	2.00%	0%	2.00%	18,727		
5,000	10,000	5.09%	0%	41.18%	17.65%	7.84%	11.76%	3.92%	1.96%	0%	0%	1.96%	0%	0%	0%	0%	0%	0%	0%	0%	13.73%	48,938	ADT < 50,000	
10,000	20,000	4.29%	4.65%	34.88%	23.26%	16.28%	9.30%	4.65%	0%	0%	0%	2.33%	0%	0%	0%	0%	0%	0%	0%	0%	4.65%	14,501		
20,000	30,000	3.89%	0%	30.77%	17.95%	17.95%	7.69%	5.13%	2.56%	0%	2.56%	2.56%	2.56%	0%	0%	0%	0%	0%	0%	0%	7.69%	66,360		
30,000	40,000	1.20%	0%	16.67%	8.33%	16.67%	8.33%	16.67%	0%	0%	0%	8.33%	0%	0%	0%	8.33%	0%	0%	0%	8.33%	8.33%	114,322		
40,000	50,000	1.60%	0%	25.00%	18.75%	6.25%	0%	12.50%	0%	0%	0%	0%	6.25%	0%	0%	0%	0%	0%	0%	0%	31.25%	163,681		
50,000	60,000	0.70%	0%	42.86%	28.57%	0%	14.29%	0%	0%	0%	0%	0%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	14,108		
60,000	70,000	0.70%	0%	71.43%	0%	14.29%	0%	0%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,001	50,000 =< ADT < 100,000	
70,000	80,000	1.30%	0%	38.46%	7.69%	30.77%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7.69%	7.69%	108,749		
80,000	90,000	0.90%	0%	11.11%	33.33%	22.22%	0%	0%	11.11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	22.22%	97,871		
90,000	100,000	0.20%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,630		

ADT range		Percentage of instruments in the ADT range	DPRS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
100,000	110,000	0.90%	0%	11.11%	33.33%	0%	0%	22.22%	0%	0%	0%	11.11%	0%	0%	0%	11.11%	0%	0%	0%	11.11%	47,583	100,000 =< ADT < 500,000	
110,000	120,000	0.70%	0%	14.29%	14.29%	42.86%	0%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14.29%	56,479		
120,000	130,000	0.80%	0%	12.50%	50.00%	0%	0%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	205,192		
130,000	140,000	0.60%	0%	16.67%	16.67%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	16.67%	0%	0%	0%	0%	33.33%	170,304		
140,000	150,000	0.60%	0%	16.67%	0%	50.00%	16.67%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		11,661
150,000	160,000	0.80%	0%	12.50%	37.50%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	88,000		
160,000	170,000	0.30%	0%	0%	33.33%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		8,842
170,000	180,000	0.50%	0%	20.00%	40.00%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20.00%	39,293		
180,000	190,000	0.30%	0%	0%	66.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	443,116		
190,000	200,000	0.70%	0%	14.29%	14.29%	14.29%	14.29%	14.29%	0%	0%	0%	0%	0%	0%	14.29%	0%	0%	0%	0%	14.29%	75,740		
200,000	210,000	0.40%	0%	25.00%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	0%	25.00%	170,309		
210,000	220,000	0.30%	0%	33.33%	0%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,725		
220,000	230,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,481		
230,000	240,000	0.20%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,808		
240,000	250,000	0.50%	0%	40.00%	0%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40.00%	123,396		
250,000	260,000	0.10%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,000		
260,000	270,000	0.50%	0%	0%	20.00%	20.00%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40.00%	283,192		
270,000	280,000	0.40%	0%	25.00%	0%	50.00%	0%	0%	0%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20,218		
280,000	290,000	0.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	114,256		
290,000	300,000	0.50%	0%	0%	0%	20.00%	20.00%	40.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20.00%	51,365		
300,000	310,000	0.10%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,214		
310,000	320,000	0.20%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,294		
320,000	330,000	0.50%	0%	0%	20.00%	0%	20.00%	20.00%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20.00%	196,819		
330,000	340,000	0.10%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,888		
340,000	350,000	0.40%	0%	0%	25.00%	25.00%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	0%	39,414		
350,000	360,000	0.10%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1,668		
360,000	370,000	0.40%	0%	0%	25.00%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	373,498		
370,000	380,000	0%																					
380,000	390,000	0%																					
390,000	400,000	0.30%	0%	0%	0%	33.33%	66.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,500		
400,000	410,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,385		
410,000	420,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,259		
420,000	430,000	0%																					
430,000	440,000	0.20%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,188		
440,000	450,000	0.20%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,993		
450,000	460,000	0.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	397,666		
460,000	470,000	0.10%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13,834		
470,000	480,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,906		
480,000	490,000	0.10%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,284		
490,000	500,000	0.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	371,023		



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	DPRS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
1,000,000	1,500,000	2.79%	0%	14.29%	21.43%	28.57%	7.14%	3.57%	3.57%	0%	0%	0%	0%	0%	3.57%	0%	0%	0%	0%	17.86%	68,196	1,000,000 =< ADT < 5,000,000
1,500,000	2,000,000	0.70%	0%	28.57%	14.29%	14.29%	28.57%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14.29%	0%	0%	0%	22,681	
2,000,000	2,500,000	1.00%	0%	0%	20.00%	20.00%	30.00%	0%	10.00%	0%	0%	10.00%	0%	0%	0%	10.00%	0%	0%	0%	0%	26,571	
2,500,000	3,000,000	1.00%	0%	0%	0%	60.00%	10.00%	0%	10.00%	0%	0%	10.00%	0%	0%	10.00%	0%	0%	0%	0%	10.00%	56,165	
3,000,000	3,500,000	0.60%	0%	0%	33.33%	16.67%	0%	0%	16.67%	0%	0%	16.67%	0%	0%	0%	16.67%	0%	0%	0%	0%	34,361	
3,500,000	4,000,000	0.50%	0%	0%	0%	40.00%	20.00%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20.00%	224,364	
4,000,000	4,500,000	0.40%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	50.00%	283,359	
4,500,000	5,000,000	0.80%	0%	0%	37.50%	25.00%	37.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,570	
5,000,000	5,500,000	0.20%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,446	
5,500,000	6,000,000	0.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	84,482	
6,000,000	6,500,000	0.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	796,572	
6,500,000	7,000,000	0.40%	0%	0%	0%	25.00%	0%	25.00%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	86,438	
7,000,000	7,500,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,803	
7,500,000	8,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,000,000 =< ADT < 25,000,000
8,000,000	8,500,000	0.30%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	0%	33.33%	328,691	
8,500,000	9,000,000	0.20%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17,675	
9,000,000	9,500,000	0.20%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,671	
9,500,000	10,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,253	
10,000,000	15,000,000	0.60%	0%	0%	16.67%	33.33%	0%	16.67%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16.67%	334,064	
15,000,000	20,000,000	0.20%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,376	
20,000,000	25,000,000	0.40%	0%	0%	25.00%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,989	
25,000,000	30,000,000	0.20%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,915	
30,000,000	35,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,909	
35,000,000	40,000,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,060	
40,000,000	45,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,987	
45,000,000	50,000,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,348	
50,000,000	55,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50,000,000 =< ADT < 100,000,000
55,000,000	60,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,613	
60,000,000	65,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
65,000,000	70,000,000	0.20%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,915	
70,000,000	75,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,229	
75,000,000	80,000,000	0.10%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,948	
80,000,000	85,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
85,000,000	90,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
90,000,000	95,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
95,000,000	100,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	DPRS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
100,000,000	150,000,000	0.20%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,516	ADT >= 100,000,000
150,000,000	200,000,000	0.10%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,775	
200,000,000	250,000,000	0.10%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12	
250,000,000	300,000,000	0%																					
300,000,000	350,000,000	0%																					
350,000,000	400,000,000	0%																					
400,000,000	450,000,000	0%																					
450,000,000	500,000,000	0%																					
500,000,000	550,000,000	0%																					
550,000,000	600,000,000	0%																					
600,000,000	650,000,000	0%																					
650,000,000	700,000,000	0%																					
700,000,000	750,000,000	0%																					
750,000,000	800,000,000	0%																					
800,000,000	850,000,000	0%																					
850,000,000	900,000,000	0%																					
900,000,000	950,000,000	0%																					
950,000,000	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
>= 4,000,000,000		0.10%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	24,789.39	
Total number of instruments		1,002																					

Source: ESMA

Source: ESMA



ESMA PUBLIC USE

ETFs

ADT range		ETFs																				Average AVT of the ADT range	ADT range	
		Percentage of instruments in the ADT range	AVT range																					
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000			
ADT = 0		18.32%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-		
0.00000001	2,500	10.48%	1.64%	23.72%	14.31%	17.59%	14.52%	8.18%	5.11%	4.91%	1.02%	0.82%	0.82%	1.02%	0.82%	0.61%	0.20%	0.20%	0.41%	4.09%	26,604			
2,500	5,000	2.36%	0%	2.73%	8.18%	15.45%	22.73%	9.09%	3.64%	3.64%	1.82%	1.82%	1.82%	1.82%	0%	1.82%	1.82%	0.91%	0%	22.73%	109,339			
5,000	10,000	3.00%	0.71%	3.57%	5.00%	15.00%	20.71%	12.86%	5.71%	4.29%	1.43%	5.00%	1.43%	1.43%	0.71%	1.43%	0.71%	0.71%	0.71%	18.57%	205,973	ADT < 50,000		
10,000	20,000	4.37%	1.47%	0.49%	3.92%	12.75%	19.61%	14.22%	6.86%	3.43%	5.39%	0.98%	1.47%	0.98%	0.98%	1.96%	0%	0%	0.49%	25.00%	275,162			
20,000	30,000	3.09%	0%	2.08%	1.39%	9.72%	23.61%	11.11%	7.64%	6.94%	3.47%	2.78%	0.69%	2.78%	2.78%	1.39%	0.69%	0.69%	0%	22.22%	281,090			
30,000	40,000	2.49%	0%	1.72%	9.48%	14.66%	7.76%	6.90%	8.62%	2.59%	2.59%	0%	1.72%	4.31%	3.45%	0%	0.86%	0%	0.86%	32.76%	490,186			
40,000	50,000	2.46%	0.87%	0%	0.87%	9.57%	18.26%	13.91%	10.43%	2.61%	6.09%	1.74%	0.87%	0%	3.48%	0.87%	0%	1.74%	3.48%	25.22%	542,777			
50,000	60,000	1.95%	0%	1.10%	3.30%	4.40%	20.88%	15.38%	6.59%	4.40%	6.59%	2.20%	2.20%	2.20%	1.10%	1.10%	0%	1.10%	3.30%	24.18%	358,911			
60,000	70,000	1.46%	0%	0%	2.94%	10.29%	23.53%	11.76%	5.88%	4.41%	1.47%	0%	4.41%	0%	1.47%	2.94%	1.47%	0%	0%	29.41%	528,617	50,000 =< ADT < 100,000		
70,000	80,000	1.65%	0%	0%	1.30%	11.69%	23.38%	16.88%	9.09%	9.09%	5.19%	1.30%	0%	2.60%	1.30%	1.30%	0%	0%	0%	16.88%	301,940			
80,000	90,000	1.52%	1.41%	0%	0%	4.23%	26.76%	21.13%	5.63%	4.23%	0%	2.82%	2.82%	1.41%	1.41%	1.41%	2.82%	0%	0%	23.94%	332,512			
90,000	100,000	1.11%	0%	0%	1.92%	5.77%	15.38%	7.69%	11.54%	3.85%	13.46%	7.69%	0%	1.92%	1.92%	3.85%	0%	0%	0%	25.00%	154,254			

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
100,000	110,000	1.05%	0%	0%	4.08%	10.20%	26.53%	14.29%	10.20%	4.08%	6.12%	2.04%	0%	0%	0%	0%	0%	0%	22.45%	194,214		
110,000	120,000	1.05%	0%	0%	0%	6.12%	18.37%	12.24%	14.29%	2.04%	4.08%	4.08%	2.04%	0%	2.04%	0%	2.04%	0%	32.65%	355,316		
120,000	130,000	1.14%	0%	0%	1.89%	5.66%	18.87%	7.55%	13.21%	7.55%	5.66%	3.77%	1.89%	1.89%	0%	1.89%	3.77%	0%	24.53%	261,039		
130,000	140,000	0.96%	2.22%	0%	0%	4.44%	15.56%	24.44%	4.44%	6.67%	2.22%	6.67%	4.44%	2.22%	0%	2.22%	6.67%	2.22%	13.33%	194,384		
140,000	150,000	0.77%	0%	0%	0%	11.11%	19.44%	13.89%	13.89%	5.56%	5.56%	0%	0%	2.78%	0%	0%	0%	0%	27.78%	464,036		
150,000	160,000	0.73%	0%	0%	0%	2.94%	11.76%	23.53%	5.88%	14.71%	5.88%	5.88%	8.82%	0%	2.94%	0%	0%	2.94%	14.71%	345,136		
160,000	170,000	0.64%	0%	0%	0%	10.00%	20.00%	10.00%	10.00%	10.00%	6.67%	6.67%	6.67%	0%	0%	0%	3.33%	0%	16.67%	116,722		
170,000	180,000	0.39%	0%	0%	0%	0%	22.22%	11.11%	11.11%	0%	0%	0%	0%	5.56%	0%	5.56%	5.56%	5.56%	33.33%	1,034,417		
180,000	190,000	0.39%	0%	0%	0%	5.56%	11.11%	16.67%	22.22%	5.56%	5.56%	5.56%	0%	5.56%	0%	0%	0%	0%	22.22%	346,891		
190,000	200,000	0.77%	0%	0%	0%	2.78%	16.67%	8.33%	5.56%	11.11%	8.33%	2.78%	5.56%	0%	2.78%	0%	2.78%	0%	33.33%	440,185		
200,000	210,000	0.66%	0%	0%	0%	3.23%	12.90%	6.45%	12.90%	9.68%	6.45%	9.68%	3.23%	3.23%	0%	3.23%	0%	9.68%	19.35%	969,597		
210,000	220,000	0.66%	0%	0%	0%	3.23%	9.68%	16.13%	6.45%	6.45%	22.58%	9.68%	6.45%	0%	3.23%	0%	0%	3.23%	12.90%	633,126		
220,000	230,000	0.36%	0%	0%	0%	0%	11.76%	17.65%	0%	0%	5.88%	0%	5.88%	0%	5.88%	0%	0%	0%	52.94%	390,913		
230,000	240,000	0.43%	0%	0%	0%	5.00%	25.00%	15.00%	0%	0%	10.00%	10.00%	5.00%	5.00%	0%	0%	5.00%	0%	20.00%	140,356		
240,000	250,000	0.36%	0%	5.88%	0%	0%	0%	0%	23.53%	17.65%	5.88%	5.88%	0%	0%	0%	0%	5.88%	0%	29.41%	179,169		
250,000	260,000	0.49%	0%	0%	0%	4.35%	8.70%	26.09%	4.35%	8.70%	8.70%	0%	0%	0%	4.35%	4.35%	0%	4.35%	21.74%	232,504		
260,000	270,000	0.49%	0%	0%	0%	4.35%	8.70%	21.74%	4.35%	4.35%	8.70%	13.04%	0%	4.35%	0%	4.35%	0%	8.70%	17.39%	87,380		
270,000	280,000	0.39%	0%	0%	0%	5.56%	5.56%	16.67%	5.56%	16.67%	0%	0%	11.11%	5.56%	0%	0%	0%	11.11%	22.22%	169,876		
280,000	290,000	0.30%	0%	0%	0%	7.14%	0%	0%	7.14%	14.29%	14.29%	7.14%	7.14%	0%	0%	0%	0%	0%	42.86%	531,637		
290,000	300,000	0.36%	0%	0%	0%	5.88%	11.76%	11.76%	5.88%	17.65%	11.76%	11.76%	5.88%	0%	0%	0%	5.88%	0%	11.76%	123,808	100,000 <=	
300,000	310,000	0.21%	0%	0%	0%	0%	10.00%	10.00%	30.00%	0%	10.00%	0%	0%	10.00%	0%	0%	0%	10.00%	20.00%	76,307	ADT < 500,000	
310,000	320,000	0.34%	0%	0%	0%	6.25%	12.50%	31.25%	6.25%	0%	6.25%	6.25%	0%	6.25%	0%	0%	0%	6.25%	18.75%	143,743		
320,000	330,000	0.30%	0%	0%	0%	0%	0%	21.43%	21.43%	7.14%	0%	14.29%	7.14%	0%	7.14%	0%	7.14%	0%	14.29%	230,484		
330,000	340,000	0.36%	0%	0%	0%	0%	5.88%	17.65%	5.88%	11.76%	5.88%	5.88%	5.88%	5.88%	5.88%	0%	5.88%	0%	23.53%	92,668		
340,000	350,000	0.49%	4.35%	0%	0%	4.35%	17.39%	0%	17.39%	0%	0%	0%	4.35%	0%	4.35%	4.35%	0%	4.35%	39.13%	2,127,909		
350,000	360,000	0.36%	0%	0%	0%	0%	35.29%	29.41%	0%	0%	0%	11.76%	0%	0%	0%	0%	5.88%	5.88%	11.76%	128,821		
360,000	370,000	0.32%	0%	0%	0%	0%	13.33%	20.00%	6.67%	0%	13.33%	0%	13.33%	0%	0%	0%	6.67%	0%	26.67%	725,202		
370,000	380,000	0.39%	0%	0%	0%	0%	16.67%	11.11%	11.11%	5.56%	0%	0%	11.11%	5.56%	0%	0%	0%	0%	27.78%	376,651		
380,000	390,000	0.21%	10.00%	0%	0%	0%	30.00%	0%	10.00%	0%	0%	10.00%	0%	0%	10.00%	0%	0%	0%	30.00%	542,317		
390,000	400,000	0.47%	0%	0%	0%	4.55%	9.09%	22.73%	0%	0%	9.09%	0%	0%	4.55%	9.09%	4.55%	0%	0%	36.36%	633,546		
400,000	410,000	0.32%	0%	0%	0%	6.67%	0%	13.33%	20.00%	13.33%	0%	6.67%	0%	6.67%	0%	0%	6.67%	0%	26.67%	281,762		
410,000	420,000	0.30%	0%	0%	0%	0%	14.29%	21.43%	7.14%	14.29%	0%	7.14%	7.14%	0%	0%	0%	0%	7.14%	21.43%	84,412		
420,000	430,000	0.45%	0%	0%	0%	0%	19.05%	9.52%	9.52%	0%	9.52%	4.76%	4.76%	9.52%	9.52%	0%	0%	0%	23.81%	1,057,931		
430,000	440,000	0.21%	0%	0%	0%	0%	20.00%	20.00%	0%	10.00%	10.00%	0%	0%	0%	0%	0%	10.00%	10.00%	20.00%	148,155		
440,000	450,000	0.21%	0%	0%	0%	0%	20.00%	0%	20.00%	20.00%	0%	0%	0%	0%	0%	10.00%	10.00%	0%	20.00%	87,964		
450,000	460,000	0.13%	0%	0%	0%	0%	0%	16.67%	33.33%	16.67%	0%	0%	0%	0%	0%	16.67%	0%	0%	16.67%	213,393		
460,000	470,000	0.26%	0%	0%	0%	0%	8.33%	25.00%	0%	16.67%	0%	25.00%	0%	0%	0%	0%	0%	0%	25.00%	194,892		
470,000	480,000	0.17%	0%	0%	0%	12.50%	0%	12.50%	0%	12.50%	0%	0%	12.50%	0%	0%	0%	25.00%	0%	12.50%	212,649		
480,000	490,000	0.24%	0%	0%	0%	0%	9.09%	0%	18.18%	9.09%	0%	9.09%	0%	0%	9.09%	0%	0%	0%	45.45%	175,409		
490,000	500,000	0.19%	0%	0%	0%	0%	22.22%	22.22%	11.11%	22.22%	11.11%	11.11%	0%	0%	0%	0%	0%	0%	0%	35,359		



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																				Average AVT of the ADT range	ADT range
			AVT range																					
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000			
500,000	510,000	0.24%	0%	0%	0%	9.09%	18.18%	9.09%	18.18%	0%	0%	0%	0%	9.09%	0%	0%	9.09%	0%	27.27%	112,478				
510,000	520,000	0.11%	0%	0%	0%	20.00%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	20.00%	0%	40.00%	100,446				
520,000	530,000	0.19%	0%	0%	0%	22.22%	11.11%	11.11%	11.11%	11.11%	0%	0%	0%	0%	22.22%	0%	0%	0%	11.11%	63,188				
530,000	540,000	0.24%	0%	0%	0%	9.09%	27.27%	27.27%	9.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	27.27%	136,247				
540,000	550,000	0.19%	0%	0%	0%	0%	33.33%	11.11%	11.11%	0%	0%	0%	11.11%	0%	0%	11.11%	0%	11.11%	22.22%	82,114				
550,000	560,000	0.13%	0%	0%	0%	0%	0%	0%	16.67%	33.33%	0%	0%	16.67%	0%	0%	0%	0%	0%	33.33%	131,587				
560,000	570,000	0.21%	0%	0%	0%	10.00%	0%	30.00%	0%	10.00%	0%	10.00%	0%	0%	0%	0%	0%	0%	40.00%	658,282				
570,000	580,000	0.24%	9.09%	0%	0%	0%	0%	9.09%	9.09%	0%	9.09%	9.09%	9.09%	0%	0%	0%	0%	0%	45.45%	659,173				
580,000	590,000	0.19%	0%	0%	0%	11.11%	11.11%	11.11%	22.22%	11.11%	0%	11.11%	0%	11.11%	0%	11.11%	0%	0%	11.11%	48,401				
590,000	600,000	0.30%	0%	0%	0%	21.43%	21.43%	0%	0%	14.29%	7.14%	14.29%	0%	0%	0%	0%	0%	0%	21.43%	190,570				
600,000	610,000	0.17%	0%	0%	0%	0%	0%	12.50%	0%	12.50%	12.50%	0%	0%	0%	12.50%	0%	0%	0%	50.00%	472,372				
610,000	620,000	0.26%	0%	0%	0%	16.67%	16.67%	0%	0%	8.33%	0%	8.33%	0%	8.33%	0%	0%	0%	0%	41.67%	2,041,234				
620,000	630,000	0.19%	0%	0%	0%	0%	22.22%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	44.44%	283,756				
630,000	640,000	0.17%	0%	0%	0%	12.50%	12.50%	25.00%	0%	12.50%	12.50%	0%	0%	0%	0%	0%	12.50%	12.50%	598,894					
640,000	650,000	0.19%	0%	0%	0%	22.22%	11.11%	11.11%	11.11%	11.11%	11.11%	0%	0%	0%	0%	0%	0%	0%	22.22%	89,385				
650,000	660,000	0.26%	0%	0%	0%	16.67%	16.67%	16.67%	8.33%	8.33%	0%	16.67%	0%	16.67%	0%	0%	0%	0%	0%	47,983				
660,000	670,000	0.15%	0%	0%	0%	14.29%	14.29%	14.29%	14.29%	0%	0%	14.29%	28.57%	0%	0%	0%	0%	0%	0%	51,167				
670,000	680,000	0.17%	0%	0%	0%	12.50%	0%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	75.00%	232,169				
680,000	690,000	0.13%	0%	0%	0%	16.67%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	16.67%	0%	0%	33.33%	289,485				
690,000	700,000	0.04%	0%	0%	0%	0%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	41,083				
700,000	710,000	0.13%	0%	0%	0%	16.67%	33.33%	0%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	110,445				
710,000	720,000	0.11%	0%	0%	0%	0%	0%	20.00%	20.00%	0%	0%	20.00%	0%	20.00%	0%	0%	0%	0%	20.00%	109,749				
720,000	730,000	0.17%	0%	0%	0%	12.50%	25.00%	0%	25.00%	0%	0%	12.50%	0%	0%	0%	12.50%	0%	0%	12.50%	63,725				
730,000	740,000	0.19%	0%	0%	0%	0%	22.22%	22.22%	0%	44.44%	11.11%	0%	0%	0%	0%	0%	0%	0%	0%	45,272				
740,000	750,000	0.06%	0%	0%	0%	0%	0%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	78,943				
750,000	760,000	0.09%	0%	0%	0%	0%	0%	25.00%	25.00%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	25.00%	89,985				
760,000	770,000	0.15%	0%	0%	0%	42.86%	14.29%	0%	14.29%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	14.29%	54,988				
770,000	780,000	0.11%	0%	0%	0%	0%	0%	20.00%	0%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	60.00%	254,780				
780,000	790,000	0.04%	0%	0%	0%	0%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	65,231				
790,000	800,000	0.09%	0%	0%	0%	0%	25.00%	0%	0%	0%	25.00%	0%	25.00%	0%	25.00%	0%	0%	0%	0%	72,544				
800,000	810,000	0.17%	0%	0%	0%	12.50%	12.50%	25.00%	12.50%	0%	0%	0%	12.50%	0%	0%	0%	0%	0%	25.00%	249,787				
810,000	820,000	0.28%	0%	0%	0%	0%	15.38%	23.08%	0%	23.08%	7.69%	0%	0%	0%	0%	0%	0%	0%	30.77%	2,204,855				
820,000	830,000	0.11%	0%	0%	0%	0%	60.00%	20.00%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	36,341				
830,000	840,000	0.15%	0%	0%	0%	0%	0%	0%	0%	0%	14.29%	0%	14.29%	0%	14.29%	0%	14.29%	0%	42.86%	644,291				
840,000	850,000	0.15%	0%	0%	0%	0%	14.29%	0%	14.29%	28.57%	14.29%	0%	14.29%	0%	0%	0%	0%	0%	14.29%	69,852				
850,000	860,000	0.06%	0%	0%	0%	0%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	33.33%	33.33%	162,966				
860,000	870,000	0.11%	0%	0%	0%	20.00%	0%	40.00%	0%	0%	0%	0%	0%	0%	20.00%	20.00%	0%	0%	0%	60,422				
870,000	880,000	0.13%	0%	0%	0%	0%	0%	0%	0%	16.67%	16.67%	33.33%	0%	0%	0%	0%	0%	33.33%	0%	85,491				
880,000	890,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	230,150				
890,000	900,000	0.11%	0%	0%	0%	20.00%	20.00%	0%	20.00%	0%	0%	0%	0%	0%	20.00%	0%	0%	0%	20.00%	89,611				
900,000	910,000	0.11%	0%	0%	0%	0%	20.00%	20.00%	0%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	40.00%	115,617				
910,000	920,000	0.09%	0%	0%	0%	25.00%	0%	25.00%	25.00%	0%	25.00%	0%	0%	0%	25.00%	0%	0%	0%	0%	54,156				
920,000	930,000	0.13%	0%	0%	0%	0%	0%	16.67%	0%	16.67%	33.33%	0%	16.67%	0%	0%	0%	0%	0%	16.67%	96,766				
930,000	940,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	80,813				
940,000	950,000	0.06%	0%	0%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	0%	33.33%	102,746				
950,000	960,000	0.13%	0%	0%	0%	0%	16.67%	33.33%	16.67%	0%	16.67%	0%	0%	0%	0%	0%	0%	0%	16.67%	98,838				
960,000	970,000	0.17%	0%	0%	0%	12.50%	25.00%	0%	12.50%	0%	0%	25.00%	0%	0%	12.50%	0%	0%	0%	12.50%	75,059				
970,000	980,000	0.04%	0%	0%	0%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	125,700				
980,000	990,000	0.09%	0%	0%	0%	25.00%	0%	0%	0%	0%	0%	25.00%	0%	50.00%	0%	0%	0%	0%	0%	69,956				
990,000	1,000,000	0.06%	0%	0%	0%	33.33%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	33.33%	86,015				

500,000 =<
ADT <
1,000,000



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
1,000,000	1,500,000	3.96%	0%	0%	0.54%	0%	8.11%	12.97%	11.35%	7.57%	7.03%	10.27%	4.86%	4.32%	1.62%	2.16%	2.70%	0.54%	2.16%	23.78%	283,779	=< ADT < 5,000,000
1,500,000	2,000,000	2.51%	0%	0%	0%	0%	8.55%	13.68%	8.55%	9.40%	7.69%	6.84%	4.27%	3.42%	0.85%	0.85%	2.56%	4.27%	1.71%	27.35%	395,336	
2,000,000	2,500,000	1.54%	0%	0%	0%	1.39%	5.56%	12.50%	11.11%	8.33%	8.33%	8.33%	12.50%	4.17%	2.78%	0%	1.39%	0%	0%	23.61%	152,568	
2,500,000	3,000,000	1.69%	0%	0%	0%	1.27%	3.80%	7.59%	7.59%	15.19%	3.80%	8.86%	3.80%	5.06%	1.27%	1.27%	6.33%	2.53%	1.27%	30.38%	157,157	
3,000,000	3,500,000	1.18%	0%	0%	0%	3.64%	3.64%	5.45%	9.09%	3.64%	18.18%	10.91%	5.45%	3.64%	3.64%	1.82%	0%	3.64%	0%	27.27%	601,909	
3,500,000	4,000,000	0.66%	0%	0%	0%	6.45%	3.23%	9.68%	9.68%	12.90%	3.23%	3.23%	0%	6.45%	6.45%	3.23%	9.68%	0%	25.81%	232,181		
4,000,000	4,500,000	0.77%	0%	0%	0%	5.56%	5.56%	13.89%	5.56%	11.11%	2.78%	5.56%	2.78%	0%	8.33%	2.78%	2.78%	2.78%	0%	30.56%	173,401	
4,500,000	5,000,000	0.64%	0%	0%	0%	3.33%	13.33%	3.33%	16.67%	6.67%	16.67%	3.33%	0%	3.33%	3.33%	3.33%	0%	0%	0%	26.67%	143,484	
5,000,000	5,500,000	0.39%	0%	0%	0%	0%	11.11%	16.67%	11.11%	11.11%	0%	0%	0%	0%	0%	0%	5.56%	5.56%	0%	33.33%	124,029	
5,500,000	6,000,000	0.81%	0%	0%	0%	10.53%	2.63%	5.26%	15.79%	10.53%	2.63%	5.26%	0%	15.79%	2.63%	2.63%	0%	2.63%	0%	23.68%	156,117	
6,000,000	6,500,000	0.32%	0%	0%	0%	0%	6.67%	26.67%	0%	26.67%	0%	6.67%	0%	0%	6.67%	0%	0%	0%	6.67%	20.00%	96,968	
6,500,000	7,000,000	0.36%	0%	0%	0%	0%	5.88%	11.76%	5.88%	17.65%	5.88%	0%	0%	11.76%	0%	11.76%	0%	5.88%	23.53%	1,091,436		
7,000,000	7,500,000	0.34%	0%	0%	0%	6.25%	0%	6.25%	6.25%	12.50%	0%	12.50%	0%	6.25%	0%	6.25%	6.25%	0%	0%	37.50%	125,563	
7,500,000	8,000,000	0.28%	0%	0%	0%	0%	0%	0%	7.69%	30.77%	0%	15.38%	0%	7.69%	0%	0%	0%	0%	0%	38.46%	311,908	
8,000,000	8,500,000	0.17%	0%	0%	0%	0%	0%	0%	12.50%	12.50%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	161,223	
8,500,000	9,000,000	0.36%	0%	0%	0%	5.88%	0%	0%	29.41%	0%	5.88%	5.88%	17.65%	5.88%	0%	0%	0%	0%	0%	29.41%	292,456	
9,000,000	9,500,000	0.24%	0%	0%	0%	0%	0%	9.09%	9.09%	9.09%	18.18%	0%	0%	18.18%	0%	9.09%	9.09%	0%	0%	18.18%	147,823	
9,500,000	10,000,000	0.21%	0%	0%	0%	0%	0%	0%	20.00%	30.00%	10.00%	0%	0%	10.00%	0%	0%	0%	10.00%	10.00%	10.00%	72,355	
10,000,000	15,000,000	1.35%	0%	0%	0%	4.76%	7.94%	9.52%	11.11%	12.70%	11.11%	3.17%	6.35%	3.17%	1.59%	3.17%	4.76%	1.59%	19.05%	119,201		
15,000,000	20,000,000	0.71%	0%	0%	0%	0%	0%	3.03%	6.06%	18.18%	9.09%	18.18%	6.06%	3.03%	0%	0%	0%	0%	0%	27.27%	208,229	
20,000,000	25,000,000	0.45%	0%	0%	0%	0%	0%	0%	4.76%	14.29%	9.52%	4.76%	4.76%	9.52%	4.76%	9.52%	0%	4.76%	0%	33.33%	143,578	
25,000,000	30,000,000	0.47%	0%	0%	0%	0%	4.55%	9.09%	0%	9.09%	18.18%	9.09%	13.64%	9.09%	9.09%	4.55%	0%	0%	0%	13.64%	103,211	
30,000,000	35,000,000	0.11%	0%	0%	0%	0%	0%	0%	20.00%	0%	0%	0%	20.00%	0%	0%	0%	0%	0%	0%	60.00%	1,257,708	
35,000,000	40,000,000	0.13%	0%	0%	0%	0%	0%	0%	0%	16.67%	33.33%	0%	0%	0%	33.33%	16.67%	0%	0%	0%	0%	86,939	
40,000,000	45,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
45,000,000	50,000,000	0.15%	0%	0%	0%	0%	0%	0%	14.29%	14.29%	14.29%	42.86%	14.29%	0%	0%	0%	0%	0%	0%	0%	67,828	
50,000,000	55,000,000	0.06%	0%	0%	0%	0%	33.33%	0%	0%	0%	33.33%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	55,833	
55,000,000	60,000,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	75,162	
60,000,000	65,000,000	0.04%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	82,280	
65,000,000	70,000,000	0.04%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	97,656	
70,000,000	75,000,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	68,700	
75,000,000	80,000,000	0.09%	0%	0%	0%	0%	0%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	25.00%	140,516	
80,000,000	85,000,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	80,623	
85,000,000	90,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
90,000,000	95,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
95,000,000	100,000,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	64,616	



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
100,000,000	150,000,000	0.09%	0%	0%	0%	0%	0%	0%	0%	25.00%	25.00%	0%	25.00%	0%	25.00%	0%	0%	0%	0%	0%	69,270	ADT >= 100,000,000	
150,000,000	200,000,000	0.04%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	0%	0%	0%	0%	0%	50.00%	232,230		
200,000,000	250,000,000	0%																					
250,000,000	300,000,000	0%																					
300,000,000	350,000,000	0%																					
350,000,000	400,000,000	0%																					
400,000,000	450,000,000	0%																					
450,000,000	500,000,000	0%																					
500,000,000	550,000,000	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	258,515		
550,000,000	600,000,000	0%																					
600,000,000	650,000,000	0%																					
650,000,000	700,000,000	0%																					
700,000,000	750,000,000	0%																					
750,000,000	800,000,000	0%																					
800,000,000	850,000,000	0%																					
850,000,000	900,000,000	0%																					
900,000,000	950,000,000	0%																					
950,000,000	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
>= 4,000,000,000		0%																					
Total number of instruments		4,667																					

Source: ESMA

Source: ESMA



Certificates

ADT range		CRFT																				Average AVT of the ADT range	ADT range
		Percentage of instruments in the ADT range	AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000		
ADT = 0		0%																					
0.00000001	2,500	50.00%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4	ADT < 50,000	
2,500	5,000	0%																					
5,000	10,000	50.00%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,072		
10,000	20,000	0%																					
20,000	30,000	0%																					
30,000	40,000	0%																					
40,000	50,000	0%																					
50,000	60,000	0%																					
60,000	70,000	0%																					
70,000	80,000	0%																					
80,000	90,000	0%																					
90,000	100,000	0%																					
																						50,000 =< ADT < 100,000	



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	CRFT																	Average AVT of the ADT range	ADT range																		
			AVT range																																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000																
1,000,000	1,500,000	0%																																					
1,500,000	2,000,000	0%																																					
2,000,000	2,500,000	0%																																					
2,500,000	3,000,000	0%																																					1,000,000 =< ADT < 5,000,000
3,000,000	3,500,000	0%																																					
3,500,000	4,000,000	0%																																					
4,000,000	4,500,000	0%																																					
4,500,000	5,000,000	0%																																					
5,000,000	5,500,000	0%																																					
5,500,000	6,000,000	0%																																					
6,000,000	6,500,000	0%																																					
6,500,000	7,000,000	0%																																					
7,000,000	7,500,000	0%																																					
7,500,000	8,000,000	0%																																					
8,000,000	8,500,000	0%																																					
8,500,000	9,000,000	0%																																					
9,000,000	9,500,000	0%																																					
9,500,000	10,000,000	0%																																					
10,000,000	15,000,000	0%																																					
15,000,000	20,000,000	0%																																					
20,000,000	25,000,000	0%																																					
25,000,000	30,000,000	0%																																					
30,000,000	35,000,000	0%																																					
35,000,000	40,000,000	0%																																					
40,000,000	45,000,000	0%																																					
45,000,000	50,000,000	0%																																					
50,000,000	55,000,000	0%																																					
55,000,000	60,000,000	0%																																					
60,000,000	65,000,000	0%																																					
65,000,000	70,000,000	0%																																					
70,000,000	75,000,000	0%																																					
75,000,000	80,000,000	0%																																					
80,000,000	85,000,000	0%																																					
85,000,000	90,000,000	0%																																					
90,000,000	95,000,000	0%																																					
95,000,000	100,000,000	0%																																					



ADT range		Percentage of instruments in the ADT range	CRFT																Average AVT of the ADT range	ADT range			
			AVT range																				
			AVT = 0	0.0000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000		
100,000,000	150,000,000	0%																					
150,000,000	200,000,000	0%																					
200,000,000	250,000,000	0%																					
250,000,000	300,000,000	0%																					
300,000,000	350,000,000	0%																					
350,000,000	400,000,000	0%																					
400,000,000	450,000,000	0%																					
450,000,000	500,000,000	0%																					
500,000,000	550,000,000	0%																					
550,000,000	600,000,000	0%																					
600,000,000	650,000,000	0%																					
650,000,000	700,000,000	0%																					
700,000,000	750,000,000	0%																					
750,000,000	800,000,000	0%																					
800,000,000	850,000,000	0%																					
850,000,000	900,000,000	0%																					
900,000,000	950,000,000	0%																					
950,000,000	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
>= 4,000,000,000		0%																					
Total number of instruments		2																					

Source: ESMA

Source: ESMA

Other equity financial instruments

ADT range		OTHR																				Average AVT of the ADT range	ADT range
		Percentage of instruments in the ADT range	AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000		
ADT = 0		22.22%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-	
0.00000001	2,500	36.26%	0%	61.29%	12.90%	6.45%	12.90%	1.61%	0%	3.23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1.61%	6,877	
	2,500	5.26%	0%	33.33%	22.22%	0%	22.22%	0%	0%	11.11%	0%	0%	0%	0%	11.11%	0%	0%	0%	0%	0%	0%	19,629	
	5,000	5.26%	0%	44.44%	0%	11.11%	0%	0%	0%	0%	0%	11.11%	0%	11.11%	0%	0%	0%	11.11%	0%	11.11%	0%	51,000	ADT < 50,000
	10,000	4.68%	0%	0%	12.50%	12.50%	12.50%	0%	12.50%	12.50%	0%	0%	0%	0%	0%	0%	12.50%	0%	12.50%	12.50%	0%	65,971	
	20,000	4.68%	0%	50.00%	12.50%	0%	0%	0%	0%	0%	0%	12.50%	0%	0%	12.50%	0%	0%	0%	12.50%	0%	12.50%	86,012	
	30,000	2.34%	0%	0%	50.00%	0%	25.00%	0%	0%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19,309	
	40,000	1.75%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,464	
	50,000	1.17%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,423	
	60,000	0%																					
	70,000	0.58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	87,841	50,000 =< ADT < 100,000
	80,000	0%																					
	90,000	0.58%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	43,152	



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	OTHR																		Average AVT of the ADT range	ADT range			
			AVT range																						
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000		
100,000	110,000	0.58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	187,092	100,000 =< ADT < 500,000			
110,000	120,000	0%																							
120,000	130,000	0.58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%		275,095		
130,000	140,000	0.58%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	37,171	
140,000	150,000	0.58%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	2,278	
150,000	160,000	0.58%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	37,380
160,000	170,000	0.58%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	2,121
170,000	180,000	0%																							
180,000	190,000	0%																							
190,000	200,000	0%																							
200,000	210,000	0%																							
210,000	220,000	0%																							
220,000	230,000	0%																							
230,000	240,000	0%																							
240,000	250,000	0%																							
250,000	260,000	0%																							
260,000	270,000	0.58%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	5,290
270,000	280,000	0%																							
280,000	290,000	0%																							
290,000	300,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	3,873
300,000	310,000	0%																							
310,000	320,000	0%																							
320,000	330,000	0%																							
330,000	340,000	0%																							
340,000	350,000	0%																							
350,000	360,000	0%																							
360,000	370,000	0%																							
370,000	380,000	0%																							
380,000	390,000	0%																							
390,000	400,000	0%																							
400,000	410,000	0%																							
410,000	420,000	0%																							
420,000	430,000	0%																							
430,000	440,000	0%																							
440,000	450,000	0%																							
450,000	460,000	0%																							
460,000	470,000	0%																							
470,000	480,000	0%																							
480,000	490,000	0%																							
490,000	500,000	0%																							

ADT range		Percentage of instruments in the ADT range	OTHR																	Average AVT of the ADT range	ADT range			
			AVT range																					
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000	
1,000,000	1,500,000	0.58%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,504	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,634		
2,000,000	2,500,000	1.17%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,631		
2,500,000	3,000,000	1.75%	0%	0%	0%	0%	0%	33.33%	0%	0%	0%	0%	33.33%	0%	0%	0%	0%	33.33%	0%	0%	0%	73,045		
3,000,000	3,500,000	0.58%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	49,635		
3,500,000	4,000,000	0%																						
4,000,000	4,500,000	0%																						
4,500,000	5,000,000	0%																						
5,000,000	5,500,000	0%																						
5,500,000	6,000,000	0%																						
6,000,000	6,500,000	0%																						
6,500,000	7,000,000	0%																						
7,000,000	7,500,000	0.58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	142,631	5,000,000 =< ADT < 25,000,000	
7,500,000	8,000,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,685		
8,000,000	8,500,000	0%																						
8,500,000	9,000,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,245		
9,000,000	9,500,000	0%																						
9,500,000	10,000,000	0%																						
10,000,000	15,000,000	1.17%	0%	0%	0%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19,334		
15,000,000	20,000,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,721		
20,000,000	25,000,000	0%																						
25,000,000	30,000,000	0%																						
30,000,000	35,000,000	0%																						
35,000,000	40,000,000	0.58%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,075	25,000,000 =< ADT < 50,000,000	
40,000,000	45,000,000	0%																						
45,000,000	50,000,000	0%																						
50,000,000	55,000,000	0%																						
55,000,000	60,000,000	0%																						
60,000,000	65,000,000	0%																						
65,000,000	70,000,000	0%																						
70,000,000	75,000,000	0%																						
75,000,000	80,000,000	0%																						
80,000,000	85,000,000	0%																						
85,000,000	90,000,000	0%																						
90,000,000	95,000,000	0%																						
95,000,000	100,000,000	0%																						



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	OTHR																Average AVT of the ADT range	ADT range				
			AVT range																					
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000			
100,000,000	150,000,000	0%																						
150,000,000	200,000,000	0%																						
200,000,000	250,000,000	0%																						
250,000,000	300,000,000	0%																						
300,000,000	350,000,000	0%																						
350,000,000	400,000,000	0%																						
400,000,000	450,000,000	0%																						
450,000,000	500,000,000	0%																						
500,000,000	550,000,000	0%																						
550,000,000	600,000,000	0%																						
600,000,000	650,000,000	0%																						
650,000,000	700,000,000	0%																						
700,000,000	750,000,000	0%																						
750,000,000	800,000,000	0%																						
800,000,000	850,000,000	0%																						
850,000,000	900,000,000	0%																						
900,000,000	950,000,000	0%																						
950,000,000	#####	0%																						
#####	#####	0%																						
#####	#####	0%																						
#####	#####	0%																						
#####	#####	0%																						
#####	#####	0%																						
#####	#####	0%																						
>= 4,000,000,000		0%																						
Total number of instruments		171																						

Source: ESMA

Source: ESMA



Tables including liquid instruments only

Shares

ADT range		SHRS																		Average AVT of the ADT range	ADT range		
		Percentage of instruments in the ADT range	AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000
ADT = 0		0%																					
0.00000001	2,500	0%																					ADT < 50,000
2,500	5,000	0%																					
5,000	10,000	0%																					
10,000	20,000	0%																					
20,000	30,000	0%																					
30,000	40,000	0%																					
40,000	50,000	0%																					
50,000	60,000	0%																					
60,000	70,000	0%																					
70,000	80,000	0%																					
80,000	90,000	0%																					
90,000	100,000	0%																					50,000 =< ADT < 100,000



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	SHRS																		Average AVT of the ADT range	ADT range					
			AVT range																								
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000				
100,000	110,000	0%																									
110,000	120,000	0%																									
120,000	130,000	0%																									
130,000	140,000	0%																									
140,000	150,000	0%																									
150,000	160,000	0%																									
160,000	170,000	0%																									
170,000	180,000	0%																									
180,000	190,000	0%																									
190,000	200,000	0%																									
200,000	210,000	0%																									
210,000	220,000	0%																									
220,000	230,000	0%																									
230,000	240,000	0%																									
240,000	250,000	0%																									
250,000	260,000	0%																									
260,000	270,000	0%																									
270,000	280,000	0%																									
280,000	290,000	0%																									
290,000	300,000	0%																									
300,000	310,000	0%																									
310,000	320,000	0%																									
320,000	330,000	0%																									
330,000	340,000	0%																									
340,000	350,000	0%																									
350,000	360,000	0%																									
360,000	370,000	0%																									
370,000	380,000	0%																									
380,000	390,000	0%																									
390,000	400,000	0%																									
400,000	410,000	0%																									
410,000	420,000	0%																									
420,000	430,000	0%																									
430,000	440,000	0%																									
440,000	450,000	0%																									
450,000	460,000	0%																									
460,000	470,000	0%																									
470,000	480,000	0%																									
480,000	490,000	0%																									
490,000	500,000	0%																									

100,000 =<
ADT <
500,000

ADT range		Percentage of instruments in the ADT range	SHRS																	Average AVT of the ADT range	ADT range		
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000
1,000,000	1,500,000	4.19%	0%	38.71%	59.68%	1.61%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,729.49	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	4.39%	0%	13.85%	76.92%	9.23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,447.97		
2,000,000	2,500,000	3.85%	0%	21.05%	68.42%	10.53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,493.96		
2,500,000	3,000,000	3.72%	0%	10.91%	72.73%	16.36%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,834.72		
3,000,000	3,500,000	2.43%	0%	8.33%	83.33%	8.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,861.26		
3,500,000	4,000,000	3.11%	0%	10.87%	73.91%	15.22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,893.52		
4,000,000	4,500,000	2.64%	0%	2.56%	66.67%	25.64%	5.13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,687.71		
4,500,000	5,000,000	1.69%	0%	16.00%	64.00%	16.00%	4.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,179.64		
5,000,000	5,500,000	1.89%	0%	3.57%	64.29%	28.57%	3.57%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,942.67		
5,500,000	6,000,000	2.36%	0%	8.57%	62.86%	25.71%	2.86%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,646.90		
6,000,000	6,500,000	1.42%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,427.01		
6,500,000	7,000,000	1.35%	0%	0%	75.00%	10.00%	15.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,968.36		
7,000,000	7,500,000	1.22%	0%	0%	77.78%	16.67%	5.56%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,522.00		
7,500,000	8,000,000	1.69%	0%	0%	64.00%	24.00%	12.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,711.70	5,000,000 =< ADT < 25,000,000	
8,000,000	8,500,000	0.81%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,768.83		
8,500,000	9,000,000	1.49%	0%	4.55%	50.00%	40.91%	0%	4.55%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,683.23		
9,000,000	9,500,000	0.95%	0%	7.14%	57.14%	28.57%	7.14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,899.24		
9,500,000	10,000,000	1.01%	0%	0%	73.33%	26.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4,874.60		
10,000,000	15,000,000	7.97%	0%	1.69%	52.54%	34.75%	10.17%	0.85%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,074.04		
15,000,000	20,000,000	4.66%	0%	0%	23.19%	68.12%	5.80%	1.45%	1.45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,810.36		
20,000,000	25,000,000	3.99%	0%	1.69%	22.03%	59.32%	11.86%	3.39%	1.69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,150.19		
25,000,000	30,000,000	4.32%	0%	0%	15.63%	67.19%	9.38%	4.69%	3.13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,783.86		
30,000,000	35,000,000	2.23%	0%	0%	15.15%	72.73%	9.09%	0%	3.03%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,536.62		25,000,000 =< ADT < 50,000,000
35,000,000	40,000,000	3.58%	0%	1.89%	9.43%	66.04%	11.32%	7.55%	0%	1.89%	1.89%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,850.58		
40,000,000	45,000,000	2.43%	0%	0%	16.67%	69.44%	5.56%	2.78%	5.56%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,329.16		
45,000,000	50,000,000	1.49%	0%	0%	4.55%	77.27%	9.09%	9.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,080.67		
50,000,000	55,000,000	1.62%	0%	0%	4.17%	83.33%	4.17%	0%	4.17%	4.17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,509.95		
55,000,000	60,000,000	1.28%	0%	0%	5.26%	68.42%	15.79%	10.53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,496.11		
60,000,000	65,000,000	1.55%	0%	0%	0%	86.96%	13.04%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,824.48		
65,000,000	70,000,000	0.88%	0%	0%	0%	76.92%	7.69%	7.69%	0%	0%	0%	7.69%	0%	0%	0%	0%	0%	0%	0%	0%	12,915.37		
70,000,000	75,000,000	1.08%	0%	6.25%	0%	81.25%	12.50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,983.69	50,000,000 =< ADT < 100,000,000 0	
75,000,000	80,000,000	0.88%	0%	0%	0%	61.54%	23.08%	0%	0%	0%	7.69%	0%	7.69%	0%	0%	0%	0%	0%	0%	0%	19,880.01		
80,000,000	85,000,000	0.95%	0%	0%	7.14%	71.43%	14.29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7.14%	0%	23,810.46		
85,000,000	90,000,000	0.47%	0%	0%	0%	71.43%	14.29%	0%	0%	0%	0%	0%	14.29%	0%	0%	0%	0%	0%	0%	0%	20,934.03		
90,000,000	95,000,000	1.35%	0%	5.00%	0%	80.00%	15.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,095.17		
95,000,000	100,000,000	0.41%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,743.69		



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	SHRS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
100,000,000	150,000,000	6.35%	0%	0%	2.13%	57.45%	39.36%	0%	0%	1.06%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9,975.42	ADT >= 100,000,000
150,000,000	200,000,000	2.16%	0%	0%	0%	37.50%	50.00%	9.38%	3.13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,606.99	
200,000,000	250,000,000	1.28%	0%	0%	0%	31.58%	63.16%	0%	0%	0%	0%	5.26%	0%	0%	0%	0%	0%	0%	0%	0%	14,888.31	
250,000,000	300,000,000	1.08%	0%	0%	0%	25.00%	68.75%	0%	0%	0%	0%	6.25%	0%	0%	0%	0%	0%	0%	0%	0%	15,132.98	
300,000,000	350,000,000	1.69%	0%	0%	0%	8.00%	92.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,192.84	
350,000,000	400,000,000	1.15%	0%	0%	0%	0%	94.12%	0%	0%	0%	0%	0%	5.88%	0%	0%	0%	0%	0%	0%	0%	17,501.68	
400,000,000	450,000,000	0.61%	0%	0%	0%	33.33%	44.44%	22.22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,478.36	
450,000,000	500,000,000	0.74%	0%	0%	0%	0%	81.82%	9.09%	9.09%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,541.31	
500,000,000	550,000,000	0.41%	0%	0%	0%	0%	33.33%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	16.67%	0%	0%	0%	36,585.75	
550,000,000	600,000,000	0.27%	0%	0%	0%	0%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25.00%	0%	0%	0%	42,248.51	
600,000,000	650,000,000	0.27%	0%	0%	0%	0%	75.00%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,128.23	
650,000,000	700,000,000	0.07%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,667.32	
700,000,000	750,000,000	0.27%	0%	0%	0%	0%	75.00%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,581.48	
750,000,000	800,000,000	0.27%	0%	0%	0%	25.00%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,328.50	
800,000,000	850,000,000	0.14%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,281.15	
850,000,000	900,000,000	0.41%	0%	0%	0%	0%	83.33%	16.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17,465.81	
900,000,000	950,000,000	0.20%	0%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20,802.31	
950,000,000	#####	0.07%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,918.54	
#####	#####	0.61%	0%	0%	0%	11.11%	66.67%	11.11%	0%	0%	11.11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17,674.54	
#####	#####	0.34%	0%	0%	0%	0%	80.00%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,030.31	
#####	#####	0.14%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,173.12	
#####	#####	0%																				
#####	#####	0%																				
#####	#####	0.07%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	153,496.68	
>= 4,000,000,000		0.07%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,165.81	
Total number of instruments		1,480																				

Source: ESMA



Depository receipts

ADT range		DPRS																			Average AVT of the ADT range	ADT range
		Percentage of instruments in the ADT range	AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
ADT = 0		0%																				
0.00000001	2,500	0%																				
2,500	5,000	0%																				
5,000	10,000	0%																				
10,000	20,000	0%																				
20,000	30,000	0%																				
30,000	40,000	0%																				
40,000	50,000	0%																				
50,000	60,000	0%																				
60,000	70,000	0%																				
70,000	80,000	0%																				
80,000	90,000	0%																				
90,000	100,000	0%																				



ESMA PUBLIC USE

ADT range		DPRS																	Average AVT of the ADT range	ADT range								
		Percentage of instruments in the ADT range	AVT range																									
			AVT = 0	0.0000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000			130,000	140,000	>= 140,000					
500,000	510,000	0%																										
510,000	520,000	0%																										
520,000	530,000	0%																										
530,000	540,000	0%																										
540,000	550,000	0%																										
550,000	560,000	0%																										
560,000	570,000	0%																										
570,000	580,000	0%																										
580,000	590,000	0%																										
590,000	600,000	0%																										
600,000	610,000	0%																										
610,000	620,000	0%																										
620,000	630,000	0%																										
630,000	640,000	0%																										
640,000	650,000	0%																										
650,000	660,000	0%																										
660,000	670,000	0%																										
670,000	680,000	0%																										
680,000	690,000	0%																										
690,000	700,000	0%																										
700,000	710,000	0%																										
710,000	720,000	0%																										
720,000	730,000	0%																										
730,000	740,000	0%																										
740,000	750,000	0%																										
750,000	760,000	0%																										
760,000	770,000	0%																										
770,000	780,000	0%																										
780,000	790,000	0%																										
790,000	800,000	0%																										
800,000	810,000	0%																										
810,000	820,000	0%																										
820,000	830,000	0%																										
830,000	840,000	0%																										
840,000	850,000	0%																										
850,000	860,000	0%																										
860,000	870,000	0%																										
870,000	880,000	0%																										
880,000	890,000	0%																										
890,000	900,000	0%																										
900,000	910,000	0%																										
910,000	920,000	0%																										
920,000	930,000	0%																										
930,000	940,000	0%																										
940,000	950,000	0%																										
950,000	960,000	0%																										
960,000	970,000	0%																										
970,000	980,000	0%																										
980,000	990,000	0%																										
990,000	1,000,000	0%																										

500,000 =<
ADT <
1,000,000

ADT range		Percentage of instruments in the ADT range	DPRS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
1,000,000	1,500,000	7.84%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2,791.97	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	3.92%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		2,097.27
2,000,000	2,500,000	3.92%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		5,302.25
2,500,000	3,000,000	5.88%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		7,649.93
3,000,000	3,500,000	3.92%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		3,547.00
3,500,000	4,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		8,625.92
4,000,000	4,500,000	0%																					
4,500,000	5,000,000	11.76%	0%	0%	50.00%	16.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		7,092.16
5,000,000	5,500,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		5,015.85
5,500,000	6,000,000	0%																					
6,000,000	6,500,000	0%																					
6,500,000	7,000,000	0%																					
7,000,000	7,500,000	1.96%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,803.48	
7,500,000	8,000,000	0%																					
8,000,000	8,500,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,984.91	
8,500,000	9,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,957.54	
9,000,000	9,500,000	3.92%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,670.70	
9,500,000	10,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,252.71	
10,000,000	15,000,000	7.84%	0%	0%	25.00%	50.00%	0%	25.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,096.42	
15,000,000	20,000,000	3.92%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,375.62	
20,000,000	25,000,000	7.84%	0%	0%	25.00%	75.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,988.74	
25,000,000	30,000,000	3.92%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5,915.40	
30,000,000	35,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,908.73	
35,000,000	40,000,000	1.96%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11,060.34	
40,000,000	45,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7,986.56	
45,000,000	50,000,000	1.96%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,347.87	
50,000,000	55,000,000	0%																					
55,000,000	60,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,613.31	
60,000,000	65,000,000	0%																					
65,000,000	70,000,000	3.92%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,915.01	
70,000,000	75,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8,228.91	
75,000,000	80,000,000	1.96%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,948.25	
80,000,000	85,000,000	0%																					
85,000,000	90,000,000	0%																					
90,000,000	95,000,000	0%																					
95,000,000	100,000,000	0%																					



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	DPRS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
100,000,000	150,000,000	3.92%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,515.90	ADT >= 100,000,000	
150,000,000	200,000,000	1.96%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10,774.71		
200,000,000	250,000,000	0%																					
250,000,000	300,000,000	0%																					
300,000,000	350,000,000	0%																					
350,000,000	400,000,000	0%																					
400,000,000	450,000,000	0%																					
450,000,000	500,000,000	0%																					
500,000,000	550,000,000	0%																					
550,000,000	600,000,000	0%																					
600,000,000	650,000,000	0%																					
650,000,000	700,000,000	0%																					
700,000,000	750,000,000	0%																					
750,000,000	800,000,000	0%																					
800,000,000	850,000,000	0%																					
850,000,000	900,000,000	0%																					
900,000,000	950,000,000	0%																					
950,000,000	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
#####	#####	0%																					
>= 4,000,000,000		0%																					
Total number of instruments		51																					

Source: ESMA



ETFs

ADT range		Percentage of instruments in the ADT range	ETFS																	Average AVT of the ADT range	ADT range				
			AVT range																						
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000				
ADT = 0																									
0.00000001	2,500	0%																							
2,500	5,000	0%																							
5,000	10,000	0%																							
10,000	20,000	0%																							
20,000	30,000	0%																							
30,000	40,000	0%																							
40,000	50,000	0%																							
50,000	60,000	0%																							
60,000	70,000	0%																							
70,000	80,000	0%																							
80,000	90,000	0%																							
90,000	100,000	0%																							



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																	Average AVT of the ADT range	ADT range					
			AVT range																							
			AVT = 0	0.0000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000			
100,000	110,000	0%																								
110,000	120,000	0%																								
120,000	130,000	0%																								
130,000	140,000	0%																								
140,000	150,000	0%																								
150,000	160,000	0%																								
160,000	170,000	0%																								
170,000	180,000	0%																								
180,000	190,000	0%																								
190,000	200,000	0%																								
200,000	210,000	0%																								
210,000	220,000	0%																								
220,000	230,000	0%																								
230,000	240,000	0%																								
240,000	250,000	0%																								
250,000	260,000	0%																								
260,000	270,000	0%																								
270,000	280,000	0%																								
280,000	290,000	0%																								
290,000	300,000	0%																								
300,000	310,000	0%																								
310,000	320,000	0%																								
320,000	330,000	0%																								
330,000	340,000	0%																								
340,000	350,000	0%																								
350,000	360,000	0%																								
360,000	370,000	0%																								
370,000	380,000	0%																								
380,000	390,000	0%																								
390,000	400,000	0%																								
400,000	410,000	0%																								
410,000	420,000	0%																								
420,000	430,000	0%																								
430,000	440,000	0%																								
440,000	450,000	0%																								
450,000	460,000	0%																								
460,000	470,000	0%																								
470,000	480,000	0%																								
480,000	490,000	0%																								
490,000	500,000	0%																								

100,000 =<
ADT <
500,000



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
500,000	510,000	0.16%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	46,783.91		
510,000	520,000	0%																				
520,000	530,000	0.31%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14,889.68		
530,000	540,000	0.47%	0%	0%	0%	0%	0%	33.33%	66.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33,442.40		
540,000	550,000	0.31%	0%	0%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31,079.11		
550,000	560,000	0.31%	0%	0%	0%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35,760.62		
560,000	570,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,370.55		
570,000	580,000	0%																				
580,000	590,000	0.31%	0%	0%	0%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33,113.38		
590,000	600,000	0.31%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	18,462.28		
600,000	610,000	0.31%	0%	0%	0%	0%	0%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	35,704.57		
610,000	620,000	0.47%	0%	0%	0%	33.33%	33.33%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	32,649.57		
620,000	630,000	0.63%	0%	0%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28,784.92		
630,000	640,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15,545.75		
640,000	650,000	0.47%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17,547.51		
650,000	660,000	0.94%	0%	0%	0%	33.33%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23,351.26		
660,000	670,000	0.31%	0%	0%	0%	50.00%	0%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	32,665.93		
670,000	680,000	0.31%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29,799.10		
680,000	690,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,761.74		
690,000	700,000	0.16%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	23,951.00		
700,000	710,000	0.31%	0%	0%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33,817.14		
710,000	720,000	0.16%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31,154.08		
720,000	730,000	0.47%	0%	0%	0%	33.33%	33.33%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29,680.06		
730,000	740,000	0.47%	0%	0%	0%	0%	0%	33.33%	66.67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30,504.61		
740,000	750,000	0.31%	0%	0%	0%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	37,383.72		
750,000	760,000	0.31%	0%	0%	0%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	43,092.58		
760,000	770,000	0.31%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19,737.69		
770,000	780,000	0.16%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30,958.39		
780,000	790,000	0%																				
790,000	800,000	0.16%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	69,409.53		
800,000	810,000	0.47%	0%	0%	0%	33.33%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25,295.75		
810,000	820,000	0.79%	0%	0%	0%	0%	0%	40.00%	40.00%	0%	20.00%	0%	0%	0%	0%	0%	0%	0%	0%	33,475.12		
820,000	830,000	0.47%	0%	0%	0%	0%	0%	66.67%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29,929.72		
830,000	840,000	0%																				
840,000	850,000	0.31%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	53,924.08		
850,000	860,000	0%																				
860,000	870,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12,409.58		
870,000	880,000	0%																				
880,000	890,000	0%																				
890,000	900,000	0.31%	0%	0%	0%	50.00%	50.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19,490.60		
900,000	910,000	0.16%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,297.18		
910,000	920,000	0.16%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21,789.93		
920,000	930,000	0%																				
930,000	940,000	0%																				
940,000	950,000	0.16%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33,108.51		
950,000	960,000	0.47%	0%	0%	0%	0%	0%	33.33%	33.33%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	35,597.68		
960,000	970,000	0.47%	0%	0%	0%	33.33%	33.33%	0%	33.33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29,378.05		
970,000	980,000	0%																				
980,000	990,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16,087.29		
990,000	1,000,000	0.16%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19,180.94		

500,000 =<
ADT <
1,000,000



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range
			AVT range																			
			AVT = 0	0,00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
1,000,000	1,500,000	12.13%	0%	0%	1.30%	0%	15.58%	18.18%	22.08%	10.39%	10.39%	12.99%	3.90%	1.30%	1.30%	1.30%	0%	0%	0%	41,291.62	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	9.13%	0%	0%	0%	0%	13.79%	24.14%	12.07%	17.24%	10.34%	8.62%	5.17%	3.45%	0%	0%	1.72%	1.72%	0%	1.72%		44,586.37
2,000,000	2,500,000	5.35%	0%	0%	0%	2.94%	11.76%	14.71%	11.76%	11.76%	5.88%	14.71%	8.82%	8.82%	2.94%	0%	0%	0%	2.94%	52,921.32		
2,500,000	3,000,000	6.77%	0%	0%	0%	0%	6.98%	13.95%	11.63%	20.93%	2.33%	13.95%	2.33%	4.65%	2.33%	2.33%	0%	0%	2.33%	4.65%		63,954.77
3,000,000	3,500,000	4.57%	0%	0%	0%	6.90%	3.45%	10.34%	3.45%	3.45%	31.03%	17.24%	3.45%	6.90%	3.45%	0%	0%	6.90%	0%	3.45%		59,859.80
3,500,000	4,000,000	2.68%	0%	0%	0%	11.76%	5.88%	17.65%	11.76%	23.53%	5.88%	5.88%	0%	0%	5.88%	0%	0%	5.88%	0%	5.88%		58,978.33
4,000,000	4,500,000	2.83%	0%	0%	0%	11.11%	11.11%	22.22%	11.11%	16.67%	5.56%	5.56%	5.56%	0%	5.56%	0%	0%	0%	5.56%	0%		53,770.40
4,500,000	5,000,000	2.99%	0%	0%	0%	0%	21.05%	0%	26.32%	10.53%	21.05%	5.26%	0%	5.26%	5.26%	0%	0%	0%	5.26%	0%		61,616.67
5,000,000	5,500,000	1.73%	0%	0%	0%	0%	18.18%	27.27%	9.09%	9.09%	0%	0%	0%	0%	0%	0%	9.09%	27.27%	0%	0%		94,367.21
5,500,000	6,000,000	4.25%	0%	0%	0%	14.81%	3.70%	7.41%	18.52%	14.81%	3.70%	7.41%	0%	18.52%	0%	3.70%	0%	0%	7.41%	0%		62,959.51
6,000,000	6,500,000	1.57%	0%	0%	0%	0%	0%	30.00%	0%	40.00%	0%	10.00%	0%	0%	10.00%	0%	0%	10.00%	0%	0%	63,405.53	
6,500,000	7,000,000	2.05%	0%	0%	0%	0%	7.69%	15.38%	7.69%	23.08%	7.69%	0%	0%	7.69%	0%	15.38%	0%	0%	7.69%	7.69%	78,457.63	
7,000,000	7,500,000	1.89%	0%	0%	0%	8.33%	0%	8.33%	8.33%	16.67%	0%	16.67%	0%	0%	0%	8.33%	8.33%	0%	25.00%	0%	93,839.55	
7,500,000	8,000,000	1.10%	0%	0%	0%	0%	0%	0%	14.29%	57.14%	0%	28.57%	0%	0%	0%	0%	0%	0%	0%	0%	58,260.24	
8,000,000	8,500,000	0.94%	0%	0%	0%	0%	0%	16.67%	16.67%	16.67%	16.67%	0%	0%	0%	0%	0%	0%	0%	33.33%	0%	88,059.89	
8,500,000	9,000,000	2.36%	0%	0%	0%	6.67%	0%	0%	33.33%	0%	6.67%	6.67%	20.00%	6.67%	0%	0%	0%	0%	20.00%	0%	100,919.45	
9,000,000	9,500,000	0.94%	0%	0%	0%	0%	16.67%	16.67%	16.67%	33.33%	0%	0%	16.67%	0%	0%	0%	0%	0%	0%	0%	51,254.77	
9,500,000	10,000,000	1.42%	0%	0%	0%	0%	0%	22.22%	33.33%	11.11%	11.11%	0%	0%	11.11%	0%	0%	0%	11.11%	0%	0%	61,149.12	
10,000,000	15,000,000	6.93%	0%	0%	0%	6.82%	6.82%	11.36%	13.64%	11.36%	15.91%	4.55%	6.82%	2.27%	0%	2.27%	6.82%	2.27%	9.09%	0%	73,257.96	
15,000,000	20,000,000	4.25%	0%	0%	0%	3.70%	7.41%	22.22%	11.11%	18.52%	7.41%	3.70%	0%	11.11%	14.81%	0%	0%	11.11%	14.81%	0%	120,104.86	
20,000,000	25,000,000	2.52%	0%	0%	0%	0%	0%	0%	6.25%	18.75%	6.25%	6.25%	6.25%	12.50%	6.25%	12.50%	0%	0%	25.00%	0%	127,069.75	
25,000,000	30,000,000	3.15%	0%	0%	0%	0%	5.00%	10.00%	0%	10.00%	20.00%	10.00%	15.00%	10.00%	5.00%	5.00%	0%	0%	10.00%	0%	90,056.20	
30,000,000	35,000,000	0.63%	0%	0%	0%	0%	0%	25.00%	0%	25.00%	0%	0%	0%	25.00%	0%	0%	0%	0%	50.00%	0%	122,930.53	
35,000,000	40,000,000	0.79%	0%	0%	0%	0%	0%	0%	0%	20.00%	20.00%	0%	0%	0%	40.00%	20.00%	0%	0%	0%	0%	91,684.96	
40,000,000	45,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
45,000,000	50,000,000	0.94%	0%	0%	0%	0%	0%	0%	16.67%	16.67%	0%	50.00%	16.67%	0%	0%	0%	0%	0%	0%	0%	67,551.73	
50,000,000	55,000,000	0.47%	0%	0%	0%	33.33%	0%	0%	0%	33.33%	0%	0%	0%	33.33%	0%	0%	0%	0%	0%	0%	55,833.39	
55,000,000	60,000,000	0.16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	75,162.31	
60,000,000	65,000,000	0.31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50.00%	0%	50.00%	0%	0%	0%	0%	0%	0%	82,279.84	
65,000,000	70,000,000	0.31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	97,655.62	
70,000,000	75,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
75,000,000	80,000,000	0.47%	0%	0%	0%	0%	0%	0%	66.67%	0%	0%	0%	0%	0%	0%	33.33%	0%	0%	0%	0%	68,917.92	
80,000,000	85,000,000	0.16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	80,622.60	
85,000,000	90,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
90,000,000	95,000,000	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
95,000,000	100,000,000	0.16%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	64,616.08	



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	ETFS																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
100,000,000	150,000,000	0.63%	0%	0%	0%	0%	0%	0%	0%	25.00%	25.00%	0%	25.00%	0%	25.00%	0%	0%	0%	0%	0%	69,270.19	ADT >= 100,000,000	
150,000,000	200,000,000	0.16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	86,342.28		
200,000,000	250,000,000	0%																					
250,000,000	300,000,000	0%																					
300,000,000	350,000,000	0%																					
350,000,000	400,000,000	0%																					
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>= 4,000,000,000		0%																					
Total number of instruments		635																					

Source: ESMA



Certificates

ADT range		Percentage of instruments in the ADT range	CRFT																	Average AVT of the ADT range	ADT range			
			AVT range																					
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	>= 140,000			
ADT = 0																								
0.00000001	2,500																							
2,500	5,000																							
5,000	10,000																							
10,000	20,000																							
20,000	30,000																							
30,000	40,000																							
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60,000	70,000																							
70,000	80,000																							
80,000	90,000																							
90,000	100,000																							



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	CRFT																	Average AVT of the ADT range	ADT range					
			AVT range																							
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	≥ 140,000			
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490,000	500,000																									

100,000 ≤< ADT < 500,000



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	CRFT																		Average AVT of the ADT range	ADT range						
			AVT range																									
			AVT = 0	0.0000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000					
100,000,000	150,000,000																											
150,000,000	200,000,000																											
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>= 4,000,000,000																												
Total number of instruments		-																										

Source: ESMA

Other equity financial instruments

ADT range		OTHR																			Average AVT of the ADT range	ADT range
		Percentage of instruments in the ADT range	AVT range																			
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000		
ADT = 0		0%																				
0.00000001	2,500	0%																				
2,500	5,000	0%																				
5,000	10,000	0%																				
10,000	20,000	0%																				
20,000	30,000	0%																				
30,000	40,000	0%																				
40,000	50,000	0%																				
50,000	60,000	0%																				
60,000	70,000	0%																				
70,000	80,000	0%																				
80,000	90,000	0%																				
90,000	100,000	0%																				



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	OTHR																		Average AVT of the ADT range	ADT range	
			AVT range																				
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000			>= 140,000
1,000,000	1,500,000	33.33%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6,504.10	1,000,000 =< ADT < 5,000,000	
1,500,000	2,000,000	0%																					
2,000,000	2,500,000	33.33%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3,077.24		
2,500,000	3,000,000	0%																					
3,000,000	3,500,000	0%																					
3,500,000	4,000,000	0%																					
4,000,000	4,500,000	0%																					
4,500,000	5,000,000	0%																					
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9,000,000	9,500,000	0%																					
9,500,000	10,000,000	0%																					
10,000,000	15,000,000	33.33%	0%	0%	0%	0%	0%	0%	100.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	32,613.86		
15,000,000	20,000,000	0%																					
20,000,000	25,000,000	0%																					
25,000,000	30,000,000	0%																					
30,000,000	35,000,000	0%																					
35,000,000	40,000,000	0%																					
40,000,000	45,000,000	0%																					
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55,000,000	60,000,000	0%																					
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70,000,000	75,000,000	0%																					
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90,000,000	95,000,000	0%																					
95,000,000	100,000,000	0%																					



ESMA PUBLIC USE

ADT range		Percentage of instruments in the ADT range	OTHR																	Average AVT of the ADT range	ADT range				
			AVT range																						
			AVT = 0	0.00000001	2,500	5,000	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000			140,000	>= 140,000		
100,000,000	150,000,000	0%																							
150,000,000	200,000,000	0%																							
200,000,000	250,000,000	0%																							
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#####	#####	0%																							
>= 4,000,000,000		0%																							
Total number of instruments		3																							

Source: ESMA

4.2 Annex II

Summary of questions

Q1: What is your view on only allowing orders that are large in scale and orders in an order management facility to be waived from pre-trade transparency while removing the reference price and negotiated trade waivers? Instead of removing the RP and NT waivers, would you prefer to set a minimum threshold above which transactions under the RP and NT waivers would be allowed? If so, what should be the value of such threshold? What alternatives do you propose to simplify the MiFIR waivers regime while improving transparency available to market participants? Please explain.

Q2: Do you agree to increase the pre-trade LIS threshold for ETFs to EUR 5,000,000? Please explain.

Q3: Do you agree with extending the scope of application of the DVC to systems that formalise NT for illiquid instruments?

Q4: Would you agree to remove the possibility for trading venues to apply for combination of waivers? Please justify your answer and provide any other feedback on the waiver regime you might have.

Q5: Do you agree with the proposal to report the volumes under the different waivers separately to FITRS? Please explain.

Q6: What would be in your view an alternative way to incentivise lit trading and ensure the quality and robustness of the price determination mechanism for shares and equity-like instruments? Please explain.

Q7: Which option do you prefer for the liquidity assessment of shares among Option 1 and 2? Do you have an alternative proposal? Do you think that the frequency of trading should be kept as a criterion to assess liquidity? If so, what is in your view the appropriate thresholds for the percentage of days traded measured as the ratio between number of days traded and number of days available for trading (e.g. 95%, 90%, 85% etc.)? Please explain.

Q8: Do you agree in changing the approach for ETFs, DRs as proposed by ESMA? Do you have an alternative proposal? Please explain.

Q9: Do you agree in removing the category of certificates from the equity-like transparency scope? Please explain.

Q10: Do you agree in deeming other equity financial instruments to be illiquid by default? Please explain.

Q11: Do you agree in separating the definition of conventional periodic auctions and frequent batch auctions? Do you agree with ESMA's proposal to require the disclosure of all orders submitted to FBAs? Please explain.

Q12: Do you agree that all non-price forming systems should operate under a pre-trade transparency waiver? Please explain.

Q13: What is your view on increasing the minimum quoting size for SIs? Which option do you prefer?

Q14: What is your view on extending the transparency obligations under the SI regime to illiquid instruments?

Q15: With regard to the SMS determination, which option do you prefer? Would you have a different proposal? Please explain.

Q16: Which option do you prefer among Options A, B and C? Would you suggest a different alternative? Please explain.

Q17: Would you envisage a different system than the DVC to limit dark trading? Please explain.

Q18: Do you agree in removing the need for NCAs to issue the suspension notice and require trading venues to suspend dark trading, if required, on the basis of ESMA's publication? Please explain.

Q19: Do you agree in removing the requirement under Article 5(7)(b)? Please explain.

Q20: Please provide your answer to the following [survey](#) (<= click here) on the impact of DVC on the cost of trading for eligible counterparties and professional clients.

Q21: Do you agree in applying the DVC also to instruments for which there are not 12 months of available data yet? Please explain

Q22: Do you agree foresee any issue if the publication occurs after 7 working days instead of 5? Please explain.

Q23: Do you agree that the mid-month reports should not be published? Please explain.

Q24: Do you agree with ESMA's proposal to include in Article 70 of MiFID II the infringements of the DVC suspensions? Please explain.

Q25: Do you agree with ESMA's assessment that the conditions for deferred publication for shares and depositary receipts should not be subject to amendments? If not, please explain.

Q26: Do you agree with ESMA's proposal to increase the applicable threshold for ETFs and request for real-time publication for transactions that are below 20,000,000 EUR? If not, please explain.

Q27: Do you agree with ESMA assessment of the level of post trade transparency for OTC transactions?

Q28: Do you agree with the proposal to report and flag transactions which are not subject to the share trading obligations but subject to post-trade transparency to FITRS? Please explain.

Q29: What is your experience related to the publication of post-trade transparency information within 1 minute from the execution of the transaction? Do you think that the definition of "real-time" as maximum 1 minute from the time of the execution of the transaction is appropriate/too stringent/ too lenient? Please explain.

Q30: Do you agree with ESMA's approach to third-country trading venues for the purpose of transparency requirements under MiFID II? If no, please explain.

Q31: Do you agree that the scope of the share trading obligation in Article 23 of MiFIR should be reduced to exclude third-country shares? If yes, what is the best way to identify such shares, keeping in mind that ESMA does not have data on the relative liquidity of shares in the EU versus in third countries? More generally, would you include any additional criteria to define the scope of the share trading obligation and, if yes, which ones?

Q32: Would you support removing SIs as eligible execution places for the purposes of the share trading obligation? If yes, do you think SIs should only be removed as eligible execution places with respect to liquid shares? Please provide arguments (including numerical evidence) supporting your views.

Q33: Would you support deleting the first exemption provided for under Article 23 of MiFIR (i.e. for shares that are traded on a "non-systematic, ad-hoc, irregular and infrequent" basis)? If not, would you support the introduction in MiFIR of a mandate requiring ESMA to specify the scope of the exemption? Please provide arguments supporting your views.

Q34: Would you support simplifying the second exemption of Article 23 of MiFIR and not limiting it to transactions "carried out between eligible and/or professional counterparties"? Please provide arguments supporting your views.

Q35: What is your view on the increase of volumes executed through closing auctions? Do you think ESMA should take actions to influence this market trend and if yes which one?