ICMA response to the ESMA MiFIR Review Consultation Package

RTS 2: non-equity trade transparency

28 August, 2024

Introduction and summary of response

ICMA is pleased for the opportunity to respond to ESMA's consultation on the Review of RTS 2, part of the MiFIR Review Consultation Package published in May 2024.

As ESMA will be aware, ICMA has been a longstanding advocate of increased transparency in the European bond markets and the introduction of an EU consolidated tape for bonds. This has been with the broad support of ICMA members, including sell side, buy side, and financial market infrastructures active in the European and international bond markets. ICMA therefore welcomes the objective of the MiFIR Review to support the establishment of a consolidated tape. Underpinning the success of the tape will be the design and calibration of the related deferral framework and it is imperative that this reflects the nature, structure, and liquidity of Europe's bond markets.

With this in mind, and in close consultation with its members, ICMA has undertaken extensive statistical analysis to ensure that its recommendations to ESMA are as data-driven and scientifically based as possible. As ESMA will be aware, the bond market encompasses a vast array of acutely heterogenous classes and sub-classes, with very different liquidity and risk profiles, and varying sensitivities to information leakage. Unlike other markets, such as equities or exchange traded derivatives, the provision of liquidity is very much dependent on market makers, or other principal trading firms, who are willing to assume risk by taking the other side of an investor's buy or sell order, hedging as best they can, before looking to trade out of the position over time. In the case of many bonds, particularly when the trade is in larger than average size, information leakage can lead to an immediate repricing of the market to the detriment of the liquidity provider. Disseminating details of such trades too quickly will not serve investors or the wider market well and could degrade liquidity in some bond classes and market segments. This becomes even more material in times of stress, where the ability and willingness of market makers to provide liquidity and immediacy becomes the basis for market stability and resilience.[1] Ensuring that the EU is a globally competitive marketplace for trading all bonds, both in times of stability and volatility, should be a desirable outcome of a well-designed and appropriately calibrated transparency regime.

In constructing its recommendations, ICMA has also recognized the challenge of finding the right balance between achieving the optimal calibration for as many bond classes and sub-classes as possible and a desire to avoid excessive complexity.

[1] See: Liquidity and resilience in the core European sovereign bond markets, ICMA, March 2024

Based on its analysis, ICMA proposes the following refinements to the deferral framework proposed by ESMA and based on the Revised MiFIR provisions:

(i) More granular groupings of bonds. ICMA proposes a distinction between the fixed coupon issuance of the very largest sovereign issuers and other sovereign bonds, as well as between investment grade and high yield credit.
(ii) A more scientific approach to establishing the appropriate Liquidity determinant. While ICMA has focused on outstanding issuance size as the key determination variable, it does not rule out the relevance of other key features (such as time to maturity or currency denomination).
(iii) A refinement to the proposed matrix, which allows for a more appropriate distinction between liquid and illiquid trade size thresholds.
(iv) A more data-driven approach to establishing the appropriate trade size thresholds for the relevant deferral categories, based on historical traded average daily trading volumes.

While ICMA is confident that its proposed refinements to the framework are a significant improvement on the current proposal, and would result in better market outcomes, it is also aware that there is no perfect model on which the entire market can agree. However, ICMA, with the broad support of its members, does believe that a data-driven approach, particularly based on the notion of traded average daily volumes, is essential for ensuring the optimal design and calibration of the EU deferral framework for bonds while minimizing the risks of adverse outcomes. With this in mind, ICMA would further suggest starting from a point of relative caution, with a view to the gradual adjustment of thresholds in response to ongoing data and analysis.

Accordingly, ICMA and its members would encourage ESMA not only to consider ICMA's proposals, but more importantly to adopt the methodology and principles underlying its analysis and, working with ICMA and the wider industry, construct a revised framework that is data-driven and better calibrated to the market it is designed to serve.

ICMA promotes well-functioning cross-border capital markets, which are essential to fund sustainable economic growth. It is a not-for-profit membership association with offices in Zurich, London, Paris, Brussels, and Hong Kong, serving around 620 members in almost 70 jurisdictions globally. Its members include private and public sector issuers, banks and securities dealers, asset and fund managers, insurance companies, law firms, capital market infrastructure providers and central banks. ICMA provides industry-driven standards and recommendations, prioritising three core fixed income market areas: primary, secondary and repo and collateral, with cross-cutting themes of sustainable finance and FinTech and digitalisation. ICMA works with regulatory and governmental authorities, helping to ensure that financial regulation supports stable and efficient capital markets.

Contacts

Andy Hill andy.hill@icmagroup.org
Simone Bruno simone.bruno@icmagroup.org
Nina Suhaib-Wolf nina.suhaib-wolf@icmagroup.org

3 Pre-trade transparency

3.1 Definitions of central limit order books and periodic auctions trading systems

Q1: Do you agree with the definition of CLOB trading systems proposed above? If not, please explain why.

ICMA agrees with the definition set out in the ESMA proposal.

Q2: Do you consider that the definition should include other trading systems? Please Elaborate.

ICMA does not believe that other trading systems should be included in the definition.

Q3: Do you agree that the description of periodic auction trading systems set out in Annex I of RTS 2 is relevant for specifying the characteristics of those trading systems in the revised RTS? If not, please elaborate.

ICMA agrees with the definition set out in the ESMA proposal is relevant for specifying the characteristics of these trading systems.

3.3 Definition of bonds

Q4: Do you agree to use ESA 2010 to classify bond issuers? If not, please explain and provide alternatives on how to classify sovereign, other public and corporate issuers.

ICMA would note that any system that is open to interpretation by multiple users is always likely to result in inconsistent or erroneous classifications, particularly where the classification is not necessarily obvious. Trading Venues are reliant on different reference data providers to provide the relevant CFI code. In certain cases, these will be different with respect to the same security. Furthermore, the current process for correcting incorrectly classified securities is onerous and lengthy, usually involving two NCAs in the case where the initial transaction is between two jurisdictions. Accordingly, the only way to ensure consistency in bond classification, as well as to facilitate swift corrections of misclassified securities, is to have a central golden source. Ideally this would be ESMA.

ICMA notes that there is precedence of ESMA providing Q&A guidance on the correct classification of a list of public bond issuers.[2]

[2] See: https://www.esma.europa.eu/press-news/esma-news/new-manual-post-trade-transparency-available

It should also be recognized that outside of the EU reporting framework, most market participants will not use the FIRDS/FITRS classifications and will instead rely on their own sources of reference data.

3.4 Pre-trade transparency waivers

Q5: Do you agree with the proposed LiS pre-trade thresholds for bonds? In your answer, please also consider the analysis provided in sections 4.2.1.

ICMA believes that the pre-trade LIS thresholds for bonds should align with the real-time thresholds for post-trade transparency, which ICMA addresses in its answer to Q.12. Furthermore, ICMA proposes more granular groupings of bonds than those proposed here, with the rationale explained in its answer to Q.11. An additional consideration, also explained in the answers to Q.11 and Q.12 is that there is no single methodology for determining the appropriate size threshold.

Accordingly, the suggested thresholds provided here should be viewed in parallel with those suggested for the post-trade calibration in the answer to Q.12, but also noting the recommendation that ESMA undertake its own analysis based on the outlined methodologies.

Grouping	Bond type	LIS
1 & 2	Sovereign bonds	€5,000,000
3	Other public bonds	€1,000,000
4	Corporate, convertible, and other bonds – IG	€1,000,000
5	Corporate, convertible, and other bonds – HY	€750,000
6	Covered bonds	€1,000,000

Q6: Do you agree with the proposed LiS pre-trade thresholds for SFPs and EUAs? In your answer, please also consider the analysis provided in section 4.2.2.

ICMA would refer ESMA to the answers to Q.14 and Q.15 for consistency with our post-trade proposal.

Q7: Do you agree with the approach taken for the illiquid waiver for bonds, SFPs and EUA? If you disagree with how the liquidity threshold is determined, please include your comments in Q11 for bonds, Q14 for SFPs and/or Q17 for EUAs.

ICMA agrees with the approach taken for the illiquid waiver for pre-trade transparency with respect to bonds and SFPs. ICMA would also refer ESMA to the answers to Q.11 and Q.14.

4 Post-trade transparency

4.1.2 Post-trade field specific changes (Table 2 of Annex II)

Q8: Do you agree with the changes to post-trade fields summarised in Table 5? Please identify the proposal ID in your response.

ICMA agrees with the introduction of "Flag" in Table 2 of Annex II (Field No 5 in Table 5).

While ICMA recognizes that the addition of the "Trading system" field (No 6 in Table 5) may create additional cost for Trading Venues, the additional information this provides should be beneficial to market participants. In particular it may be helpful in helping to identify which trading systems are optimal for certain asset classes, or individual securities, whether in general, at certain times, or under specific conditions. It is further noted that this is a Level 1 requirement, so largely a moot point.

4.1.3 Concept of what constitutes real-time

Q9: Do you agree not to change the concept of "as close to real-time as technically possible"? If not, what would be in your view the maximum permissible delay?

ICMA agrees not to change the concept of "as close to real-time as technically possible".

4.1.4 Reporting of OTC transactions

Q10: Do you agree with the changes proposed for the purpose of the reporting of OTC transactions?

ICMA agrees with the changes proposed for the purpose of reporting OTC transactions.

4.2 Post-trade deferrals for bonds, structure finance products and emission allowances

4.2.1 Deferral regime for Bonds

Q11: Do you agree with the liquidity thresholds set out in Table 7 above? If not, please provide an alternative approach.

While ICMA believes that the post-trade deferral matrix for bonds, established in the Revised MiFIR Level 1, is largely workable, extensive analysis and member discussion have led us to conclude that a number of modifications to the ESMA proposal are required. This is with the explicit goal of optimizing the post-trade deferral calibrations, which ICMA defines as maximizing the universe of transactions that are subject to real-time transparency without detrimental market impacts, while ensuring appropriate deferrals for the subset of trades that warrant a degree of protection.

ICMA proposes the following modifications to the ESMA proposal, which it believes are consistent with the Level 1 requirements, and which better achieve the objective of optimizing the deferral calibrations:

1) More granular groupings.
2) A more data-driven approach to establishing the appropriate Liquidity determinant (based on outstanding issuance size).
3) A refinement to the proposed matrix, which essentially splits out real-time ("N/A" in the ESMA proposal) into *Liquid* and *Illiquid* as well as the *Very Large* category also into *Liquid* and *Illiquid* sub-categories. This is discussed further in the answer to Q.12.
4) A more data-driven approach to establishing the appropriate trade size thresholds for the relevant deferral categories. This is also discussed further in the answer to Q.12.

The application of Average Daily Volumes

In identifying helpful modifications to the ESMA proposal as well as suggesting an alternative, more accurate approach to determining the appropriate thresholds (both for liquidity determination and deferral category calibrations), ICMA uses the historical average daily volumes (ADV) of notional amounts traded for various classes and sub-classes of bonds. This is based on a historical data set of MiFIR EU reported trades for all of 2023. Further details of how the data set is sourced and treated are provided in Annex I of this response.

ICMA uses ADV as a measure of liquidity, allowing for liquidity profiling of different classes and sub-classes of bonds, including estimating market depth, from which one can infer the potential time required to trade out of a risk position for a given size and bond. (This last point is discussed in more detail in the answer to Q.12.)

It is important to consider that there are essentially two main approaches for calculating ADV. One is an aggregate approach, which is calculated by summing the total notional value traded across all securities on a given day and then dividing this sum by the number of unique securities (ISINs) traded on that day. The other is an individual ISIN approach which involves calculating the ADV for each security individually, dividing this by the number of trading days for the data time series, and

then averaging these individual values. More details of both methodologies are provided in the Annex IV of this response, while, for completeness, calculations using the individual ISIN approach are provided in Annex III. Neither approach is necessarily right nor wrong, however it is important to note that the latter (individual ISIN) methodology will tend to produce lower ADV measures than the aggregate approach, largely due to the fact it factors in the infrequency with which certain ISINs trade.

ICMA has taken the former (averaging) approach in providing feedback to this response due to its relative simplicity, but it is important to bear this in mind, particularly when estimating the time to trade out of a risk position, which is highlighted in the answer to Q.12. However, the averaging approach is perfectly adequate for determining appropriate groupings and in establishing liquidity thresholds.

Note that when calculating the ADV, ICMA uses a 5-day moving average (ADV(5)) to help smooth out any short-term volatility in the daily calculations.

Groupings

When establishing groupings of bond classes and sub-classes for the application of a deferral regime, it is imperative that the bonds within each grouping have relatively similar liquidity profiles. This is because these bonds will be subject to the same liquidity determinant and the same trade size thresholds. Groupings with diversely heterogenous bonds will weaken the deferral framework and lead to adverse outcomes.

ICMA has used ADV analysis of various classes and sub-classes to identify where more granular groupings than those in the ESMA proposal are warranted, while balancing this with the need to ensure that the framework is not overly complex. ICMA further recognizes that it is important to be able to categorize groupings relatively easily, transparently, and consistently.

Sovereign and other public bonds

One of the most striking observations from the data is the difference between the vanilla (fixed coupon) government bonds of the largest sovereign issuers and other sovereign and public bonds. In our analysis we focus on the government bonds of the sovereign issuers that individually account for more than 4% of total notional value of sovereign debt traded in the EU for the sample data set (in this case all of 2023). These are the government bonds issued by France, Germany, Italy, Spain, the UK, and the US. We will refer to these as Group "SB1". There are a number of factors that make SB1 bonds distinct from all other sovereign bonds. Firstly, SB1 bonds account for 90%[3] of the total notional value of government bonds traded in the EU in 2023. Secondly, their issuance sizes are significantly larger than most other sovereign bonds, with an average notional outstanding of €37.9bn and a median value of €31.6bn, compared with €5.6bn and €1.6bn respectively for all other sovereign issuers bonds. Thirdly, the government bonds of these issuers are widely used as

[3] Source: Propellant.digital

reference bonds for pricing and hedging, including for other sovereign bond markets. Unlike most other sovereign bond markets traded in the EU, they also have deep and active futures markets. Furthermore, when we look at the ADV of the SB1 grouping compared to that of non-SB1 sovereign bonds (which we call "SB2"), there is no comparison. The average ADV(5) for SB1 group equates to €116.44mn against €18.07mn for the SB2 group. The full time series for 2023 can be seen in Figure 1 in Annex I.

ICMA also looked at the ADVs of inflation-linked bonds ("linkers") of the largest issuers[4] and concluded that these were significantly less liquid than vanilla coupon bonds and were more closely aligned with the SB2 grouping. Inflation linked bonds of the largest issuers exhibit an average ADV(5) of €36.9mn. The full time series for 2023, compared to the ADV(5) of the SB2 group can be seen as per Figure 2. Accordingly, ICMA proposes that only vanilla, fixed coupon government issuance is included in SB1, and that bonds such as linkers, coupon strips, or floating rate notes ("floaters") be included in SB2.

Grouping these SB1 government bonds together with all other sovereign bonds (SB2) into the same deferral matrix will generate a deeply suboptimal outcome due to the highly distortive nature of these largest issues. Even applying a relatively high liquidity threshold (eg €10bn outstanding issuance) will still be suboptimal given the significant difference in ADVs between *Illiquid* SB1 and SB2 bonds (€30.5mn vs €10.9mn). This is illustrated in Figure 1 Figure 3 in Annex I.

Hence ICMA proposes that for the EU deferral regime for sovereign bonds to be credible, the fixed coupon bonds of the largest government issuers (ie with a share >4% of total annual traded volume) need to be grouped separately from other sovereign bonds. ICMA would also point to the UK FCA proposal which provides a different treatment for the very largest sovereign issuers.

ICMA would recommend that ESMA reassess the individual share of each sovereign issuer (based on fixed coupon issues) with respect to the total traded notional value of all sovereign bonds in the EU on a regular basis (say, every two years) in order to determine the composition of the SB1 group.

ESMA may further wish to consider the treatment of US Treasury bonds, for some consistency with TRACE. As ESMA may be aware, currently TRACE only provides data for transactions in on-the-run treasuries. Under the ESMA proposal, US Treasuries traded in the EU would be afforded a higher degree of transparency than in the US.

Other public bonds

Based on ADV analysis, ICMA also believes that it is warranted for other public bonds (with an ADV of €4mn) to be grouped separately, rather than mixed with sovereign bonds (ADV €18mn).

[4] The six issuers from the SB1 group (US, UK, FR, DE, IT, ES).

High Yield credit

Given the distinct difference between investment grade (IG) and high yield (HY) credit, ICMA also proposes splitting the *Corporate, convertible, and other bonds* group into IG and HY. While ADVs do not immediately look dissimilar, and a larger issuance size threshold for the liquidity determinant could help move most of HY issuance into the *Illiquid* categories, this would fail to recognize the fact that IG and HY are effectively distinct asset classes. While there is a cross-over segment of HY that may have a similar liquidity profile to IG, the lower rated segment of the market is structurally very different, with both specialist investors and market-makers. When we look at ADV for IG versus that of HY with a credit rating equal to or lower than single B,[5] we do see a sharp relative fall (see Figures 4 and 5 in Annex I). The products are traded differently, too. While IG credit is usually priced and traded on a spread basis (yield vs benchmark), HY credit is more commonly quoted and traded on price (ie percentage of par value). The latter is also more difficult to hedge and is associated with significantly higher idiosyncratic risk. For all of these reasons, HY credit is likely to be far more sensitive to information leakage and therefore requires a different deferral treatment to IG.

ICMA would also point to the fact that US TRACE applies a different transparency treatment for IG and HY corporate bonds, while the UK FCA proposes to do something similar.

In order for data providers and the CTP to categorize IG and HY consistently it is important to establish a relatively straightforward determination methodology, ideally supported by a centralized and accessible database.

In the case of TRACE, FINRA captures the credit ratings from two agencies at the end of each day via direct feeds (FINRA pays a fee for this). The FINRA definition for IG vs HY is available in FINRA rule 6710(h), (i) and (j) (https://www.finra.org/rules-guidance/rulebooks/finra-rules/6710). Based on this, FINRA makes available to participants its IG/HY assessment for each security (but not the underlying agency ratings).

A possible point of reference could be the methodology for determining IG employed by the ECB in its Corporate Sector Purchase Programme (CSPP). (This is outlined in Article 83 and 84 of Guideline ECB/2014/60). There is also a well-established precedence for utilizing external rating agencies in EU regulation with CRR/CRD.

[5] The rating used is the Bloomberg composite rating, which averages available credit ratings of a security into one output.

Accordingly, ICMA proposes 6 groupings for the EU transparency framework:

Grouping	Description	ADV (€mn) [6]
1	Largest sovereign bond issuers (vanilla) [SB1]	€116.44
2	All other sovereign bonds [SB2]	€18.07
3	Other public bonds	€4.01
4	Corporate, convertible, and other public bonds IG	€1.63
5	Corporate, convertible, and other public bonds HY[7]	€1.72
6	Covered bonds	€6.35

Calculating liquidity thresholds

In previous work, ICMA has applied regression modeling to identify the significant endogenous features of a bond that contribute to liquidity (measured in terms of ADV). After time since issuance, outstanding issuance size was identified as the next most important feature. Depending on bond class or sub-class, other features may also have an impact to some degree, including time to maturity, currency denomination, and credit rating. For sovereign bonds the analysis is complicated further by additional considerations such as the distinction between on-the-run and off-the-run bonds and futures deliverability.

For the purposes of this response, ICMA has focused primarily on outstanding issuance size (hereafter referred to as *issuance size*) as the sole liquidity determinant, consistent with ESMA's proposal. However, ICMA does not discount the fact that the framework could be improved by incorporating other liquidity determinants, for example time to maturity, particularly in the case of sovereign bonds. (ICMA did look at the ADV maturity profile of sovereign bonds which is provided in Figures 6 and 7 in Annex I). Given the duration effect on liquidity (and risk), which naturally leads to smaller trade sizes in longer maturities, ICMA could support the introduction of an additional liquidity determinant based on time to maturity (which would also be consistent with the UK proposal for sovereign bonds).

ICMA has taken a 3-step approach to identifying the appropriate issue size threshold for each of the 6 groupings in order to differentiate between liquid and illiquid*:*

(i) Applying a purely scientific ADV-based methodology.
(ii) Reference to the issuance size distribution of the relevant grouping (in particular the average issuance size).
(iii) Viewing the ratio of liquid:illiquid bonds for each issuance size threshold (noting that there is no rule for this, given that some bond classes are inherently illiquid).

Particularly in the case of the sovereign bond groupings, some members expressed concerns that the ESMA proposal tends toward low thresholds (eg €1bn for sovereign bonds), and that this could

[6] As previously explained, the ADVs in the above table are calculated using an aggregate approach, which involves summing the total notional value traded across all securities on a given day and then dividing this sum by the number of unique securities (ISINs) traded on that day. The ADV calculation using the individual ISIN approach can be found in Annex III.

[7] In group 5, HY includes non-rated (NR) bonds too. The average ADV(5) for bonds rated HY alone would be of €1.00mn.

already anchor expectations, even without any analytical basis. Accordingly, the ICMA suggestion for the Group 1 issuance size threshold is far lower than could easily be justified.

ADV vs issuance size

To isolate the optimal issuance size threshold for each grouping, ICMA plotted the ADV associated with the bonds that fell into each issuance size bucket. At each issuance size interval we assume that all bonds with an equal or greater issuance size are liquid and those with a smaller issuance size are illiquid. This analysis can be seen in Figure 8 to 13 in Annex I.

As we would expect, the plot for both sets of bonds (liquid and illiquid) is upward sloping, with ADV increasing with issuance size. To identify the optimal point on the curve, we look to find the point at which the difference between liquid and illiquid ADV is at its widest (maximizing the spread between liquid and illiquid). Essentially, this aims to optimize the difference between liquid and illiquid bonds based on their relative ADV. While this works well in the case of a non-linear (quadratic) relationship between ADV and issuance size, we observe that in most cases the relationship is linear (ie the gradient of the curve is relatively constant). Here we apply a different methodology, whereby we look for the point on the illiquid curve where the gradient of the curve is at its lowest; ie where an incremental increase in issuance size has the least effect on ADV.

Issuance size distributions

The outstanding issuance sizes observed in each grouping are also a helpful reference point. These are illustrated in in the below table. While there is no strict rule, we would probably expect the threshold at least to be in line with mean and median values, and not significantly above or below.

	Issue size – figures in €			
Group	**25th percentile**	**mean**	**Median**	**75th percentile**
Group1	18,647,217,300	37,895,588,957	31,571,254,099	47,899,120,400
Group2	751,587,750	5,606,781,758	1,631,495,000	5,533,275,825
Group3	100,000,000	775,760,268	228,140,250	918,738,750
Group4	416,880,500	741,639,188	600,000,000	913,292,000
Group5	30,000,000	287,293,697	100,000,000	445,021,500
Group6	180,349,365	617,766,026	500,000,000	750,000,000

Liquid vs Illiquid ISIN count

For each grouping we look at the percentage of liquid vs illiquid bonds for each issuance size threshold (see Figures 14 o 19 in Annex I). There is no rule for what the optimal ratio should be, given that certain bond classes and sub-classes are inherently less liquid. However, we would expect that when we look at less liquid bond types, the proportion of illiquid bonds should increase relative to liquid bonds.

Based on analysis using its 2023 data set, as well as member feedback, ICMA proposes the following issuance size thresholds as the liquidity determinant for each grouping.[8] However, ICMA would also encourage ESMA to undertake its own analysis, particularly with attention to the relationship between ADV and issuance size, although ICMA would expect ESMA to reach similar conclusions.

Grouping	ADV optimization	Average Issuance size	50:50 Liquid/Illiquid	Proposed Threshold
1	€15-20bn	€37.9bn	€31.6bn	**≥ €10bn**
2	€12.5-20bn	€5.6bn	€1.6bn	**≥ €5bn**
3	€5-7bn	€776mn	€228mn	**≥ €1bn**
4	€750mn-1.25bn	€742mn	€600mn	**≥ €750mn**
5	€750mn-1.25bn	€287mn	€100mn	**≥ €750mn**
6	€1-1.75bn	€618mn	€500mn	**≥ €1bn**

Again, ICMA would make the point that while some of the proposed thresholds are notably higher than those suggested by ESMA, selecting the right calibration will ensure the optimal determination of liquid and illiquid bonds within the relevant groupings, as well as allowing for higher trade size thresholds with respect to liquid bonds for the corresponding deferrals. Selecting an issue size threshold that is too low will simply result in a less optimal determination of what is liquid and illiquid, along with much lower deferral trade size thresholds.

4.2.1.2 Medium, large and very large transactions for bonds

Q12: Do you agree with the proposed thresholds specified in the above Tables? If not, please justify by providing qualitative data to your analysis and differentiating per asset class.

ICMA believes that the trade size thresholds for each deferral category should reflect the estimated time required by liquidity providers to trade out of a risk position. Using the ADV of liquid and illiquid bonds within each grouping is a helpful gauge in this respect, as dividing the size of a trade by the

[8] In some cases, the liquidity thresholds suggested by ICMA do not necessarily reflect the exact inflection points on the ADV vs issuance sized curve, as qualitative feedback from ICMA members was taken into consideration along with other factors such as ISIN distribution

related ADV provides a crude indication of the expected (average) time to trade out of the position in terms of days and fractions of days. (See also Annex IV for an explanation of the methodology.)

Refining the real-time and deferral categories

However, given the significant difference in ADV between liquid and illiquid bonds in each category, the proposed deferral matrix requires further refinement to reflect this reality. The current proposal does not provide for different real-time thresholds (category "N/A") for liquid and illiquid bonds, and accordingly uses the same thresholds for liquid and illiquid bonds in each category, including *category 5* (*Very Large transactions*). ICMA sees this as a weakness in the proposed framework as it will naturally result in trade size thresholds that are too low for most liquid bonds, and too high for most illiquid bonds. By splitting categories N/A and 5 into liquid and illiquid sub-categories, it is possible to apply more precisely calibrated trade size thresholds that recognize the different ADV between liquid and illiquid bonds in each grouping.

ICMA's proposal therefore introduces "N/A Liquid" and "N/A Illiquid" categories for real-time transparency, along with a new category 6 ("Very large Illiquid"). ICMA further suggests that to ensure compliance with the Level 1 requirements, it may be possible to split each proposed grouping into a Liquid and Illiquid sub-grouping.

Liquid					
Category	**Issuance size**		**Trade Size**	**Price deferral**	**Volume deferral**
N/A Liquid	≥ X		< a	Real Time	
1	≥ X	Medium	a-b	15 mins	
3	≥ X	Large	b-c	T+1	1 week
5	≥ X	Very Large	≥ c	4 weeks	

Illiquid					
Category	**Issuance size**		**Trade Size**	**Price deferral**	**Volume deferral**
N/A Illiquid	< X		< d	Real Time	
2	< X	Medium	d-e	EOD	
4	< X	Large	e-f	T+2	2 weeks
6	< X	Very Large	≥ f	4 weeks	

Time to trade out

ICMA believes that the estimated time to trade out of a risk position for a given bond and size should be the guiding principle for establishing the size thresholds for each category. Essentially, for transactions that are not reported in real-time, the post-trade deferral should allow enough time for a liquidity provider to trade out of the position before the details of the trade are made public.

ADV provides a crude indication of the time to trade out of a position, based on:

Time to trade out = Trade size / ADV

For the purposes of this response, ICMA uses this simple calculation to estimate the appropriate trade size thresholds for each of the six deferral categories for the different groupings. These are summarized below, while the estimated time to trade out is shown in Annex II.

For completeness, ICMA also estimated trade out times for each grouping using the individual-ISIN approach, which also estimated the longest trade out time based on the historical data set, and which can be found in Annex III.

However, as mentioned in the answer to Q.11, these estimated times to trade out of a position should be treated with some caution for the following reasons:

(i) Using different ADV methodologies (average vs individual ISIN) will result in different ADV calculations for the same data set. This is explained in more detail in Annex III and Annex IV, but essentially the averaging methodology (as used by ICMA in this response) treats all bonds within a grouping as homogenous, which produces a higher ADV (and so a shorter time to trade out).

(ii) The ADV is an average of a distribution of daily volumes for different bonds within a grouping. For a given trade size, some bonds in that grouping will have a lower ADV, and require a longer average trade-out time, while some will have a higer ADV and require a shorter average trade-out time.

(iii) In the case of bonds that trade relatively infrequently (such as illiquid corporate bonds), the averaging methodology could underestimate the trade-out-time quite significantly.

(iv) The ADV reflects the total daily traded volume in a bond (essentially a measure of market depth). It is highly unlikely that a liquidity provider will be able to transact against 100% of the volumes during the deferral period, and this also needs to be factored into setting the trade size threshold (eg, one might assume that 25% of daily volume is achievable).

(v) For categories 5 and 6 there is no upper threshold. Therefore, some very large trades will require longer than the 4-week deferral provided.

Accordingly, these proposed thresholds should be viewed as indicative and ICMA would encourage ESMA to make its own assessment, taking into consideration these important points. However, this does help to illustrate how higher size thresholds can be achieved in the case of liquid bonds, based on more granular groupings and more scientifically based liquidity determination thresholds.

ICMA Group 1a: Sovereign bonds Liquid #1 [SB1: Government bond issuance by DE, FR, IT, ES, UK, and US – fixed coupon]

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 10bn	< 5mn	Real Time	
1	≥ 10bn	5-20mn	15 mins	
3	≥ 10bn	20-100mn	T+1	1 week
5	≥ 10bn	≥ 100mn	4 weeks	

ICMA Group 1b: Sovereign bonds Illiquid #1 [SB1: Government bond issuance by DE, FR, IT, ES, UK, and US – fixed coupon]

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 10bn	< 1mn	Real Time	
2	< 10bn	1-10mn	End of day	
4	< 10bn	10-50mn	T+2	2 weeks
6	< 10bn	≥ 50mn	4 weeks	

ICMA Group 2a: Sovereign bonds Liquid #2 [SB2: All other sovereign bonds]

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 5bn	<5mn	Real Time	
1	≥ 5bn	5-7.5mn	15 mins	
3	≥ 5bn	7.5-20mn	T+1	1 week
5	≥ 5bn	≥ 20mn	4 weeks	

ICMA Group 2b: Sovereign bonds Illiquid #2 [SB2: All other sovereign bonds]

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 5bn	<1mn	Real Time	
2	< 5bn	1-5mn	End of day	
4	< 5bn	5-10mn	T+2	2 weeks
6	< 5bn	≥ 10mn	4 weeks	

ICMA Group 3a: Other public bonds Liquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	Real Time	
1	≥ 1bn	1-2mn	15 mins	
3	≥ 1bn	2-10mn	T+1	1 week
5	≥ 1bn	≥ 10mn	4 weeks	

ICMA Group 3b: Other public bonds Illiquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 1bn	<1mn	Real Time	
2	< 1bn	1-2mn	End of day	
4	< 1bn	2-5mn	T+2	2 weeks
6	< 1bn	≥5	4 weeks	

ICMA Group 4a: - IG Corporate bonds, Convertible bonds, and Other bonds Liquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<1mn	Real Time	
1	≥ 750mn	1-1.5mn	15 mins	
3	≥ 750mn	1.5-5mn	T+1	1 week
5	≥ 750mn	≥ 5mn	4 weeks	

ICMA Group 4b: - IG Corporate bonds, Convertible bonds, and Other bonds Illiquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 750mn	<0.5mn	Real Time	
2	< 750mn	0.5-1mn	End of day	
4	< 750mn	1-2mn	T+2	2 weeks
6	< 750mn	≥ 2mn	4 weeks	

ICMA Group 5a: - HY Corporate bonds, Convertible bonds, and Other bonds Liquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<0.5mn	Real Time	
1	≥ 750mn	0.5-1mn	15 mins	
3	≥ 750mn	1-3.5mn	T+1	1 week
5	≥ 750mn	≥ 3.5mn	4 weeks	

ICMA Group 5b: - HY Corporate bonds, Convertible bonds, and Other bonds Illiquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 750mn	<0.25mn	Real Time	
2	< 750mn	0.25-0.75mn	End of day	
4	< 750mn	0.75-1.5mn	T+2	2 weeks
6	< 750mn	≥ 1.5mn	4 weeks	

ICMA Group 6a: Covered bonds Liquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	Real Time	
1	≥ 1bn	1-2mn	15 mins	
3	≥ 1bn	2-5mn	T+1	1 week
5	≥ 1bn	≥ 5mn	4 weeks	

ICMA Group 6b: Covered bonds Illiquid

Category	Issuance size	Size	Price deferral	Volume deferral
N/A Illiquid	< 1bn	<0.5mn	Real Time	
2	< 1bn	0.5-1mn	End of day	
4	< 1bn	1-2mn	T+2	2 weeks
6	< 1bn	≥ 2mn	4 weeks	

As part of its analysis, ICMA also used its 2023 data set to "retrofit" the proposed matrices, based on the suggested thresholds above, in order to estimate the expected amount of real-time transparency (in terms of transactions and traded volumes) as well as that for deferred transactions. The results can be seen in Annex II.

While the estimated percentage of real-time transactions varies depending on groupings (reflecting the relative underlying liquidity profile of each grouping), the overall proportion of real-time or near real-time transparency is extremely high (some 79% of all trades would be reported real time, encompassing 20% of total notional value) and not significantly lower than ESMA's target.

Distribution of all groups by category using 2023 data

Category	Trade Count (all groups)	Notional Traded (all groups)	Price deferral	Volume deferral
N/A Liquid	64.0%	19.2%	Real Time	
N/A Illiquid	14.8%	0.8%	Real Time	
1	9.4%	24.3%	15 mins	
2	3.5%	1.6%	End of day	
3	4.1%	34.9%	T+1	1 week
4	1.5%	1.7%	T+2	2weeks
5	1.3%	13.8%	4 weeks	
6	1.4%	3.7%	4 weeks	

Q13: Do you agree with the maximum deferral period set out in the tables above?

While there are valid arguments for the need to defer the publication of price and volume for certain transactions for longer than 4 weeks, ICMA recognizes that the revised Level 1 does not allow for this (with the notable exception of the supplementary deferrals for sovereign bonds).

However, ICMA would strongly recommend that the RTS take advantage of the longer allowable deferrals for price publication with respect to categories 3 and 4 (*T+1* and *T+2* respectively). The reason for this is that in bond markets it is relatively easy to infer a lot of useful information from the publication of price alone.

For example, by comparing the deferred published price of a trade where the bond was quoted (pre-trade) based on the timestamp, it is immediately obvious whether the trade was a "risk trade" (ie, did a liquidity provider take the position onto their own books) or not. This is based on whether the trade price is inside or outside of the quoted bid-ask spread. Furthermore, if it is a risk trade, based on whether it is below or above the spread it is clear whether the liquidity provider went long or short-sold the bonds. Depending on the distance from the spread, it is also possible to make a good estimate of the relative size of the trade.

This suggests two important considerations with respect to the deferral calibrations:

1) Applying the *T+1* and *T+2* price deferrals for categories 3 and 4 is highly relevant, since the corresponding size deferrals have less impact. In other words, applying an end-of-day price deferral would effectively make categories 3 and 4 redundant.
2) When determining the appropriate trade size thresholds for categories 3 and 4, this should be based on the price deferral and not the size deferral.

ICMA's proposal and suggested trade size thresholds take both of these considerations into account.

Q14: Do you agree with a static determination of liquidity and determine that all SFPs are illiquid? If not, can you suggest any alternative methodology on how to define liquidity for SFPs?

Structured Finance Products (SFPs) need adequate transparency deferral calibration. Regarding the transparency deferral regime for SFPs (ABS, RMBS, CMBS, CLOs, et al), ICMA recommends adopting a data-based approach focused on liquidity provision (ADV and trade-out time) to calibrate the appropriate deferrals. Until such an analysis is done, we recommend (i) either keeping the existing supplementary deferrals of weekly aggregation and 4 weeks, (ii) or defaulting the regime to the longest deferrals available for bonds, i.e. 4 weeks – and this for all trade sizes (i.e. below and above LIS).

It is important to consider the specificities of the SFPs market. SFPs are mostly traded OTC / outside of trading venues. Market conventions ensure transparency (volumes and cover prices) to market participants via the Bid Wanted in Competition (BWIC) process. The MiFIR post-trade transparency is mostly required because those instruments are listed on exchanges for notifications and documentation purposes.

SFPs trade infrequently and are illiquid. Well-calibrated deferrals should support market liquidity by protecting liquidity providers from undue risk. Requiring real-time reporting and T+2 reporting (as per latest consultation) would be detrimental to this market. ICMA's expectation is that any liquidity analysis will demonstrate this. ICMA also understands that, since the launch of MiFIR in 2018, no quantitative and qualitative analysis has ever conducted on the SFP market and accordingly any such analysis will require more time than the target date of 29 December 2024.

A further consideration is that developing the EU securitisation market is a priority. Over the last few years, EU policy makers, supervisors, and market participants have made a priority of growing the EU securitisation market for the purpose of allowing further financing of the economy, as exposed in most if not all position papers of authorities and industry associations this year. This reinforces the point that any change to the transparency deferral regime for the secondary market of SFPs should be carefully assessed.

Finally, ICMA would point to the importance of international competitiveness. We therefore recommend monitoring closely the evolution of the securitisation markets, both primary and secondary, across jurisdictions. In particular, as per the latest consultation, the UK should be removing SFPs executed OTC from the scope of post-trade transparency. It will be important to observe the potential impacts (i) on the flow of non-EEA investments into EEA and non-EEA markets and (ii) on competitiveness of EU market participants on EEA and non-EEA markets.

Q15: Do you agree not to introduce changes to the threshold size currently applicable to SFPs as provided in RTS 2?

ICMA understands that the RTS 2 Article 8 was modified and RTS 2 Articles 8a introduced for framing the deferrals of derivatives and bonds, SFPs and EAs respectively. ICMA believes that

Article 8a (1) should be re-worded to allow for deferrals to apply provided one of the conditions is satisfied: the transaction is large in scale or the class of financial instrument does not have a liquid market (as per previous Art 8). In other words, SFPs transactions should be allowed to be deferred because they do not have a liquid market and this for all trade sizes.

Q16: Do you agree with the maximum duration proposed?

ICMA believes that Article 8a (1) should be re-worded to allow for price and volume deferral not exceeding 4 weeks after the transaction date (as per previous Art 11). In other words, SFPs should be deferred by 4 weeks because they do not have a liquid market and this for all trade sizes. Alternatively, Article 8a could also be re-worded to cover the weekly aggregation previously covered in Article 11.

4.3 Supplementary Deferrals

Q22: What is your view in relation to the implementation of the supplementary deferral regime for sovereign bonds?

Supplementary deferrals

ICMA does not have any issues with the proposal for supplementary deferrals for sovereign bonds. ICMA would also agree that as much consistency between NCAs in the application of the deferrals would be helpful.

ICMA would also recommend consistency with the proposed deferral calibrations outlined in the answers to Q11 and Q12. Based on the ICMA proposals, in this case of supplementary volume deferrals, this would require revising the category 3 and 4 maximum price deferrals, as well as introducing category 6 (very large and illiquid).

With regards the proposal for the publication of aggregated trades, ICMA would again point to consistency with the standard post trade deferral matrices (see Q12). ICMA also finds the Table in paragraph 165 a little confusing and assumes that the final column (*Aggregated details publication*) is the pertinent timeline with respect to trade details being published.

Sovereign bond hedges for new issuance

ICMA recognizes a need for some leeway in the post-trade real-time reporting obligation in the case of transactions in sovereign bonds related to the hedging element of new bond issuance.

A real time booking and reporting requirement cannot be met for certain hedge trades commonly transacted in the form of government bonds associated with new bond issues, in particular if this was strictly required to occur within 15 minutes. In such scenarios, switches are agreed before primary pricing but conditionally on (i) primary pricing occurring and (ii) availability of primary pricing data. These hedge trades are consequently time-stamped/booked as of primary pricing. As

the hedge price is part of the new issue package of pricing, the hedge price is communicated to the market once the overall pricing message has been prepared by the syndicate bank following the pricing call. The message is then checked and agreed by the rest of the syndicate banks before it is sent out to the banks' sales teams. The time of execution is given on the message, but it is often more than 15 minutes before investors will receive that from their sales representative.

Post-trade processing of what can potentially include hundreds of switches begins after primary pricing and can continue for some time (minutes/hours). Tying primary pricing to all pending bookings and banks reporting so many trades in such a short time is practically challenging. Hence, ICMA would welcome either a dedicated deferral for this specific scenario (as provided for in the US under TRACE) or acknowledgement from ESMA that this is another scenario where a requirement for reporting "as soon as practicably possible" can require longer than a 15-minute deferral.

5 Other provisions common to pre- and post-trade

5.1 Temporary suspension of transparency obligations

Q23: Do you agree not to make any changes to the temporary suspension of transparency obligations framework as it currently in RTS 2?

ICMA agrees that that currently there is no need to make changes to the temporary suspension of transparency obligations framework.

Q24: Do you have any further comment or suggestion on the draft RTS? Please elaborate your answer.

ICMA notices that ESMA currently has not yet decided on the "implementation period" for the amended RTS 2 (it is shown as "TBC" on p.177 of the CP). Considering the complexity of the changes and the connection between RTS 23 and RTS 2, we would like to propose the same implementation period as proposed by ESMA for the amended RTS 23 (i.e., 18 months after the date of entry into force). In addition, we would also like to highlight that the delegated act of OTC derivative identifier and the new derivative transparency regime have additional impacts on RTS 2 and RTS 23, so we urge ESMA further align all related changes in a broader time plan to prevent unnecessary costs resulting from multiple sequential changes.

Annex I: Data analysis

Data source and treatment

The trade data we use, is obtained from MiFIR/MiFID disclosures using propellant.digital software. Reference data such as country of issuance and amount issued was obtained from Bloomberg. The data extracted is all trading data for 2023.

Trade size distribution includes trades from EU trading venues and SIs only.

For each bond type[9], we remove the top 99.99th percentile of trades to control for erroneous outliers and also exclude for any trade below €1,000.

[9] With bond type we mean the bond types as defined in RTS. BOND1 – Sovereign bonds, BOND2 – public bonds, BOND3 – convertible bonds, BOND4 – covered bonds, BOND5 – corporate bonds, BOND6 – other bonds.

Data analysis

Figure 1

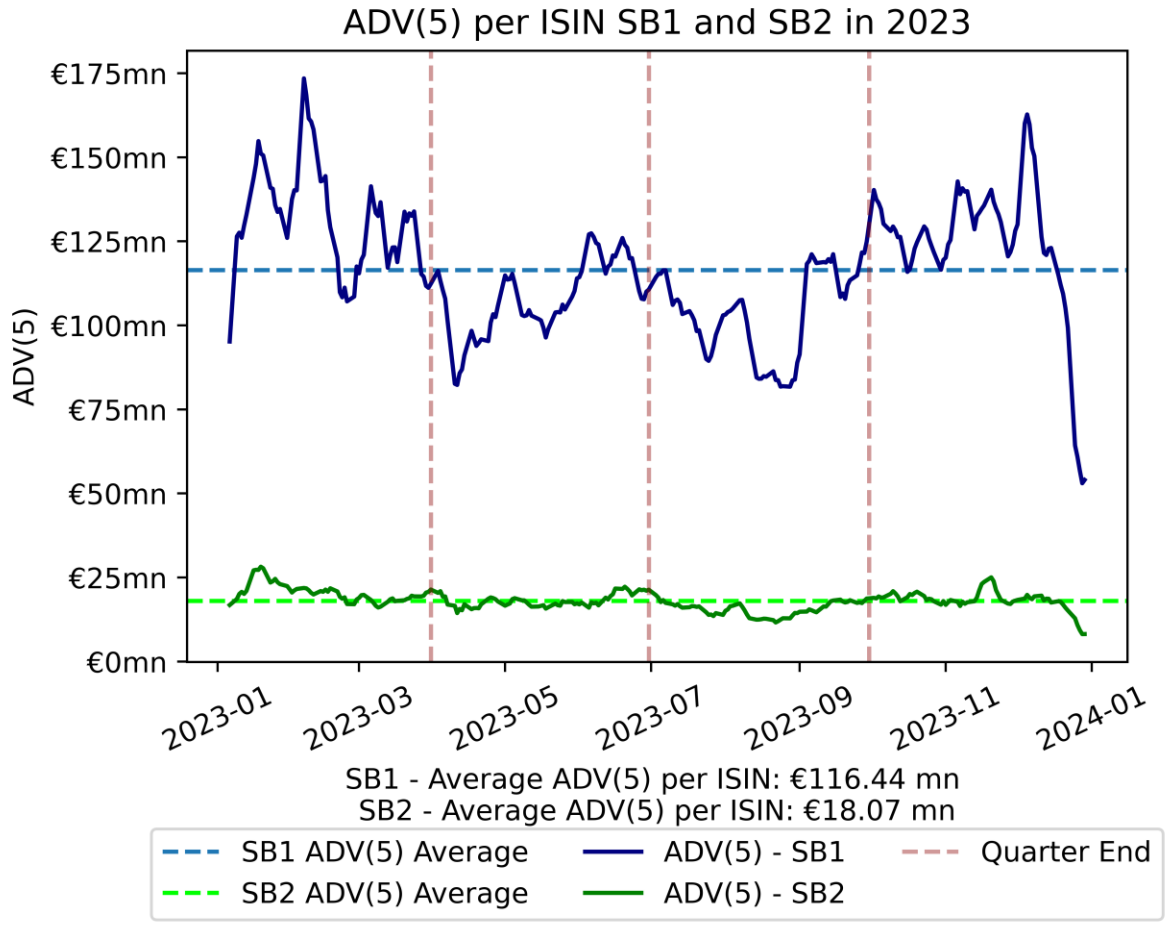


Figure 1 notes: the SB1 group is formed by vanilla bonds (non-linkers) issued by only six countries (US, UK, Italy, Germany, France, Spain). The SB2 group includes all other bonds (linkers from the six countries, and all sovereign bonds from all other countries).

Figure 2

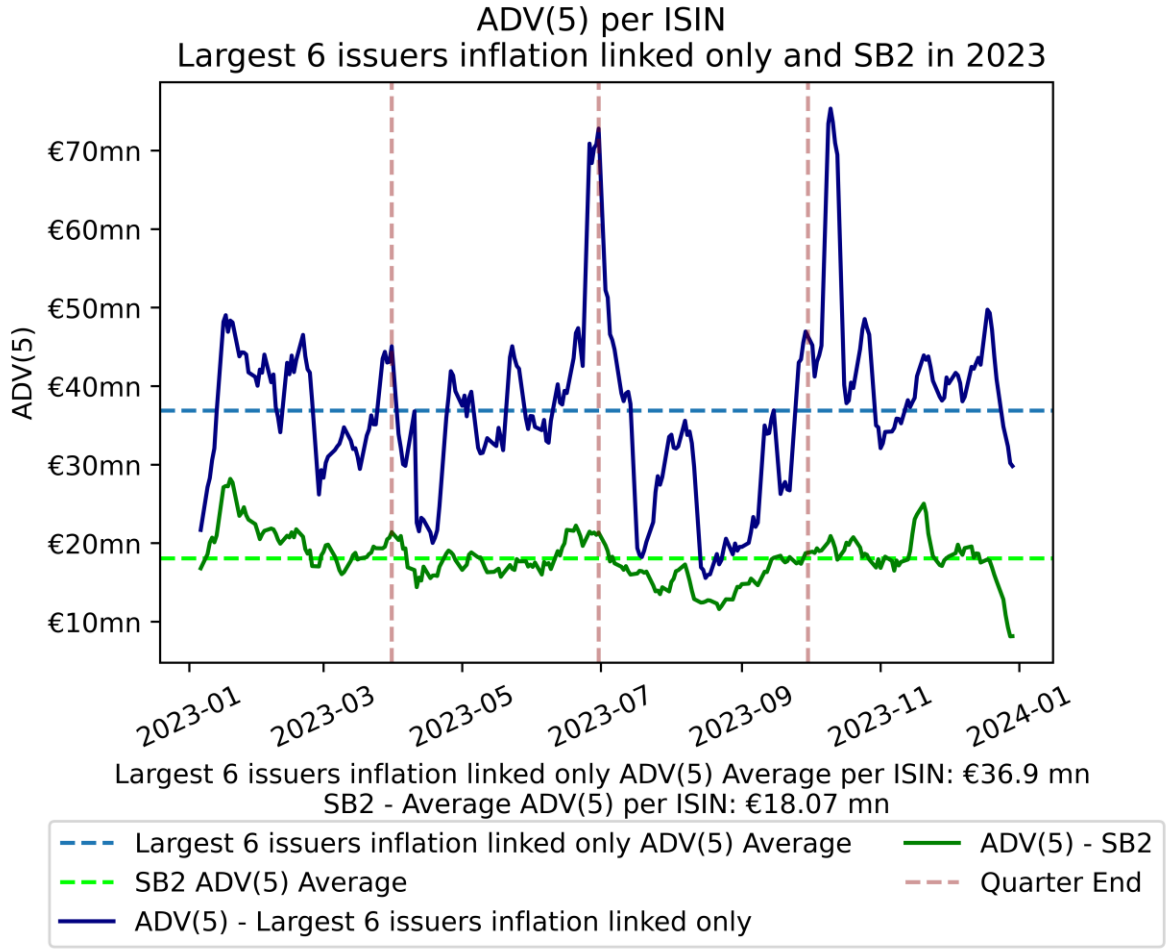

ADV(5) per ISIN
Largest 6 issuers inflation linked only and SB2 in 2023
ADV(5)
€70mn
€60mn
€50mn
€40mn
€30mn
€20mn
€10mn
2023-01
2023-03
2023-05
2023-07
2023-09
2023-11
2024-01
Largest 6 issuers inflation linked only ADV(5) Average per ISIN: €36.9 mn
SB2 - Average ADV(5) per ISIN: €18.07 mn
Largest 6 issuers inflation linked only ADV(5) Average
SB2 ADV(5) Average
ADV(5) - Largest 6 issuers inflation linked only
ADV(5) - SB2
Quarter End

Figure 3

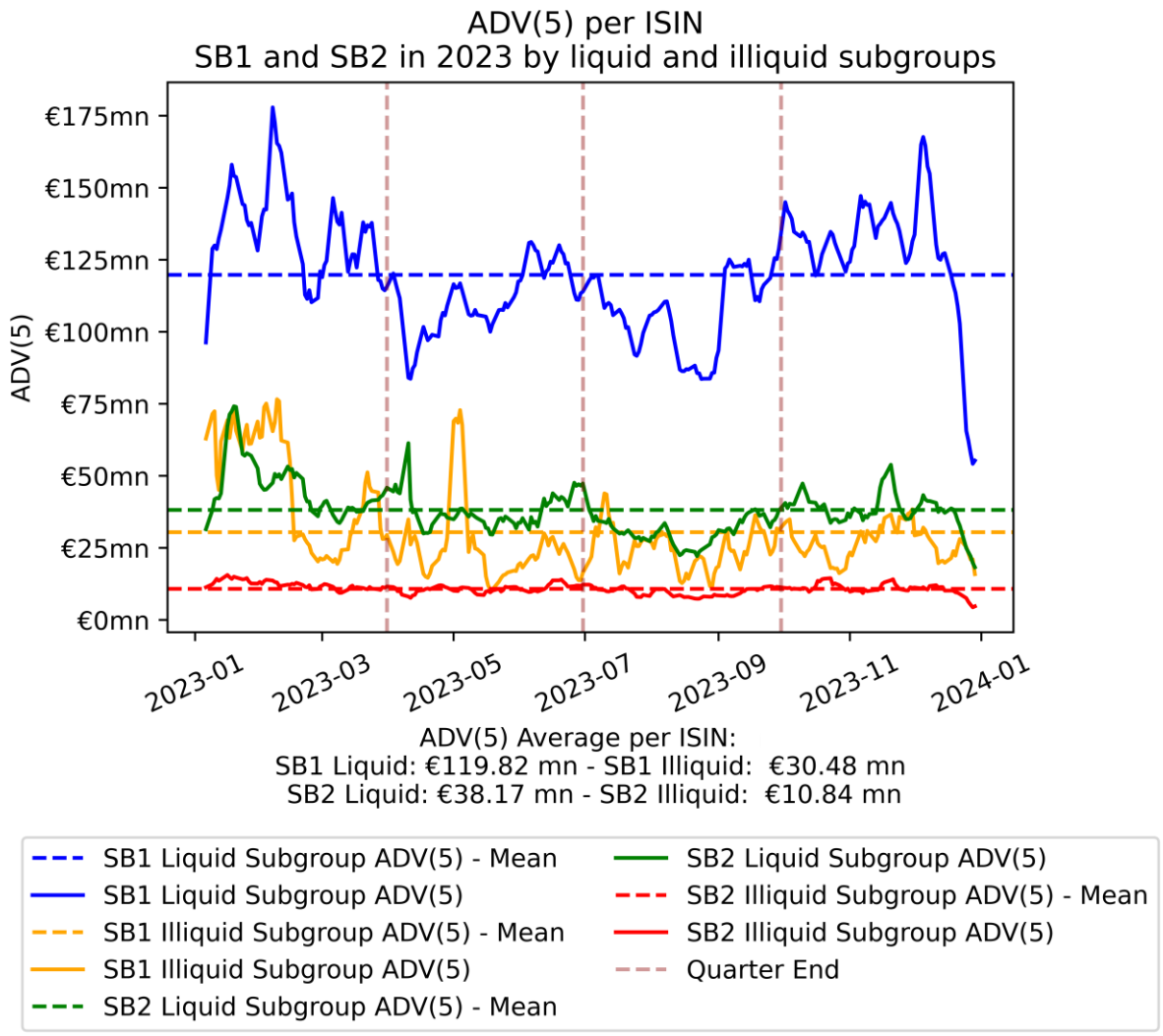


Figure 3 notes: for both SB1 and SB2 we divide the dataset in liquid and illiquid. This is determined by issue size, where bonds with an issue size equal or bigger than €10 bn are classified as liquid and the rest illiquid. ADVs are then calculated for each subgroup.

Figure 4

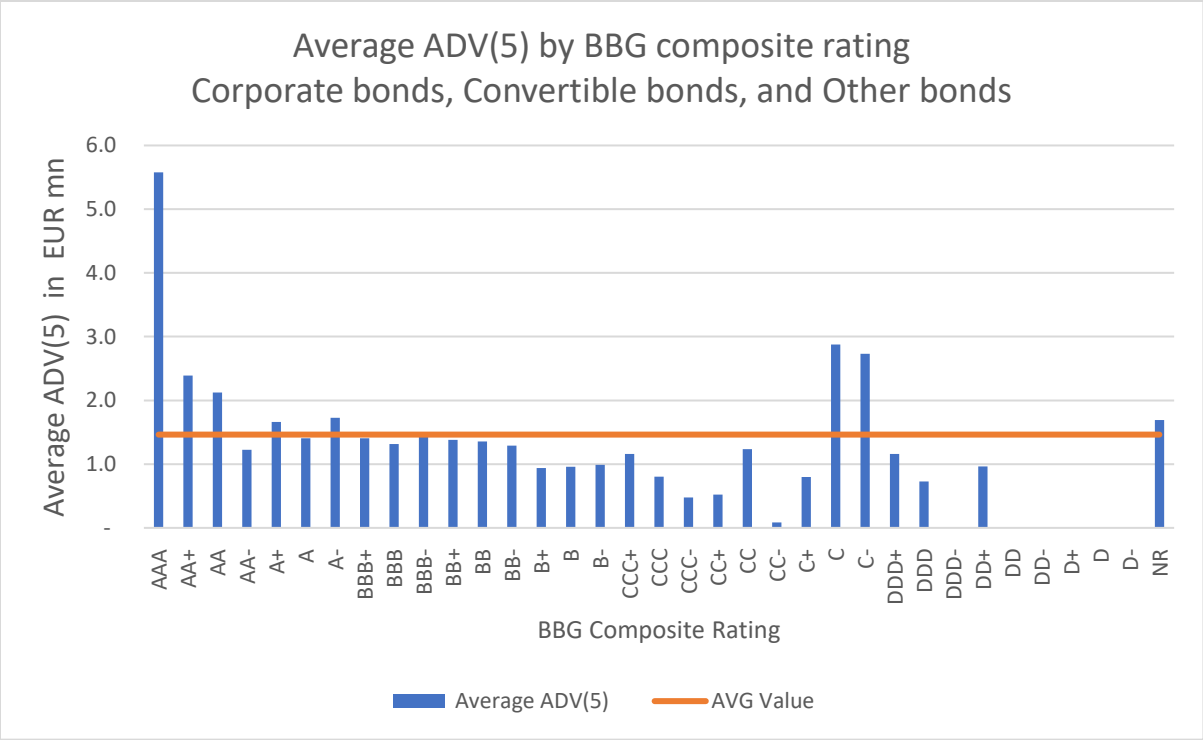


Figure 5

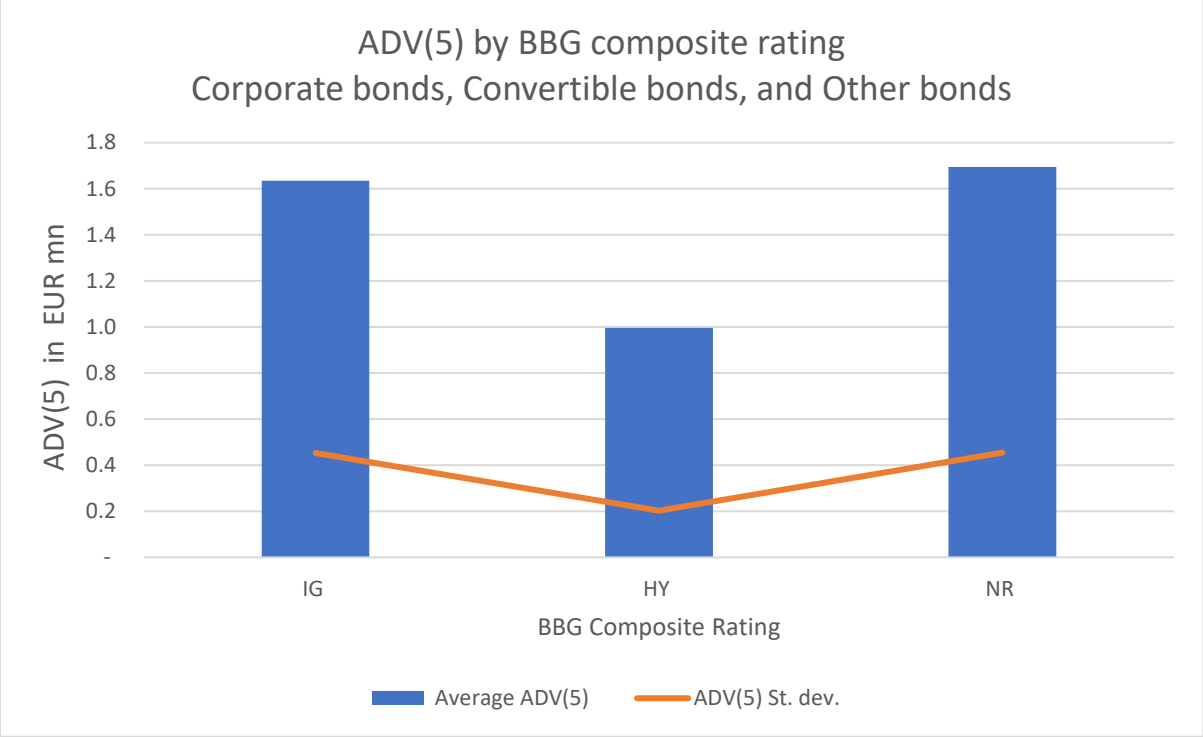


Figure 5 notes: The HY subgroup is formed from ISIN with a Bloomberg composite rating equal or lower than single B.

Figure 6

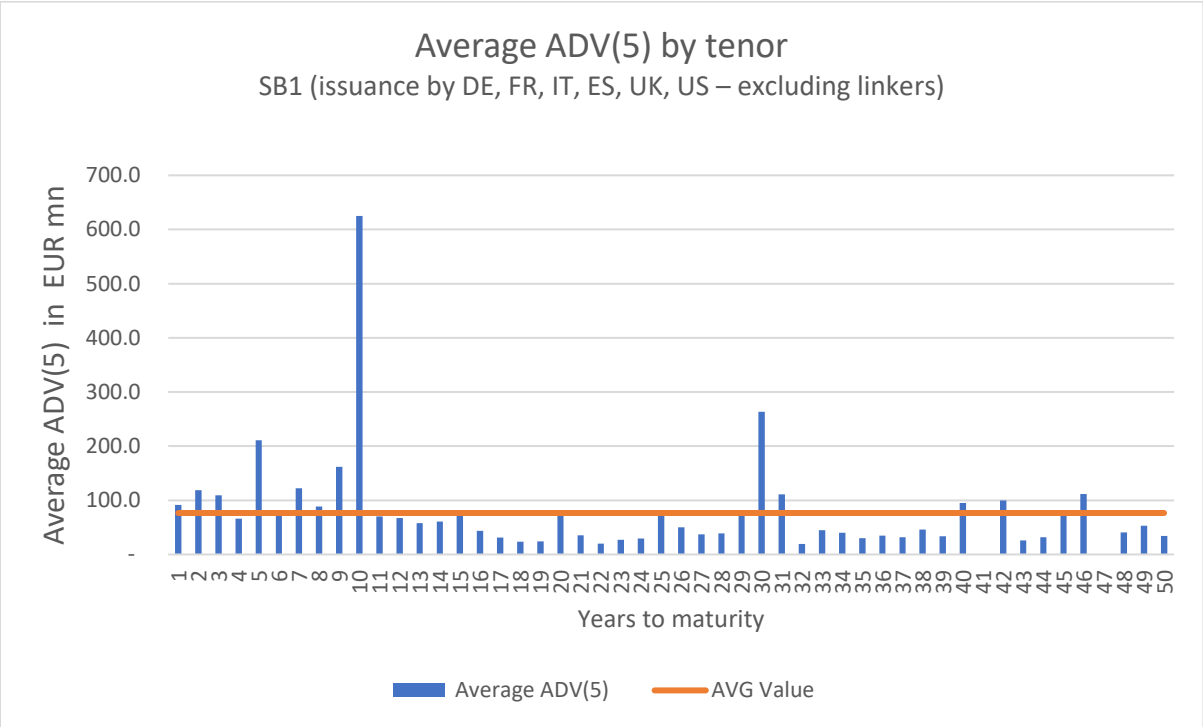


Figure 7

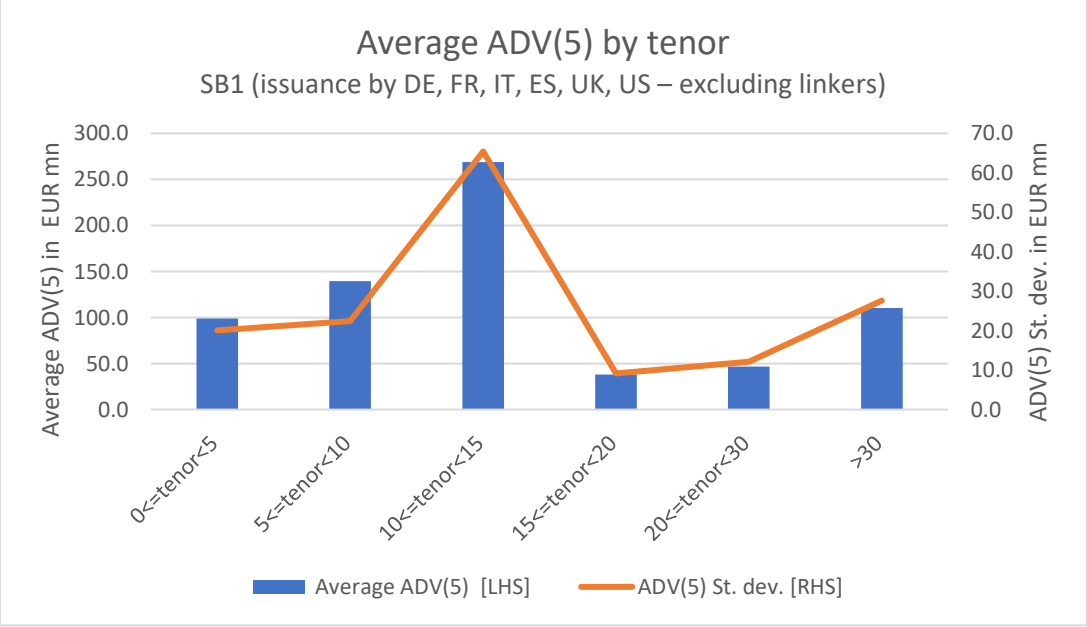


Figure 8

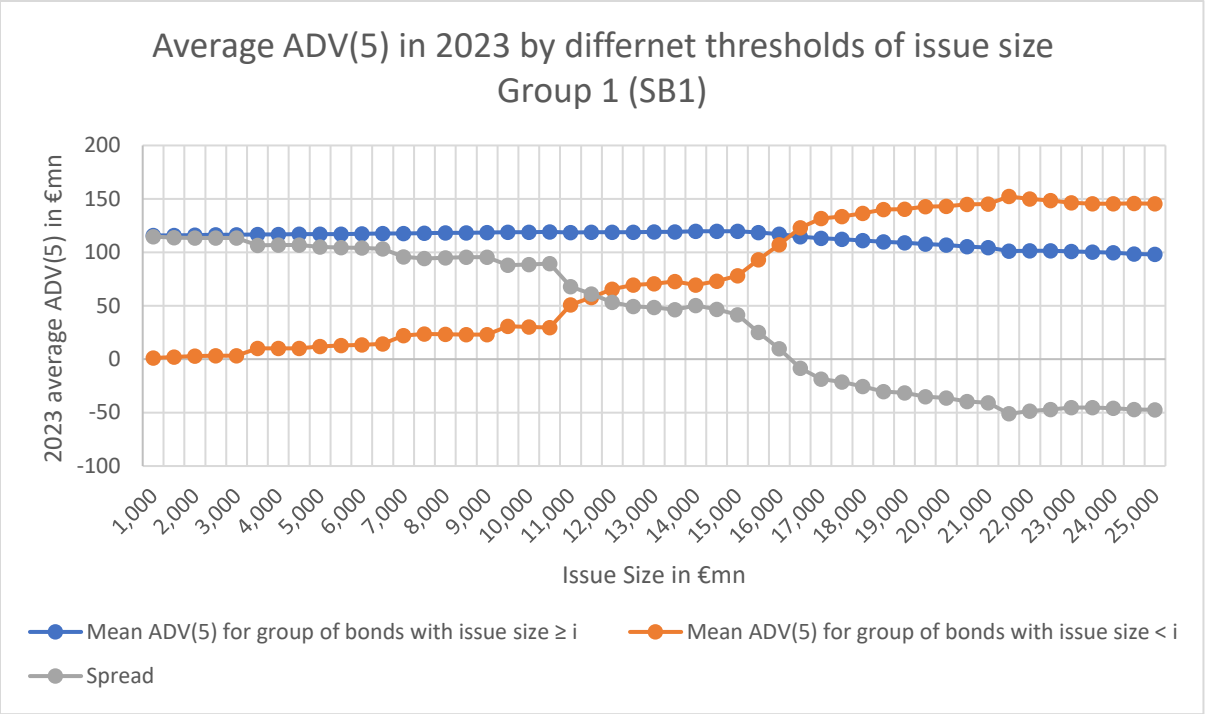


Figure 9

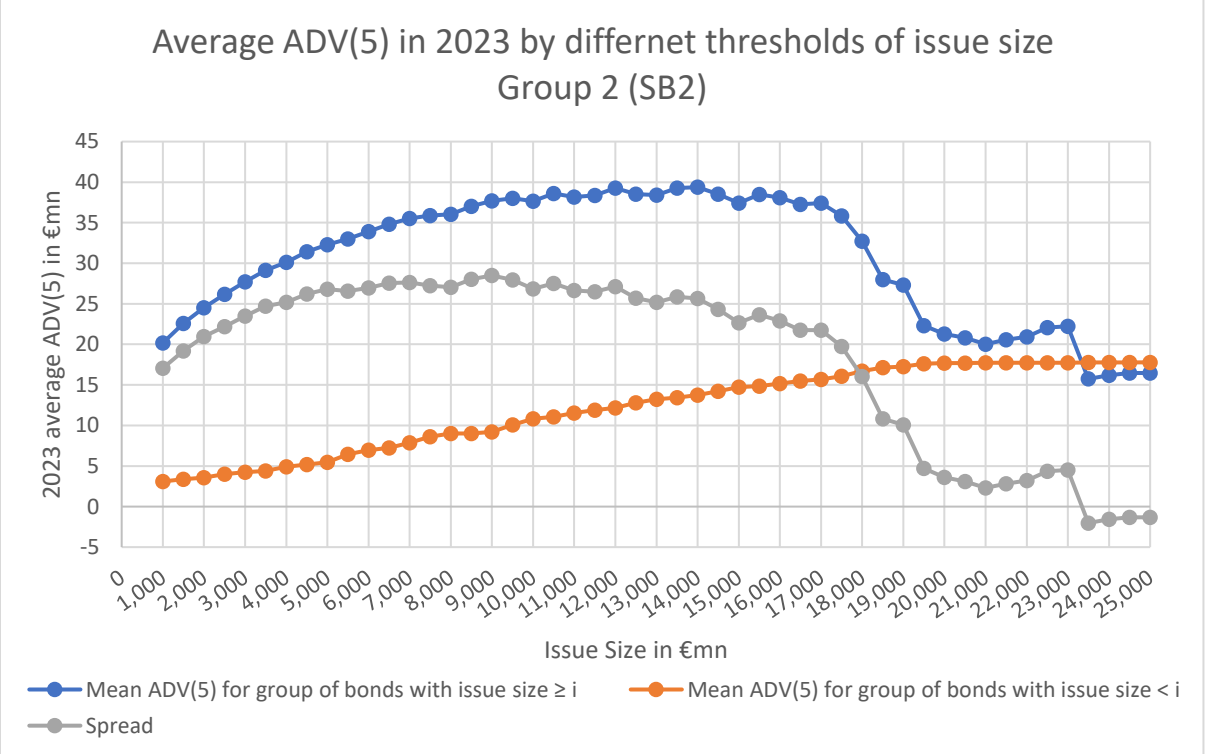


Figure 10

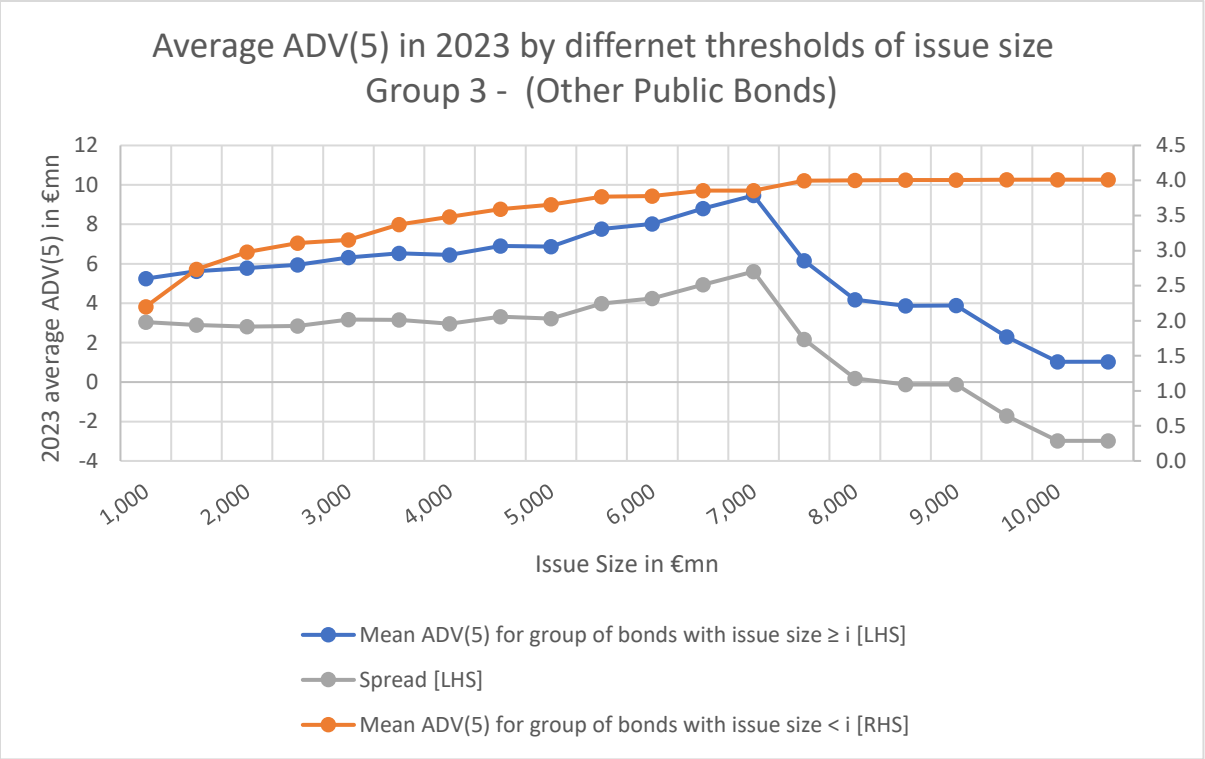


Figure 11

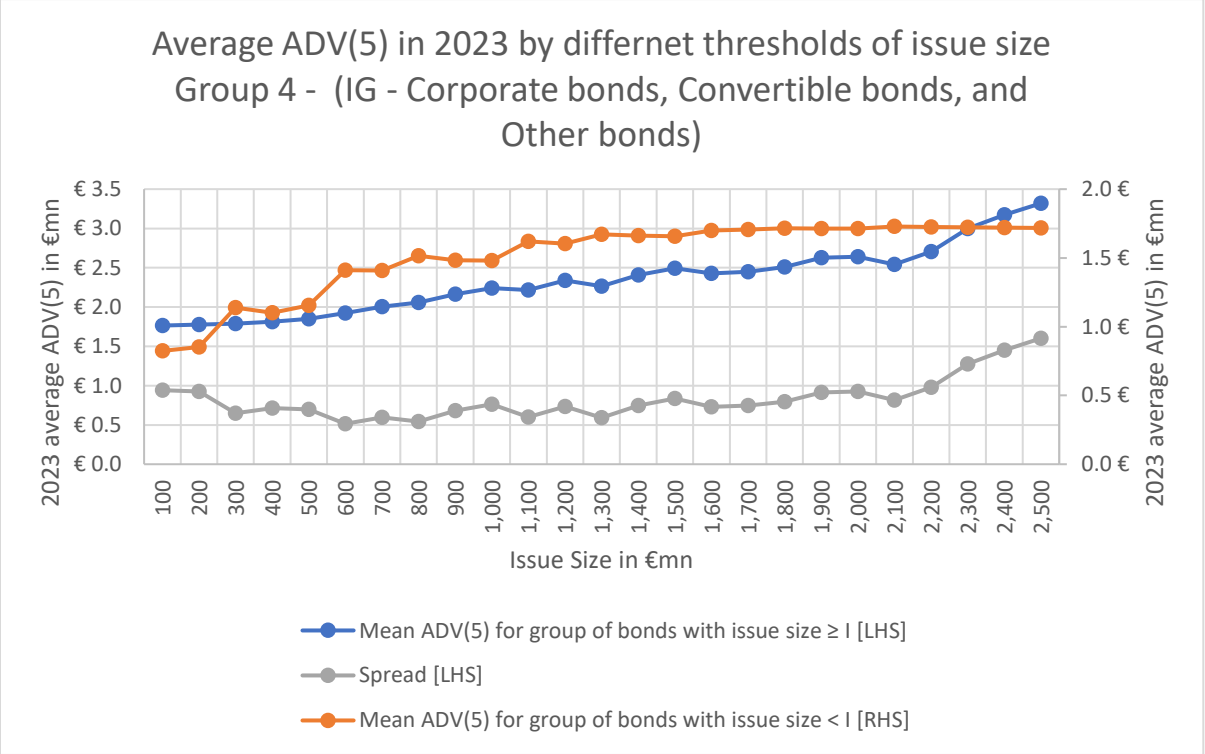


Figure 12

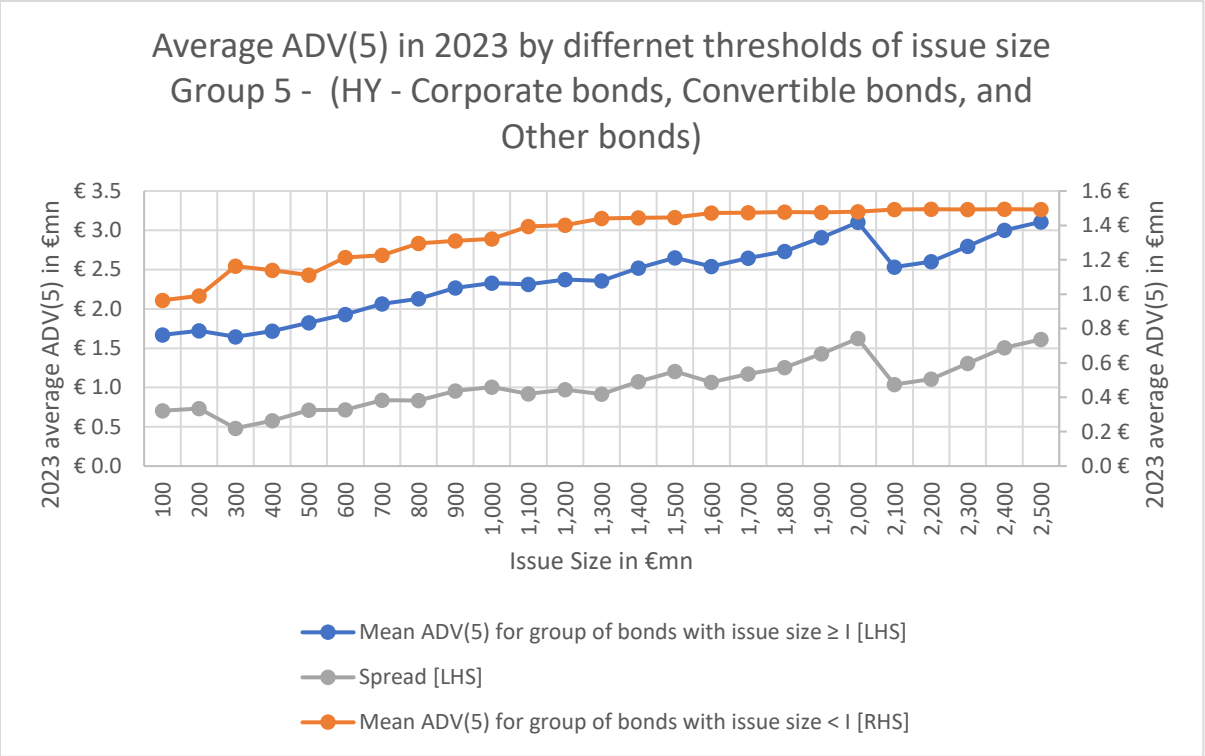


Figure 13

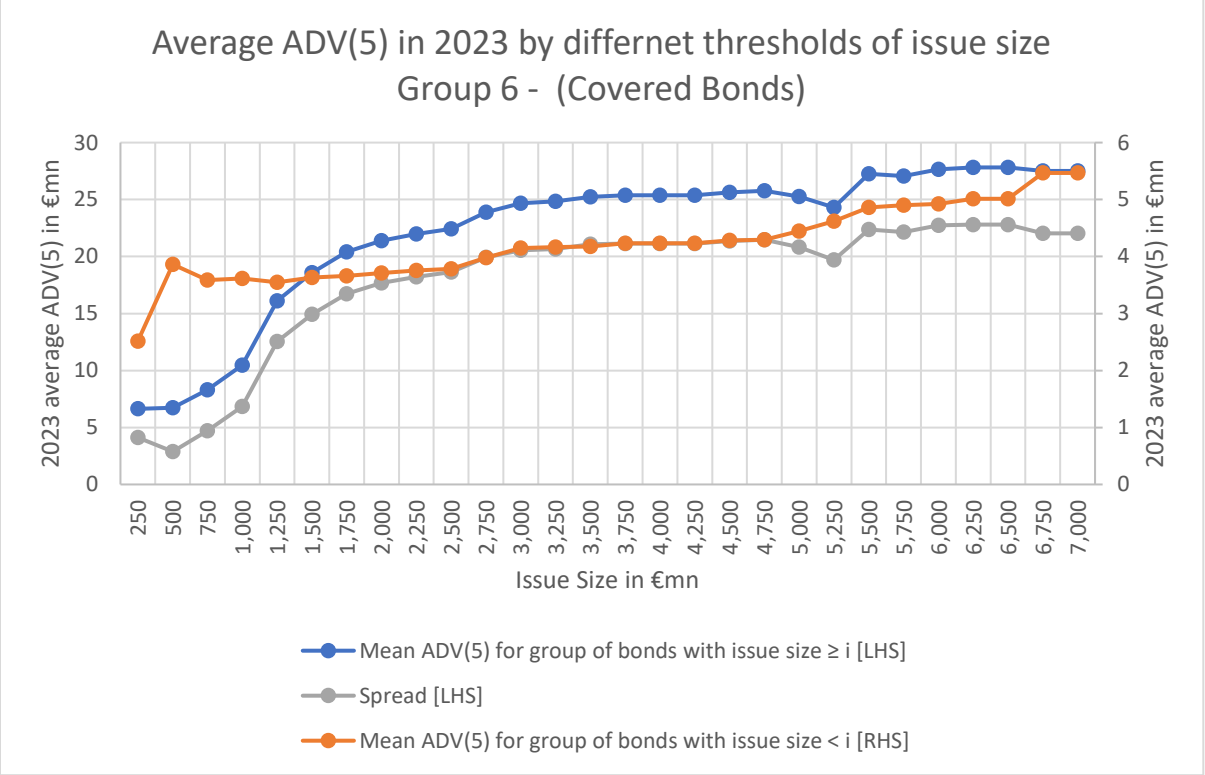


Figure 14

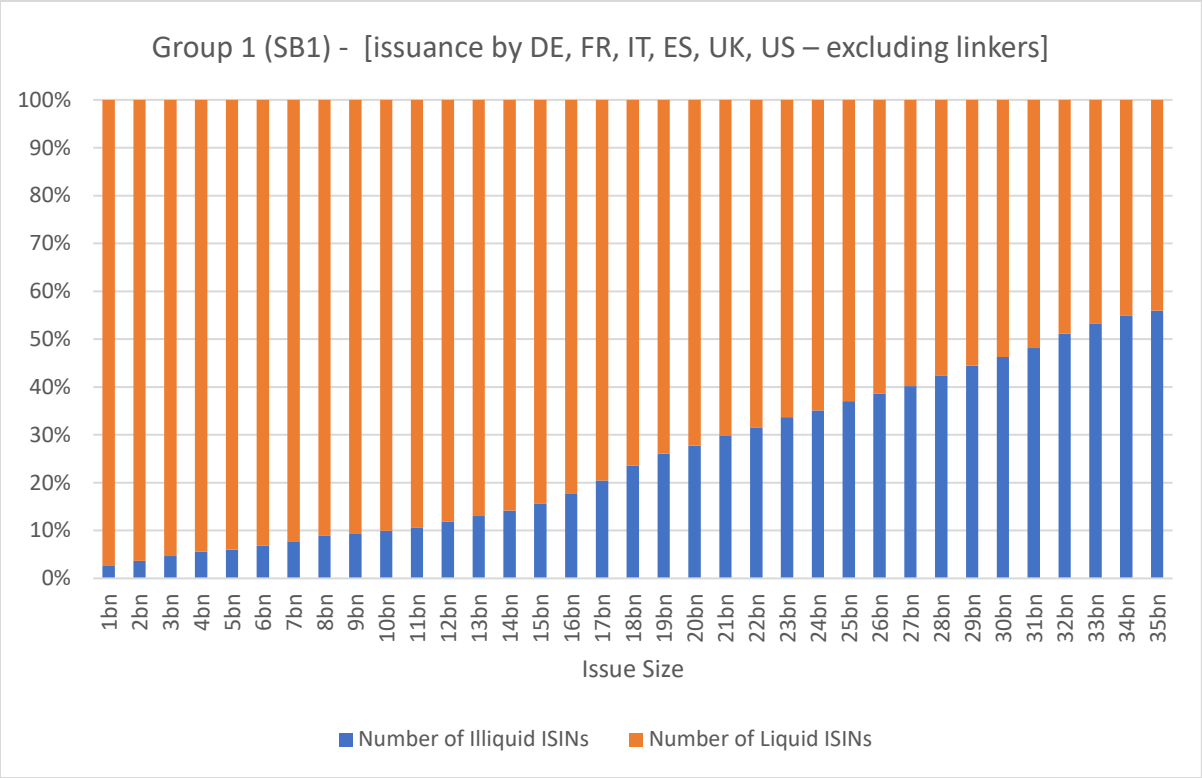


Figure 15

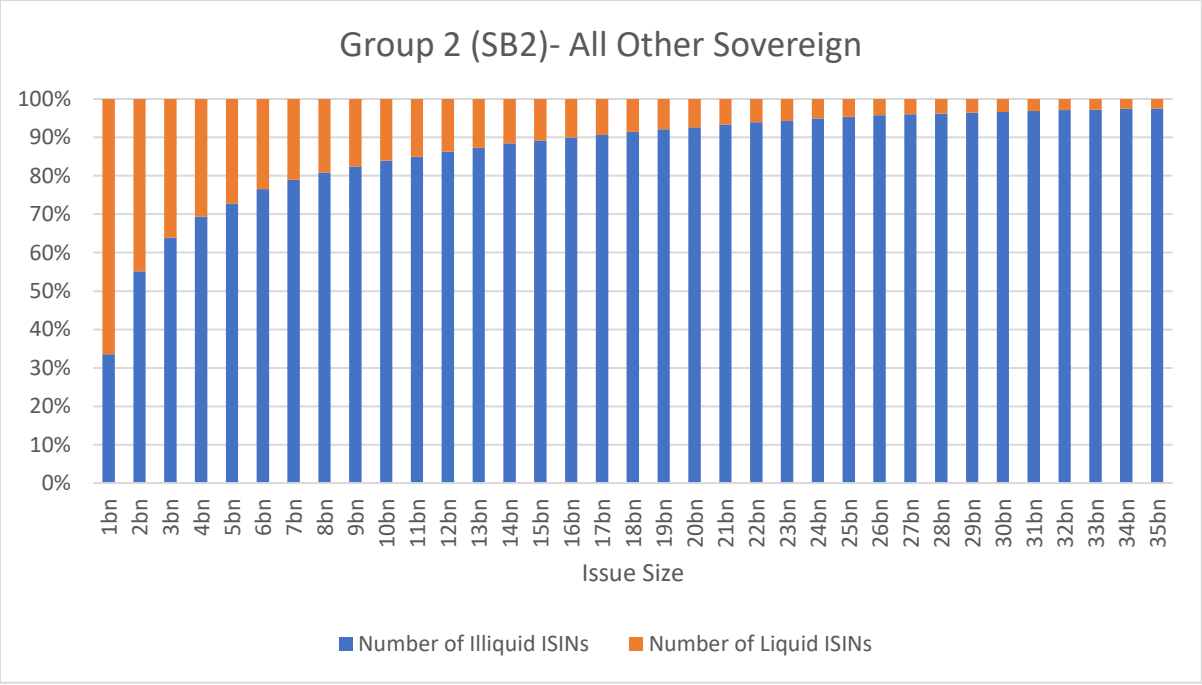


Figure 16

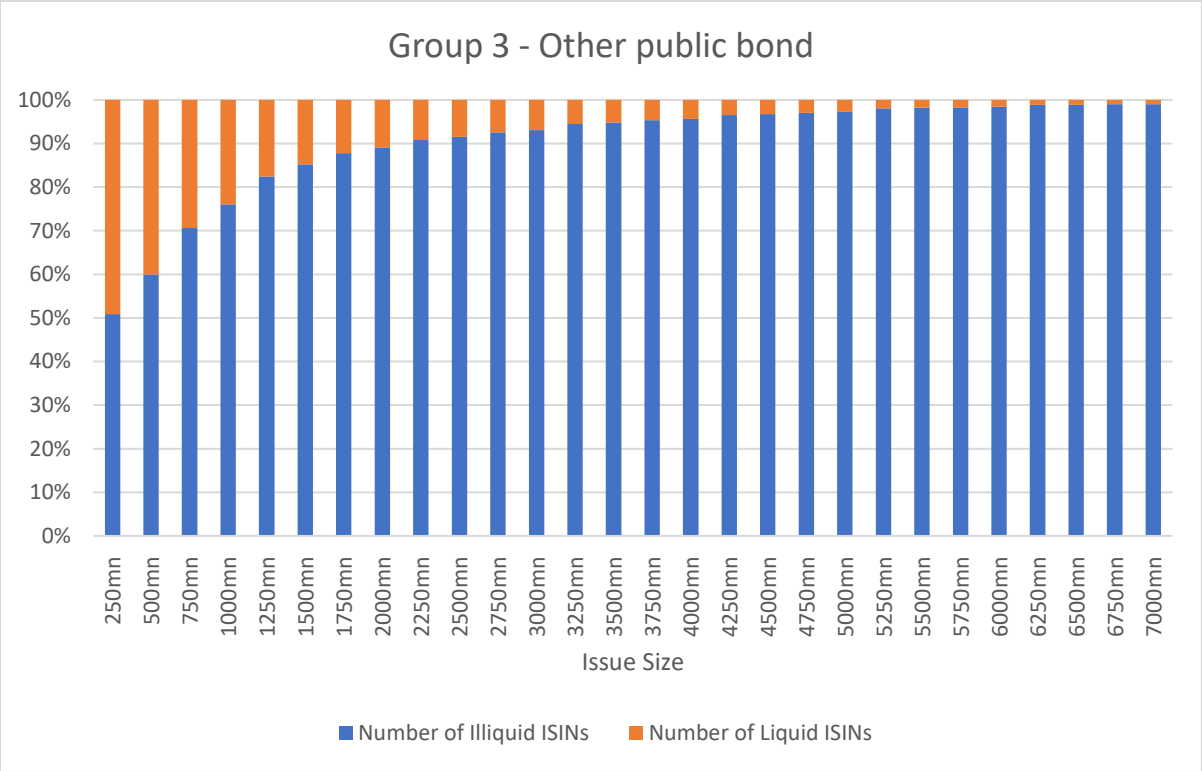


Figure 17

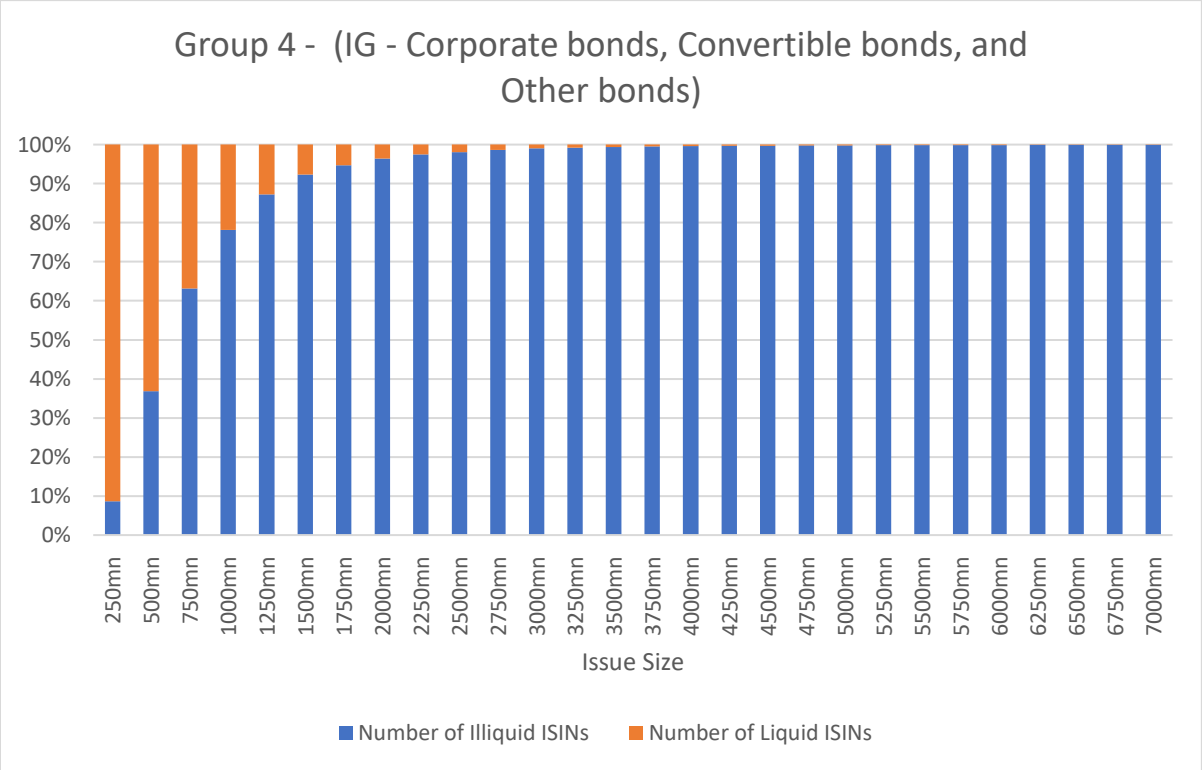


Figure 18

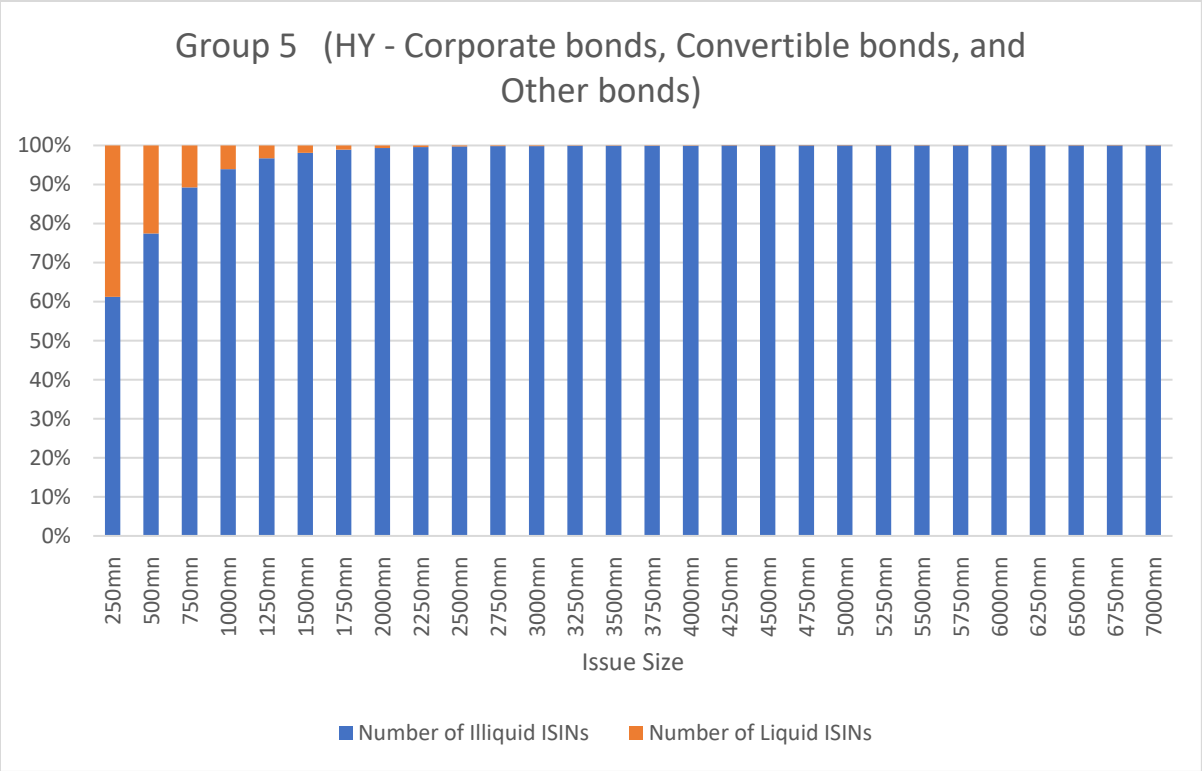
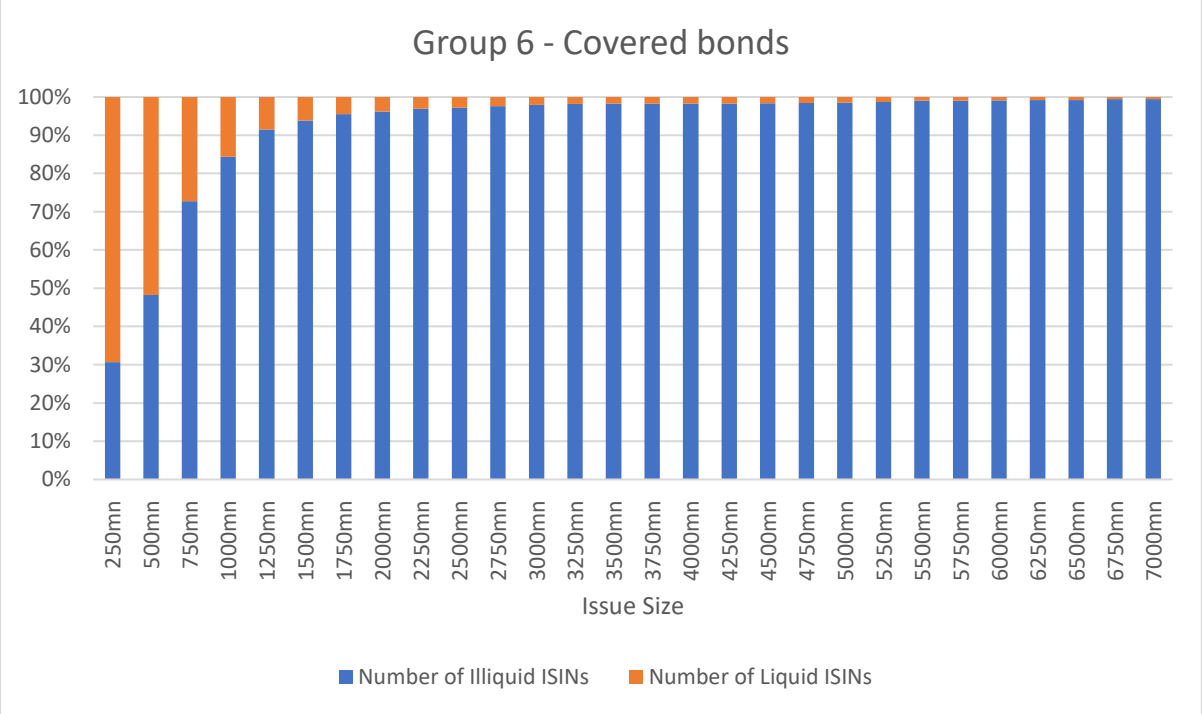


Figure 19



Annex II: Transparency analysis retrofitting 2023 data set

ICMA Group 1: Sovereign bonds #1 [SB1: Government bond issuance by DE, FR, IT, ES, UK, and US – fixed coupon]

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 10bn	< 5mn	3928074	79.4%	21.4%	Real Time	
N/A Illiquid	< 10bn	< 1mn	77524	1.6%	0.1%	Real Time	
1	≥ 10bn	5-20mn	687757	13.9%	29.8%	15 mins	
2	< 10bn	1-10mn	23742	0.5%	0.4%	End of day	
3	≥ 10bn	20-100mn	211499	4.3%	41.8%	T+1	1 week
4	< 10bn	10-50mn	8709	0.2%	0.9%	T+2	2 weeks
5	≥ 10bn	≥ 100mn	7175	0.1%	5.1%	4 weeks	
6	< 10bn	≥ 50mn	1386	0.0%	0.5%	4 weeks	

Category	Issuance size €	Trade Size €	EU ADV in €mn	Days to trade out (Lower threshold)	Days to trade out (higher threshold)	Price deferral	Volume deferral
N/A Liquid	≥ 10bn	< 5mn	118.9		0.04	Real Time	
N/A Illiquid	< 10bn	< 1mn	30.5		0.03	Real Time	
1	≥ 10bn	5-20mn	118.9	0.04	0.17	15 mins	
2	< 10bn	1-10mn	30.5	0.03	0.33	End of day	
3	≥ 10bn	20-100mn	118.9	0.17	0.84	T+1	1 week
4	< 10bn	10-50mn	30.5	0.33	1.64	T+2	2 weeks
5	≥ 10bn	≥ 100mn	118.9	>0.84		4 weeks	
6	< 10bn	≥ 50mn	30.5	>1.64		4 weeks	

ICMA Group2: Sovereign bonds #2 [SB2: All other sovereign bonds]

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 5bn	<5mn	1064	53.60%	15.08%	Real Time	
N/A Illiquid	< 5bn	1mn	2696	24.31%	2.09%	Real Time	
1	≥ 5bn	5-7.5mn	754	4.22%	8.09%	15 mins	
2	< 5bn	1-5mn	2354	8.18%	6.12%	End of day	
3	≥ 5bn	7.5-20mn	798	4.9%	20.25%	T+1	1 week
4	< 5bn	5-10mn	1429	1.30%	2.97%	T+2	2 weeks
5	≥ 5bn	≥ 20mn	724	2.77%	39.97%	4 weeks	
6	< 5bn	≥ 10mn	1015	0.72%	5.43%	4 weeks	

Category	Issuance size€	Trade Size €	EU ADV in €mn	Days to trade out (Lower threshold)	Days to trade out (higher threshold)	Price deferral	Volume deferral
N/A Liquid	≥ 5bn	<5mn	32.2		0.16	Real Time	
N/A Illiquid	< 5bn	1mn	5.4		0.19	Real Time	
1	≥ 5bn	5-7.5mn	32.2	0.16	0.23	15 mins	
2	< 5bn	1-5mn	5.4	0.19	0.93	End of day	
3	≥ 5bn	7.5-20mn	32.2	0.23	0.62	T+1	1 week
4	< 5bn	5-10mn	5.4	0.93	1.85	T+2	2 weeks
5	≥ 5bn	≥ 20mn	32.2	>0.62		4 weeks	
6	< 5bn	≥ 10mn	5.4	>1.85		4 weeks	

ICMA Group 3: Other public bonds

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	1310	49.1%	3.7%	Real Time	
N/A Illiquid	< 1bn	<1mn	3570	29.2%	1.9%	Real Time	
1	≥ 1bn	1-2mn	1094	4.2%	2.8%	15 mins	
2	< 1bn	1-2mn	1348	2.3%	1.5%	End of day	
3	≥ 1bn	2-10mn	1145	7.1%	16.0%	T+1	1 week
4	< 1bn	2-5mn	1449	2.2%	3.4%	T+2	2 weeks
5	≥ 1bn	≥ 10mn	1008	3.9%	54.7%	4 weeks	
6	< 1bn	≥5	1438	2.0%	15.9%	4 weeks	

Category	Issuance size €	Trade Size €	EU ADV in €mn	Days to trade out Lower threshold	Days to trade out higher threshold	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	5.2		0.19	Real Time	
N/A Illiquid	< 1bn	<1mn	2.2		0.45	Real Time	
1	≥ 1bn	1-2mn	5.2	0.19	0.38	15 mins	
2	< 1bn	1-2mn	2.2	0.45	0.91	End of day	
3	≥ 1bn	2-10mn	5.2	0.38	1.92	T+1	1 week
4	< 1bn	2-5mn	2.2	0.91	2.27	T+2	2 weeks
5	≥ 1bn	≥ 10mn	5.2	>1.92		4 weeks	
6	< 1bn	≥5	2.2	>2.27		4 weeks	

ICMA Grouping 4: - IG Corporate bonds, Convertible bonds, and Other bonds

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<1mn	8076	54.1%	15.5%	Real Time	
N/A Illiquid	< 750mn	<0.5mn	12985	26.0%	5.3%	Real Time	
1	≥ 750mn	1-1.5mn	5331	3.6%	5.8%	15 mins	
2	< 750mn	0.5-1mn	7822	4.0%	3.8%	End of day	
3	≥ 750mn	1.5-5mn	6175	5.1%	19.2%	T+1	1 week
4	< 750mn	1-2mn	6574	2.9%	5.3%	T+2	2 weeks
5	≥ 750mn	≥ 5mn	4218	1.9%	28.4%	4 weeks	
6	< 750mn	≥ 2mn	6120	2.5%	16.6%	4 weeks	

Category	Issuance size €	Trade Size €	EU ADV in €mn	Days to trade out Lower threshold	Days to trade out higher threshold	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<1mn	2.02		0.50	Real Time	
N/A Illiquid	< 750mn	<0.5mn	1.4		0.36	Real Time	
1	≥ 750mn	1-1.5mn	2.02	0.50	0.74	15 mins	
2	< 750mn	0.5-1mn	1.4	0.36	0.71	End of day	
3	≥ 750mn	1.5-5mn	2.02	0.74	2.48	T+1	1 week
4	< 750mn	1-2mn	1.4	0.71	1.43	T+2	2 weeks
5	≥ 750mn	≥ 5mn	2.02	>2.48		4 weeks	
6	< 750mn	≥ 2mn	1.4	>1.43		4 weeks	

ICMA Grouping 5: - HY Corporate bonds, Convertible bonds, and Other bonds

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<0.50mn	2207	22.6%	3.9%	Real Time	
N/A Illiquid	< 750mn	<0.25mn	15692	41.2%	4.0%	Real Time	
1	≥ 750mn	0.50-1mn	1816	3.9%	3.2%	15 mins	
2	< 750mn	0.25-0.75mn	9114	11.8%	6.5%	End of day	
3	≥ 750mn	1-3.5mn	1750	5.3%	11.5%	T+1	1 week
4	< 750mn	0.75-1.5mn	6875	6.0%	7.7%	T+2	2 weeks
5	≥ 750mn	≥ 3.5mn	1387	2.2%	24.3%	4 weeks	
6	< 750mn	≥ 1.5mn	7546	6.9%	38.9%	4 weeks	

Category	Issuance size €	Trade Size €	EU ADV in €mn	Days to trade out Lower threshold	Days to trade out higher threshold	Price deferral	Volume deferral
N/A Liquid	≥ 750mn	<0.50mn	2.1		0.23	Real Time	
N/A Illiquid	< 750mn	<0.25mn	1.2		0.21	Real Time	
1	≥ 750mn	0.50-1mn	2.1	0.23	0.47	15 mins	
2	< 750mn	0.25-0.75mn	1.2	0.21	0.63	End of day	
3	≥ 750mn	1-3.5mn	2.1	0.47	1.67	T+1	1 week
4	< 750mn	0.75-1.5mn	1.2	0.63	1.25	T+2	2 weeks
5	≥ 750mn	≥ 3.5mn	2.1	>1.67		4 weeks	
6	< 750mn	≥ 1.5mn	1.2	>1.25		4 weeks	

ICMA Grouping 6: Covered bonds

Category	Issuance size €	Trade Size €	ISIN	Transactions	Notional	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	254	23.30%	1.60%	Real Time	
N/A Illiquid	< 1bn	<0.5mn	1160	33.70%	1.00%	Real Time	
1	≥ 1bn	1-2mn	233	4.60%	1.60%	15 mins	
2	< 1bn	0.5-1mn	800	6.40%	1.10%	End of day	
3	≥ 1bn	2-5mn	235	5.20%	4.30%	T+1	1 week
4	< 1bn	1-2mn	740	6.00%	2.00%	T+2	2 weeks
5	≥ 1bn	≥ 5mn	214	9.40%	57.00%	4 weeks	
6	< 1bn	≥ 2mn	928	11.40%	31.50%	4 weeks	

Category	Issuance size €	Trade Size €	EU ADV in €mn	Days to trade out Lower threshold	Days to trade out higher threshold	Price deferral	Volume deferral
N/A Liquid	≥ 1bn	<1mn	10.5		0.1	Real Time	
N/A Illiquid	< 1bn	<0.5mn	3.6		0.14	Real Time	
1	≥ 1bn	1-2mn	10.5	0.1	0.19	15 mins	
2	< 1bn	0.5-1mn	3.6	0.14	0.28	End of day	
3	≥ 1bn	2-5mn	10.5	0.19	0.48	T+1	1 week
4	< 1bn	1-2mn	3.6	0.28	0.56	T+2	2 weeks
5	≥ 1bn	≥ 5mn	10.5	>0.48		4 weeks	
6	< 1bn	≥ 2mn	3.6	>0.56		4 weeks	

Annex III: ADV and Time to trade out comparisons using different methodologies

As previously explained in this response, the ADV used in ICMA's response is an aggregate value, which is calculated by summing the total notional value traded across all securities on a given **day** and then dividing this sum by the number of **unique securities (ISINs) traded on that day**.

Theoretically speaking this should capture the characteristics of bonds that fall in a specific grouping and exhibit their behavior **when** they trade.

An alternative approach would be to sum the total notional traded for each ISIN and then divide this by the number of days within a period (260 in the case of the dataset ICMA has employed).

With this approach, if a bond trades only on a specific day, that notional would be then divided by the number of days in the period, skewing the ADV towards a lower number.

For each group, ICMA has calculated the ADV for each ISIN within the group, and the mean and median figure are exhibited in the below table.

In addition, for each ISIN, we check the biggest trade size recorded, and divide that by the ISIN ADV. This figure will give use the Time to Trade Out of the Biggest Trade (TTO-BT). The mean and median TTO-BT is also shown below.

The table is then followed by charts for each group, where we show the cumulative distribution of the times to trade out for each trade within the groups. These times to trade out are calculated by dividing trade size by the relative ISIN ADV.

Group	Description	Average ADV (€mn)	median ADV (€mn)	Average TTO-BT (days)	Median TTO-BT (days)
1	Largest sovereign bond issuers (vanilla) [SB1]	76.2	22.06	14.1	4.7
2	All other sovereign bonds [SB2]	3.96	0.4	48.6	27.8
3	Other public bonds	0.36	0.03	126.2	108.3
4	Corporate, convertible, and other public bonds IG	0.24	0.04	90	65.5
5	Corporate, convertible, and other public bonds HY	0.12	0.009	122.9	101.6
6	Covered bonds	0.57	0.06	106.3	86.7

Figure 20

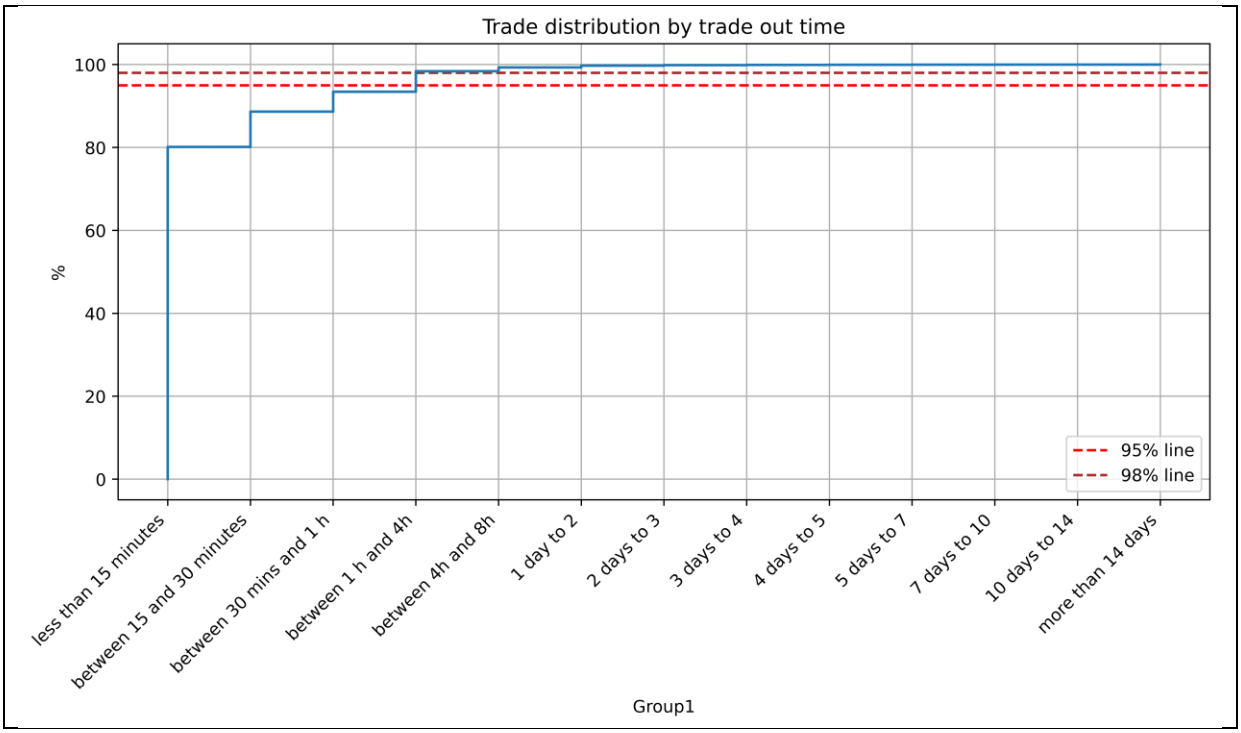


Figure 21

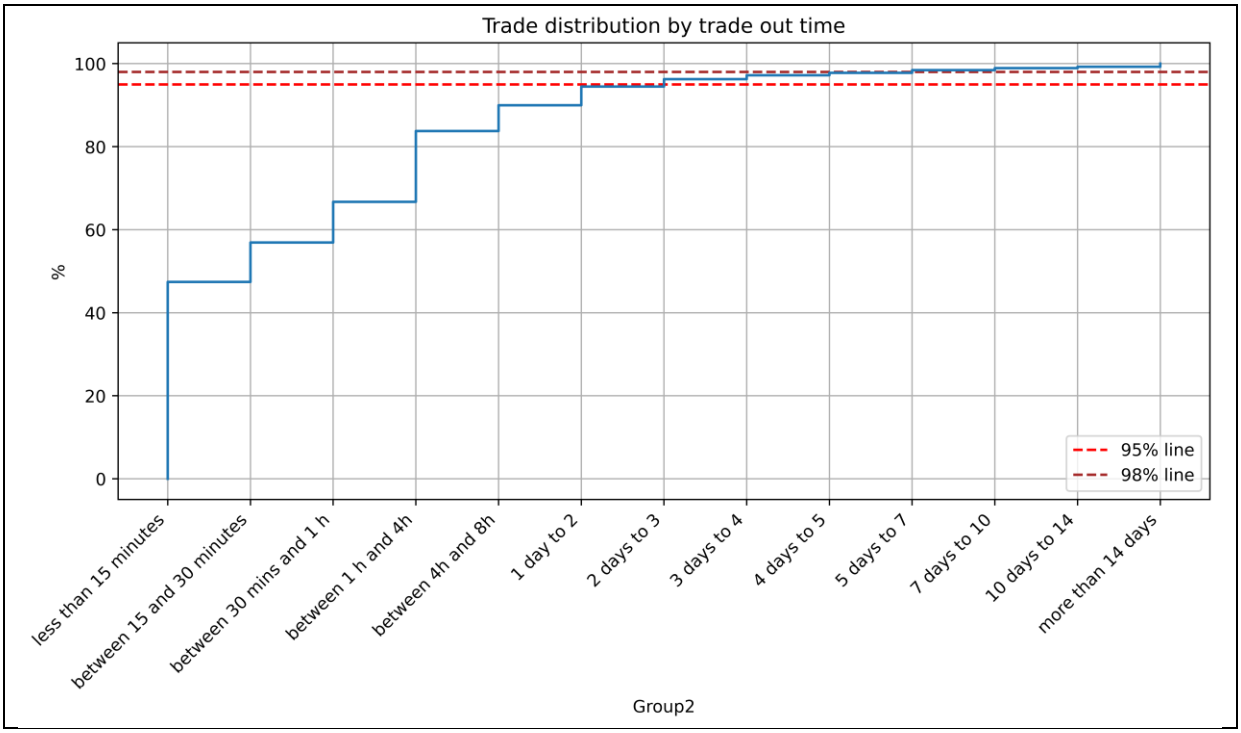


Figure 22

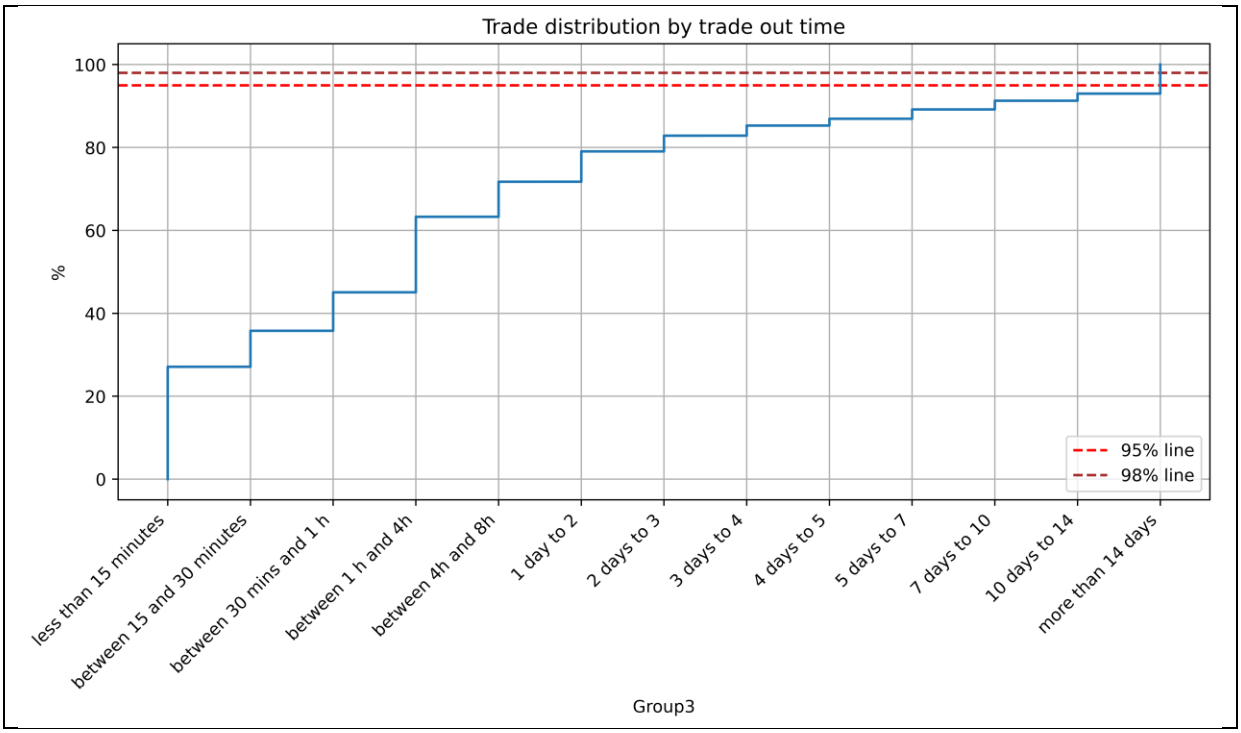


Figure 23

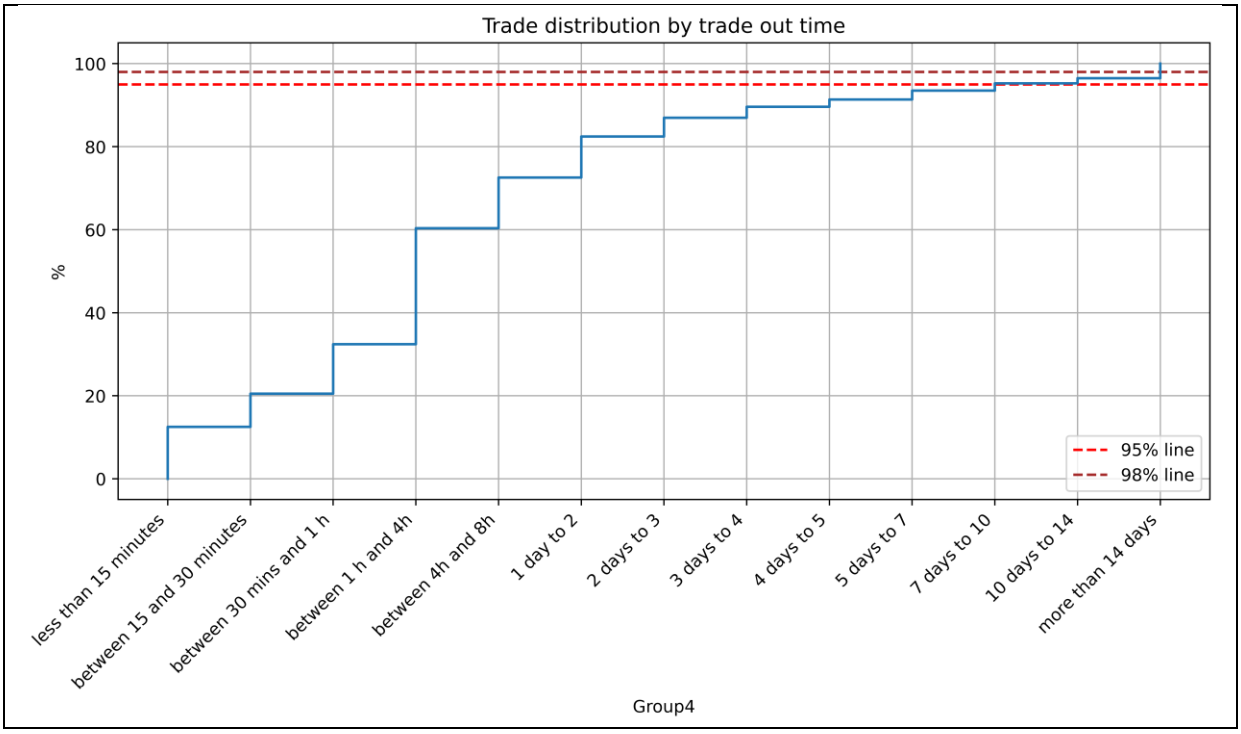


Figure 24

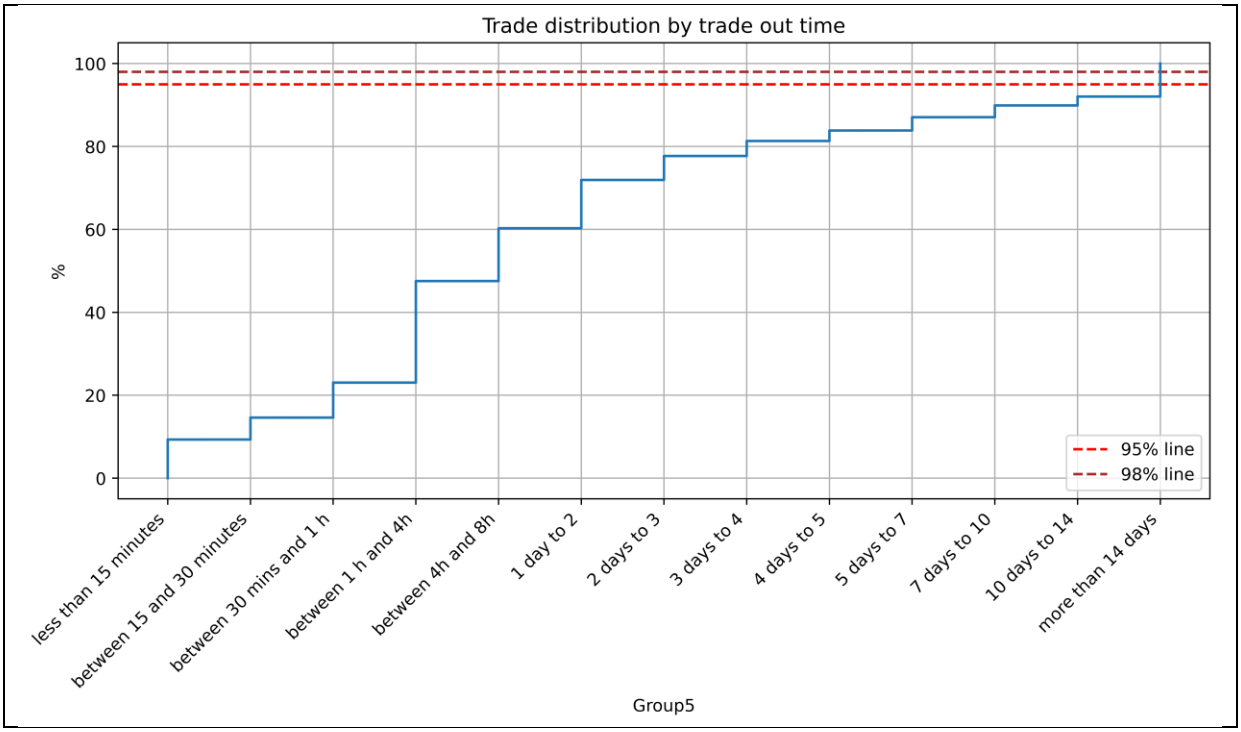
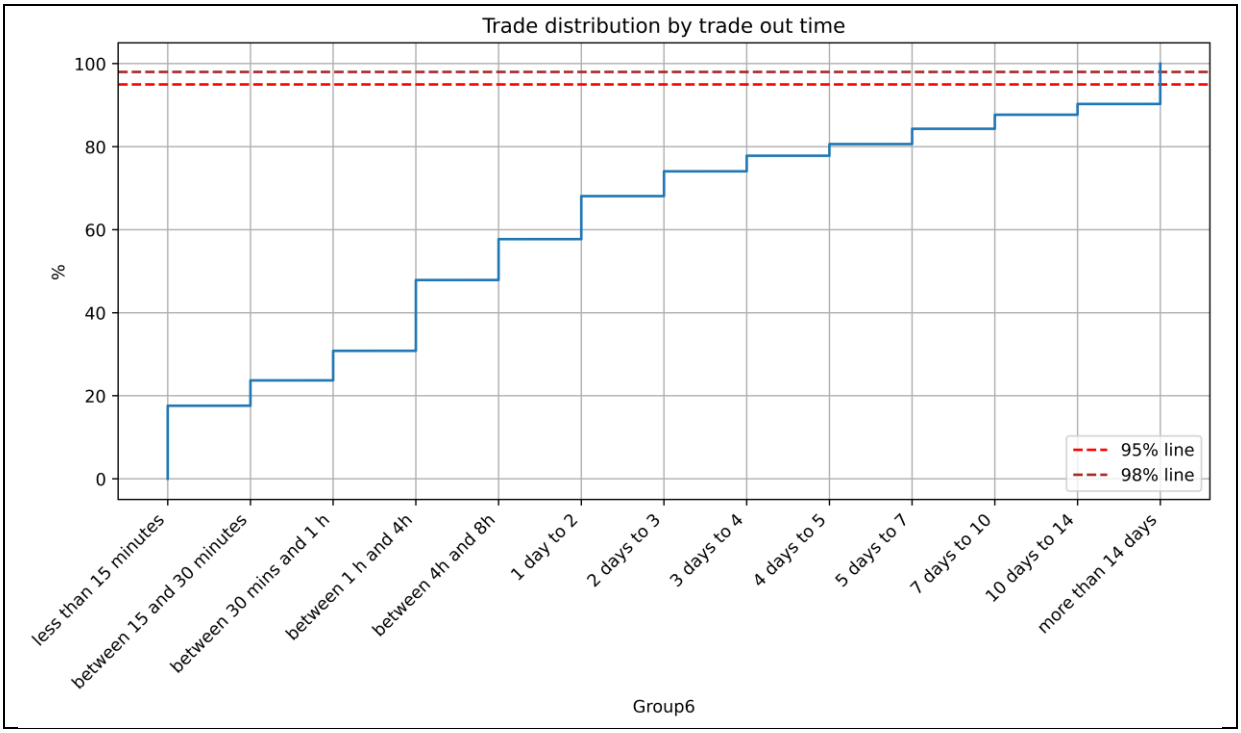


Figure 25



Annex IV: Explanation of different ADV methodologies

Analysis of Different Approaches to Calculating Average Daily Volume (ADV)

Summary

This short study examines three different methodologies for calculating Average Daily Volume (ADV) and demonstrates how each approach yields different results. The first method aggregates the total notional value traded across all securities (on a given day) and divides by the number of unique ISINs, leading to a mean ADV of 48.67 (for a fictitious blotter as below exhibited). The second approach calculates ADV for each security individually before averaging them, resulting in a mean ADV of 23.2. The third method extends this by calculating the time to trade out for each trade, offering further insight but making direct comparisons challenging, especially when deferral regimes are applied. The study highlights that these differing methodologies can significantly impact the interpretation of liquidity and trading activity metrics.

Introduction

The Average Daily Volume (ADV) is used to assess liquidity and trading activity. It is a measure of the average number notional value traded in a particular security or group of securities.

Specifically, when considering a group of bonds, different methodologies can be used, which will lead to different results.

The aim of this study is to show, succinctly, and using hypothetical data, how these different methodologies lead to different results. The purpose is not to establish a best or worst metric, but rather simply to illustrate the difference in results.

Approaches to calculating ADV

Approach 1: Aggregate Notional Division by Number of Unique ISINs

In the first approach, we compute the ADV by summing the total notional value traded across all securities on a given day and then dividing this sum by the number of unique securities (ISINs) traded on that day. Mathematically, this can be expressed as:

$$ADV_{Approach1} = \frac{1}{D}\sum_{d=1}^{D}\left(\frac{\sum_{i=1}^{Nd} Notional_{i,d}}{Nd}\right)$$

Where:

- **D** is the total number of trading days in the period.
- **Nd** is the number of unique ISINs traded on day **d**.
- $\mathbf{Notional_{i,d}}$ represents the total notional traded for the **i**$^{\mathbf{th}}$ ISIN on day **d**.

Approach 2: Averaging the ADV of Individual Securities

The second approach involves calculating the ADV for each security individually and then averaging these individual ADV values. The equation for this approach is:

$$ADV_{Approach2} = \frac{1}{N}\sum_{i=1}^{N} ADV_i$$

Where:

- **N** is the number of unique ISINs.
- $\mathbf{ADV_i}$ is the ADV for the **i**th ISIN, calculated as the total notional traded for that ISIN divided by the number of trading days in a period.

Approach 3: Distribution of time to trade out

A third approach is an extension of Approach 2. By using individual ADVs for each ISIN ($\mathbf{ADV_i}$), time to trade out for each trade can be calculated. The distribution of times to trade out can be then used for central tendency measures (mean, median, percentiles etc.).

$$Time\ to\ trade\ out_{i,j} = \frac{Trade_{i,j}}{ADV_i}$$

Where:

- **i** is a specific ISIN.
- **j** is a specific trade.

Examples and prove outs

To prove out the differences in results we begin with a simple example. Assume a universe of trades composed by only 5 ISINs over a period of 6 days. The notional traded and the frequency has been randomly generated. Our example blotter looks like the below:

Table 1

Time	Bond	Notional Traded
Day 1	Bond A	31
Day 1	Bond B	36
Day 1	Bond A	18
Day 1	Bond C	11
Day 1	Bond A	22
Day 2	Bond E	14
Day 2	Bond E	44

Day 2	Bond A	22
Day 2	Bond E	39
Day 2	Bond A	49
Day 3	Bond A	8
Day 3	Bond A	37
Day 3	Bond B	42
Day 3	Bond B	28
Day 4	Bond D	26
Day 4	Bond A	29
Day 4	Bond C	46
Day 4	Bond A	35
Day 5	Bond D	11
Day 5	Bond B	44
Day 5	Bond A	27
Day 6	Bond E	39
Day 6	Bond C	9
Day 6	Bond C	29

Using approach 1 we sum the notional traded on each day and divide by the number of unique ISINs which appeared on that day. The result will be the Average ADV per ISIN on each day (4th columns in the table below). This time series can then be used for measures of central tendency (mean, median, percentiles etc.). In the case of Table 2 below we observe:

- MEAN: 48.67
- MEDIAN: 42.3

Table 2

Time	Total Traded	Unique ISIN	AVG ADV per ISIN
Day 1	118	3	39.33
Day 2	168	2	84.00
Day 3	115	2	57.50
Day 4	136	3	45.33
Day 5	82	3	27.33
Day 6	77	2	38.50

Using approach 2 on the other hand, as explained before, entails calculating ADV for each individual ISIN. This is done by summing the notional traded for the period for each ISIN and then dividing by the number of trading days in the period (6 in our case). The result will be the ADV per ISIN for the full period (last row in the table below). This array can then be used for measures of central tendency (mean, median, percentiles etc.).

In the case of Table 3 below we observe:

- MEAN: 23.2
- MEDIAN: 22.7

Table 3

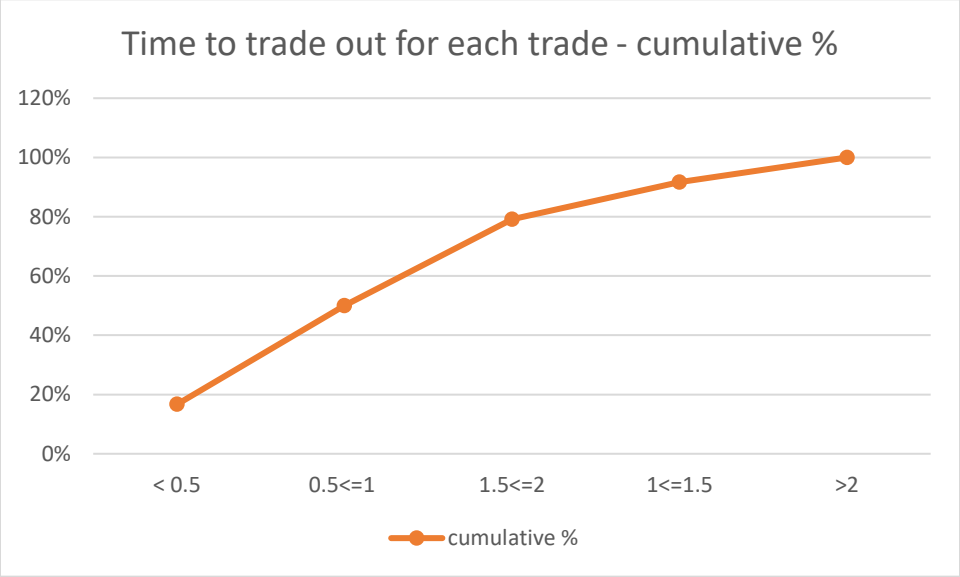
Time	Bond A	Bond B	Bond C	Bond D	Bond E
Day 1	71	36	11		
Day 2	71				97
Day 3	45	70			
Day 4	64		46	26	
Day 5	27	44		11	
Day 6			38		39
Total	278	150	95	37	136
ADV	46.33	25	15.83	6.17	22.67

Following from approach 2, the individual ISIN ADV's can be used to calculate time to trade out for each trade. This can see seen from the 5th column in Table 4. This array can then be used to calculate measure of central tendency.

Table 4

Time	Bond	Notional traded	Bond ADV	Time to Trade Out (in Days)
Day 1	Bond A	31	46.33	0.67
Day 1	Bond B	36	25.00	1.44
Day 1	Bond A	18	46.33	0.39
Day 1	Bond C	11	15.83	0.69
Day 1	Bond A	22	46.33	0.47
Day 2	Bond E	14	22.67	0.62
Day 2	Bond E	44	22.67	1.94
Day 2	Bond A	22	46.33	0.47
Day 2	Bond E	39	22.67	1.72
Day 2	Bond A	49	46.33	1.06
Day 3	Bond A	8	46.33	0.17
Day 3	Bond A	37	46.33	0.80
Day 3	Bond B	42	25.00	1.68
Day 3	Bond B	28	25.00	1.12
Day 4	Bond D	26	6.17	4.22
Day 4	Bond A	29	46.33	0.63
Day 4	Bond C	46	15.83	2.91
Day 4	Bond A	35	46.33	0.76
Day 5	Bond D	11	6.17	1.78

Day 5	Bond B	44	25.00	1.76
Day 5	Bond A	27	46.33	0.58
Day 6	Bond E	39	22.67	1.72
Day 6	Bond C	9	15.83	0.57
Day 6	Bond C	29	15.83	1.83



This measure is not directly comparable to the time to trade out we that can be extrapolated from approach 1. Assume that for a transparency regime we use a trade size threshold of 25 and 30. Trades below 25 are real time, trades between 25 and 30 are deferred end of day and trades above 30 are deferred 4 weeks. (For simplicity we will not bring into this example issue size thresholds.)

Our blotter will now look like the blow:

Table 5

Time	Bond	Notional Traded	Deferral
Day 1	Bond A	31	4w
Day 1	Bond B	36	4w
Day 1	Bond A	18	Real time
Day 1	Bond C	11	Real time
Day 1	Bond A	22	Real time
Day 2	Bond E	14	Real time
Day 2	Bond E	44	4w
Day 2	Bond A	22	Real time
Day 2	Bond E	39	4w
Day 2	Bond A	49	4w
Day 3	Bond A	8	Real time

Day 3	Bond A	37	4w
Day 3	Bond B	42	4w
Day 3	Bond B	28	EOD
Day 4	Bond D	26	EOD
Day 4	Bond A	29	EOD
Day 4	Bond C	46	4w
Day 4	Bond A	35	4w
Day 5	Bond D	11	Real time
Day 5	Bond B	44	4w
Day 5	Bond A	27	EOD
Day 6	Bond E	39	4w
Day 6	Bond C	9	Real time
Day 6	Bond C	29	EOD

We can now divide the blotter into real time and deferred trades. Thereafter we can calculate the ADV for each deferral group employing approach 1.

Table 6

	Trade Count	Notional Traded	Unique ISIN	Group ADV per day
4w	11	442		
Day 1	2	67	2	33.5
Day 2	3	132	2	66
Day 3	2	79	2	39.5
Day 4	2	81	2	40.5
Day 5	1	44	1	44
Day 6	1	39	1	39
EOD	5	139		
Day 3	1	28	1	28
Day 4	2	55	2	27.5
Day 5	1	27	1	27
Day 6	1	29	1	29
Real time	8	115		
Day 1	3	51	2	25.5
Day 2	2	36	2	18
Day 3	1	8	1	8
Day 5	1	11	1	11
Day 6	1	9	1	9
Grand Total	24	696		

The Average ADV for the Real time group equates to 14.3 whilst the non-EOD group equates to 27.9 and the 4weeks group 43.8.

8 out of 24 trades are real time (33.3%), 5 out of 24 have EOD deferral (21%).

We divide the upper threshold of each group by the group ADV to obtain time to trade out.

For the real time group, the upper threshold is 25, which divided by 14.3 equated to a time to trade out of 1.74 days whilst the end of day group has a time to trade out if 1.07 days.

This is summarised as below.

Table 7

	Group ADV	Trade count	% trades	time to trade out based upper thresholds
Real Time	14.3	8	33%	1.748251748
EOD	27.875	5	21%	1.076233184
4W	43.75	11	46%	n/a

Given the different methods in calculating ADVs between Approach 1 and Approach 3, and also considering that we have introduced an exogenous variable into approach 1 (trade sizes thresholds), the two distributions of time to trade out are not directly comparable. In fact, as per Table 7, 8 trades have a time to trade out of 1.75 or less (Real time bucket). Whilst from Table 4 (which uses Approach 3) we count 18 trades with a time to trade out of 1.75 or less. Same applies to the EOD grouping.