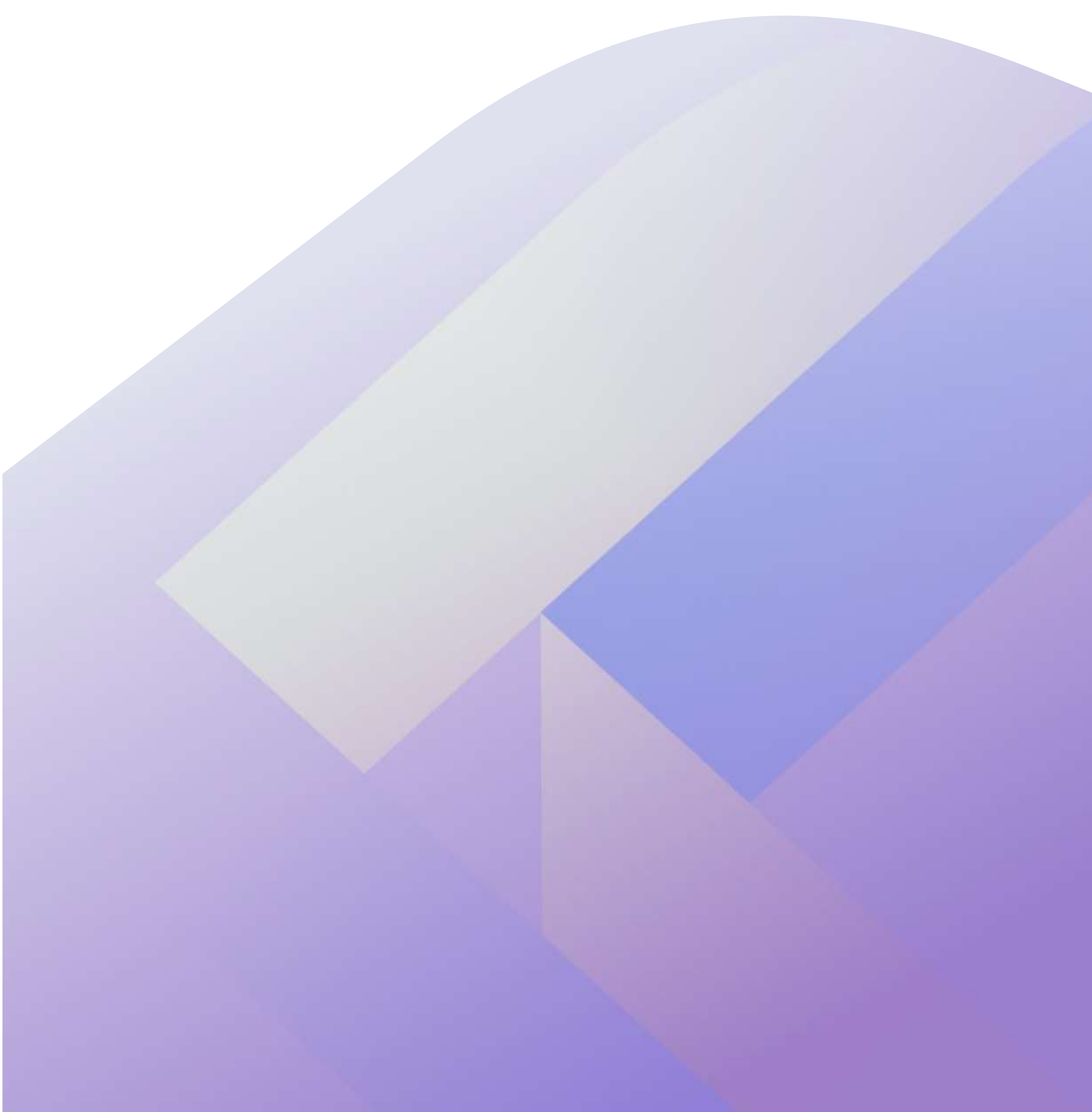
ESMA
European Securities and Markets Authority

21 May 2024
ESMA74-2134169708-7262

Reply form: MiFIR Review

RTS 2, RTS on reasonable commercial basis and RTS 23



Responding to this paper

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

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

ESMA will consider all comments received by **28 August 2024.**

Instructions

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

- Insert your responses to the questions in the Consultation Paper in this reply form.
- Please do not remove tags of the type <ESMA_QUESTION_CP1_1>. Your response to each question has to be framed by the two tags corresponding to the question.
- If you do not wish to respond to a given question, please do not delete it but simply leave the text "TYPE YOUR TEXT HERE" between the tags.
- When you have drafted your responses, save the reply form according to the following convention: ESMA_CP1_nameofrespondent.

  For example, for a respondent named ABCD, the reply form would be saved with the following name: ESMA_CP1_ABCD.
- Upload the Word reply form containing your responses to ESMA's website (**pdf documents will not be considered except for annexes**). All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

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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 headings 'Legal notice' and heading 'Data protection'..

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1. General information about respondent

Name of the company / organisation	Data Boiler Technologies, LLC
Activity	Other Financial service providers
Are you representing an association?	☐
Country/Region	North-America

2. Questions

CP on the amendment of RTS 2

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

<ESMA_QUESTION_CP1_1>
It would be better for ESMA to specify in both Annex 1 of RTS 1 and Article 1 of RTS 2 that "covered trading systems" include: (1) Central Limit Order Book (CLOB); (2) a continuous auction order book trading system that by means of an order book and a trading algorithm operated without human intervention matches sell orders with buy orders on the basis of the best available price on a continuous basis; and (3) a "Hybrid trading system combining elements of a continuous auction order book trading … and of periodic auction trading system …" Technically, CLOB as the industry commonly understands uses price-time priority for its matching mechanism. Whereas auction and hybrid systems may have different matching mechanisms and execution speed than a CLOB. Therefore, in those systems price stability and frequent price changes in market dynamics are not equivalent to a CLOB. Updating Annex 1 of RTS 1 seems inevitable to avoid confusion.
<ESMA_QUESTION_CP1_1>

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

<ESMA_QUESTION_CP1_2>
The industry generally welcomes the removal of Request for Quotation (RFQ) and voice trading systems from pre-trade transparency obligations for bonds (https://www.clarusft.com/mifid-ii-and-transparency-for-bonds-what-you-need-to-know/). Other than the suggestion per our response in Q1 regarding CLOB, auction and hybrid system, let us not further complicate this definition to include other trading systems. Trading venue perimeter for what is not an ESMA's regulated market under Title III of MiFID II was previously criticized for being very precise but overly

burdensome to qualify for the various waivers, hence causing EU markets' competitiveness concern. We recognize the merits about "trading interests" criteria to determine what is or is not a "Multilateral System." However, our point is – it may take forever to capture every new development of trading systems, hybrid, or intelligence cross given continuous tech advancements. Investor protection and market integrity is about divergence between private rights and social costs (see this: https://maisliberdade.pt/site/assets/files/1371/the_myth_of_social_cost.pdf). Covering the basic, i.e. CLOB, auction, and the said hybrid in Q1 is sufficient, at least in the current stage of the bond markets. .<ESMA_QUESTION_CP1_2>

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.

<ESMA_QUESTION_CP1_3>
The description of periodic auction trading systems is okay.
<ESMA_QUESTION_CP1_3>

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

<ESMA_QUESTION_CP1_4>
In general, we are supportive of standardization and harmonization for economy of scale and efficiency purposes. The defined standard, open access, and interoperability should not lead to a monopoly or oligopoly that hinders innovation or exacerbates unfairness in the markets (see this: https://www.yalelawjournal.org/article/open-access). The European system of accounts ESA 2010 proposal in relation to the ESMA's Financial Instruments Transparency System (FITRS) is a mix of pros (e.g. consistency in comparing financial data across different countries in EU and improve transparency) and cons (complexity and implementation costs to collected vast amount of data).

On a high level, there are good merits with the "public sector control" test and the 5 indicators of control. It is sensible for it not being a strict rule, for example, bail-out cases and ring-fencing those "Public-Private Partnerships", etc. However, ESMA rightly pointed out the uncertainties and divergent classifications are present in the market between sovereign, other public and corporate bonds. The ESMA's FITRS versus UK FCA's FITRS is noticeably different in data publication (transparency calculation) and validation. ESA 2010 is known to be complex and is unique to the European markets only. The challenge to adopt ESA 2010 is analogous to the US Volcker Rule covered fund requirements).

There are other ways to classify bonds. We are perturbed by the UK FCA proposed maturity groups of '< 5 years', '5-15 years', and '> 15 years.' There are investment mandates that investment firms need to comply with for portfolio allocation in short, intermediate, and/or long terms. We recognize that Vanguard used Spliced Bloomberg US 5-10 Year Government/Credit Float Adjusted Index in their intermediate term bonds analysis. We observed that Morningstar picked, for example, 'iShares 1-3 Year Treasury Bond ETF SHY', 'iShares 3-7 Year Treasury Bond ETF IEI', and 'iShares 7-10 Year Treasury Bond ETF IEF' for their intermediate bonds category. How 'intermediate term' may be defined as 1-10 years, 3-10 years, or 5-10 years is debatable. However, the FCA proposed '5-15 years' for intermediate and '>15 years' for long are like pulling numbers out of the air to make Models 1 and 2 to look similar. It is user unfriendly as it defies the common standard of over 10 years (a decade) being "long term." We are against the proposed maturity group classification.

International Capital Market Association (ICMA) recommends grouping by "vanilla" vs other coupon / rate (https://www.icmagroup.org/assets/documents/Regulatory/Secondary-markets/ICMA-SMPC-report-European-Secondary-Bond-Market-Data-H2-2023-March-2024-190324.pdf). Association for Financial Markets in Europe (AFME) recommends grouping by fixed coupon 0-11 years maturity vs fixed coupon 11+ years maturity, and others, such as linkers, floating rate notes, separate trading of registered interest and principal of securities (STRIPS), etc. (https://www.afme.eu/publications/reports/details/mifir-2021-corporate-bond-trade-data-analysis-and-risk-offset-impact-quantification). Other classification dimensions also include: currencies (EUR, GBP, US, and others), issuer rating - investment grade (IG) vs high-yield (HY), etc.

We think the AFME recommendations strike the optimal in terms of comprehensiveness and practicality from a global harmonization and user perspective. There can be arguments for the ICMA recommendations from the perspective of the lower cost for the Consolidated Tape (CT) Provider and data suppliers. In either case, we do NOT recommend using the ECA 2010 to classify bond issuers. <ESMA_QUESTION_CP1_4>

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.

<ESMA_QUESTION_CP1_5>
Using a EUR based threshold for bonds, structured finance products (SFPs), and emission allowances (EUA) is relatively simpler and more static than the periodic assessments by the Financial Instruments Transparency System (FITRS) that requires the APAs, RIEs, firms operating an MTF or OTF and SIs to submit daily files to support a complex set of calculations to classify financial instruments as either liquid or illiquid with illiquid ones being exempt from pre-trade and real-time post-trade transparency. According to the Autorité des marchés financiers (AMF) July 2024 study – "BOND TRANSPARENCY: HOW TO CALIBRATE PUBLICATION DEFERRALS?" the 'size specific to the instrument' (SSTI) deferral eligibility versus 'large in scale' (LIS) deferral

eligibility is largely compatible. We do acknowledge that by removing the SSTI deferral and allowing comprehensive volume-masking will encourage timely price formation.

We have no objection to this threshold approach as an easier way to be considered and qualified for the LIS waiver. Yet, there is a caveat about this "static" or "golden source" approach – i.e., whether it will limit market risk for institutional block trading is a question mark depending on the size of the trade. Thus, the waiver for LIS orders ought to be reviewed periodically. The proposed annual review is questionable amid it is contrasted with the market trend of mass customization and dynamic updates.

Various stakeholders (the aforementioned AMF study, the ICMA https://www.icmagroup.org/assets/documents/Regulatory/Quarterly_Reports/ICMA-Quarterly-Report-Q3-2024.pdf?trk=article-ssr-frontend-pulse_little-text-block, the ESMA https://www.esma.europa.eu/sites/default/files/library/esma70-154-165_smsc_opinion_transparency_third_countries.pdf?trk=article-ssr-frontend-pulse_little-text-block, and the FCA https://www.fca.org.uk/publication/consultation/cp23-32.pdf?trk=article-ssr-frontend-pulse_little-text-block) are conducting qualitative and quantitative assessments to decide the liquid classes of financial instruments. The industry is looking at the regulators to be the referee, while the regulators are asking the Data Expert Group (DEG) to propose recommendations. Liquidity is a highly subjective moot point. People would arbitrage and seek opportunities in grey areas once something is designated as the de-facto "golden source".

Learning from the US FINRA's TRACE recalibration (https://www.sec.gov/spotlight/fixed-income-advisory-committee/transparency-panel-venkataraman-may-2020.pdf?trk=article-ssr-frontend-pulse_little-text-block) to formulate a strategy to suit the issuers and the investors' appetites would help. Though, regulators should not be finessing the calibration. Instead, the priority focus should be on transparency during a market stress.

* The architecture of OTC markets and the inability to value one's holding and the inability to sell structured securities at times of market disturbances (https://www.imf.org/external/pubs/ft/fandd/basics/pdf/dodd-markets.pdf)

* OTC markets that rely on the balance sheet intermediation capacity of a few dealers, versus the feasibility and cost-benefit of centralising bond trading on exchange-based CLOB (https://www.world-exchanges.org/storage/app/media/Centralizing%20Bond%20Trading_8%20December%202022%20binded3.pdf)
* Liquidity in Corporate Bonds Markets under Stress Conditions (https://www.iosco.org/library/pubdocs/pdf/IOSCOPD634.pdf)

* Where can increased transparency further financial stability (http://www.financialresearch.gov/frac/files/OFR_FRAC-meeting_where_can_increased_transparency_further_financial_stability.pdf)

Per our response in Q2, adequacy of transparency in OTC markets is a question about the divergence of private rights and social costs. In all practically, do government agencies have sufficient resources (both financially and compassionately) to administer appropriate enforcements in a cost-effective manner to achieve all regulatory goals (https://sites.law.duke.edu/thefinregblog/2021/02/10/regulatory-enforcement-in-otc-markets/)? Do regulators only care when there is an outsized loss of a big firm (http://www.tradeweb.com/newsroom/media-center/insights/blog/electronic-credit-trading-defiesvolatility-stay-surprisingly-sticky/) causing systemic risks in the market?

Advancement of electronic credit trading can defy volatility and stay surprisingly sticky, amid "incidents in March 2023 where Silicon Valley Bank was closed by US Federal regulators and $17 billion worth of Credit Suisse Additional Tier One (AT1) bonds were written to zero, sending contagion to the roughly $250 billion worth of AT1 bonds outstanding, primarily from European Banks." (http://www.tradeweb.com/newsroom/media-center/insights/blog/electronic-credit-trading-defiesvolatility-stay-surprisingly-sticky/). How policy makers would answer the questions in the above paragraph may vary subjectively and depending on where one likes to position its transparency regime globally compared to other jurisdictions.

A risk-based approach that emphasizes financial stability and securities inventory during normal conditions versus market stress is superior to "crown jeweling" a static de-facto list of "liquid" bonds, SFPs, EUAs by annual qualitative and quantitative assessments.
<ESMA_QUESTION_CP1_5>

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.

<ESMA_QUESTION_CP1_6>
Please refer to our response to Q5 for related caveat, while we have no objection in here.
<ESMA_QUESTION_CP1_6>

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.

<ESMA_QUESTION_CP1_7>
Please see our response to Q5 for related caveat, while we do not disagree with the approach in here.

<ESMA_QUESTION_CP1_7>

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

<ESMA_QUESTION_CP1_8>
We agree with the changes to post-trade field summarised in Table 5 with a caveat. Per the US SEC Commissioner Hester Peirce in her speech about the Financial Data Transparency Act Joint Data Standards Proposal, she stated "Hardwiring a technology into a rule runs the risk of preserving that requirement far after that technology's expiration date… could inhibit data standards from evolving over time or force firms to maintain parallel data systems… affords some flexibility in data transmission and schema and taxonomy format standards, while specifying other data standards… Would the balance the proposal strikes allow data standards to be updated in a timely manner? If not, what would work better? How often should regulators revisit the mandated standards to ensure that they remain current? Should we build a requirement to revisit the standards into the final rule? How, if at all, will artificial intelligence or other technologies influence the need for structured data? How should we take these potential future developments into account..." Again, as in response to Q1, in general we are supportive of standardization and harmonization for economy of scale and efficiency purposes. As long as the defined standard, open access, and interoperability does not lead to a monopoly or oligopoly that hinder innovation or exacerbates unfairness in the markets (https://www.yalelawjournal.org/article/open-access).
<ESMA_QUESTION_CP1_8>

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?

<ESMA_QUESTION_CP1_9>
For the EU fixed income market, the concept of "as close to real-time as technically possible" currently allows for a maximum delay of 5 minutes, after a less strict requirement of 15 minutes during the first three years of application of MiFIR. The UK FCA on page 19 of CP23/32 paragraph 3.34 states "the information to be disclosed include the execution time of a trade, details of the instrument being traded, price and size. They must be made available as close to real time as possible and in any case within 5 minutes of execution." The US FINRA proposed to reduce TRACE reporting time frame to 1 minute for all TRACE-Eligible Securities, including U.S. Treasury Securities, with exceptions for member firms with de-minimis reporting activity and for manual trades, in the US. Amid a trade association – SIFMA have stated that "the proposed 1 minute reporting rule (if) adopted (would) expose the broker-dealer community to significant liability and creating risk to the function of some fixed income markets… FINRA … should … examine impacts to liquidity, depth, concentration, and transparency …" The ESMA should observe if this FINRA proposal may or may not be approved in determining appropriate harmonization of regime with other jurisdictions.

<ESMA_QUESTION_CP1_9>

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

<ESMA_QUESTION_CP1_10>
We recognize the similarities between the concept of "Designated Publishing Entity" (DPE) in the EU and the "Designated Reporter" in the UK to replace the previous "Systematic Internalizer (SI) approach. We have no objection to the MiFIR Trade Reporting – "Who Reports" Logic.
• If the execution originates from a trading venue, then the trading venue reports. This includes both MiFID II trading venues and 3rd country PTT-equivalent trading venues, as determined by EU regulators.
• Otherwise:
o If the execution is between an SI and non-SI MiFID investment firm, then the SI reports.
o If the execution is between two SIs, the seller reports.
o If the execution is between two non-SI MiFID investment firms, the seller reports.
o If the execution is between two firms, neither of which are MiFID investment firms, neither firm report.
o If the execution is between a MiFID investment firm and a firm who isn't a MiFID investment firm, then the MiFID investment firm reports regardless of whether they are buying or selling and whether they are an SI or not.

To create guidance about the definition of an SI that can be flexibly applied across asset classes and across different arrangements and business models is no easy task. Some Investment Firms, who are SIs, may seek further clarifications or changes to limit or reduce their impact on the application of transparency requirements.
<ESMA_QUESTION_CP1_10>

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

<ESMA_QUESTION_CP1_11>
With all due respect to the ESMA analysis between the relationship between issuance size and the trading activity, and as ESMA has rightly pointed out that "the issuer of the bond (being a corporate, government or other entity) changes the issuance size over time, due to the result of bond taps or buybacks", we agree the bond issuance outstanding amount should be the relevant factor when assessing the liquidity of a bond and therefore should be taken into account when assessing the liquidity threshold.

However, it is difficult in calibrating the Bond and Derivative CTs, and it is highly subjective in determining what is liquid versus illiquid. The challenge is analogous to the central banks trying to

gauge the appropriate balance between savings and investment in determining the right monetary policy to foster economic activities. How the interest rate, money supply, and currency exchange may affect the velocity of debt cycle; dynamic in repos and swap markets; the relative size of Muni versus Corporate Bonds, as well as on-the run versus off-the-run treasury securities, replenishment of debt securities inventory by buyers amid global disintermediation… the list can go on-and-on. For example, I know a model is trained on over 300 feature inputs extracted from trades, quotes, and terms and conditions datasets.

A quantitative approach that based on average daily volume (ADV) and absorption time / trade-out time could be a viable way to calibrate the fixed income CT. We respect the calibration recommendations by the DEG and have no objection to the liquidity thresholds set out in Table 7. With a caveat. Liquidity is a highly subjective moot point. People would arbitrage and seek opportunities in grey areas once something is designated as the de-facto "golden source". We think it is better to leave it to the markets to determine the liquidity perimeter as long as there is no manipulation like the LIBOR scandal, and market centres operate on a fair, reasonable, and non-discriminative basis. Again, per our response to Q5, a risk-based approach that emphasizes on financial stability and securities inventory during normal conditions versus market stress is superior to "crown jeweling" a static de-facto list of "liquid" bonds, SFPs, EUAs by annual qualitative and quantitative assessments.
<ESMA_QUESTION_CP1_11>

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.

<ESMA_QUESTION_CP1_12>
Please refer to our response to Q5 and Q11 for related caveats. We respect the calibration recommendations by the DEG and have no objection to the proposed thresholds.
<ESMA_QUESTION_CP1_12>

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

<ESMA_QUESTION_CP1_13>
The UK FCA is prioritising the benefits of immediacy of price publication over full disclosure of traded volume per paragraph 6.29 of CP23/32. Fragmentation seems inevitable when the EU and UK are taking divergent paths in favour of a friendly competition. What should be the optimal maximum deferral period is largely depended on one's trading nature – large or small trades. In general, we think all prices should be published by End-of-Trading-Day (EOTD). For size of trades larger than the upper threshold, it is okay to publish it within 6 to 8 weeks rather than the ESMA proposal of 4 weeks. Again, a quantitative approach that is based on average daily volume (ADV) and absorption time / trade-out time could be a viable way to calibrate the fixed income CT. We

respect the recommendations by the DEG, while we think the maximum deferral period set out in the ESMA proposal is too short (4 weeks) particularly for the largest bucket of >= 50Mn.
<ESMA_QUESTION_CP1_13>

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?

<ESMA_QUESTION_CP1_14>
SFPs are illiquid. IG vs HY is a better way to classify the SFPs. According to the US FINRA guidelines (https://www.finra.org/rules-guidance/key-topics/fixed-income/confirmation-disclosure-faq) - 3.18, "any changes to credit quality, with respect to that particular security or the particular issuer of that security, whether the change is caused by a formal ratings announcement or market events. Thus, for example, this could include changes in the guarantee or collateral supporting repayment as well as significant recent information concerning the issuer that is not yet incorporated in credit ratings (e.g., changes to ratings outlooks). However, Rule 2121 notes that a dealer may overcome the presumption that its contemporaneous cost is the best measure of prevailing market price (PMP) based on a change in credit quality only in instances where it has changed significantly after the dealer's transaction." Thus, we disagree with the proposed static determination of liquidity for SFPs.
<ESMA_QUESTION_CP1_14>

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

<ESMA_QUESTION_CP1_15>
The industry despises change in general because of compliance cost. Yet, the transparency regime for SFPs as provided in RTS2 ought to be re-examined based on IG vs HY, as well as other factors, including but not limited to outsized position, that could materially impact financial stability.

P.S. The US SEC is soliciting comment on extraordinary market volatility, which the ESMA and other policy makers around the world may observe related policy developments in volatility interruption mechanisms for appropriate adoption or not.
<ESMA_QUESTION_CP1_15>

Q16 Do you agree with the maximum duration proposed?

<ESMA_QUESTION_CP1_16>
See our response to Q15.

<ESMA_QUESTION_CP1_16>

Q17 Do you agree with a static determination of liquidity and determine that all EUA are liquid? If not, can you suggest any alternative methodology on how to define liquidity for EUAs?

<ESMA_QUESTION_CP1_17>
No comment for Q17.
<ESMA_QUESTION_CP1_17>

Q18 Do you agree with the proposed framework for the deferral regime for EUAs? If not, please suggest an alternative methodology.

<ESMA_QUESTION_CP1_18>
No comment for Q18.
<ESMA_QUESTION_CP1_18>

Q19 Do you agree with the classification of ETCs and ETNs as types of bonds?

<ESMA_QUESTION_CP1_19>
ETCs and ETNs are mostly, if not all, illiquid. They should not be classified as types of ETFs. ETCs and ETNs that are admitted to trading or Trading on Trading Venues (ToTV) in the EU have some similarities to derivatives in terms of tracking underlying assets, while they are not exactly derivatives given ETCs and ETNs are structured as debt securities. For simplicity's sake in moving away from a periodic assessment of liquidity for ETCs and ETNs is understandable. However, we have reservations about a complete static approach. While ETCs and ETNs themselves are not inherently destabilizing, their use and the behaviour of investors during periods of market stress can contribute to broader market instability. Hence, periodic assessment of related risk to extraordinary market volatility is recommended.
<ESMA_QUESTION_CP1_19>

Q20 Do you agree with the liquidity determination for ETCs and ETNs. If not, please suggest an alternative approach to the liquidity determination.

<ESMA_QUESTION_CP1_20>
We do not disagree. Please also see our response to Q19.
<ESMA_QUESTION_CP1_20>

Q21 Do you agree with the pre- and post-trade thresholds? If not, please suggest an alternative methodology.

<ESMA_QUESTION_CP1_21>
Using the same pre- and post-trade thresholds as ETFs for ETCs and ETNs is debatable. Not all ETPs are created equal. How people use the ETCs / ETNs or other financial instruments for hedge versus speculation is key. See our response to Q19.
<ESMA_QUESTION_CP1_21>

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

<ESMA_QUESTION_CP1_22>
The privilege of sovereign bonds is understandable. The 6 month maximum volume deferral seems too long. We think a maximum of 3 months is more than enough, given the conditions for triggering the temporary suspension of transparency obligations is still available under this proposal.
<ESMA_QUESTION_CP1_22>

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

<ESMA_QUESTION_CP1_23>
No objection with RTS 2 that the liquidity suspension could be triggered following a drop in liquidity during the last 30 days compared to the average monthly volume for the preceding 12 full calendar months:
i. by 60% for instruments or classes of financial instruments which have a liquid market.
ii. by 80% for instruments or classes of financial instruments which do not have a liquid market.
<ESMA_QUESTION_CP1_23>

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

<ESMA_QUESTION_CP1_24>
Please see our responses for Q5, Q11, and Q14 in particular.
<ESMA_QUESTION_CP1_24>

Q25 What level of resources (financial and other) would be required to implement and comply with the draft amended RTS and for which related cost (please distinguish between one off and ongoing costs)? When responding to this question, please

provide information on the size, internal set-up and the nature, scale and complexity of the activities of your organisation, where relevant.

<ESMA_QUESTION_CP1_25>
TVs are likely to overstate their estimated costs required to implement and comply with the draft amended RTS. This would be done in order to negotiate for the maximum amount in revenue sharing and additionally use it as an excuse to further raise prices on market data and connectivity. Investment firms may not be aware of related implementation and compliance costs because timestamp tolerance and other specifications are not yet available in RTS. The cost could be comparable to the US Consolidated Audit Trail (CAT) depending on the ultimate design of CT.

There are several ways to build the equity CT:
• (Post-trade) US Consolidated Audit Trail (CAT) requires Investment Firms (IF) and Self-Regulatory Organizations (SROs) to “SEND” quotes and trades information to the CAT. The system uses a Gigantic Centralized Vault approach and is the most expensive option. Yet it is ineffective (time sync is its fatal flaw) as to identify where and how trade events occurred.
• To ease the industry burden, an alternate design is to “OBTAIN” data directly at its source rather than “SEND”. This federated approach is a bespoke model. It has the benefits of consistency (economy of scale to address data quality issue) and prevents a single point of failure.
• (Pre-Trade) A third design is to learn from the High Frequency Trading (HFT) firms / self-aggregators and get down to sub-microsecond precision and fabricate with the futures / derivative markets. This could be the most powerful in terms of detecting market manipulations even ahead of the stock exchanges.
• Last but not least, build something like the US Securities Information Processors (SIPs). Hopefully the EU equity CT will have better performance than today’s SIPs. NOTE: there was a NYSE Tape A (one of the SIPs) issue in June this year where the Berkshire price was published erroneously down 90+%.

The above 4 options have various pros and cons, and the corresponding costs vary significantly. It is worth noting that the Equity data quality issues, such as the Bershire event in June 2024, the $440 Million Software Error - Knight Capital, flash crashes, the MEME stock phenomenon, and other vulnerabilities. They are all related to surge in activities, spikes, outages, volatility interruption mechanisms, i.e., operational resilience. Operational resilience is a critical factor to the success of CT and market integrity (many still remember the LME and other cases, where some see the price and some don’t). Without appropriate load balancing, accessing the packet rate over a millisecond or sub-microsecond window, latency, capacity planning, Business Continuity Planning / Disaster Recovery, and addressing system glitch concerns, the Equity CT will NOT be able to properly function.

Whether top-of-book is enough, or X number of price levels (depth-of-book) is required by who (e.g., hedge funds would want the full depth for FREE while their demand of exchanges’ proprietary feeds is inelastic). There are latency implications with expanded core data (5 price

levels and odd lot) as in the US Market Data Infrastructure Rule. Requirements such as latency, time sync, security and resilience affect the build out and maintenance costs of the pre- and post-trade CT.

When one is looking at the amount of financial messages that has occurred at a tenth of a second in equities, it could be hundreds of thousands of messages. The issue of data synchronization, computer synchronization, for example at 50+/- milliseconds, how can anyone determine which message was reacted to, which message initiated something, which message ended something. If there are hundreds of thousands of messages that one must work and sort through, no one will be able to tell the difference whether a trade message came in first, second, third, or a hundred thousand. The CT needs to have an effective audit trail that We do not want to see the EU's CT development to follow the footsteps of the US consolidated audit trail projects that wasted substantial amounts of money and has not achieved its originally stated goals. A timestamp granularity of 0.1 microseconds would improve sequencing accuracy to around a hundred of messages that happening at given point in time suitable for trade analytics in equity markets.
<ESMA_QUESTION_CP1_25>

CP on the RTS on reasonable commercial basis

Q26 Do you agree to the general approach used to specify the costs and margin attributable to the production and distribution of market data? Please elaborate.

<ESMA_QUESTION_CP1_26>
No. We do NOT believe "reasonable commercial basis" (RCB) would ever achieve the objective of 'affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users.' If CT were a public utility (i.e., without competition for likely 5 years at least), would the "public" utility have a data licensing framework on an RCB that satisfies the needs of different stakeholders? These needs include:
* the licensing terms allowing the CT data to be re-used to create derived services,
* provide other licenses for direct use of data without re-use rights,
* as well as a revenue-sharing scheme with market data contributors.

According to the DotEcon Report, obstacles to the emergence of a CT Provider in both the EU and UK include:
1. Data access issues – Trading Venues and Approved Publication Authorities' monopolistic power;
2. Demand uncertainty – (a) sensitivity of business case, (b) user segmentation, (c) differentiated licenses; and
3. Incentives for full coverage; commercial negotiation with multiple counterparties if absent intervention on the terms of access is infeasible; and the related implications of the fragility of a CT Provider's business case.

These obstacles vary for the Equity CT versus the Fixed Income CT. For example, Trading Venues (TVs) and Approved Publication Arrangements (APAs) hold extensive power over market data in equity. The situation is like a pirated copy of MP3 songs being broadcast freely at no cost to the "streamers"/ Jukebox operators. Regulatory/ Government intervention is necessary. "Obligating market data contributors to provide the CT Provider with all the market data under the new Article 22b(2) in MiFIR, in a harmonized format, through a high-quality transmission protocol, and as close to real-time as is technically possible" is problematic because who are the true "market data contributors" is not well-defined. In order to achieve the desire goals for an effective market data reform, CT must be a reasonable compromise if not a close substitute of TVs' Proprietary Products (PPs) and APAs' value-added services (VAS). Research (https://www.bayes.city.ac.uk/__data/assets/pdf_file/0011/366599/sale-price-information-cass-knowledge.pdf) has shown that Exchanges may optimally restrict access to price information by charging a high fee so that only a fraction of speculators buy their PPs.

As long as the CT is NOT in competition with PPs, and/or the dominant TVs and APAs incur almost no incremental cost to become a CT Provider. They would not mind the CT acting as a second line product to generate additional profits for the Market Data Contributors under the revenue-sharing scheme. Elites may persuade the industry to make compromises and turn to their favours in adopting a near real time CT Provider "cloud" solution, when it is indeed unfair to latency disadvantaged market participants. Our point is – policy makers around the world should beware of any digression or other tactics that prevent the proper functioning of Equity CT to achieve the policy goals in benefiting the broader trading and investment community.

"Same manner and methods" provision under the US Market Data Infrastructure Rule requirements it is merely a standard price list. Neither is it equivalent to Latency Equalization, nor can it achieve the same results as using Time-Lock Encryption to make market data available SECURELY in synchronized time. "Oblige trading venues and their members or participants, SIs or DPEs, APAs and CT Providers to synchronize their business clocks to record the date and time of any reportable event" is NOT enough. The ESMA should have authority to mandate proper SECURITY protection over both CT and the TV's PPs. It requires SYCHRONIZATION of both CT and PP in accordance with an Atomic Clock and prohibits the circumvention of SECURITY measures. Time-lock encryption eliminates the political problem of where the CT data centre is located.

For fixed income, market data is one of the components to foster European bond markets' growth. Learn from FINRA's TRACE recalibration in the US to formulate a strategy to suit the issuers and the investors' appetites. It would yield some fruitful results in the furtherance of market electrification. Difficulties arise from obtaining reference data, such as rating information from all 3 big Credit Rating Agencies to get the full near-universal coverage of debt instruments. Vertical integration along the value chain, with combinations of Trading Venues, benchmark administrators, market data vendors and Credit Rating Agencies being part of the same corporate

group is nothing new. The motive could simply be trading venues face competition globally. How they would come into an agreeable licensing framework on a Reasonable Commercial Basis may turn out to be a private party behind closed doors. Policy Makers should not let that happen under any circumstances.

Licensing frameworks "based on costs incurred to provide the data" only leads to endless arguments (see the different perspectives from IEX , NASDAQ, and others). Inequity cannot be measured by accounting costs. For example, would fund companies need to assert their physical ownership of self-generated fund and trade data by restricting the data vendor from reselling their own data before they send the data? "Case at point would be fund data given today for free to Morningstar, except in Denmark where Morningstar is paying today the local industry owned Fund Connect platform for getting the DK fund data." Again, market reform should be about the divergence between private rights and social costs.

Access fee rebate, Payment for Order Flow, and market data/ market structure issues are all intertwined. Schwab's empirical evidence proved that "Order routing revenue and price improvement are NOT zero-sum". The noumenon of rebate incentives serves as royalty payments for the use of others' copyrighted material. When one is not required to pay for the use of others' intellectual property, streamers would exploit the content creators with rent seeking behaviours and/or selectively paying rebates and other perks to the elites like George Orwell's 'Animal Farm'.

Heed the lesson learnt from the music industry. TVs or APAs are streaming platforms, not content creators. Original content creators who compose quotes and trades should be entitled to copyright royalties. Delineating copyright and royalty payments for fair use of creative works benefits every constituent and grows the overall pie. The phase out of Payment for Order Flow by 2026 in EU should transition to an equitable "Copyright Licensing Mechanism". Rate setting is objectively based on 4-part test – i.e., (1) willing seller willing buyer standard; (2) same parties' test; (3) "effective competition" test; and (4) same rights test; to address the longstanding issue of who owns the data, what gets paid and who get what. See this: https://www.databoiler.com/index_htm_files/DataBoiler%20Copyright%20Licensing.pdf for our counter suggestions.

By putting a value on quotes and trades composition, proper considerations will be given to eliminate conflicts of interest, as well as ensuring efficiency in deployment of resources, rather than engaging in non-productive fights that destroy values. Pareto improvement is achieved when someone is better off without anybody worst off or win-win for all. That is, market data reaching a wider audience, increasing the number of diversified participants, reducing unknown unknowns (extraordinary market volatility / flash crashes), and improving liquidity and market efficiency. See Annex 1 of this: https://www.databoiler.com/index_htm_files/DataBoiler%20BIG%20OPP.pdf for our counter suggestions.
<ESMA_QUESTION_CP1_26>

Q27 Do you agree with the proposed approach to cost calculation based on the identification of different cost categories attributable to the production and dissemination of market data (i.e. (i) infrastructure costs; (ii) connectivity costs; (iii) personnel costs; (iv) financial costs; (v) administrative costs)? Please elaborate.

<ESMA_QUESTION_CP1_27>
No, we disagree. See our response to Q26. In general, we despise regulatory price control (https://www.cato.org/commentary/problems-price-controls). A CT Provider cannot and should not operate at a loss. Instead of the regulators involved with FINESSING or calibrating RCB for a CT, the right focus should be about the balance of power between political, economic, and social aspects (see illustration diagram on page 6 of our Feb 2024 comment letter to the UK FCA: https://www.databoiler.com/index_htm_files/DataBoiler%20FCA%2020240209%20CP2333.pdf). The overlapping areas would determine the level of intra-elite rivalries, cultural clashes, class conflicts, and what is an acceptable tolerance of low-intensity fight.

NOTE: nothing is totally “FREE.” FREE redistribution of displayed market data for Retail and other freebies, such as zero commission, subsidized investors education programs, etc. are indeed at the expense of price discrimination practices that further heighten costs on PPs, exacerbating the latency difference, and/or changing rebates/ incentives for others. So, policy makers' consideration should NOT be about favouring a particular group, be it retail, institutional buy side, or itself
and whoever. The relative availability and price difference of mass market products (CT) versus TVs' PPs and APA's value-added services is crucial. If the Have-Nots are willing to commit their limited resources to subscribe to PPs to compete with the Haves, PP must be widely accessible at price within reach.
<ESMA_QUESTION_CP1_27>

Q28 Do you agree with the proposal of apportioning costs based on the use of resources (i.e., infrastructure, personnel, software…) for each service provided? Do you think the methodology to be used to apportion costs should be further specified? Please elaborate.

<ESMA_QUESTION_CP1_28>
We agree that the use of resources (i.e., infrastructure, personnel, software…) for each service provided ought to the compensated accordingly. Yet, inequity cannot be measured by accounting costs. See our response to Q26
<ESMA_QUESTION_CP1_28>

Q29 Do you agree that the net profit as defined in Article 3 of the draft RTS can be a representative proxy of the margin applicable to data fees and would you include

additional principles to define when a margin can be considered reasonable? Please elaborate.

<ESMA_QUESTION_CP1_29>
No. Differences perspectives by IEX, NASDAQ and others have illustrated that external auditors' review, or principles such as "the net profit as defined in Article 3 of the draft RTS as a proxy of the margin applicable to data fees" does NOT help in any way at all. We believe all their numbers were certified by auditors. Inequity or the divergence between private rights and social costs cannot be measured by accounting costs. See our response to Q26.
<ESMA_QUESTION_CP1_29>

Q30 Do you agree with the proposed template for the purpose of information reporting to NCAs on the cost of producing and disseminating data and on the margin applied to data? Please elaborate, including if further information should in your view be added to the template.

<ESMA_QUESTION_CP1_30>
There would be endless arguments by different stakeholders. See our response to Q26.
<ESMA_QUESTION_CP1_30>

Q31 What are in your view the obstacles to non-discriminatory access to data taking into consideration the current data market data policies and agreements?

<ESMA_QUESTION_CP1_31>
Today's market centres are analogous to Private Clubs favouring collaboration. Colocation as a means of allowing a limited number of Haves to also enjoy the privileges (connection speed and faster order input) as the top Elites is a controversy. Even if the Have-Nots are willing to commit their limited resources to compete with the Haves in using collocation, it is not widely available and affordable to most market participants. So, it is not that the smaller market participants do not want to be well-connected with every trading venue like their larger counterparts. Research has shown that Exchanges may optimally restrict access to price information by charging a high fee so that only a fraction of speculators buy their PPs. Also, market fragmentation and trading venue perimeters exacerbate the total numbers of venues required to be connected to obtain BestEx. In turn, many choose to collaborate with the Haves for outsourced execution rather than compete.

Again, the relative availability and price difference of mass market products (CT) versus TVs' PPs and APA's value-added services is crucial. If the Have-Nots are willing to commit their limited resources to subscribe to PPs to compete with the Haves, PP must be widely accessible at price within reach.

<ESMA_QUESTION_CP1_31>

Q32 What are the elements which could affect prices in data provision (e.g. connectivity, volume)? Do they vary according to the use of data made by the user or the type of user? Please elaborate.

<ESMA_QUESTION_CP1_32>
There are way too many elements beyond creating an exhaustive list for all of them, which could affect prices in data provision. Just on connectivity itself, high-density cabinets, dedicated router vs share for collocation, 10G vs 40G connectivity options, microwave ultra-low latency technology, hollow-core cable, and whatnot, the list can go on and on. TVs and APAs hold extensive power over market data and connectivity. Antitrust law is rarely enforced to curb price discrimination practices (e.g. bundling) or alleged price fixing among collude firms that substantially lessens competition or creates a monopoly. Again, the question is who owns the data. TVs or APAs are streaming platforms, not content creators. Or else, they should not be immune from liabilities if the content that they stream causes market chaos or manipulation. Original content creators who compose quotes and trades should be entitled to copyright royalties. A cost-plus approach under proposed RCB does not work. See our response to Q26.
<ESMA_QUESTION_CP1_32>

Q33 Do you agree with ESMA's proposal on how to set up fee categories. Please justify your answer.

<ESMA_QUESTION_CP1_33>
No, see our responses to Q26 and Q32.
<ESMA_QUESTION_CP1_33>

Q34 Regarding redistribution of market data, do you agree with the analysis of ESMA? If not, please elaborate on the possible risks you identify and possible venues to mitigate these. In your response please elaborate on actual redistribution models.

<ESMA_QUESTION_CP1_34>
No. The current licensing framework for redistribution of market data is flawed. Again, referring to 'who owns the data' issue, agency trading, retail brokerage, order routers or other non-algorithm market participants to some extents are functions like the "non-featured" musicians or "DJ mixing engineers". They typically earn the 5% in the music industry, and the remaining 95% would be a "pass-through" payment to the original "content" creators. For example, 20 days' trade/ order sequence per month; the equivalent to twenty songs; and a retail broker might keep 5% of the royalty. The retail broker would have discretion to determine how the remaining 95% "pass-through" would be allocated. For example: (i) fee/ commission waiver; (ii) designate the restricted fund to investor education programs; (iii) rebate directly back to the end investors, etc. Different

retail brokers can have different reward programs – by quotes / trades contribution, different rate for different classes of liquid or illiquid securities, etc. Terms and conditions of rewards, fee waivers, and/or investor education programs must be fully disclosed and be subjected to audit to ensure no retention of the "pass-through" money by the retail broker. A rule of thumb under this hypothetical model is: 5% performance royalty for each layer of data aggregation. Rather than regulatory price control, rate setting should objectively be based on a 4-part test – i.e., (1) willing seller willing buyer standard; (2) same parties' test; (3) "effective competition" test; and (4) same rights test. See our response to Q26.
<ESMA_QUESTION_CP1_34>

Q35 Are there any other terms and conditions in market data agreements beyond the ones listed in this section which you perceive to be biased and/or unfair? If yes, please list them and elaborate your answer.

<ESMA_QUESTION_CP1_35>
Again, the bias and/or unfair situation is like a pirate copy of MP3 songs being broadcast freely at no cost to the "streamers"/ Jukebox operators. The Facebook case affirmed that data should be owned by "content creators" instead of the streaming platforms. Therefore, we strongly suggest that policy makers revisit the definition of Market Data Contributors (MDCs) when considering a revenue-sharing scheme for CT.
<ESMA_QUESTION_CP1_35>

Q36 Please provide your view on ESMA's proposal in respect to (i) the obligation to provide pre-contractual information, (ii) general principle on fair terms, (iii) the language of the market data agreement, (iv) the market data agreement conformity with published policies and (v) the provision on fees and additional costs.

<ESMA_QUESTION_CP1_36>
We are not a believer of RCB. ESMA's proposal in respect to "(i) the obligation to provide pre-contractual information, (ii) general principle on fair terms, (iii) the language of the market data agreement, (iv) the market data agreement conformity with published policies and (v) the provision on fees and additional costs" would NOT achieve the objective of 'affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users.' CT must be a reasonable compromise if not a close substitute of TVs' PPs and APAs' VAS. Contracts established on unjust foundation is indeed no good no matter how a regulator may want to tweak specific terms and conditions, it only reinforces the wrong ownership of data without appropriate delineation of rights and obligations. See our response to Q26.
<ESMA_QUESTION_CP1_36>

Q37 According to your experience, has the per-user model been inserted in the market data agreements as an option for billing? If yes, do you have experience in the usage of this option? Is the proposed wording of this option in the draft RTS useful? What are in your views the obstacles to its use?

<ESMA_QUESTION_CP1_37>
The existing market data licensing framework and the proposed cost-based pricing are flawed. Policy makers must first address the question of 'who owns the data' to have the right focus. See our response to Q26.
<ESMA_QUESTION_CP1_37>

Q38 Do you agree with ESMA's proposal on penalties? Please elaborate your answer.

<ESMA_QUESTION_CP1_38>
No. Known issues in relation to market data agreements such as "(i) onerous administrative obligations on data users, for example through frequent and detailed requests on the use of data; (ii) ambiguous language in the agreement; (iii) frequent unilateral amendments to the agreement; (iv) general lack of transparency on terms and conditions; (iv) excessive fees; (v) increase of fees through penalties; and (iv) overly burdensome audits" cannot be resolved or reconciled through RCB.

To avoid the use of unjustified or overly onerous penalties which could inflate the cost of market data, policy makers must first address the question of 'who owns the data' to have the right focus. Contracts established on an unjust foundation is indeed no good no matter how a regulator may want to tweak specific terms and conditions, it only reinforces the wrong ownership of data without appropriate delineation of rights and obligations. TVs or APAs are streaming platforms, not content creators. Original content creators who compose quotes and trades should be entitled to copyright royalties. See our response to Q26.
<ESMA_QUESTION_CP1_38>

Q39 Do you agree with ESMA's proposal on audits? Please elaborate your answer.

<ESMA_QUESTION_CP1_39>
No. Difference perspectives by IEX, NASDAQ and others have illustrated that external auditors' review does NOT help in any way at all. We believe all their numbers were certified by auditors. Inequity or the divergence between private rights and social costs cannot be measured by accounting costs. See our response to Q26
<ESMA_QUESTION_CP1_39>

Q40 Would you adopt any additional safeguards to ensure market data agreements terms and conditions are fair and unbiased? Please elaborate your answer.

<ESMA_QUESTION_CP1_40>
Again, address the 'who owns the data' question first. Then apply a 4-part test that taken directly from the music industry for objective rate setting instead of regulatory price control.
<ESMA_QUESTION_CP1_40>

Q41 Do you agree with the standardised publication template set out in Annex I of the draft RTS? Do you have any comments and suggestions to improve the standardised publication format and the accompanying instructions? Please elaborate your answer.

<ESMA_QUESTION_CP1_41>
A standard price list does NOT help the industry. Root of the problem is 'Who owns the data' and who gets what. When one is not required to pay for the use of others' intellectual property, streamers would exploit the content creators with rent seeking behaviours and/or selectively paying rebates and other perks to the elites like George Orwell's 'Animal Farm'.
<ESMA_QUESTION_CP1_41>

Q42 Do you agree with the proposed list of standard terminology and definitions? Is there any other terminology used in market data policies that would need to be standardised? If yes, please give examples and suggestions of definitions.

<ESMA_QUESTION_CP1_42>
The standard terminology and definitions would NOT help the industry. It only benefits the big law and consulting firms and enforcers of existing flawed licensing framework, where they may use this compliance requirement or their added cost to implement and comply with the RTS as an excuse. In turn, further raising price on market data and related services. Who are the true "market data contributors" is not well-defined. We argue that TVs or APAs are streaming platforms, not content creators. Original content creators who com-pose quotes and trades should be entitled to copyright royalties. Please see our response to Q26.
<ESMA_QUESTION_CP1_42>

Q43 Do you consider that the "user-id" and the "device" should still be considered as "unit of count" for the display and non-display data respectively? Do you think (an)other unit(s) of count can better identify the occurrence of costs in data provision and dissemination and if yes, which?

<ESMA_QUESTION_CP1_43>

“User-id” and the “device” or other disclosure requirements are less important questions than addressing the ‘who owns the data’ issue. Streaming platforms as free enterprises should be allowed to use permissible commercial practices to charge their subscribers for display and non-display data. As long as their practices are NOT price discrimination or price fixing among collude firms that substantially lessens competition or creates a monopoly, as well as they pay their corresponding dues to the content creators. When streamers have not paid their fair royalties to content creators and turnaround to rent seek on the contents and exploit others, it is unjust. ‘Identify the occurrence of costs in data provision and dissemination’ should first count the cost to pay the content creators (i.e., the broker-dealers that provide all the quotes and trade information) in the first place. If streaming platforms are entitled to revenue sharing from CT, they should have obligations to pay for contents that they themselves do not create. Their aggregation of order flow to some extent are functions like the “non-featured” musicians or “DJ mixing engineers”. See our response to Q26.
<ESMA_QUESTION_CP1_43>

Q44 Do you foresee other types of connectivity that should be defined beside “physical connection” to quantify the level of data consumption? Please elaborate your answer.

<ESMA_QUESTION_CP1_44>
See our response to Q32.
<ESMA_QUESTION_CP1_44>

Q45 Do you think there is any other information that market data providers should disclose to improve the transparency on market data costs and how prices for market data are set? If yes, please provide suggestions.

<ESMA_QUESTION_CP1_45>
Disclosure of standard price list would not help to achieve the objective of ‘affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users.’ it may inadvertently reinforce the wrong ownership of data without appropriate delineation of rights and obligations. See our response to Q26
<ESMA_QUESTION_CP1_45>

Q46 Do you agree with the approach on delayed data proposed by ESMA? Please elaborate your answer.

<ESMA_QUESTION_CP1_46>
We despise regulatory price control. NOTE: nothing is totally “FREE.” FREE after 15 minutes and other freebies, such as zero commission, subsidized investors education programs, etc. are

indeed at the expense of price discrimination practices that further heighten costs on PPs, exacerbating the latency difference, and/or changing rebates/ incentives for others. So, policy makers' consideration should NOT be about favouring a particular group, be it retail, institutional buy side, or itself and whoever. The relative availability and price difference of mass market products (CT) versus TVs' PPs and APA's value-added services is crucial. If the Have-Nots are willing to commit their limited resources to subscribe to PPs to compete with the Haves, PP must be widely accessible at price within reach. See our responses to Q26 and Q27.
<ESMA_QUESTION_CP1_46>

Q47 Do you agree with the proposal not to require any type of registration to access delayed data? Please elaborate your answer.

<ESMA_QUESTION_CP1_47>
TVs and APAs want some ways to enforce no redistribution of market data without their prior permission. Thus, they want some kind of registration, even though 15-minute delayed data is FREE. Yet, when TVs and APAs as streaming platforms themselves are not paying their royalty dues in using the creative works (order flows, not a single quote/ trade) of content creators (i.e. the broker-dealers), the situation is like a pirated copy of MP3 songs being broadcast freely at no cost to the "streamers"/ Jukebox operators. Enforcing licensing rights should cover both sides of the equation, not skewed to one side, the flawed existing TV's licensing framework.
<ESMA_QUESTION_CP1_47>

Q48 ESMA proposes the RTS to enter into force 3 months after publication in the OJ to allow for sufficient time for preparation and amendments to be made by the industry. Would you agree? Would you suggest a different or no preparation time? Please elaborate your answer.

<ESMA_QUESTION_CP1_48>
Get ready for litigations as the US SEC have been challenged in courts to overturn rules.
<ESMA_QUESTION_CP1_48>

Q49 Do you have any further comment or suggestion on the draft RTS? Please elaborate your answer.

<ESMA_QUESTION_CP1_49>
Disappointed that the EU has not learnt from the US failed market data reform. RCB or the draft RTS reinforces the wrong ownership of data without the appropriate delineation of rights and obligations. CT must be a reasonable compromise if not a close substitute of TVs' PPs and APAs' VAS.

The Music Industry's licensing framework has been proven successful. It has over a half century of litigations experience to align rights and obligations globally. We have learned that, when one is not required to pay for the use of others' intellectual property, streamers exploit the content creators with rent seeking behaviours and/or selectively paying rebates and other perks to the elites. Therefore, trading venues and APAs should bear royalty payments and earn appropriate subscription fees to cover their cost. There are many relevant use-cases to learn from the Music Industry (e.g., licensing terms for direct usage, allowing the re-use of contents, and derivative works). It helped music reach a wider audience and grow the overall pie.

We picture traders as performance artists; algorithm developers (including the risk control professionals) as musicians, composers, and sound engineers producing songs; then their respective financial institutions as record label companies. Using the prevailing rates in the music industry as a hypothetical case study, 50% of performance royalty is allocated to the "publishers", 45% is allocated to the "featured artists", and 5% is allocated to the non-featured supporting team.

There are upsides for the HUNTER type of firms (i.e., Performance Optimizers, Asset Gathering firms). They can help reduce the number of unknown unknowns in the markets, create better algorithms and more "hit songs" that deepen market liquidity. Equally, there will be opportunities for the FARMER type of firms (i.e., Asset Maximisers, Retails, Wealth Advisory). To grow their Asset Under Management (AUM) and improve profitability (e.g., by off-loading some of the traders and algo developers' costs to be paid for by the royalty's system, aggregating and attracting new investors).

There are upsides for the traders and algo developers to earn more. For example, if they are willing to do more than 12 to 20 "songs" a year and/or create one or more "hit song(s)" that deepen market liquidity, and/or identify trade irregularities, etc. At the same time, entitlement of royalties must accompany the burden of potential liability, if trade activity is market manipulation and/or trading violations. Copyright Licensing mechanism provides excellent traceability (no more scapegoats) by aligning rights with obligations.

Agency trading, retail brokerage, order routers or other non-algorithm market participants to some extents are functions like the "non-featured" musicians or "DJ mixing engineers". They typically earn the 5% in the music industry, and the remaining 95% would be a "pass-through" payment to the original "content" creators. In an example of 20 days' trade/ order sequence per month; the equivalent to twenty songs; and a retail broker might keep 5% of the royalty. The retail broker would have discretion to determine how the remaining 95% "pass-through" would be allocated. For example: (i) fee/ commission waiver; (ii) designate the restricted fund to investor education programs; (iii) rebate directly back to the end investors, etc. Different retail brokers can have different reward programs – by quotes / trades contribution, different rate for different classes of liquid or illiquid securities, etc. Terms and conditions of rewards, fee waivers, and/or investor

education programs must be fully disclosed and be subjected to audit to ensure no retention of the "pass-through" money by the retail broker. A rule of thumb under this hypothetical model is: 5% performance royalty for each layer of data aggregation.

The setup would require an organization like the SoundExchange, in the music industry, as an administrator of rights and royalties. This administrator can be a non-profit governed by the industry. If we picture the 'index providers', benchmark or 'model portfolio providers', pricing services or Credit Rating Agency (CRA) as either 'Algo Publishing' (artists) or 'DJ Mixing Engineers' (aggregate and push upstream), it is not hard to see that their "derivative works" may or may not have significant difference from the original "songs" or trade strategies (45% versus 5%). Using live or historical data to run test systems or other applications is a commercial matter rather than "derivative works" in our eyes. So, the deterministic factor is whether these CRAs, Benchmark Indices firms are artistic enough to "create" original "contents" that are uniquely different from the underlying securities and the rivalries.

Firms may be allowed to keep their algorithms secret and opt-out of royalty payments. However, they would be missing out on opportunities compared to their peers and they may gradually convert. Algorithms are part of our world. The race between reverse engineering of others' algos and preserving confidentiality is inevitable. Nevertheless, if one can trust the "Cloud" for trade reporting, there is no reason to oppose the enforcement of copyrights for their artistic composition of trades.

We advocate for a "4-part test" that taken directly from the music industry's copyright laws. "4-Part Test" deemed an agreeable principle universally – (1) willing seller willing buyer standard; (2) same parties' test; (3) "effective competition" test; and (4) same rights test. It is time-tested and simple enough to be used by the Music Industry.

What gets paid and who gets what should NOT be dictated by regulators NOR by a small group of people in a "governance committee". The US SEC's CT-Plan is problematic, The US D.C. Circuit ruling in July 2022 weakens the already weak proposition of the SEC's governance requirements over the equity CT-Plan. The US decentralized competing model (DCM) of 2/3 Self-Regulatory Organizations (SROs) and 1/3 non-SROs representation in the operating committee cannot be executed. The SEC prescribed minimum terms and conditions for CT-Plan Version 2 in replacing the non-SRO representation provisions are ineffective (see this).

Again, inequity cannot be measured by accounting costs. Known issues in relation to market data agreements such as "(i) onerous administrative obligations on data users, for example through frequent and detailed requests on the use of data; (ii) ambiguous language in the agreement; (iii) frequent unilateral amendments to the agreement; (iv) general lack of transparency on terms and conditions; (iv) excessive fees; (v) increase of fees through penalties; and (iv) overly burdensome audits" cannot be resolved or reconciled through RCB. Market reform should be about the divergence between private rights and social costs.

<ESMA_QUESTION_CP1_49>

Q50 What level of resources (financial and other) would be required to implement and comply with the RTS and for which related cost (please distinguish between one off and ongoing costs)? When responding to this question, please provide information on the size, internal set-up and the nature, scale and complexity of the activities of your organisation, where relevant.

<ESMA_QUESTION_CP1_50>
Again, RCB would NOT help the industry. It only benefits the big law and consulting firms and enforcers of existing flawed licensing framework. They may even use this compliance requirement or added cost to implement and comply with the RTS, further raising prices on market data and related services.
<ESMA_QUESTION_CP1_50>

CP on the amendment of RTS 23

Q51 Do you agree with the proposal for a daily reporting of reference data for both transaction reporting and transparency purposes?

<ESMA_QUESTION_CP1_51>
Given the proposed changes to the transparency calculations, we understand the need to update the corresponding MiFIR framework that mandated ESMA, in two distinct empowerments, to separately define reference data for the purposes of transaction reporting (Article 27(3), RTS 23) and for the purposes of transparency calculations (Article 22(3), RTS 1 and 2. The ESMA rightly points out that the reference data is reported with a different frequency defined separately for equity and non-equity instruments.

The proposal for a daily reporting of reference data for both transaction reporting and transparency purposes is in par with the US FINRA TRACE daily reporting requirement. We understand different reporting frequencies for different elements of the reference data means extra works. Yet, the world is moving towards dynamic updates in real-time and mass customization. There are ways to overcome different technical challenges (see our response to Q54). Meanwhile, for practicality's sake, we agree with this provision of the EMSA's proposal. We recommend policy makers remain flexible to right-course policy actions in the long term as technologies evolve to revolutionize the reference data space.
<ESMA_QUESTION_CP1_51>

Q52 For the purposes of both equity and non-equity transparency, do you prefer to retain the MiFIR identifier as currently defined or to rely on other fields for classification purposes? If latter, please outline the proposed solution.

<ESMA_QUESTION_CP1_52>
MiFID identifier is a EU centric standard, not necessarily used around the world. Classification of Financial Instruments (CFI) code for reporting to Financial Instruments Reference Data System (FIRDS) is not equivalent to the MiFIR identifier for reporting to Financial Instruments Transparency Reference System (FITRS). Interoperability and fair access is important in fabricating fragmented markets and connecting Europe with rest of the world. The US is considering a joint agencies proposal for Financial Data Transparency Act that would "crown jewel" the Bloomberg/ MIT open source standard – FIGI, and other mandates. While we do not disagree with retaining the MiFIR identifier, we doubt MiFIR identifier would ever be the common standard around the world unless there is innovation to better authenticate what, where, who, and when. As a technologist, I would ask whether reference data and taxonomy still require a structured schema and be reported daily instead of real-time in the future? See our response to Q54 for an elaborated discussion.
<ESMA_QUESTION_CP1_52>

Q53 Is in your view, the granularity level of the MiFIR identifier adequate for the purposes of MiFIR transparency in the equity and non-equity space? If not, how should it be adjusted?

<ESMA_QUESTION_CP1_53>
Some bond types, money market instruments, ETC/ ETNs, SFPs and securitised derivatives would be impacted given the CFI-MiFID identifier mismatch. Just as we have to deal with imperfection in lives, do whatever within our ability to do and envisage the future. In our opinion, we see a substantial part of the world may go with the FIGI standard. Whereas there may be alternate forces that do not want to adopt, hence coming up with new alternatives. See our response to Q54 for an elaborated discussion.
<ESMA_QUESTION_CP1_53>

Q54 How do you expect the change in scope of instruments subject to transparency to impact transparency reference data? Would you agree to maintain the current whole set of reference data for non-equity instruments, currently in RTS 2, in RTS 23? If not, please specify which reference data should not be retained in the view of the revised scope.

<ESMA_QUESTION_CP1_54>
The reference data space indeed has long standing issues around Committee on Uniform Securities Identification Procedures (CUSIP), loan market identifier, Global Legal Entity Identifier

Foundation (Gleif) and others' efforts in verifiable Legal Entity Identifier (vLEI), and Unique Product Identifier versus (UPI) versus International Securities Identification Number (ISIN). A Bloomberg-backed initiative called "FIGI" – Financial Instrument Global Identifier, is a 12-character alpha-numeric code intended for uniform identification of financial instruments, comparable to CUSIPs, ISINs, stock exchange daily official list (SEDOL). An end-user who uses the CUSIP numbers of more than 40,000 securities throughout four or more business lines in three or more regions would pay $477,750 in licensing fees. Although FIGI is based on the MIT open-source license, i.e. FREE, Bloomberg could use the vast web of data attached to the FIGI to make its own data more attractive, pulling more paying clients into its ecosystem.

Per the US SEC Commissioner Hester Peirce on her speech about Financial Data Transparency Act Joint Data Standards Proposal, she stated "Hardwiring a technology into a rule runs the risk of preserving that requirement far after that technology's expiration date… could inhibit data standards from evolving over time or force firms to maintain parallel data systems… affords some flexibility in data transmission and schema and taxonomy format standards, while specifying other data standards… Would the balance the proposal strikes allow data standards to be updated in a timely manner? If not, what would work better? How often should regulators revisit the mandated standards to ensure that they remain current? Should we build a requirement to revisit the standards into the final rule? How, if at all, will artificial intelligence or other technologies influence the need for structured data? How should we take these potential future developments into account..."

In general, we are supportive of standardization and harmonization for economy of scale and efficiency purposes, as long as the defined standard, open access, and interoperability would not lead to a monopoly or oligopoly that hinder innovations or exacerbate unfairness in markets (see this: https://www.yalelawjournal.org/article/open-access).

Maintain the current whole set of reference data for non-equity instruments, currently in RTS 2, is not wrong. However, there is cost to maintain such. In envisaging the future, would reference data and taxonomy still require a structured schema and be reported daily instead of real-time? There is a global trend where every thing, every person or party, and their every action are authenticated in multiple ways and dynamically in real-time. A.I., large language models, public key infrastructure and other tech advancements are transforming how data and meta data are captured, used and predicted to authenticate the who, what, where, and when without the need of a designated "identifier".

Still structured schema in machine readable format is still the fastest way in today's technology. Yet, it takes forever to harmonize different reference data standards around the world and interoperability can be costly. Enterprise service "bus" (ESB) is more like a "limousine", i.e, very expensive. Mandating harmonization and normalization of data from data contributors may ease a bit on the CT Provider's ESB connectivity cost, however, it introduces latency.

Instead of worrying about how reference data can support transparency calculations for all instruments and all the interplay, let's consider the best design if re-building the European capital markets from the ground-up. It is not that the EU should, or should not, be a close follower to the US standard, but from a macro perspective, the traditional financial industry is facing competition with decentralized finance (DeFi). If we stop innovation or carrying too many unnecessary legacies behind our back, we will lose the next generations of market participants.

CT as a critical infrastructure for the EU, the builders and policy makers ought to have the long-term vision to plan for the demand in future, not dragging its feet on outdated standards. Be encouraged, we see tremendous opportunities for the EU if we can build better market data and solving market structure issues than other jurisdictions.
<ESMA_QUESTION_CP1_54>

Q55 Do you agree with deleting Field 5 of RTS 2, Annex IV, and use the CFI code for the purposes of derivatives' contract type classification?

<ESMA_QUESTION_CP1_55>
Okay
<ESMA_QUESTION_CP1_55>

Q56 Do you agree with the proposed alignment between RTS 23 and RTS 2 as set out in this section? Please provide details on which alignment is (not) feasible and why, considering the impact in terms of comprehensiveness and consistency of the reported information.

<ESMA_QUESTION_CP1_56>
While we do not disagree with the proposed alignment between RTS23 and RTS2, we think the industry would scramble to updates their IT systems and wishes there would be longer period before full compliance with RTS 23. Based on the US experience with the CFTC rewrite, we think the industry would probably need an additional 6 months to what are being proposed to get ready for the change.
<ESMA_QUESTION_CP1_56>

Q57 As it concerns "underlying type" classification, do you agree with the proposed reliance on CFI and other reporting fields? With specific regards to Field 27, do you have proposals on how that field may be streamlined?

<ESMA_QUESTION_CP1_57>
With respect to the proposed reliance on CFI and other reporting fields, we at Data Boiler do not have a conclusive opinion yet at this time, but we think the CFI standard for Field 27 "Underlying

type “makes sense that it classifies as two standalone attributes type of underlying and the way the payout is calculated.
<ESMA_QUESTION_CP1_57>

Q58 Do you see additional room for simplification and/or alignment of reference data for transaction reporting and transparency purposes? What would be the impact in terms of one-off and ongoing costs, benefits and change management of such simplifications, in particular with respect to reducing and consolidating data flows to ESMA that exist currently?

<ESMA_QUESTION_CP1_58>
See our response to Q54.
<ESMA_QUESTION_CP1_58>

Q59 Do you have suggestions on how the fields mentioned above may be improved and streamlined?

<ESMA_QUESTION_CP1_59>
See our response to Q54.
<ESMA_QUESTION_CP1_59>

Q60 Do you agree with the above assessment of the necessary adjustments to be made in the RTS 23 to accommodate for the identifying reference data?

<ESMA_QUESTION_CP1_60>
Afraid the assessment is lacking the appropriate risk focus. Again, per our response to Q5, regulators should not be finessing the calibration. Instead, the priority focus should be on transparency during a market stress.

* The architecture of OTC markets and the inability to value one’s holding and the inability to sell structured securities at times of market disturbances (https://www.imf.org/external/pubs/ft/fandd/basics/pdf/dodd-markets.pdf)

* OTC markets that rely on the balance sheet intermediation capacity of a few dealers, versus the feasibility and cost-benefit of centralising bond trading on exchange-based CLOB (https://www.world-exchanges.org/storage/app/media/Centralizing%20Bond%20Trading_8%20December%202022%20binded3.pdf)
* Liquidity in Corporate Bonds Markets under Stress Conditions (https://www.iosco.org/library/pubdocs/pdf/IOSCOPD634.pdf)

* Where can increased transparency further financial stability (http://www.financialresearch.gov/frac/files/OFR_FRAC-meeting_where_can_increased_transparency_further_financial_stability.pdf)

Adequacy of transparency in any markets is a question about the divergence of private rights and social costs. Practically, do government agencies have sufficient resources (both financially and compassionately) to administer appropriate enforcements in a cost-effective manner to achieve all regulatory goals (https://sites.law.duke.edu/thefinregblog/2021/02/10/regulatory-enforcement-in-otc-markets/)? Do regulators only care when there is an outsized loss of a big firm (http://www.tradeweb.com/newsroom/media-center/insights/blog/electronic-credit-trading-defiesvolatility-stay-surprisingly-sticky/) causing systemic risks in the market?

Advancement of electronic trading can defy volatility and stay surprisingly sticky, amid “incidents in March 2023 where Silicon Valley Bank was closed by US Federal regulators and $17 billion worth of Credit Suisse Additional Tier One (AT1) bonds were written to zero, sending contagion to the roughly $250 billion worth of AT1 bonds outstanding, primarily from European Banks.” (http://www.tradeweb.com/newsroom/media-center/insights/blog/electronic-credit-trading-defiesvolatility-stay-surprisingly-sticky/). How policy makers would shape their policies may vary subjectively and depending on where one likes to position its transparency regime globally compared to other jurisdictions.

A risk-based approach that emphasizes on financial stability and securities inventory during normal conditions versus market stress is superior to “crown jeweling” a static de-facto “golden source” by annual qualitative and quantitative assessments.
<ESMA_QUESTION_CP1_60>

Q61 Do you see a need to specify the ‘date by which the reference data are to be reported’ different from the date of application or have other comments with regards to the proposed timeline? If so, please specify.

<ESMA_QUESTION_CP1_61>
As mentioned in our response to Q56, the industry would probably need an additional 6 months to what are being proposed to get ready for the change.
<ESMA_QUESTION_CP1_61>

Q62 Are there any other international developments or standards agreed at Union or international level that should be considered for the purpose of the development of the RTS on reference data?

<ESMA_QUESTION_CP1_62>

See our response to Q54.
<ESMA_QUESTION_CP1_62>

Q63 Do you agree with the changes proposed in the tables above? Should any other changes be considered to align the MiFIR reporting specifications with the international standards, EMIR and / or SFTR?

<ESMA_QUESTION_CP1_63>
No objection.
<ESMA_QUESTION_CP1_63>

Q64 Do you foresee any challenges with the proposed approach under which the CSDR publications would be integrated in FIRDS?

<ESMA_QUESTION_CP1_64>
Not at this time. We are okay with a Boolean flag.
<ESMA_QUESTION_CP1_64>

Q65 Do you have any comments with regards to the inclusion of additional fields in the instrument reference data published by ESMA to indicate whether the instrument is in the scope of CSDR and to specify which MIC corresponds to a venue with the highest turnover or the most relevant market in terms of liquidity?

<ESMA_QUESTION_CP1_65>
Credit rating information (IG vs HY) may help. According to the US FINRA guidelines (https://www.finra.org/rules-guidance/key-topics/fixed-income/confirmation-disclosure-faq) - 3.18, “any changes to credit quality, with respect to that particular security or the particular issuer of that security, whether the change is caused by a formal ratings announcement or market events. Thus, for example, this could include changes in the guarantee or collateral supporting repayment as well as significant recent information concerning the issuer that is not yet incorporated in credit ratings (e.g., changes to ratings outlooks). However, Rule 2121 notes that a dealer may overcome the presumption that its contemporaneous cost is the best measure of prevailing market price (PMP) based on a change in credit quality only in instances where it has changed significantly after the dealer’s transaction.”
The ECAI framework endorsed by BIS (and the EU CRR, Article 138 of Regulation (EU) No 575/2013) have way to deal with multiple CRAs - 21.10 “If there are two ratings by ECAIs chosen by a bank that map into different risk weights, the higher risk weight will be applied.” 21.11 “If there are three or more ratings with different risk weights, the two ratings that correspond to the lowest risk weights should be referred to. If these give rise to the same risk weight, that risk weight should be applied. If different, the higher risk weight should be applied.”

<ESMA_QUESTION_CP1_65>

Q66 Do you support inclusion of the new fields listed above?

<ESMA_QUESTION_CP1_66>
The new fields for LEI, Boolean value, action flag, and others look okay.
<ESMA_QUESTION_CP1_66>

Q67 Do you agree with the amendment listed above for the existing fields?

<ESMA_QUESTION_CP1_67>
Agree.
<ESMA_QUESTION_CP1_67>

Q68 With regards to monitoring of de-listing and re-admission, which option is preferable in your view: (i) reporting by the trading venue of all previous trading periods in the repeatable fields 10, 11 and 12 or (ii) implementing adequate reporting logic of events impacting the instrument (new, modification, termination etc) in order to enable ESMA to reconstruct all trading periods?

<ESMA_QUESTION_CP1_68>
We prefer (i) reporting by the trading venue.
<ESMA_QUESTION_CP1_68>

Q69 Do you support suppressing the reporting of the fields listed above?

<ESMA_QUESTION_CP1_69>
Those fields that are proposed to remove are “nice to have”, but Seniority of the bond, transaction type , FX type can be easily retrieved from other sources. Reference rate field is duplicated with underlying index name. Overall, we are okay with the proposed fields suppression.
<ESMA_QUESTION_CP1_69>

Q70 Do you foresee any challenges with the use of JSON format comparing to XML? Please provide estimates of the costs, timelines of implementation and benefits (short- and long term) related to potential transition to JSON.

<ESMA_QUESTION_CP1_70>
To harmonize with the US, XML is preferred over JSON.
<ESMA_QUESTION_CP1_70>

Q71 In addition to including a field to identify the DPE, are there any other adjustments needed to enable comprehensive and accurate reporting of reference data by the DPEs?

<ESMA_QUESTION_CP1_71>
QA testing and operational resilience are important to enable comprehensive and accurate reporting of reference data by the DPEs.
<ESMA_QUESTION_CP1_71>

Q72 With regards to the categorisation of classes of financial instruments for the purpose of the DPE register, how such classes should be designated in the register? Is there any further information that should be included in the register to ensure its usability and interoperability with other relevant systems? Do you foresee any practical implementation challenges, and if so, how they could be mitigated?

<ESMA_QUESTION_CP1_72>
See our response to Q65.
<ESMA_QUESTION_CP1_72>

Q73 Are any other adjustments needed to enable comprehensive and accurate reporting of Article 8a(2) derivatives under RTS 23?

<ESMA_QUESTION_CP1_73>
See our response to Q71.
<ESMA_QUESTION_CP1_73>