

9 February 2024

via Electronic Mail ([cp23-33@fca.org.uk](mailto:cp23-33@fca.org.uk))

Ms. Sarah Pritchard – Executive Director, Markets  
Mr. Sheldon Mills – Executive Director, Consumers and Competition  
Mr. Stephen Hanks – Manager, Markets Policy Division

**Financial Conduct Authority**

12 Endeavour Square, London E20 1JN

**Re: Consultation on Payments to data providers and forms for Data Reporting Services Providers including Policy Statement for the framework for UK consolidated tape (CP23/33)<sup>1</sup>**

Dear Director Pritchard, Director Mills, and Mr. Hanks,

On behalf of Data Boiler Technologies, I am pleased to provide the U.K. Financial Conduct Authority (FCA) with our comments on the CP23/33 Consultation Paper concerning the Payments to data providers and forms for Data Reporting Services Providers (DRSPs) including Policy Statement for the framework for UK consolidated tape (CT). We think there will need to be **“give and take” in the short term** to get the CT up-and-running, and there will be need to **remain flexible to right-course policy actions in the long term** for market structure improvements.

Contexts of the matter are: (a) priorities where the UK Chancellor committed at the Edinburgh Reforms that the Treasury and the FCA would have a legislative and regulatory regime for a UK CT in place by 2024; (b) friendly competition with the EU where the European Parliament recently voted in favour of MiFID revision by mandating the creation of "consolidated tapes" or single real-time snapshots of bond prices by mid-2025; and (c) maintain the momentum in post-COVID economic recovery; not to lose that momentum in advancing the development of CT; and get even more momentum out of improving the overall bond liquidity.

Please correct us if we are wrong, CT is NOT funded by public money, nor is it free from competition in the 5-year term. Artificially crafting a 15% to 20% profit margin and mandating a certain revenue sharing scheme to lure the emergence of a CTP is not equivalent to a guarantee of full cost recovery. A CT Provider (CTP) is expected to act as a “loss leader” to bear the risk of building the CT first and hope subscribers will come. Hence, the CT is NOT a public utility.

A CTP has a weak proposition – (i) fixed obligations, (ii) price setting restrictions, (iii) uncertain demand, plus (iv) extra burdens under the FCA required conditions. The chances are slim to find a potential CTP willing to be a CT pure play, if lacking the ability to offer value-added services (VAS). In our opinion, the CT must be a product of reasonable compromise, if not a close substitute, to Trading Venues’ (TVs) Proprietary Products (PPs) or Approved Publication Arrangements’ (APAs) VAS and be widely accessible at price within reach to achieve the second goal of *“Affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users.”*

If the Have-Nots are willing to commit their limited resources to compete with the Haves, they should be given affordable and comparable choices. The relative availability and price difference of mass market products (e.g. CT) versus TVs’ PPs and APA’s VAS is key. To promote the emergence of a CTP, policy makers have no better choice but to permit VAS. We concur with CP23/33 - 5.17 that it is *“necessary to set out a mechanism for appointing a CTP such that competition for this market replicates, as far as possible, the theoretical benefits we would expect from competition in the market, notably in relation to price, quality of service and innovation.”* The separate legal entity structure is applaudable for a clear cut

<sup>1</sup> <https://www.fca.org.uk/publication/consultation/cp23-33.pdf>

between CT pure play and their VAS. It helps avoid cross-subsidization and is easier to compare bids for CT from different potential vendors. Yet, this does not change the fact that TVs and APAs have the upper hand in controlling data supply.

Unless a CTP can create a VAS under a separate legal entity so unique and desirable that no other TVs or APAs can offer. Then, such CTP's VAS may give the CT subscribers exclusive or priority access. It is in fact bundling, which is a form of price discrimination by the CTP. If CTP acts in good faith to set an affordable price for this VAS, it will benefit the mass market and achieve desirable goals for all market participants. If not, the bundling practice may be used to double dip rent seeking the CT subscribers twice.

Learning from the US [Market Data Infrastructure Rule](#), the US Court of Appeals struck down the SEC's CT-Plan on July 5, 2022. Establishing a consultative committee that is composed of data providers and users would NOT be the right governance approach. The suggested formalities lack substance to address the divergence between private rights and [social costs](#) problem. To ensure accountability, appropriate use of incentives and consequences for wrongdoing is necessary. TVs and APAs should bear royalty payments and earn appropriate subscription fees to cover their costs. The [LACK OF STANDARDS](#) across different market centres' rebate and incentive systems is the CORE of all issues.

Using the prevailing rates in the music industry as a hypothetical [case study](#) and following the logic of the Copyright Licensing Mechanism, TVs or APAs should earn at least 5% (and pass through the remaining 95% of the royalty downstream) in pushing data upstream to the next aggregator or CTP, so long as they pay the appropriate royalty downstream where they sourced their "contents." **NOTE:** broker-dealers are the "content creators" in our opinion. Exchanges, Multilateral Trading Facilities (MTFs), Organised Trading Facilities (OTFs), Systemic Internalisers (SIs), Single Dealer Platforms (SDPs), and APAs should be considered as different "streaming platforms."

This [Copyright Licensing Mechanism](#) is applicable to respective CTs for Equities, Fixed Income, and Derivatives. If TVs and/or APAs did not pay their dues and wanted to earn from CTP on the other end, in essence, they are rent seeking like the Jukebox era. By putting a value on quotes and trades composition, proper consideration will be given to eliminate conflicts of interest. It will also ensure the efficiency in deployment of resources. Market forces will determine the optimal fees by the different TVs, APAs and CTP.

Do not get us wrong, we are NOT trying to recommend [regulatory price control](#). We strongly recommend policy makers around the world to consider a [4-Part test](#) – (1) willing seller willing buyer standard; (2) same parties' test; (3) "effective competition" test; and (4) same rights test, which taken directly from the music industry's copyright laws for objective rate setting. With regards to mechanism for a CTP making cost recovery payments and reasonable returns on investing to a CTP, all three mentioned options suggested in CP23/15 are undesirable.

**Option 1** suggests *"A fixed level of payment that shares the cost of connection between the CTP (and, potentially, data users via higher CT license prices), the payment of which is linked to a data provider meeting certain requirements in terms of the quality of its connection to the CTP and the quality of the data it gives."* Putting data in-motion from one place to another incurs cost. If it offers no commercial value or serves no public interest, it should be minimized in all circumstances. It is outside of TVs' and APAs' regular duty to connect with a CTP, so charging for recovery of connectivity sounds reasonable. Yet, if TVs and APAs may not be paying their royalty dues to content creators in the first place, then their rent seeking on market data and connectivity is not justified. Asking CTP to split half of the connectivity cost with TVs and APAs is indeed a compromise.

**Option 2** suggests *"Payments are based on invoices from the data providers of their direct one-off costs of connection, with the payment being linked to a data provider meeting certain requirements in terms of the quality of its connection to the*



*CTP and the quality of the data it gives.*" A cost-plus approach would not work. There will be endless arguments, as illustrated by the different perspectives from [IEX](#), [NASDAQ](#), and [others](#).

Option 3 suggests *"Payments are based on a percentage of the revenues a CTP earns in its first year of operation, with the payment being linked to a data provider meeting certain requirements in terms of the quality of its connection to the CTP and the quality of the data it gives."* Why should the CTP incentivize TVs and APAs to provide high quality data, when it is the TVs' and APAs' existing duty under the FCA's oversight to ensure proper quality? If coding for "deferral" is above and beyond TVs' and APAs' current duty, then they should earn the equivalent compensation rather than using an incentive system to promote quality. If TVs and APAs are unwilling to accept a fair compensation to manage the "deferrals," then consider cutting out the middlemen (APAs) and let the CTP use its economy of scale to consistently apply deferrals.

It is understandable that people wanted to "check the box" to get a post-trade Bond CT up-and-running the soonest. Yet, the pursuit of a pre-trade tape and other market structure improvements should continue. Please see [Appendix 1](#) for our response to specific questions. Feel free to contact us with any questions and please keep us posted where our expertise might be helpful.

Sincerely,

***Kelvin To***

Founder and President

**Data Boiler Technologies, LLC**

This letter is also available at: [https://www.DataBoiler.com/index\\_htm\\_files/DataBoiler%20FCA%2020240209%20CP2333.pdf](https://www.DataBoiler.com/index_htm_files/DataBoiler%20FCA%2020240209%20CP2333.pdf)

**APPENDIX 1**

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### Chapter 3: The number of consolidated tape providers per asset class

#### *Q1: Do you agree with the appointment of a single CTP per asset class through a tender process?*

In view of: (a) priorities where the UK Chancellor committed at the Edinburgh Reforms that the Treasury and the FCA would have a legislative and regulatory regime for a UK CT in place by 2024;<sup>2</sup> (b) friendly competition with the EU where the European Parliament recently voted in favour of MiFID revision by mandating the creation of "consolidated tapes" or single real-time snapshots of bond prices by mid-2025;<sup>3</sup> and (c) maintain the momentum in post-COVID economic recovery; not to lose that momentum in advancing the development of CT; and get even more momentum out of improving the overall bond liquidity; we think there will need to be **"give and take" in the short term** to get the CT up-and-running the soonest, and will **need to remain flexible for right-course policy actions in the long term** for market structure improvements. For practicality's sake and the current differences in market structure and stages of development for different asset classes, we do agree with the appointment of a single CT Provider (CTP) per asset class through a tender process in the short term. Given the increase in trading across asset classes, it may be ideal to have a CT that crosses different asset classes in the long term.

#### *Q2: What success criteria should be used in the post-implementation framework review?*

The FCA has stated desirable outcomes of a bond CT in paragraph 2.24 of Chapter 2 of CP23/33, we agree with it and are showing it under two separate "Goals" – G1 and G2 below. NOTE: We have reservations with the FCA stated dependence factors in 2.25. Therefore, we suggest modifying it per [G3](#). What constitutes as "Better Market Data", how to achieve "greater standardization" and improve "data quality", and the proper way to deal with different phenomena of Approved Publication Arrangements (APAs) involve many controversies, market structure concerns, and the long-term development of the industry's value-chain for pre- and post-trade transparency across asset classes. Further, we suggest adding [G4](#), [G5](#), and [G6](#) as additional success criteria to be used in the post-implementation framework review.

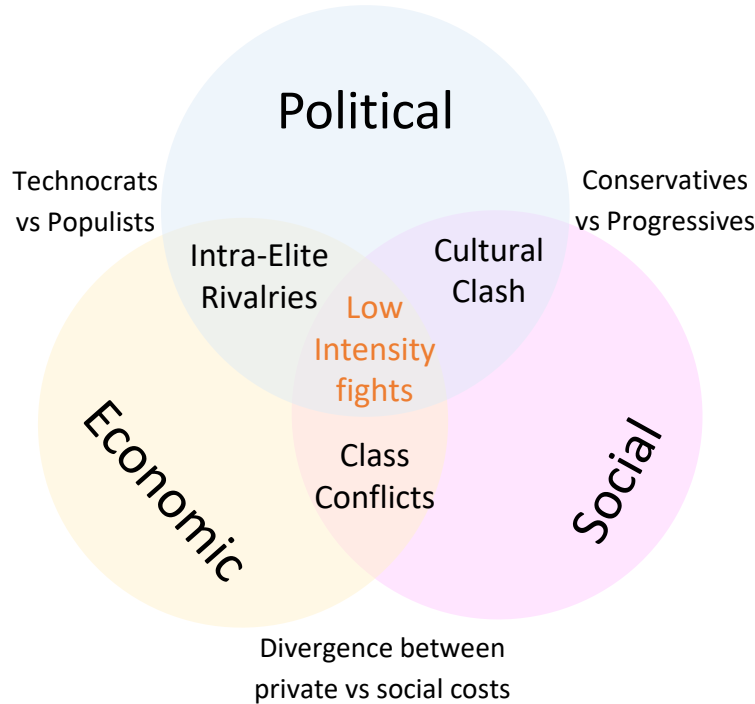
- G1) Encourage a CTP to come forward to operate a CT for bonds in the short term.
- G2) Affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users, where we would interpret it as: CT is a reasonable compromise if not a close substitute of TVs' PPs and APAs' value-added services on day 1 (short term), and the overall UK bond markets show improvements in trading volume, veracity (price discovery), velocity in filling orders, and varieties (diversified market participation instead of concentrated trading between Elites), i.e. collectively the 4Vs, by year 5 (long term).
- G3) Achieve better market data by reforming rules on the content and timing of pre- and post-trade data in the long term.
- G4) CT being widely available and affordable to at least 80% of market participants when it is up and running; at least 15% of all market participants in the UK subscribe to CT by year 2 and at least 30% in subscription demand by year 4; self-sustaining in financial performance of CTP by year 5, i.e., net assets, profits, and operating cash flow must be positive.
- G5) Using TRACE and Securities Information Processors (SIPs) in the US as benchmarks, the UK CTs should be in-par or better in terms of performance (% of uptime and latency); the FCA should mandate proper SECURITY protection over both CT and trading venues (TVs) Proprietary Products (PPs)/ APAs' value-added services, requires SYNCHRONIZATION of both CT and PP in accordance with an Atomic Clock and prohibits the circumvention of SECURITY measures.<sup>4</sup>

<sup>2</sup> <https://questions-statements.parliament.uk/written-statements/detail/2022-12-09/hcws425>

<sup>3</sup> [https://www.europarl.europa.eu/doceo/document/TA-9-2024-0004\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2024-0004_EN.html)

<sup>4</sup> Determining where the CT data centre is located is one of the toughest challenges but an unavoidable matter. Aggregation distance / location differential issues will lead to fairness concerns. Requiring "transmitting or releasing data no sooner than to a CT" only

G6) Minimize “low intensity fights” in the governance of CT (see below diagram that adopted from Prof. Peter Turchin’s model),<sup>5</sup> policy makers should refrain from regulatory price control<sup>6</sup> and consider adopting 4-Part test<sup>7</sup> that was taken directly from the music industry’s copyright laws for objective rate setting.



describes one aspect of ‘Fair, Reasonable and Not unreasonably Discriminatory’ (FRAND). It omits the fact that market data is highly valuable. Time sensitive information requires proper SECURITY protection.

Aggregation distance/ location differential issues can be solved by Time-Lock Encryption (TLE). TLE is a method to encrypt data such that it can only be decrypted after a certain deadline has passed. The goal is to protect data from being decrypted prematurely. Rest assured that TLE is NOT another speedbump. This is by no means asking regulators to prescribe a certain technology. Yet, the FCA in UK has full authority to mandate proper SECURITY protection over both CT and the trading venues’ Proprietary Products (PPs), requires SYNCHRONIZATION of both CT and PP in accordance with an Atomic Clock and prohibits the circumvention of SECURITY measures. It eliminates the problem of where the CT data centre is located.

Learn more at: <https://www.linkedin.com/pulse/market-data-available-securely-synchronized-time-kelvin-to/>

<sup>5</sup> <https://forwardobserver.com/breaking-down-the-conflict-of-low-intensity-conflict/> ; please also see this by Prof. Steven N.S. Cheung regarding the divergence between private vs social costs: [https://maisliberdade.pt/site/assets/files/1371/the\\_myth\\_of\\_social\\_cost.pdf](https://maisliberdade.pt/site/assets/files/1371/the_myth_of_social_cost.pdf)

<sup>6</sup> <https://www.cato.org/commentary/problems-price-controls>

<sup>7</sup> <https://www.govinfo.gov/content/pkg/FR-2016-05-02/pdf/2016-09707.pdf>

**Chapter 4: The scope of a consolidated tape for bonds**

*Q3: Do you agree with our proposals on the scope of a bond CT?*

We think the scope of Bond CT is largely appropriate in the short term to meet goal [G1](#). [G2](#) is a definite NO because market data prices would only go up, so long as CT is not a “close substitute” or a “reasonable compromise” to TV’s PPs and APAs’ value-added services (see this article<sup>8</sup> for elaboration). [G3](#) to [G6](#) are mostly NO, see grid table below:

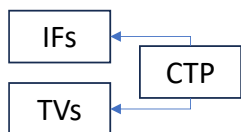
| Scope  | <a href="#">G1</a> | <a href="#">G2</a> | <a href="#">G3</a> | <a href="#">G4</a> | <a href="#">G5</a> | <a href="#">G6</a> |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| The current scope of the transparency regime for bonds   | Yes                | No                 | No                 | No                 | No                 | No                 |
| a) trading venues be required to send <sup>9</sup> data to a CTP and that the data should be distributed in as close to real time as is technically possible | Yes                | No <sup>9</sup>    |                    | No                 | No <sup>10</sup>   | No                 |
| b) a CTP should publish data in real time as soon as is technically possible   | Yes                | Yes+ <sup>4</sup>  |                    |                    |                    |                    |
| c) include trade reports for all the MiFID categories of bonds other than Exchange Traded Commodities (ETCs)/Exchange Traded Notes (ETNs)                    | Yes                | ?? <sup>11</sup>   |                    |                    |                    |                    |

<sup>8</sup> <https://www.linkedin.com/pulse/rebate-tiering-competitive-pricing-different-market-centers-kelvin-to-u6l2e/>

<sup>9</sup> There are flaws in requiring data to be sent to CTP. “Trade Reporting” is outdated. Frequent transmittal of data in-and-out and within CTP, unnecessary data-in-motion traffics ([https://www.databoiler.com/index\\_htm\\_files/DataBoilerInMotion.pdf](https://www.databoiler.com/index_htm_files/DataBoilerInMotion.pdf)), is wastage and more susceptible to defects. When data is ‘at-rest’ rather than ‘in-use,’ it serves no value other than one must pay for storage of the data. As data is redundantly stored on data providers’ systems and at the CTP system and then is regurgitated in bulk to CT subscribers’ systems, causing significant wastages. Take the US Consolidated Audit Trail (CAT) as an example ([https://www.databoiler.com/index\\_htm\\_files/DataBoiler%20SEC%20CAT%2020210503.pdf](https://www.databoiler.com/index_htm_files/DataBoiler%20SEC%20CAT%2020210503.pdf)), “an eye-popping \$135 million a year for cloud hosting services... this number is 20 to 100 times more expensive than private sector metrics ...” (<https://www.tradersmagazine.com/am/cat-how-can-a-new-government-program-that-most-americans-have-never-heard-of-cost-more-than-the-annual-budget-of-half-the-federal-agencies/>) Also, “organizations lose about 28% to 32% of the money they spend on the cloud to unnecessary bloat, according to a Flexera finding in 2023.” (<https://www.cloudzero.com/blog/cost-of-cloud-computing/>) TVs and APAs may persuade the industry to make compromises and turn to their favours in adopting a near real-time CTP “cloud” solution, when it is indeed unfair to latency disadvantaged market participants.

Instead of “SEND,” “OBTAIN” or Read-Only permission to “wiretap” data legally at its source is a substantially better approach. “Wiretapping is the **fastest**, the approach would **take out the middlemen** (APAs), and has the following advantages:

- **Benefits of Consistency** – economy of scale for centralized data management, minimize data-in-motion ([https://www.databoiler.com/index\\_htm\\_files/DataBoilerInMotion.pdf](https://www.databoiler.com/index_htm_files/DataBoilerInMotion.pdf)) for cybersecurity and privacy protection, data quality is no longer a problem because what being shared is fair to everyone, avoid conflicts/ arbitrations between multiple versions of truths.
- **Prevent single point of failure** – when one APA is down, X # of Investment Firms (IFs)’ data would be missing, whereas one IF’s connection with CTP is down, implication is far less. When CTP is down, experience will be consistent for everyone, rather than some have the information, and some do not.
- **Values of Bespoke Model connecting to everyone** – enable the direct administration and enforcement of rights and obligations, mass customization through the powerful infrastructure, no melding nor favouritism by middlemen to distort or subjectively allocate incentives.



<sup>10</sup> TVs’ and APAs’ SEND requirements per MAR 9.2B.34R (3)(b) and CTP’s PUBLISH requirements per MAR 9.2B.34R (1)(b) are noted. Yet, CT would be sub-par to TRACE because of the extra-hop latency through APAs (middlemen) rather than CTP direct connect with IFs.

<sup>11</sup> We believe Issuers should have a say on this. Please correct us if we are wrong, “irrevocable convertible and exchangeable bonds” and other fixed income instruments within definition of Article 13 (1)(b) of Directive 2004/109/EC revised transparency directive will be included within scope; instruments within definition of Section C of Annex I of Directive 2004/39/EC would be excluded from the scope of a CT for bonds. Also, which party (TVs, APAs, or CTP) would be determining if ownership rights of third parties in instruments and funds may be safeguard in event of insolvency of the firms, and at what point should such instrument(s) be excluded from scope?

| Continue from previous page   | <a href="#">G1</a> | <a href="#">G2</a>                  | <a href="#">G3</a> | <a href="#">G4</a> | <a href="#">G5</a> | <a href="#">G6</a> |
|---|--------------------|-------------------------------------|--------------------|--------------------|--------------------|--------------------|
| d) CTP should consolidate trade reports for all bonds, other than ETCs/ETNs, that are admitted to trading or Trading on Trading Venues (ToTV) in the UK   | Yes                | Yes <sup>+12</sup>                  |                    |                    |                    |                    |
| e) the CT should include only post-trade transparency information   | Yes                | No <sup>13</sup>                    |                    |                    |                    |                    |
| f) the CT data published should cover all fields and flags that are part of post-trade transparency requirements  | Yes                | Y                                   | Y                  | Y                  | Y                  | Y                  |
| g) include only transparency information and not wider regulatory data  | Yes                | Y                                   | Y                  | Y                  | Y                  | Y                  |
| h) a CTP should be required to receive data from all TVs and APAs publishing trade reports on bonds and new trading venues and APAs must connect and send <sup>9</sup> data to a CTP as soon as possible after the start of their operations and in any case no later than six months after the start of their operations | Yes                | No <sup>9</sup>                     |                    | No                 | No <sup>10</sup>   | No                 |
| i) No maximum time for TVs and APAs to send and then no maximum time for the CTP to publish the data  | Yes                | No <sup>14</sup> , ?? <sup>15</sup> |                    |                    |                    |                    |

#### Chapter 4: The operation of a consolidated tape for bonds - Data consolidation and dissemination

*Q4: Do you agree that data should be transmitted from data providers and received by the CTP via a standardised, open-source API developed by the CTP? Should this be based on the FIX protocol?*

<sup>12</sup> We think ETCs/ ETNs should be grouped together with the CT for Derivatives because they are hybrid securities that use derivatives and leverage to target the return profile for a commodity, index, or other benchmark. They are usually illiquid and involve credit risk, while not provide ownership interest in any underlying assets.

The FCA proposed clause of “admitted to trading or ToTV in the UK” addressed the issue of Brexit where non-EU trading venues meet a set of objective criteria, EU investment firms will not need to post-trade report transactions concluded on those trading venues. However, certain bilateral transactions with for example, Swiss firms or activities concluded on third country TVs would not be subject to a certain level of post-trade transparency. Trading venue perimeter in the US versus the UK and EU is between a rock and a hard place, see this: <https://www.linkedin.com/pulse/trading-venue-perimeter-between-rock-hard-place-kelvin-to/>

<sup>13</sup> Both pre- and post-trade transparency are important to market participants. Allowing TVs and APAs to offer value-added services (VAS) but restricting CTP from offering competing pre- and post-trade solutions, would hinder the achievement of G2 to G6. Consider CT as a compromised offer alternates to PPs and other VAS, it should be affordable and widely available to the Have-nots. If the Have-nots are willing to commit their limited resources in using PP or VAS, price and availability of PP or VAS must be within reach and the functions should enable a reasonable chance for the Have-nots to compete with the Haves. Healthy balance between the relative distance of CT, PPs, and VAS is critical, or else the Haves would exploit the gap and exacerbate class conflicts and cultural clash. See this: <https://www.linkedin.com/pulse/rebate-tiering-competitive-pricing-different-market-centers-kelvin-to-u6l2e/>

<sup>14</sup> There is no incentive for TVs and APAs to send data to CTP as close to real time as is technically possible. Not proposing that there should be a backstop in the FCA rules for the maximum time for trading venues and APAs to send the data to CTP is problematic. Learning from flaws of the US SEC Market Data Infrastructure Rule (MDIR), it was based on 10G speed, while NYSE is allowed to implement 100G connections for PP. “Same manner same methods” is not equivalent to latency equalization, nor can it achieve the same results as market data available SECURELY in SYNCHRONIZED time, see this: <https://www.linkedin.com/pulse/market-data-myths-versus-truths-kelvin-to/> To promote Fair, Reasonable and Non-Discriminatory (FRAND), the “**Availability**” of market data across CT, PPs, and APAs’ value-added services must be **SECURED** and **Synchronized regardless of CT for Equity, Fixed Income, or Derivatives**.

<sup>15</sup> FINRA TRACE in the US does have comprehensive trade reporting timeframes, see this: <https://www.finra.org/filing-reporting/trade-reporting-and-compliance-engine-trace/trace-reporting-timeframes> Would this mean the FCA is leaving the CTP winning bidder to determine the appropriate timeframes rather than having it written into the rules? In our opinion, requiring TVs and APAs to transmit or release data to PPs or VAS no sooner than to a CT is the bare minimum. Also, given CT in the UK would be a newer system compared to TRACE, we think the current performance of TRACE should be set as the CTP’s minimum performance standard.



Who is the “data providers”? Footnote 9 pointed out differences for CTP connecting directly with IFs versus APAs middlemen. Also, “SEND” versus “OBTAIN” are different type of designs fundamentally. As we mentioned earlier, policy makers should consider whether the CT is meant to compete, be similar, or a reasonable compromise to TVs’ PPs and APAs’ value-added services, because it will affect the demand for CT. Assuming the choice is “SEND” based on legacy “trade reporting” via APAs, then using a standardised open-source API developed by the CTP based on the FIX protocol is a widely used and popular choice, amid there will be arbitration to exploit latency gap. Nevertheless, learning from the implementation challenges in US Financial Data Transparency Act, *“A mandate for utilizing a specific technology for governmental and nonprofit financial reporting would require identical financial reporting taxonomies across all types of public entities. Given the wide variety of governments our market represents ..., combining all into a single standardized template has the potential to lose valuable information and to reduce transparency by eliminating detail specific to the unique functions or services that governments actually provide.”*<sup>16</sup> Besides, non-FIX users may cry unfair. Therefore, we do have reservation in prescribing FIX protocol. Although this is a bigger issue for pre-trade than post-trade CT, why not allow CTP to provide interchangeable options to FIX as a value-added service?

*Q5: Do you think that our rules should be more specific about the means of dissemination of a CT?*

We have no objection with *“A CTP should publish in at least two machine-readable forms (API and comma-separated value (CSV)) and Graphical User Interface (GUI) as the human-readable form.”* However, following the same logic in our response to Q4, we do have reservation in prescribing over CSV, JSON, XML, or other structured machine-readable format as means of dissemination of a CT. Note: unstructured data is also machine readable with the advancement of natural language processing and NoSQL databases. The CTP’s economic model would be more viable if it allows the use of different encoding and decoding approaches to offer value-added services.

*Q6: Do you agree that the consumption of the data published by the CT should be discretionary for market participants?*

Yes

#### Chapter 4: The operation of a consolidated tape for bonds - Bond transparency and application of deferrals

*Q7: Do you agree that the CT should only start operation after bond transparency regime changes come into effect?*

Agree. It will minimise undue costs to firms, e.g., allowing a period of familiarisation with changes to the bond transparency regime before firms are expected to operationalise the CT, and setting the scope of the CT itself consistently with those transparency regime requirements.

*Q8: Do you agree that responsibility for applying deferrals should remain with data providers?*

Yes, it will avoid the CTP introducing any risk of additional confusion over the application of deferrals, that data providers should retain responsibility for application of deferrals. They should only send trade reports to the CTP at the time of publication, including where publication is deferred. Whereas in the long term if that data is “OBTAINED” rather than “SENT,” then the CTP would have better economy of scale and consistency to apply deferrals than the TVs and APAs.

*Q9: Should the CTP offer a deferral checking service? If so, should use of this service by data providers be mandated?*

Reference to our response to Q8, it should either be the full accountability of data providers or the CTP, depending on data is SENT or OBTAINED. Although a deferral checking service is arguably a quicker method of implementing any new deferral regime as providers would not need to code rules and associated reference data, such checking service introduces unnecessary bureaucracy and endless arguments between CTP, TVs, APAs, and IFs.

<sup>16</sup> <https://www.gfoa.org/new-financial-reporting-requirements-proposed>

#### Chapter 4: The operation of a CT for bonds - Historical data

*Q10: Do you agree that the provision of a historical data service be optional for a CTP?*

We found it puzzling where the FCA states, “not proposing that a CTP should be required to provide a historical data service given the potential that exists for competition in the provision of this service.” The FCA should NOT be concerned with protecting the commercial interests of these private “streamers” (TVs or APAs). The US FINRA’s TRACE makes historical data available 18 months after the transaction date and publishes the information quarterly. Why CT users in the UK should accept a compromised offer, especially the Bond CT in UK is already sub-par to TRACE because of the extra-hop latency through APAs (middlemen) rather than CTP direct connect with IFs. If completely stripping CTP’s ability to offer value-added services, such as provision of historical data, to compete with TVs and APAs, it would affect the demand of CT, discourage CTP from coming forward to operate a CT, and implicitly endorsing on TVs and APAs rent-seeking behaviours.

Please correct us if we are wrong, we understand that the FCA does propose to permit a CTP operator to use a separate legal entity to provide competing value-added services with APAs and TVs. This helps avoid cross-subsidization and is easier to compare bids for CT from different potential vendors. Yet, it did not change the fact that TVs and APAs have the upper hand in controlling data supply. CTP is at a disadvantage and extra burdens under the FCA required conditions. **We doubt any potential vendor will be willing to be a CTP pure play and function as a “loss leader,”** except in one scenario.

The scenario is, assuming a potential CTP bidder can create a PP so unique and desirable that no other TVs or APAs can offer or compete. That bidder uses the separate legal entity of CTP to distribute or grant access of such PP discriminatory to select users under the condition of they must first become subscribers of CT. In essence, this is bundling of PP and CT, where the bundling itself is a form of price-discrimination, doubling the rents seek. It is undesirable and unfair.

Given the above and the intricacies of **WHAT GETS PAID** and **WHO GETS WHAT**, market data reform all boils down to the question of “**WHO OWNS THE DATA**” and the appropriate **STANDARD** for rebates and incentives across different market centres.<sup>8</sup> See Chapter 5 for elaboration.

*Q11: If you think that a CTP should be required to provide a historical data service, what minimum requirements do you think should be established for such a service? For example, should data only be available in response to queries, or should there be a requirement to provide access to some of or all the data through a downloadable database?*

Yes, to Queries and back testing interface. No, to Downloadable database, unless a data reuse license is obtained. Using live or historical data to run test systems or other applications is a commercial matter rather than “derivative works” in our eyes. The US FINRA’s TRACE makes historical data available 18 months after the transaction date and publishes the information quarterly. Users must enter into a Historical Data Agreement directly with FINRA and pay applicable fees. The UK Bond CT should at least be on-par with the US TRACE.

## Chapter 5: The economic model for a CT for bonds - Access to data

*Q12: Do you agree that trading venues and APAs should be required to provide data to a CTP without charge?*

Our answer to this question is, it depends.

Access fee rebate, payment for order flow, and market data (including connectivity)/ market structure issues are all intertwined. The noumenon of rebate incentives serves as royalty payments for the use of others' copyrighted material. The prevailing market problem is **WHO OWNS THE DATA**.<sup>17</sup> Policy makers should consider Exchanges, Multilateral Trading Facilities (MTFs), Organised Trading Facilities (OTFs), Systemic Internalisers (SIs), Single Dealer Platforms (SDPs), and APAs as different streaming platforms to have the right focus.

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, TVs and APAs should bear royalty payments and earn appropriate subscription fees to cover their costs. Nevertheless, the Facebook case<sup>18</sup> affirmed that data should be owned by "content creators" (broker-dealers) instead of the streaming platforms (TVs and APAs). **The LACK OF STANDARDS across different market centres' rebate and incentive systems** is at the CORE of all issues.<sup>8</sup>

Using the prevailing rates in the music industry as a hypothetical case study,<sup>19</sup> a rule of thumb under this hypothetical model is: 5% performance royalty for each layer of data aggregation. If we picture the TVs, 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), then their "derivative works" may or may not have significant difference from the original "songs" or trade strategies (45% versus 5%). So, the deterministic factor is whether TVs and APAs are artistic enough to "create" original "contents" that are uniquely different from the underlying securities and the rivalries.

Following the above logic, TVs or APAs should earn at least 5% (and pass through the remaining 95% of the royalty downstream) in pushing data upstream to the next aggregator or CTP, so long as they pay the appropriate royalty downstream where they sourced their "contents". This is applicable to respective CTs for Equities, Fixed Income, and Derivatives. If TVs and/or APAs did not pay their dues and wanted to earn from CTP on the other end, in essence, they are rent seeking like the Jukebox era. So, our answer to this question is, it depends.

Do not get us wrong, we are NOT trying to recommend regulatory price control.<sup>6</sup> We advocate for a 4-Part test<sup>7</sup> – (1) willing seller willing buyer standard; (2) same parties' test; (3) "effective competition" test; and (4) same rights test, that taken directly from the music industry's copyright laws for objective rate setting.

*Q13: Do you agree that a bond CTP should not be required to share revenues with data providers but be allowed to offer incentives to data providers for high quality data?*

Following the same logic in our response to Q12, revenue sharing or not, depends on whether the TV or APA have paid royalty dues to the content creators (broker-dealers). If data providers are the original composers of quotes and trades, they should be entitled to performance royalties while paying subscription fee to the CT and anyone streaming their data.

<sup>17</sup> [https://www.databoiler.com/index\\_htm\\_files/DataBoiler\\_Copyright\\_Licensing.pdf](https://www.databoiler.com/index_htm_files/DataBoiler_Copyright_Licensing.pdf)

<sup>18</sup> <https://www.ft.com/content/a00ecf9e-2d03-11e8-a34a-7e7563b0b0f4>

<sup>19</sup> [https://www.databoiler.com/index\\_htm\\_files/DataBoiler%20BIG%20OPP.pdf](https://www.databoiler.com/index_htm_files/DataBoiler%20BIG%20OPP.pdf)

Why should the CTP incentivize TVs and APAs to provide high quality data, when it is the TVs' and the APAs' **existing duty under the FCA's oversight to ensure proper quality**? If coding for "deferral" is above and beyond TVs' and APAs' current duty, then they should earn the equivalent compensation rather than using an incentive system to promote quality. If TVs and APAs are unwilling to accept a fair compensation to manage the "deferrals," then consider cutting out the middlemen (APAs) and let the CTP use its economy of scale to consistently apply deferrals. See [Q7](#), [Q8](#), and [Q9](#).

*Q14: Do you agree that a bond CTP should not be required to contribute to data providers' connectivity cost recovery? If you think that a bond CTP should contribute to data providers' connectivity cost recovery, on what basis should the terms of this arrangement be set?*

**Putting data in-motion from one place to another incurs cost.** If it offers no commercial value or serves no public interest, it should be minimized in all circumstances. Per Footnote [9](#), we discussed whether data should be "OBTAINED" instead of "SENT". Assuming the choice is "SEND" based on legacy "trade reporting" via APAs, it is outside of TVs' and APAs' regular duty to connect with a CTP, so charging for recovery of connectivity sounds reasonable. Yet, if TVs and APAs may not be paying their royalty dues to content creators in the first place, then their rent seeking on market data and connectivity is not justified, see [Q12](#) and [Q13](#).

Please correct us if we are wrong, CT is not funded by public money or taxpayers in the UK, nor will the CT be free from competition in the 5-year term. There is no guarantee of full cost recovery. CTP is expected to bear the risk of building the CT first and hopes subscribers will come. So, **CT is NOT a public utility**. Worst, TVs and APAs have the upper hand as they control the data supply. In turn, a CTP has a weak proposition, extra burdens under the FCA required conditions, and would never be competitive with the TVs or APAs. **Asking CTP to split half of the connectivity cost with TVs and APAs is indeed a compromise**, rather than letting the free market objectively set rate based on 4-Part Test.

*Q15: Do you agree that the requirement for a CTP to provide data free of charge 15 minutes after publication should be removed? If so, how best should we seek to ensure that academic and retail users of the data have low-cost or free access to the data?*

15-minute delayed data is FREE in the EU per traditional exchange practice. The US FINRA's TRACE system currently offers non-commercial personal use of data at no charge. It is understandable that the UK CT may follow similar terms. According to the Music industry's copyright laws, there is a "Teaching (Academic) Exemptions", where *"performance of a work done in the course of face-to-face instruction in a classroom (or a similar place – online learning site devoted to instruction), or performance done as part of instructional activities of a nonprofit institution, may not be an infringement of copyright."* We suggest following the same approach to grant the academic users access to Bond CT data for FREE.

**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 proper focus should be the **relative availability and price difference of mass market products (CT) versus TVs' PPs and APA's value-added services**. 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.<sup>8</sup>

**Chapter 5: The economic model for a CT for bonds - Licensing, pricing, and auction design**

*Q16: Do you agree that the CTP should be able to offer value-added services, provided that the CT service is available on a stand-alone basis and the provision of such services does not give the CTP an unfair advantage?*

CT is NOT a public utility (see [Q14](#)). It is not funded by public money, nor is it free from competition in the 5-year term. There is no guarantee of full cost recovery. CTP is expected to function as a “loss leader” to bear the risk of building the CT first and hopes subscribers will come. A CTP has a weak proposition – (i) fixed obligations, (ii) price setting restrictions, (iii) uncertain demand, plus (iv) extra burdens under the FCA required conditions. The chances are slim to find a potential CTP bidder willing to be a CT pure play, if lacking the ability to offer value-added services (VAS).

CT must be a reasonable compromise, if not a close substitute, to TV’s PPs or APAs’ VAS and be widely accessible at price within reach to achieve goal G2, i.e., *“Affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data for its users.”* If the Have-Nots are willing to commit their limited resources to compete with the Haves, they should be given affordable and comparable choices. The relative availability and price difference of mass market products (CT) versus TV’s PPs and APA’s VAS is key (see [Q15](#)).

If CTP is allowed to use a separate legal entity to provide competing value-added services with APAs and TVs, it would help avoid cross-subsidization and it would be easier to compare bids for CT from different potential vendors. Yet, it did not change the fact that TVs and APAs have the upper hand in controlling data supply (see [Q10](#)). Unless a CTP can create a VAS under a separate legal entity so unique and desirable that no other TVs or APAs can offer. Then, such CTP’s VAS may give the CT subscribers exclusive or priority access. It is in fact bundling, which is a form of price discrimination by the CTP. If CTP acts in good faith to set an affordable price for this VAS, it will benefit the mass market and achieve goals [G2](#) to [G6](#). If not, the bundling practice may be used to double dip rent seeking the CT subscribers twice.

To promote the emergence of a CTP, i.e., goal [G1](#), policy makers have no better choice but to permit VAS. The separate legal entity structure is applaudable for a clear cut between CT pure play and their VAS. We concur with CP23/33 - 5.17 that it is *“necessary to set out a mechanism for appointing a CTP such that competition for this market replicates, as far as possible, the theoretical benefits we would expect from competition in the market, notably in relation to price, quality of service and innovation.”* Artificially crafting a 15% to 20% profit margin and mandating a certain revenue sharing scheme to lure the emergence of a CTP is indeed regulatory price control,<sup>6</sup> which we despise (see later discussions in this letter).

*Q17: Do you agree that CT licences should be separated according to re-use/direct use? For direct use licences, do you agree that users should be charged on a per-user basis? For re-use licences, should users be charged on a per-volume basis or on a use case basis? Which ways of licensing would encourage competition and innovation?*

Following the same logic of copyright laws, licensing terms for direct usage, allowing the reuse of contents, and derivative works must be respected. So, CT must be allowed to charge differently for re-use versus direct use.

There are many relevant use-cases to learn from the Music Industry. According to Prof. Hannes Datta, Prof. George Know, and Prof. Bart J. Bronnenberg in their study,<sup>20</sup> *“adoption of streaming leads to: INCREASES in QUANTITY of consumption ... INCREASES in VARIETY of consumption... INCREASE in DISCOVERY of NEW music ... Streaming revenue are climbing not only because more consumers are adopting streaming, but because consumers’ OVERALL consumption of music is GROWING as well. Streaming creates a MORE LEVEL PLAYING FIELD for SMALLER artists... Streaming EXPANDS consumers’ ATTENTION to a WIDER SET of artists... Streaming INCREASES consumer WELFARE by reducing search frictions (e.g., ENHANCING DISCOVERY) and help users DISCOVER NEW HIGH-VALUE CONTENT.”* ‘Discovery’ in the context of Capital Markets, can encompass VERACITY in price discovery, VELOCITY in filling orders/ finding matches, as well as discovering unknowns.<sup>21</sup>

Learning from the US SEC Exchanges’ Rebate Tiering proposal,<sup>8</sup> volume tiers to be based on total aggregate volume submitted to the TVs, APAs or CTP, with the associated tiered pricing applied to all members uniformly is NOT necessary

<sup>20</sup> [https://thearf-org-unified-admin.s3.amazonaws.com/MSI/2020/06/MSI\\_Report\\_16-136\\_revised.pdf](https://thearf-org-unified-admin.s3.amazonaws.com/MSI/2020/06/MSI_Report_16-136_revised.pdf)

<sup>21</sup> <https://www.pmi.org/learning/library/characterizing-unknown-unknowns-6077>

more equitable as explained in this NASDAQ's article, quoted *"the SIP treats all quotes and trades equally ... that's not fair either. In fact, many say the SIPs support fragmentation, rewarding venue competition more than quote competition."*<sup>22</sup>

**WHAT GETS PAID** and **WHO GETS WHAT** should NOT be dictated by regulators or by a small group of people in a "governance committee." We advocate for a 4-Part test<sup>7</sup> that taken directly from the music industry's copyright laws for objective rate setting.

*Q18: Should the FCA specify a set of components for which CTP bidders must submit price bids, or should bidders be given the option of specifying their own price list?*

Bidders should be given the discretion to set their own price list as long as it complies with 4-Part test.

We do not disagree with CP23/33 - 5.18 that said, *"Were the CTP contract to be awarded in a manner which allowed the CTP to determine its prices without regulatory constraint, it would likely determine its prices considering the preferential access to data that it will be granted, and the constraints that would remain from customer behaviour. There would be some limitations on the ability of a single CTP to raise price. For example, certain users' needs may be met by obtaining data directly from trading venues and APAs. Also, new user segments may be price sensitive and some of these might simply cease to buy CT data if the price were too high."* Again, the separate legal entity structure is applaudable for a clear cut between CT pure play and their VAS. There are reasonable **"give and take" in the short term** to get the CT up-and-running the soonest, and the **need to remain flexible to right-course policy actions in the long term** for market structure improvements. Nevertheless, we despise regulatory price control, see footnote [6](#).

*Q19: Do you agree that the tender process should be undertaken based on multiple descending rounds of price-based bidding? Do you have a preference between a clock auction or Anglo-Dutch hybrid auction?*

Anglo-Dutch hybrid auction is more efficient than the ascending auction because it allows bidders to reveal their true valuations in the second stage. It is also more revenue-generating than the sealed-bid auction because it encourages bidders to bid higher than their true valuations.

However, the Anglo-Dutch auction also has some disadvantages. For example, it is more complex than other auction formats, which can make it difficult for bidders to understand the rules and strategies. It can also be more time-consuming than other auction formats, which can be a disadvantage in situations where time is limited.

Because of demand uncertainty, a single round of bidding on price increases the 'winner's curse' risk whereby the winning bid ends up being lower than what is required for the bidder to make a positive return on their investment.

Weighting in numerous factors and requirements under CP23/33, we think Anglo-Dutch hybrid auction is more suitable.

*Q20: What factors should be considered when determining bidding price parameters, standardisation of bids (if bidders are allowed to specify their own price list), and minimum price reduction in bids between rounds?*

We have reservations with the IPUG's suggestion of *"the main economic element of bids to be a CTP should be maximum revenue that a CTP earns over the tender period. This is based on the premise that the CTP should function as a utility and therefore should be restricted in what it can extract overall from the consolidation of data. Any revenues earned over the maximum revenue threshold would then be returned to users in subsequent years through reduced prices."* We think there is merit in DotEcon report that said, *"a crucial concern with this model [requiring bidders to submit prices for a set of components specified by the FCA and allowing the bidders to specify their own price list] is that it provides little incentive*

<sup>22</sup> <https://www.nasdaq.com/articles/whos-really-setting-prices>

*for the CTP to maximise uptake of the CT once the revenue limit is achieved.”<sup>23</sup> Factors to consider in bidding should include, but not limited to, the bidders’ articulation or substantiation on how they plan to achieve and be able to balance between the short term and long term goals of [G1](#) to [G6](#), (see [Q2](#)).*

#### Chapter 5: The economic model for a CT for bonds - Duration of tender contract and mitigating incumbency advantage

*Q21: Do you agree that the duration of the initial CTP contract should be five years? How would the length of the contract affect costs, revenues, and incentives of a CTP?*

We agree with the 5-year term. CTP cannot justify its depreciation cost if anything shorter than that 5-year duration. We concur with the FCA that *“If the contract length is too short relative to the economic life of the assets, this could distort the incentives of bidders. To the extent that the assets have an economic life beyond the contract period, and the risk that the costs might be sunk (i.e. are costs that cannot be recovered upon termination of activities), bidders could seek to recover those costs during the initial contract period. This would lead to inefficiently high prices. If the contract period were too long, this increases the risk that prices could become misaligned with costs.”* We think the FCA have strike appropriate balance by stating that they will undertake a post-implementation review to ensure the framework is functioning as intended and in alignment with our stated measures of success.

*Q22: Do you agree with the proposed mitigants to address any potential incumbency advantage of the first bond CTP? Are there additional factors that we ought to consider?*

We are less worried about incumbency advantage. A cost-plus, open book approach would not work. There will be endless arguments, as illustrated by the different perspectives from IEX,<sup>24</sup> NASDAQ,<sup>25</sup> and others.<sup>26</sup> Assuming the FCA will diligently undertake a post-implementation review to ensure the framework is functioning as intended and in alignment with our stated measures of success, we think the proposed mitigants is sufficient or good enough if it is not ideal.

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<sup>23</sup> <https://www.fca.org.uk/publication/corporate/procuring-a-consolidated-tape-provider.pdf>

<sup>24</sup> [http://www.iextrading.com/docs/The\\_Cost\\_of\\_Exchange\\_Services.pdf](http://www.iextrading.com/docs/The_Cost_of_Exchange_Services.pdf)

<sup>25</sup> [http://www.nasdaq.com/docs/Market\\_Data\\_Policy\\_Statement\\_tcm5044-65695.pdf](http://www.nasdaq.com/docs/Market_Data_Policy_Statement_tcm5044-65695.pdf)

<sup>26</sup> <https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf>

## Chapter 6: The framework of rules for a bond CTP, APAs and ARMs - Organisational and prudential requirements

*Q23: Do you agree with our proposed extension of the operational resilience requirements in SYSC 15A to a CTP?*

Agree

*Q24: Do you agree with our proposed additional outsourcing and conflicts requirements applying to a CTP?*

Agree. It enables the FCA to speak directly to firms to whom the CTP outsources. We are okay with the proposal to delete the non-exhaustive list of additional services currently included in article 13 of MIFID RTS 13 in transferring the provisions of that article to MAR 9.2B.14R (other services provided by CTPs); and the proposal to add to the existing requirement in MAR 9.2B.14R that the provision of additional services should not create any risk affecting the quality of the CT or the independence of the CTP that cannot be adequately prevented or mitigated. However, we think CTP should be given some advantages relative to other persons (e.g. TVs and APAs) seeking to provide the same services, to justify the extra burden imposed by the FCA on the CTP.

*Q25: Do you agree with our proposed retention unchanged of the obligations currently contained in Regulations 13, 44 and 45 of the DRSRs and Articles 5 to 9 of MIFID RTS 13?*

No objection. Regulations 13, 44 and 45 of the DRSRs in MAR 9.2B.1R are requirements for the management body of a data reporting service provider, 9.2B.7R is about record keeping; R.2B.8R is about reporting of infringements; Articles 5 to 9 of MIFID RTS 13 in MAR 9.2B.2R is about Conflicts of interest; MAR 9.2B.3 is about Organisational requirements regarding outsourcing); MAR 9.2B.4 is about Business continuity and back-up facilities; 9.2B.5 is about testing and capacity; and 9.2B.6R is about Security. They all seem fair and reasonable to us, while acknowledging those are added burdens on CTP. So, it may be more favourable to be an APA than a CTP.

*Q26: Do you agree with our proposed prudential regime for CTPs?*

No objection.

## Chapter 6: The framework of rules for a bond CTP, APAs and ARMs - Data pricing

*Q27: Do you agree with our proposed deletion of the requirement for a CTP to price on a reasonable commercial basis?*

Yes. Again, a licensing framework “based on costs incurred to provide the data” only leads to endless arguments (see [Q22](#)). 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.” Market reform should be about the divergence between private and social costs.<sup>5</sup>

*Q28: Do you agree with the retention of the requirement for a CTP to provide market data on a non-discriminatory basis?*

Agree

*Q29: Do you agree with our proposed changes to the transparency obligations in respect of pricing?*

We welcome the removal of a “reasonable commercial basis” provision and requiring appropriate transparency on prices, price changes, the content of market data, revenues, and price setting only the obligations in respect of prices and price changes. We have no objection that pricing of CT is subjected to MAR 9.2B.36R that non-value-added services should be obligated to be provided on a non-discriminatory basis. Yet, a CTP operating a separate legal entity to provide VAS should NOT be subject to such an obligation. Reference to Q16, we indeed want a CTP to act in good faith to bundle VAS sold



under separate legal entity with exclusive or priority access to CT subscribers. It will affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data to benefit the mass market and achieve goals [G2](#) to [G6](#).

#### Chapter 6: The framework of rules for a bond CTP, APAs and ARMs - Governance

*Q30: Do you agree with our proposed governance requirements for the bond CTP?*

Learning from the US CT-Plan under the MDIR, the US Court of Appeals struck down the SEC's CT-Plan on July 5, 2022.<sup>27</sup> Establishing a consultative committee that is composed of data providers and users would not help to achieve goal G6. *"Meet at least twice a year and copies of the agenda, minutes and how recommendations of the committee had been taken forward would need to be made public, the FCA does not expect to have a role in the consultative committee, and a CTP must maintain a clear apportionment of significant responsibilities among its senior management"* are the formalities rather than substance to address the divergence between private rights and social costs problem.<sup>5</sup> The consultative committee does not have any outsourced authority from the FCA, nor authority to govern the management of CTP. To ensure accountability, appropriate use of incentives and consequences for wrongdoing is necessary. The balance of power between political, economic, and social aspects as illustrated in diagram of G6 in Q2 is crucial. The overlapping areas would determine the level of intra-elite rivalries, cultural clashes, class conflicts, and what an acceptable tolerance of low-intensity fight is. Again, the relative availability and price difference of mass market products (CT) versus TVs' PPs and APAs' 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 [Q15](#)). We strongly recommend policy makers around the world to consider adopting a copyright licensing mechanism.<sup>19</sup> TVs and APAs should bear royalty payments and earn appropriate subscription fees to cover their costs. By putting a value on quotes and trades composition, proper considerations will be given to eliminate conflicts of interest. It will also ensure the efficiency in deployment of resources. Market forces will determine the optimal subscription/ access fees by the different TVs, APAs and CTP.

#### Chapter 6: The framework of rules for a bond CTP, APAs and ARMs - Other requirements

*Q31: Do you agree with our proposals on requirements for trading venues and APAs to provide data to the CTP? Do you agree with our proposals on the management by the CTP of potentially erroneous information?*

The proposed requirement in MAR 9.2B.34R(3) that *"TVs and APAs to send trade reports for bonds to the CTP in as close to real time as is technically possible"* is insufficient. Time sensitive information requires proper SECURITY protection. The FCA in UK has full authority to mandate proper SECURITY protection over both CT and the TVs' PPs and APAs' VAS, requires SYNCHRONIZATION of CT, TV's PPs and APAs' VAS in accordance with an Atomic Clock and prohibits the circumvention of SECURITY measures. It eliminates the problem of where the CT data centre is located. See footnote [4](#).

We disagree with the "unfair competition with other CTPs or TVs or APAs" clause in article 10 of MIFID RTS 13. Reference to [Q16](#), a CTP has a weak proposition – (i) fixed obligations, (ii) price setting restrictions, (iii) uncertain demand, plus (iv) extra burdens under the FCA required conditions. The chances are slim to find a potential CTP bidder willing to be a CT pure play, if adding this clause and lacking the ability to offer VAS. We indeed want a CTP to act in good faith to bundle VAS sold under a separate legal entity with exclusive or priority access to CT subscribers. It will affect competitive pressures for existing sellers of market data, resulting in cheaper, higher quality and more accessible data to benefit the mass market and achieve goals [G2](#) to [G6](#).

<sup>27</sup> <https://www.linkedin.com/pulse/market-data-reform-without-ct-plan-kelvin-to/>

We are okay with the proposed provision in MAR 9.2B.32R(2), that applies to APAs, to require a CTP to seek to identify any trade reports that it receives that are incomplete or contain information that is likely to be erroneous and to inform the relevant data contributors. We are also okay with the proposed provision in MAR 9.2B.32R(4), to require CTP to report to the FCA every six months with observations about data quality.

*Q32: Do you agree with our proposals on data quality?*

No objection

*Q33: Do you agree with our proposal to require a CTP to provide a feed of its data to the FCA?*

No problem, but for a FEE. Government procurement should bear corresponding cost for the service because no one is above the law. Nothing is totally “FREE,” FREE only comes at an expense of other potential exploitations, see [Q15](#).

*Q34: Do you have any comments on our guidance on the tender and retender process?*

No comment regarding the retender process at this time.

## Chapter 7: APAs and ARMs

*Q35: Do you have any comments on our consolidation in the Handbook of the requirements applying to ARMs and APAs?*

We have no objection to the proposed provisions relating to the organisational requirements for CTPs: (i) the only requirement in MAR 9.2B.18R retained from Article 16 of MiFID RTS 13 is that each investment firm certify to an APA that it only reports transactions in a particular financial instrument through that APA; (ii) delete MAR 9.1.2G, 9.1.3G and 9.1.3A, where these provisions set out the context for the MiFID provisions relating to DRSPs and the onshoring of the provisions, they are no longer useful given Brexit. So, given the UK Treasury’s intention to repeal and replace the DRSRs, updating these references makes sense.

*Q36: Do you agree with not including material from the recitals in the Handbook?*

No objection. They do not seem to add enough to the understanding of the relevant obligations to justify inclusion.

*Q37: Are there any revisions to the requirements applying to ARMs and APAs you think we should make in future?*

Obligation to pay for the use of others’ copyrighted material, see [Q30](#).

**Chapter 8: A consolidated tape for equities - Scope**

*Q38: Do you agree that changes to the existing framework of rules discussed in Chapter 6 are also relevant for an equities CT?*

| Framework of rules  | Relevancy for an equities CT or NOT  |
|---|--|
| Organisational and prudential requirements                                      | Yes  |
| Deletion of the requirement for a CTP to price on a reasonable commercial basis | Yes  |
| Framework of rules for a bond CTP, APAs and ARMs - Data pricing                 | Yes, except for CTP operating a separate legal entity to provide VAS should NOT be subject to the “non-discriminatory basis” obligation. We have no objection that pricing of CT is subjected to MAR 9.2B.36R that non-value-added services should be obligated to be provided on a non-discriminatory basis. See <a href="#">Q29</a> .  |
| Governance  | No. This is problematic, see <a href="#">Q30</a> .   |
| Other requirements  | No. “As close to real time as is technically possible” is insufficient. Time sensitive information requires proper SECURITY protection. The FCA in UK has full authority to mandate proper SECURITY protection over both CT and the TV’s PPs and APAs’ VAS, requires SYNCHRONIZATION of CT, TV’s PPs and APAs’ VAS in accordance with an Atomic Clock and prohibits the circumvention of SECURITY measures. See <a href="#">Q31</a> .<br><br>We are generally against “trade reports” because of data-in-motion, wastage, and security concerns. See footnote <a href="#">9</a> . Our recommendation for direct connection with investment firms instead of through APAs and time-lock encryption would address data quality issues. There are benefits of consistency, it prevents single point of failure, and potential high values of Bespoke Model connecting to everyone. See footnote <a href="#">4</a> about “SEND” vs “OBTAIN”. |

*Q39: Do you agree that an equities CT should cover shares, depositary receipts, ETFs, certificates, other similar instruments? Should it also include ETCs and ETNs?*

Yes, to ETFs, but not ETCs and ETNs. ETCs, ETNs should be covered under CT for derivatives. See footnotes [11](#) and [12](#).

*Q40: Should an equities CT include pre-trade data? If so, why do you think this is necessary and what scope of data (including but not limited to depth of order book) should be included? If not, why not?*

Yes, absolutely. Enhancing post-trade transparency is ONLY the first step towards the (esma70-156-4305)<sup>28</sup> original aspirations – “MiFID II/MiFIR introduced provisions to ensure that market data is available to market participants in an easily Accessible, Fair and Non-Discriminatory manner, to DECREASE the Average COST of the market data and to make data Available to a WIDER range of market participants.”

Latency gaps would determine how big a difference is in the demand of the CT, and achievement of goals [G2](#) to [G6](#). “One size does not fit all and not everyone needs the fastest connectivity” is a half-truth. Although portfolio rebalancing

<sup>28</sup> [https://www.esma.europa.eu/sites/default/files/library/esma70-156-4305\\_final\\_report\\_mifid\\_ii\\_mifir\\_obligations\\_on\\_market\\_data.pdf](https://www.esma.europa.eu/sites/default/files/library/esma70-156-4305_final_report_mifid_ii_mifir_obligations_on_market_data.pdf)

and other non-high-frequency-trading activities may not use market data in millisecond/ nanosecond precision currently, latency arbitrage is attributed to firms being “sniped” whenever they trade. Either they lose a few basis-points each time, or they must rely on certain transaction cost analysers, “liquidity sourcing”, “outsource execution” services. These “bandages” are indeed added layers of cost to transact in the market. The pursuit of a pre-trade tape should continue.

Some would want expanded core data like the MDIR in the US, especially PERFORMANCE OPTIMIZERS, latency arbitrageurs, alternative investment/ hedge funds, etc. They are unlikely to switch to CT and their demand for PP is inelastic. TVs and APAs would argue that it would increase the cost of CT beyond the initial estimate. Who is going to pay for that? Current subscribers to depth-of-book and additional data would want the entire industry to share the cost with them. Ultimately, end investors suffer.

### Chapter 8: A consolidated tape for equities - Revenue sharing

*Q41: Should an equities CTP be required to remunerate data providers through a form of revenue sharing? If employed, which data providers should a revenue sharing model reward, how should the revenues to be shared be determined and how should shares in the revenues be set?*

Depending on who is considered the data providers. TVs or APAs are streaming platforms, not content creators. Original content creators who compose quotes and trades should be entitled to copyright royalties. See footnotes [17](#) and [19](#).

### Chapter 8: A consolidated tape for equities - Data feeds and information on market outages

*Q42: Do you think that there will be demand for disaggregated feeds, by instrument or industry sector, of the data included in an equities CT?*

Yes, and there is proven demand for these disaggregated feeds, by instrument, industry sector, etc.

*Q43: Do you agree that the equities CT should provide a single, combined feed of trade reports from different instrument categories?*

There are issues with spreading the cost with non-users. Besides, we are generally against “trade reports” because of data-in-motion, wastage, and security concerns. See footnote [9](#). Our recommendation for direct connection with investment firms instead of through APAs and time-lock encryption would address data quality issues. There are benefits of consistency, it prevents single point of failure, and potential high values of Bespoke Model connecting to everyone. See footnote [4](#) about “SEND” vs “OBTAIN”.

*Q44: Do you agree that the equities CT should include data on market outages, and, if so, exactly what data on market outages do you think should be included?*

National Competent Authorities (NCAs) should ensure that TVs provide all market participants (i.e. not only its members and participants but also the public) with a notice of disruption as soon as possible.<sup>29</sup> NOT the CTP. CTP should offer the announcement as a courtesy/ administrative service (with disclaimer referring to TVs), but it should not be the responsibility nor an obligation for a CTP.

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<sup>29</sup> [https://www.esma.europa.eu/sites/default/files/2023-05/ESMA70-156-6458\\_Final\\_Report\\_on\\_market\\_outages.pdf](https://www.esma.europa.eu/sites/default/files/2023-05/ESMA70-156-6458_Final_Report_on_market_outages.pdf)

## Chapter 9: Cost benefit analysis for payments to data providers and forms for DRSPs

*Q1: Do you have any comments on our cost benefit analysis of payments for data providers by the CTP?*

We think the FCA's cost benefit analysis is missing discussion on dynamics, priority of choices between CTPs and PPs. Also, it misses relevant discussion on value chain<sup>30</sup> to performance optimizer, asset gathering firms, asset maximisers, and retail, as well as the overall impact in reducing transaction/ intermediary cost.

We agree with the need for regulatory intervention in market data reform. However, why regulators should be involved with FINESSING or calibrating the Bond CT? We acknowledge that "efficiency of market" is part of market regulators' job. However, the FCA should recognize the difficulty in calibrating Bond CT, and the subjectivity in determining what is liquid versus illiquid. The challenge is analogous to the HM Treasury department 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 (e.g. China reduce buying of US and other countries' Treasury products) ... the list can go on-and-on. According to this,<sup>31</sup> this vendor's "*model is trained on over 300 feature inputs extracted from trades, quotes, and T&C datasets.*" We think it is better to leave it to the markets to determine as long as there is no manipulation like the LIBOR scandal, and market centres operate on a Fair Reasonable and Non-Discriminatory (FRAND) basis.

*Q2: Do you have any comments on our cost benefit analysis of forms for DRSPs?*

We acknowledge that Data Reporting Services Providers (DRSPs) play a crucial role in enhancing transparency and effective supervision. If everybody is transacting off-market, there is no point in having markets. Markets exist to help price discovery, and price discovery requires accurate and comprehensive trading data.

We understand that 3 tiers structure of: Approved Reporting Mechanisms (ARMs) offer the service of reporting transaction details to competent authorities on behalf of investment firms; APAs handle the task of publishing post-trade transparency reports on behalf of investment firms; and CTPs collect post-trade transparency reports for specific financial instruments from regulated markets, MTFs, OTFs, and APAs, where CTPs then consolidate this information into a continuous electronic live data stream, providing price and volume details per financial instrument. We can comprehend the role of DRSPs in connecting to the Market Data Processor (MDP) system to submit market data, access market data files, and comply with the regulatory reporting requirements of the UK MiFID framework for the sake of market integrity and protecting consumers. However, the concept of "trade reporting" is outdated, see footnote [9](#).

Given that, why regulators should continue using taxpayers' money to work on these "commercial forms" for DRSPs, when the whole DRSPs or "SEND" versus "OBTAIN" proposition<sup>4</sup> ought to be revisited.

<sup>30</sup> <https://www.linkedin.com/pulse/smile-curve-changes-securities-value-chain-evolves-kelvin-to/>

<sup>31</sup> <https://www.fi-desk.com/opening-the-black-box-solves-new-ai-claims-to-predict-next-trade-bond-prices/>

## Chapter 10: payments to data providers connecting to the bond CTP (including draft legal text)

*Q1: Do you think any of the three options are preferable to the approach suggested in CP23/15? If not, please explain your response.*

All three mentioned options are undesirable.

- Option 1 suggests *“A fixed level of payment that shares the cost of connection between the CTP (and, potentially, data users via higher CT license prices), the payment of which is linked to a data provider meeting certain requirements in terms of the quality of its connection to the CTP and the quality of the data it gives.”* Reference to Q14, putting data in motion from one place to another incurs cost. If it offers no commercial value or serves no public interest, it should be minimized in all circumstances. It is outside of TVs’ and APAs’ regular duty to connect with a CTP, so charging for recovery of connectivity sounds reasonable. Yet, if TVs and APAs may not be paying their royalty dues to content creators in the first place, then their rent seeking on market data and connectivity is not justified. A CTP has a weak proposition, extra burdens under the FCA required conditions, and would never be competitive with the TVs or APAs. Asking CTP to split half of the connectivity cost with TVs and APAs is indeed a compromise.
- Option 2 suggests *“Payments are based on invoices from the data providers of their direct one-off costs of connection, with the payment being linked to a data provider meeting certain requirements in terms of the quality of its connection to the CTP and the quality of the data it gives.”* Reference to footnotes [24](#), [25](#), and [26](#), a cost-plus approach would not work. There will be endless arguments, as illustrated by the different perspectives from IEX, NASDAQ, and others.
- Option 3 suggests *“Payments are based on a percentage of the revenues a CTP earns in its first year of operation, with the payment being linked to a data provider meeting certain requirements in terms of the quality of its connection to the CTP and the quality of the data it gives.”* Reference to Q13, why should the CTP incentivize TVs and APAs to provide high quality data, when it is the TVs’ and APAs’ existing duty under the FCA’s oversight to ensure proper quality? If coding for “deferral” is above and beyond TVs’ and APAs’ current duty, then they should earn the equivalent compensation rather than using an incentive system to promote quality. If TVs and APAs are unwilling to accept a fair compensation to manage the “deferrals,” then consider cutting out the middlemen (APAs) and let the CTP use its economy of scale to consistently apply deferrals.

For a proper mechanism for a CTP making cost recovery payments and reasonable returns on investing to a CTP, we recommend a 4-Part test and adoption of copyright licensing mechanism. This is applicable to respective CTs for Equities, Fixed Income, and Derivatives. See footnotes [7](#), [17](#), and [19](#). If we are allowed to choose ONLY from the three mentioned options for a Bond CT payment mechanism, we would pick Option 1.

*Q2: If you think that payments should be made to data providers, do you support any of the options we have proposed for calculating the payments to be made? If not, please explain your alternative approach.*

Depending on who is considered the data providers. In our view, TVs or APAs are streaming platforms, not content creators. Original content creators who compose quotes and trades should entitle to copyright royalties. See [Q12](#), [Q16](#), and [Q30](#).

*Q3: If you think that payments should be made to data providers, do you think that those payments should be conditioned on data quality? If so, please explain any suggestions you have for measuring data quality.*

Why should the CTP incentivize TVs and APAs to provide high quality data, when it is the TVs’ and APAs’ existing duty under the FCA’s oversight to ensure proper quality? If coding for “deferral” is above and beyond TVs’ and APAs’ current duty, then they should earn the equivalent compensation rather than using an incentive system to promote quality. If TVs and APAs

are unwilling to accept a fair compensation to manage the “deferrals,” then consider cutting out the middlemen (APAs) and let the CTP use its economy of scale to consistently apply deferrals. See [Q13](#).

*Q4: Do you think that in Option 1 we have set an appropriate level of payment?*

No. Further to our response to [Q1](#) in this Chapter 10, we would like to point out that volume tiers to be based on total aggregate volume submitted to the TVs, with the associated tiered pricing applied to all members uniformly is not necessary more equitable. According to this NASDAQ’s article,<sup>32</sup> *“the SIP treats all quotes and trades equally ... that is not fair either. In fact, many say the SIPs support fragmentation, rewarding venue competition more than quote competition.”* If applying the same logic, those contributed to quotes and/or trades to an on-the-run liquid bond versus off-the-run illiquid bond may be rewarded differently. Also, harvesting behaviour on quote revenue by a TV but no contribution in tightening spread for trades should be discouraged.

*Q5: Do you think that in Option 2 there should be a requirement for external auditors to review the cost methodology and the costs? Do you have a view on the costs presented in the cost benefit analysis of this obligation?*

Differences perspectives by IEX, NASDAQ and others have illustrated that external auditors’ review does NOT help in any way at all. See footnotes [24](#), [25](#), and [26](#), we believes all their numbers were certified by auditors. Inequity or the divergence between private and social costs<sup>5</sup> cannot be measured by accounting costs. See [Q27](#).

*Q6: Do you have any comments on the level of X in Option 3, including views on how it should be set?*

It should be set based on 4-Part test.<sup>7</sup>

*Q7: If we proceed with Option 3, should we set an upper limit on the level of payments?*

In general, we despise regulatory price control.<sup>6</sup> CTP cannot and should not operate at a loss. Instead of the FCA involved with FINESSING or calibrating *“upper limit is aggregate revenue sharing cannot be over ... after deducting total costs”* for a Bond CT, the right focus should be about the balance of power between political, economic, and social aspects (see illustration diagram of [G6](#) in [Q2](#) of Chapter 3). 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. Reference to [Q30](#), 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 [Q15](#) and footnote [8](#)). Require SECURE SYNCHRONIZATION of CT, TVs’ PPs, and APAs’ VAS is more effective to achieve goal [G2](#).

## Chapter 11: forms for Data Reporting Services Providers

*Q8: Do you have any comments on the forms for DRSPs that we are proposing to include in MAR 9?*

See our response to [Chapter 9 - Q2](#).

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<sup>32</sup> <https://www.nasdaq.com/articles/whos-really-setting-prices>