

FESE Non-paper on the EU Consolidated Tape

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FESE's proposal: A tape of record

In the European Commission's public consultation on the review of the MiFID II/MiFIR regulatory framework, it is argued that *"A CT would help brokers to locate liquidity at the best price available in the European markets, and increase investors' capacity to evaluate the quality of their broker's performance in executing an order... A European CT could, for a reasonable fee, provide a real-time feed of information, not only for transactions that have taken place (post-trade information), but also for orders resting in the public markets (pre-trade information)"*. Taking into account these views, and as discussed in the consultation response, FESE believes that a tape of record covering all venues would best meet the needs of market participants, provided that there is a strong use case, adequate compensation to contributing entities, and improvements in data quality.

A tape of record would represent a more cost-effective solution, have fewer latency, risks, and complexity issues, and deliver clearer value to the market than an "as close to real-time" tape as currently provided in MiFID II/MiFIR. Such a tape of record would consolidate and disseminate, after the market close, the time, price, volume, and trade flags of each transaction, thus providing a comprehensive view of overall liquidity within the EU on an instrument level. A tape of record would allow for execution quality, transaction costs, and compliance analysis, or the valuation of positions, while also facilitating double volume cap and tick size calculations or the harmonisation of regulatory requirements. Hence, FESE's proposal of a tape of record would deliver clear value to the market.

The role that lit markets play in delivering the Capital Markets Union (CMU), as well as the importance of the price formation process, should be considered in the CT debate. There is a risk that the creation of a real-time pre-trade data CT will impose high costs for the industry without tangible benefits, to the detriment of the CMU.

In view of this, FESE believes that a real-time pre-trade data CT for equities would be detrimental for EU capital markets due to the difficulties in identifying a clear use case, concerns that a CT would become a flawed and easily gameable best execution benchmark, particularities of the EU market structure akin to data quality issues, and technological hurdles.

EU regulators may be tempted to believe that a CT, by assumingly increasing transparency, will fix the current market structure issues, but this is unlikely because overall transparency is only as good as the quality of the underlying data¹. Good data can only be generated at the source. It is a misconception to expect that downstream processing by a CT will deliver better data, a CT will not have the insight over the order-transaction lifecycle and thus no

¹ On the links between market data, trading and price formation, and the design of the equity trading market more generally, see Oxera, "The Design of Equity Trading Markets in Europe: An Economic Analysis of Price Formation and Market Data Services" (Oxford, 2019); Oxera, "What's the Data on Market Data? The Role of Market Data in Equity Trading" (Oxford, 2019).

means to assess the quality of incoming data. ESMA is working with the industry to solve the data quality problem; if data quality across all different trading mechanisms reaches the same level, any existing service provider will be in the position to provide aggregation.

The current lack of transparency is not due to issues pertaining to the consolidation of data but to a deficient market structure that encourages the execution of orders away from transparent markets to the detriment of investors and issuers. A CT is no substitute for adequate market structure and rigorous enforcement of rules.

An assessment of the risks raised by an EU pre-trade data consolidated tape

A real-time pre-trade CT can be a flawed benchmark

Measuring best execution on the basis of a European Best Bid and Offer (EBBO) carried by a real-time pre-trade data CT would create a flawed, easily gameable benchmark that would ultimately be harmful, especially to smaller investors.

When a CT is used as the reference price for best execution, it creates an environment ripe for gaming at the expense of less sophisticated investors. Best execution is only a local reality, true at one moment, for one specific location where the Smart Order Router (SOR) of the broker is located. Geographical spread and latency considerations will mean that two observers in two different locations can simultaneously observe two different best prices. This renders the use of a unique EBBO as a benchmark to ensure best execution misleading at best.

In addition, research demonstrates that liquidity displayed by trading venues in the order book is not always accessible because of ghost liquidity provided by certain types of market participants². The emergence of a real-time pre-trade data CT promoting a visible EBBO would give market participants the illusion of achieving best execution, while creating an environment where ghost liquidity and latency arbitrage could easily be exploited by the most technology-savvy market participants.

As previously stated, each SOR has its own EBBO subject to its geographical location. The concept of a pan-European EBBO, carried by a real-time pre-trade data CT and presented as true for every market participant, could in that case be used as a misleading execution benchmark at the expense of less sophisticated investors. The CT would create a false sense of comfort amongst investors that best execution was achieved, reducing vigilance on execution quality, while in fact their orders would have been arbitrated. This would be rendered even worse were the CT's EBBO used as a reference price for systematic internalisers (SIs) and dark venues as it would weaken the price formation process on lit markets while creating significant arbitrage opportunities.

² See Hans Degryse et al., “High Frequency Trading and Ghost Liquidity,” 2018.

A clear use case is needed

The difficulties in identifying a clear use case are the main reason that an EU CT as defined by MiFID II/MiFIR has not yet emerged. The potential benefits of a real-time pre-trade data CT would be outbalanced by the costs that the market would incur.

For example, the analysis of execution quality can be facilitated by a CT but it is misguided to consider that a CT can be used as a benchmark for best execution. Under the MiFID II/MiFIR best execution regime, investment firms have to take all reasonable steps to obtain the best possible result for their clients when executing orders; considering the BBO across European venues is necessary but not sufficient, costs, speed, and the likelihood of execution have to be taken into account as well. The very fragmented pre-trade and post-trade infrastructure and technological limitations discussed below further undermine the viability of potential use cases.

As several brokers and sell-side firms have pointed out, imposing a real-time pre- or post-trade CT will make firms incur additional costs, as they would continue subscribing to their current market data solutions for their trading strategies.³ The fact that most market participants do not want a mandated CT clearly highlights the uncertainties of both a use case and a business case.

The EU market structure is one of a kind

The specificities of the EU market structure give rise to an inherent complexity in the CT: With about 200 venues and APAs dealing with equity instruments in 27 different jurisdictions, EU markets are significantly more fragmented than their US counterparts with only 17 venues.⁴ Third-country CT models should not simply be replicated as their specificities do not apply to EU financial markets and have showed adverse consequences. For example, self-regulatory organisations like the Financial Industry Regulatory Authority that are key for the US Securities Information Processor (SIP) do not exist in the EU. Due to mandatory use and payment by market participants in the US, the SIP is funded. However, several EU market participants have already pointed out that they repel any additional cost burden introduced by a CT.

Another specific factor of EU financial markets is the inconsistent reporting of SI and over-the-counter (OTC) trades: For instance, some investment firms trade reports can contain errors such as reporting off-exchange trades as on-exchange and fail to state the nominal value of a trade, or are simply duplicates.⁵ Likewise, differences in pre-trade transparency obligations make a complete view of liquidity difficult to attain, as the majority of SI trading,

³ Similarly, for the US, institutional brokers and proprietary trading desks subscribe to depth-of-book data feeds, see Charles M Jones, “Understanding the Market for U.S. Equity Market Data,” 2018.

⁴ See Oxera, “The Design of Equity Trading Markets in Europe” (London, 2019). Even in a highly integrated market like the US, fragmentation creates inefficiency issues as regards to market data, see Brian F Tivnan et al., “Fragmentation and Inefficiencies in US Equity Markets: Evidence from the Dow 30,” *PLoS ONE* 15, no. 1 (2020), <https://doi.org/10.1371/journal.pone.0226968>.

⁵ See also ESMA, “MiFID II/ MiFIR Review Report on the Transparency Regime for Equity and Equity-like Instruments, the Double Volume Cap Mechanism and the Trading” (Paris, 2019).

in addition to iceberg, trade-at-last, block orders or dark trading, will not appear in a pre-trade data CT.

Guaranteeing complete, accurate, and consistent reporting of SI and OTC trades is key to delivering a meaningful CT. Irrespective of its design, a CT will not be able to perform comprehensive data cleansing. Consequently, all trading mechanisms should be required to adopt the Market Model Typology model and data reporting requirements should be rigorously enforced. It is worth noting that if SI and OTC data quality is improved, data vendors will be in a position to consolidate a broader range of data thus increasing transparency.

The impact of the UK's departure from the EU must also be factored in: The relevance of a CT without UK data is questionable, and it is difficult to conceive mechanisms that would ensure data quality with certainty. The fact that the UK will fall under a third-country regime makes designing the governance of the CT in a way that guarantees a fair and level playing field even more challenging.

A real-time pre-trade CT would raise significant concerns for end investors driven by technological limitations

A real-time pre-trade data CT faces significant technological hurdles that would especially impact retail investors, not only due to the aggregation of data but as well as regards its distribution and consumption. Far from redistributing liquidity during the trading day, a real-time pre-trade data CT could create phantom liquidity and systemic price slippage issues and therefore a false sense of liquidity, possibly increasing latency arbitrage and front-running practices. Such a CT would show a picture of the market delayed in comparison to private feeds, as it would be slower than the various feeds that would consolidate. This situation would be detrimental to less informed or technologically sophisticated investors. Moreover, orders and prices on a real-time pre-trade data CT would not be accessible to all market participants since execution at displayed prices is only possible between technically and commercially connected entities. It would also be difficult, if not impossible, to reconcile with the correct record sequencing and current clock synchronisation requirements that prescribe different levels of timestamping granularity and accuracy for different types of execution.

Furthermore, the fundamental inaccuracies described above would not be limited to an EU real-time pre-trade data CT, there exist significant dislocations between BBOs of the US SIP and venue feeds.⁶ EU geographical and market fragmentation characteristics, as well as proposed inclusions of depth-of-book data not included in the US SIP, would only increase these dislocations: All three data centres of the US National Market System are located in

⁶ See for example Shengwei Ding, John Hanna, and Terrence Hendershott, "How Slow Is the NBBO? A Comparison with Direct Exchange Feeds," *The Financial Review*, vol. 49, 2014, <https://doi.org/10.1111/fire.12037>; Tivnan et al., "Fragmentation and Inefficiencies in US Equity Markets: Evidence from the Dow 30"; Brian Tivnan et al., "Price Discovery and the Accuracy of Consolidated Data Feeds in the U.S. Equity Markets," *Journal of Risk and Financial Management* 11, no. 4 (2018): 73, <https://doi.org/10.3390/jrfm11040073>.

northern New Jersey⁷ and the current median latency of the SIP is in the microseconds⁸, a thousand times lower than current proposals for the EU.

It is also misguided to imagine that a pre-trade data CT could be of value to competent authorities for the purposes of monitoring cross-market activity. By nature, a CT will only publish anonymous public data and is consequently not suitable for regulatory audit trail purposes. Data needed for regulators to monitor cross-market activity is much more granular, based on transaction reporting and order record keeping.

Conclusion

FESE believes that a real-time pre-trade data CT would raise considerable issues due to the lack of a clear use case, best execution arbitrage, the impact of the EU market structure, and technological limitations.

While we acknowledge there is a need for consolidation, especially when it comes to OTC and SI data, we believe a post-trade tape of record would represent the most appropriate solution to address these needs. Such a tape would be easier and less costly to build than a real-time tape, while also avoiding latency and arbitrage issues as well as delivering clear value to market participants by supporting portfolio valuation, transaction cost analysis, and the building of some trading strategies. It would also enable a better understanding of market liquidity, thereby improving execution quality. While these advantages would flow to all investors, they stand to benefit the most Tier 2 and Tier 3 market participants as well as retail investors with fewer resources to allocate to data acquisition and processing.

⁷ SEC, “Notice of Proposed Order Directing the Exchanges and the Financial Industry Regulatory Authority to Submit a New National Market System Plan Regarding Consolidated Equity Market Data” (Washington, D.C., 2020).

⁸ “CTA Plan | Latency Charts,” accessed March 19, 2020, <https://www.ctaplan.com/latency-charts>.