

# **Consultation Paper**

CP25/31\*\*\*

The framework for a UK equity consolidated tape

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Stephen Hanks Financial Conduct Authority 12 Endeavour Square London E20 1JN

#### Telephone:

0207 066 9758

#### Email:

cp25-31@fca.org.uk.

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# **Contents**

Chapter 1	Summary
Chapter 2	The wider context
Chapter 3	Key design issues for the equity CT
Chapter 4	Selecting an equity CTP Page 35
Chapter 5	Economic model for an equity CT
Chapter 6	Data coverage
Chapter 7	Operational requirements
Annex 1	Questions in this paper
Annex 2	Cost benefit analysis
Annex 3	Estimation of demand, revenue, and quantified benefits Page 126
Annex 4	Compatibility statement
Annex 5	Abbreviations used in this paper
Appendix 1	Draft Handbook text
Appendix 2	Draft Handbook text

# **Chapter 1**

# **Summary**

### Why we are consulting

- Tape (CT) in the UK, run by a Consolidated Tape Provider (CTP). An equity CT collates and distributes market data, such as prices and volumes of trades in equities. It aims to provide a comprehensive picture of these transactions, bringing together trades undertaken across different trading venues as well as those arranged over-the-counter (OTC). 'Equity' in this paper covers shares, exchange-traded funds (ETFs), depository receipts and certificates, and other similar instruments.
- Mork on CTs forms part of our strategic priority to support growth in our 2025-2030 Strategy. Introducing an equity CT would help to ensure that the UK continues to be seen as one of the leading global markets of choice for issuers, intermediaries and investors. A widely accessible, comprehensive and authoritative source of data about trading in UK markets will support innovation in market data products, lower barriers to entry for brokers and investment managers and improve confidence in UK equity markets.
- Our regulatory framework will also aim to ensure the CTP sells the equity CT at a competitive price and using simple licensing structures.
- The European Union's (EU's) second Markets in Financial Instruments Directive (MiFID II), took effect in the UK in 2018 and allowed for the provision of multiple CTs per asset class. This attempt to encourage a market-led solution to the consolidation of trade data was not effective and no firms in the UK or EU applied for authorisation to be a CTP under that regime.
- The Treasury-led Wholesale Markets Review (WMR) showed that the majority of market participants wanted revisions to the UK regulatory framework to enable CTs in bonds and equities to be introduced. We have now put in place a regulatory framework for a CT for bonds and run a procurement process to determine who will run the CT.
- 1.6 Designing an appropriate framework for an equity CT is complex and key design choices involve significant trade-offs see paragraph 1.17 so we have discussed the equity CT extensively with market participants and other relevant stakeholders. CP23/15

  The Framework for a UK Consolidated Tape asked questions about an equity CT. The responses led us to commission a report by Europe Economics (EE) on including pretrade data in an equity CT. In December 2024, we published a statement on the equity CT, alongside the EE report. This statement said we would take an evidence-based approach to finalising our proposals for this consultation. This has involved a survey in support of the Cost Benefit Analysis (CBA) and further discussion, including via roundtables and FCA Panels and committees.

## Who this applies to

- **1.7** The proposals in this CP will apply to:
  - Trading venues which facilitate the trading of equities.
  - Approved Publication Arrangements (APAs) who publish trade reports for OTC equity trades.
  - Firms interested in becoming an equity CTP.
- 1.8 Our proposals will also interest data users, including institutional investors, asset managers, retail investors, data vendors, market data and analytics firms, and trade associations.

#### What we want to change

- The Financial Services and Markets Act (FSMA) 2023 gives us <u>rulemaking powers</u> for Data Reporting Services Providers (DRSPs), which includes CTPs. It also enabled the Treasury to repeal and replace the <u>Data Reporting Services Regulations</u> (DRSRs). These changes allow us to create a regulatory framework to establish a CT in specific asset classes. We have established a framework for a CT for bonds and now want to do this for equities.
- 1.10 Our proposed rules will establish the main regulatory obligations of the equity CTP and main regulatory requirements for the operation of the CT. They will also establish obligations for trading venues and APAs to provide information to the CTP.
- 1.11 We want to ensure the UK equity CT can be operational as quickly as possible. In Chapters 3 and 4 we explore issues around the process for CTPs becoming authorised.

# Outcome we are seeking

- There are 2 main outcomes that we are seeking to achieve by introducing an equity CT. The first is to increase the use of UK equity trade data across a wider range of market participants. If an equity CT provides straightforward and affordable access to all these data, we consider this could encourage new users to purchase it and lead to greater participation in UK markets, and increased liquidity. Greater use of equity trade data could also help market participants make more informed trading decisions and so help ensure that they execute trades on the best terms available across the market.
- 1.13 The second is to provide a clearer, more comprehensive view of UK equity market liquidity to all market participants. As noted in Chapter 4 of CP25/20 The SI regime for bonds and derivatives including Discussion Paper on equity markets, UK equity trading is spread across a number of different trading venues or execution mechanisms. As a result, we know that it can be difficult for market participants to understand the full picture of UK liquidity.

- 1.14 This can lead to UK liquidity being underestimated when compared to liquidity in other jurisdictions. For example, between January and September 2025, we estimate that there were roughly 540 million transactions in shares in UK equity markets. However, if an investor only looked at Central Limit Order Books (CLOBs) the most transparent execution services offered by multilateral venues they would only see roughly 270 million transactions. Over the same period, the total notional of shares traded in UK markets appears to be around 4 times as large as the notional traded on CLOBs. As a result, we consider than an equity CT will increase visibility of and confidence in the depth of our markets, and so support informed decisions on trading and listing here.
- 1.15 In Chapter 2, we outline 3 key features we want the design of our CT to deliver in order to meet these outcomes. We discuss the costs and benefits of an equity CT as part of our CBA in Annex 2.
- 1.16 To achieve these outcomes, we also need to ensure that the underlying data that the equity CT consolidates is meaningful for market participants. Participants have raised concerns about whether current trade reporting enables addressable liquidity (trading interest that a wide range of market participants can interact with) to be identified and fully reported on. We discussed this in paragraphs 4.16 to 4.29 of Chapter 4 of CP25/20. Following on from Chapter 4 of CP25/20, we will publish a CP on the equity transparency regime in 2026. As a result of the proposals we make and wider discussion with industry, our aim is that an equity CT will publish the data that will enable investors to identify the full spectrum of addressable liquidity in UK markets.
- 1.17 Designing a framework for an equity CT to meet these outcomes is complex. Our task is to advance the public interest and not to be swayed by particular private interests. Proposals on topics such as the level of pre-trade data the CT should include; the number of equity CTPs we should permit; whether we should require revenue sharing arrangements between the equity CTP and data contributors; and the appropriate calibration of operational resiliency standards all have significant trade-offs. We need to balance delivering market-wide benefits with burdens on individual firms, as well as ensuring that the equity CT is delivered quickly to advance our international competitiveness.
- 1.18 We have taken an evidence-based approach to developing our proposals and invite further feedback on our proposed approach. This includes whether, for key design decisions, we have got the trade-offs they involve right. We are also keen to hear from respondents about any further information which they believe could be relevant to our decision-making.

# Measuring success

- 1.19 In line with the outcomes above, we will measure success according to whether there is:
  - An equity CT operating in the course of 2027, following a procurement process and authorisation of the chosen CTP.
  - Increased use of consolidated UK equity trade data across a wider range of participants.

- Greater awareness and understanding of the depth of addressable liquidity available in UK markets, which can be used to underpin decisions on trading and listings.
- Increased visibility of quotes across UK markets, improving brokers' ability to ensure they achieve the best outcomes for end clients and clients' ability to monitor their performance.
- 1.20 We will achieve these outcomes through the design of the CT framework, the CTP's rights and obligations and the procurement process. This will ensure:
  - There is an authoritative account of overall equity trading that is timely and relevant for a wide range of use cases.
  - The cost of accessing consolidated equity trade data, together with simple licensing terms, enables greater usage of such data.
  - There are incentives for innovation in product and service offerings related to the use of equity trade data.
- 1.21 We will evaluate the impact of the changes by monitoring the operation of the CT and gathering data on its market impact. As indicated in Our Strategy 2025 to 2030, we will use a variety of metrics to assess whether our work is strengthening the UK's position in global wholesale markets.
- Based on information from our supervision of the CTP, we will assess whether the CT is being published in a timely fashion and whether it is meeting relevant requirements to be operationally resilient. We will gather information from the CTP, and through surveys and broader discussion with industry including the CTP's consultative committee to understand whether the CT has made consolidated data more broadly available.
- 1.23 We will undertake a post-implementation review of the framework for the equity CT, starting 2 years after the equity CT starts operation. We will assess how effective it is and whether the economic model and regulatory framework remain appropriate. The review will cover all significant emerging themes, including:
  - The impact of the CT on the quality of the price formation process in the UK equity market, notably on the level of trading on CLOBs.
  - The case for varying the level of pre-trade data in the tape and/or requiring revenue sharing arrangements between the CTP and data contributors.
  - The case for introducing competition in the consolidation of equity trade data.

# **Next steps**

- **1.24** We want to know what you think of our proposals in this Consultation Paper (CP).
- 1.25 Please send your comments to us by 30 January 2026, using the options in the 'How to respond' section above. Unless you have indicated that your response is confidential, we will not treat it as such.

- Alongside the publication of this CP, we are also <u>inviting</u> Expressions of Interest to be the equity CTP. Inviting prospective CTPS to talk to us will enable us to continue our dialogue with interested parties. This will help us understand any concerns regarding our proposals which might act as an obstacle to providers. It will also enable other parties to approach us and enter similar discussions.
- 1.27 Following consideration of responses, we will make the necessary amendments to rules and guidance in our Handbook. We will aim to publish our Policy Statement (PS) in the first half of 2026.
- 1.28 Our procurement for an equity CTP will commence after we have published the PS and Handbook changes, with the intention that the equity CT will start operation in 2027.

# **Chapter 2**

# The wider context

# Designing an equity CT to meet our objectives

- Proposals for an equity CT have their origins in the WMR consultation that we conducted with the Treasury. The WMR concluded that CTs could increase UK financial markets' efficiency and attractiveness. Developing CTs is also an important part of our broad programme of work to reform UK capital markets to support economic growth and the UK's leading position as a financial centre. This requires enabling investors to take informed risk-based decisions, which is aided by the improved transparency that CTs offer.
- The chapter above outlined the key outcomes we are seeking by introducing an equity CT: increased usage of UK equity trade data and a more comprehensive view of UK equity market liquidity. Overall, we want to improve how UK markets function and support their international competitiveness.
- To achieve these outcomes, there are 3 key features we want the design of our equity CT to deliver. We provide more detail on these points in the paragraphs below:
  - Provide a single, clear view of trading volumes and prices across UK venues, to improve the effectiveness of UK secondary markets.
  - Support the attractiveness of the UK as a listing destination, by providing a more accessible view of total UK equity market liquidity for issuers and investors.
  - Provide straightforward and affordable access to equity trade data.

### Improve the effectiveness of UK secondary markets

- 2.4 We understand that the lack of a formally designated equity CT makes it harder to assess liquidity in UK markets. This reflects the fact that equity trading occurs across many different locations. This reduced visibility could cause problems for market functioning. It is a barrier to investors' awareness of the prices available across UK venues and so their ability to effectively monitor if their trades are executed at the best price available (i.e. monitoring for best execution). The equity CT would help address this issue by providing a clear, consistent and shared view of trading volumes and prices across UK venues.
- Additionally, many other major financial centres either already have equity CTs or are in the process of introducing them. This includes the United States (US) and the EU. An equity CT will help ensure that an accurate 'like-for-like' comparison can be made between liquidity in the UK and in other jurisdictions, supporting companies and investors to make well informed decisions and advancing the UK's international competitiveness. For further details on how introducing an equity CT is in line with our secondary international competitiveness and growth objective, see paragraphs 2.16 to 2.23.

#### Support the attractiveness of the UK as a listing destination

- 2.6 Similarly, market participants also tell us that the attractiveness of listing in the UK is harmed by the fact that potential issuers and overseas investors lack sufficient visibility of UK market liquidity. For listings, we understand that issues with the clarity and dissemination of post-trade data are particularly important.
- 2.7 To address issues regarding the clarity of post-trade data, in July 2025, we published discussion questions within CP25/20 seeking feedback on whether we can improve our post-trade equity transparency rules with the aim of identifying addressable liquidity in UK markets more clearly. We are currently considering the responses received and will use them to inform a consultation on equity transparency, which we intend to publish in 2026.
- 2.8 We consider that the equity CT provides the solution to data dissemination issues by providing issuers and market participants with access to an authoritative and unique data source for UK markets, incorporating all relevant data.

#### Provide straightforward and affordable access to equity trade data

- In March 2023, we published our <u>Wholesale Trade Data Review (WTDR)</u>. It found that the market for trade data is working well in some respects. Trade data users are generally able to access the data they need and trade data plays an important role in investment activity in the UK.
- **2.10** However, it also found areas where competition is not working as well as it could. Those included:
  - The way data is sold can be complex, making it harder for data users to make informed choices.
  - There is little choice in the market for some data so switching suppliers is not an easy option. Users have little choice but to pay the prices set for certain data.
  - Complexity and limited choice create additional costs for data users. These are likely to be passed on to UK retail investors and savers.
- 2.11 The WTDR concluded that establishing CTs could improve the cost, quality and accessibility of wholesale data. We said we would use the findings of the review to inform the design of the CTs and prioritise work in this area.
- Following on from the WTDR, we also published a Wholesale Data Market Study (WDMS) in February 2024. This study looked at competition amongst Market Data Vendors (MDVs), so has relevance for the trade data market. Overall, this study found that users have a choice of different MDVs who compete on multiple factors (including data coverage, pricing, customer service, reputation, fee structure and how data can be used). However, it also found that complex licensing practices by MDVs, and trade data providers who deliver their data to users via MDVs, increase costs for data users. It also found that MDVs' pricing practices can lead to reduced transparency and increased costs.

# How it links to our objectives

#### **Consumer protection**

An equity CT will mainly advance our market integrity and competition objectives. Additionally, designing a framework that enables the introduction of an equity CT should help encourage greater participation in financial markets through a clearer understanding of liquidity, and so protect consumers' interests. A CT should also constrain the price of equity trade data and offer clearer licensing terms that are suited to individual use cases. By contrast, existing MDVs do not provide full coverage of equities markets, nor are they bound by specific requirements on what they must provide and under what terms (including price, latency and correction of errors in data).

#### Market integrity

2.14 Introducing a UK equity CT with the right level of resilience will aid price formation by providing market participants with access to a clear, consistent picture of liquidity in UK equity markets. It might also help markets become more resilient by allowing them to adapt more easily where a significant trading venue suffers an outage – see paragraph 3.22 for further details.

#### Competition

- **2.15** The proposed changes will promote competition for the provision of market data through 3 channels:
  - Competition between the chosen CTP and existing data vendors for provision of aggregated trade data. Note that data users may choose to get their data directly from the CTP, through a data vendor (who may itself receive the CT and on-sell it to users), directly from trading venues/APAs, or some combination of these approaches.
  - Competition to provide the equity CT during the procurement process. We will design the framework to help maximise the number of potential suppliers, who would then compete for the market via a tender.
  - Competition between intermediaries. An important aim of our proposals is to improve investors' ability to monitor that a broker executed their trade on the best terms available (ie monitoring for best execution).

# Secondary international competitiveness and growth objective

- Our proposals also support our strategic goal of maintaining the UK's position as a leading global financial centre, as set out in our 2025–2030 Strategy and our <u>remit letter</u>, received on 14 November 2024, to which we must have regard.
- 2.17 The first area of alignment between our work on the equity CT and the FCA's secondary objective is that we expect the CT to improve UK market functioning and liquidity. A key reason for this is that the CT would make sure that access to consolidated UK equity trade data is straightforward and affordable, enabling it to be used more by a wider

range of market participants. Increased use of this data could help firms improve their processes related to trading, including risk management and monitoring of transaction costs. This would help market participants make well-informed decisions on where to invest their capital and how to trade to achieve the best outcomes. Over time, we consider that these improved capabilities will give market participants the confidence to increase their trading volumes and so improve liquidity in UK markets.

- 2.18 We also expect the equity CT to display a more complete picture of liquidity in UK equity markets to international investors and companies, increasing the visibility and comparability of this information globally. This is especially important as UK equity trading occurs across many different venues and other mechanisms, so it can currently be difficult for market participants to meaningfully compare UK liquidity to that of other jurisdictions on a 'like-for-like' basis. Introducing an equity CT will make those comparisons easier and so has the potential to drive increased investment and listings in UK equity markets.
- Both of these positive impacts on UK markets could increase revenues across a range of firms involved in equity market trading (including brokers and trading venues). Increased investment would also further increase liquidity, which could in turn lower the cost of equity for companies listing in the UK and reduce transaction costs for investors creating a virtuous cycle for UK markets.
- 2.20 Looking beyond financial markets, increased liquidity in our capital markets and reducing the cost of capital should lead to more and better domestic capital allocation and better diversified investor portfolios across the economy. This should generate growth by enabling firms to better scale and innovate, increasing returns for investors. It should also lead to productivity gains by producing cheaper services for investors.
- A second area of alignment is that introducing an equity CT could lead to the CTP, data providers and MDVs attempting to differentiate their data aggregation products and services from that of competitors. This is because data providers will need to demonstrate that any price differential between their products and the CT is justified by additional value for users. This should benefit consumers by increasing the variety of data products they have access to, while also increasing the relative competitiveness of the UK's trade data products and services.
- As outlined in Chapter 4, we are proposing that the equity CT will be offered by a single provider appointed via a procurement process. This CP seeks views on whether that is the best approach for the market. If we proceed with this proposal, the chosen provider will effectively have a monopoly for the duration of the contract period. So our proposed procurement process and rules requirements would impose constraints on prices via a competitive tender.
- 2.23 Finally, when considering the design of the framework, we have considered other overlapping regulatory initiatives and attempted to minimise undue costs to firms. For example, setting the scope of the CT consistently with the equity transparency regime requirements. Design of the CT framework itself aims to minimise unnecessary costs to firms. Driving proportionate regulation by ensuring any cost or restriction is proportionate to the expected benefits enhances competition and makes the

UK a more attractive place for firms to enter or operate, thus improving the UK's competitiveness as a financial centre.

## Discussion with statutory panels and committees

- 2.24 We have engaged with relevant FCA Statutory Panels and FCA committees on a variety of different options for an equity CT. There was very broad support for the establishment of a UK equity CT covering at least post-trade data. There was also broad support for the inclusion of pre-trade data attributed to relevant execution venues although some members disagreed on this point. They also provided more detailed feedback about the design of an equity CT that we have considered as part of developing our proposals.
- 2.25 We consulted the statutory CBA Panel about our CBA for the regulatory framework for the equity CT. Details are in the CBA in Annex 2.

#### Wider effects of this consultation

- The introduction of an equity CT is likely to result in transfers of value between firms. Notably, a CT that includes pre-trade data could result in a significant transfer of value away from data contributors trading venues and APAs. We discuss the risks from these transfers and key options for reducing them in Chapter 3.
- **2.27** Given that we propose a single supplier will provide the equity CT, this supplier stands to gain revenues that would otherwise potentially have been shared between multiple consolidators and data vendors. See Chapter 4 for further discussion of this.
- Any improvement in investors' or intermediaries' risk management capabilities, or ability to ensure best execution, from introducing a CT may represent transfers of value to investors who either directly use the CT or benefit indirectly from its use by their representatives, from market participants that currently have access to more information. Our CBA in Annex 2 sets out our full analysis of benefits and costs to firms and consumers from our proposals.
- Another wider issue to consider is the consistent theme in conversations with market participants that they would ideally like a CT that covered the UK, EU and Switzerland. While they recognise that neither the UK nor Switzerland are EU members, some market participants are also keen that the UK equity CT should be based on the same requirements as those that apply to the CT and CTP in the EU.
- 2.30 As the regulator of UK financial services, we are required to make our own independent decisions about what we think is best for the UK market. However, we have, alongside extensive discussions with UK market participants, considered frameworks for a CT in the EU and other relevant jurisdictions. We do not believe that our proposed framework creates significant barriers to anyone who seeks to combine data from the UK and EU CTs. However, issues around pan-European consolidation of equity data is one of the

topics we will consider in our post-implementation review of the operation of the UK equity CT.

# Unintended consequences of our intervention

- 2.31 Some participants have raised concerns that including pre-trade data in an equity CT could damage the quality of the UK equity market by encouraging trading away from transparent ('lit') markets that use CLOBs, whose share of trading has been in decline recently.
- For example, Oxera's October 2024 report on "The functioning of equity trading markets in the UK: implications for an equity Consolidated Tape" argues that an equity CT including pre-trade data might impact trading on CLOBs by affecting brokers' behaviour, particularly those that currently have access to a more limited range of trading venues.
- 2.33 We considered this issue carefully when developing our proposals on the equity CT. In the statement we issued alongside the December 2024 EE report we said:

"Based on its findings, EE judge that it is unlikely that a pre-trade CT will lead to a significant further move away from trading on CLOBs. It observes that the major institutions trading UK equities already have access to a wide range of price referencing execution venues and therefore the advent of a CT is only likely to affect the trading behaviour of firms who currently have more limited connections."

- 2.34 We also asked questions about this as part of a survey we conducted in April 2025 on the equity CT. Most respondents agreed that introducing an equity CT with pre-trade data is unlikely to significantly decrease CLOB trading.
- 2.35 Nevertheless, we are very mindful of the potential impact of further declines in CLOB trading on UK equity markets, especially given their key role as the foundation of transparent price formation. Therefore, if we proceed with our proposals, we will monitor whether the equity CT has any discernible effect on levels of CLOB trading including via our post-implementation review.
- 2.36 In CP25/20, we took a wider look at the decline in CLOB trading and asked questions about it. We are now considering the responses, which will feed into our consultation on equity transparency planned for 2026. As part of that work, we will take account of our developing proposals for an equity CT and vice versa.

# Environmental, social & governance considerations

2.37 In developing this CP, we have considered the environmental, social and governance (ESG) implications of our proposals and our duty under ss.1B(5) and 3B(1)(c) of FSMA to have regard to contributing towards the Secretary of State achieving compliance with the net-zero emissions target under section 1 of the Climate Change Act 2008 and environmental targets under s.5 of the Environment Act 2021.

- 2.38 We do not consider the proposals are relevant to contributing to those targets. We will keep this issue under review during the consultation period and when considering whether to make the final rules.
- 2.39 In the meantime, we welcome your input to this consultation on this.

# **Equality and diversity considerations**

- 2.40 We have considered the equality and diversity issues that may arise from the proposals in this CP. In particular, we considered accessibility issues for individual users, but these are largely beyond the remit of the equity CTP.
- 2.41 We do not consider the proposals materially impact any of the groups with protected characteristics under the Equality Act 2010 (in Northern Ireland, the Equality Act is not enacted but other antidiscrimination legislation applies). We will continue to consider the equality and diversity implications of the proposals during the consultation period and will revisit them when making the final rules.
- 2.42 In the meantime, we welcome your input to this consultation on this.

# **Chapter 3**

# Key design issues for the equity CT

# Background on equity CT design options

- Central to the design of an equity CT is the issue of the scope of the data it will consolidate, particularly whether it will include pre-trade data and, if so, how much. If the CT does include pre-trade data, we also considered whether it should provide details of the venues on which the prices are available.
- This is an issue that we have had extensive discussion about with market participants.

  The decision we take will play an important role in determining how effective an equity

  CT is in supporting the competitiveness of the UK equity market.
- 3.3 We said in our December 2024 statement that we would take an evidence-based approach to finalising our proposals on whether the equity CT should include pre-trade data. We first held an industry-wide roundtable on the issue in January 2025. Then, in April 2025, we conducted a survey of a sample of 250 firms on their likely demand for 4 equity CT options:
  - Scenario 1: a post-trade only tape for UK equities from all trading venues and APAs, distributed with a latency of 300 milliseconds or less from publication.
  - Scenario 2: a tape with post-trade data and the attributed best pre-trade bid offer (ie top of book) from lit UK venues, distributed with a latency of 100-200 milliseconds.
  - Scenario 3: a tape with post-trade data and the attributed top 3 pre-trade bids and offers from lit UK venues, distributed with a latency of 40-100 milliseconds.
  - Scenario 4: a tape with post-trade data and the attributed top 5 pre-trade bids and offers from lit venues and systematic internalisers (SIs), distributed with a latency of 20-40 milliseconds.
- We also received estimates from 6 firms that provide data consolidation services to clients on the likely set-up and running costs of an equity CT under all 4 options. We asked these firms to assume high levels of operational resiliency in producing these cost estimates.
- As outlined in our CBA, we combined this information with an additional margin for funding costs and profit to calculate total annual cost estimates for each option ie the estimated costs that would need to be covered by a CTP's revenue for them to be economically viable.
- Our subsequent discussions with market participants also led us to consider another model for the equity CT: a post-trade only equity CT with streamlined regulatory obligations that may be provided by multiple CTPs. Allowing multiple CTPs to be authorised without any restrictions on the number of equity CTPs would mean that a

- procurement process is not necessary. It would therefore potentially make it quicker to introduce the CT, in line with feedback that its pace of delivery is important.
- Whilst this approach could deliver an equity CT more quickly, our pre-consultation discussions with potential providers and users of an equity CT suggested very broad support for having a single equity CTP. We discuss this issue in more detail in Chapter 4 below. In relation to obligations that may be open to streamlining, these could include those that set a higher standard than for other types of data reporting services, notably operational resiliency standards in SYSC 15A. However, despite the reduced risk of market disruption were the framework to produce multiple CT providers, we believe that a lowering of standards in these areas relative to the obligations of the bond CT would be problematic given the importance of the role of the equity CT.
- As this option was not included in our survey, we could not estimate its costs and benefits in our current CBA. For the purposes of this consultation, we assume that demand and market-wide benefits would be similar to that of Scenario 1. Our CBA seeks views on this assumption.

## Approach to assessing whether to include pre-trade data

- **3.9** In assessing each equity CT option, our key considerations were:
  - Assuming each option was successfully delivered, what would be the potential benefits?
  - What is the likelihood that each option would be successfully delivered at a competitive price?
  - What are the significant risks of each equity CT option?
- In developing our proposals, we tried to choose an option that strikes the most appropriate balance between these 3 factors.

#### Potential market-wide benefits

- We assessed the benefits of each option from both a qualitative and quantitative perspective. This section starts by providing an overview of the key qualitative benefits, before providing a summary of the overall quantitative benefits.
- To assess potential benefits from a qualitative perspective, we used responses to our demand survey, as well as findings from our roundtable and broader pre-consultation (notably, discussion questions in CP23/15 and via the EE report).
- **3.13** For each option, the qualitative benefits link to the 3 key features we want our design of the equity CT to deliver, outlined in Chapter 2:
  - Provide a single, clear view of trading volumes and prices across UK venues, to improve the effectiveness of UK secondary markets.
  - Support the attractiveness of the UK as a listing destination, by providing a more accessible view of total UK equity market liquidity for issuers and investors.

• Provide straightforward and affordable access to equity trade data.

#### Potential benefits of a post-trade only tape (Scenario 1)

- 3.14 The key benefit from a post-trade only tape would be to provide a clear, consolidated and real-time view of overall trading volumes across UK venues. As above, we understand that this would support the attractiveness of the UK as a listing destination. This is because it would help address problems with disseminating post-trade data information which helps issuers, and their investors, determine the true extent of addressable liquidity in UK markets.
- 3.15 In terms of improving the effectiveness of UK secondary markets, the lack of pre-trade data means this option would give users a less complete view of UK market liquidity than the options below. Indeed, most survey respondents were sceptical that a post-trade only tape would have significant effects on trading or investing. Finally, a post-trade only tape would have no effect on market-wide resiliency to operational incidents.
- This option would also provide less data to issuers and investors than the current equity CT in the US and planned equity CT in the EU. This would make the UK an outlier compared to other major jurisdictions. This may harm the UK market's international competitiveness in investment and listings.
- 3.17 In terms of providing straightforward and affordable access to equity trade data, if this option was offered in an accessible way and at a competitive price, then it could provide some new trade data users with consolidated post-trade data. Smaller firms may also benefit by saving money and time on either consolidating display data in-house or paying a third-party for this service.
- However, we consider that this option would have a limited effect on market-wide trade data costs as it would include no pre-trade data. We understand that pre-trade data is generally more expensive than post-trade data and, for many market participants, is a necessary complement to post-trade data.

# Potential benefits of a tape that also includes the attributed pre-trade best bid and offer (Scenario 2)

- In line with a post-trade only tape, Scenario 2 would also provide a consolidated view of total UK equity trading volumes and so support the attractiveness of the UK as a listing destination.
- We understand that significantly more use cases can be satisfied by including the pretrade best bid and offer (BBO) in the equity CT. In terms of improving the effectiveness of UK secondary markets, including the pre-trade BBO would give investors a real-time view of available liquidity (depth) at the best price point across UK venues. Some survey respondents said access to this data would help them monitor their trades for best execution. However, as below, others suggested that without a greater depth of pre-trade data this option would provide only limited improvements.
- 3.21 Monitoring such pre-trade data <u>helps firms</u> to select the right venues to execute their trades on. This is because while post-trade data provides information on all executed

trades – pre-trade data provides a picture of the other quotes that were available when a participant made a trade, and so the opportunity cost of any diversion from the best quote available. As a result, we understand that access to pre-trade data is key for calculating Transaction Cost Analysis (TCA) metrics including implementation shortfall, quote-to-trade slippage and market impact.

- A further benefit of including the pre-trade BBO in the equity CT is that it has the potential to reduce disruption to liquidity where operational incidents occur. Currently, the BBO on the primary market enables the pricing of shares on both other venues and SIs. Potential users of equity CT data have said that the lack of a market-wide alternative price is a key factor in why, when there is a primary market outage, liquidity does not migrate to other available venues. An equity CT could provide this alternative price, so improving market-wide resiliency to operational incidents.
- 3.23 We also consider that this option would strengthen the UK market's international competitiveness. This is because it would be in line with the US' equity CT and would provide the same level of depth of pre-trade data as the EU's planned CT. It would attribute the BBO to specific venues. For context, the EU version of MiFIR requires the anonymous BBO. However, we are aware that the EU is currently considering whether to amend the scope of its equity CT.
- Finally, compared to a post-trade only tape, this option could also broaden access to equity trade data by also providing the first level of pre-trade data.

# Potential benefits of a tape that includes a greater depth of attributed pre-trade data (Scenarios 3 or 4)

- In addition to the potential benefits for the other scenarios outlined above, Scenarios 3 and 4 would help improve the effectiveness of UK secondary markets by providing a real-time view of the orders that exist at multiple price points. Therefore, these options could help demonstrate UK liquidity beyond the top of the book.
- This is important because, while the BBO may provide an adequate basis to assess best execution for smaller trades, larger trades are more likely to execute at prices beyond the top of the book. So, a greater depth of pre-trade data is likely needed for an equity CT to play a role in trading decisions or monitoring larger trades. The importance of a greater depth of pre-trade data to informing order placement, assessing market liquidity and monitoring trades was reflected in the survey responses for Scenarios 3 and 4, with the strongest support for Scenario 4.
- 3.27 Regarding the UK market's international competitiveness, both these options would provide more data than the current US equity CT and planned EU equity CT. If including more data further increased the visibility of UK equity market liquidity globally, this could further strengthen the UK market's international competitiveness. See paragraphs 2.16 to 2.23 for further details.

**3.28** Finally, if offered at a competitive price, then Scenarios 3 and 4 have the highest potential to broaden access to equity trade data because they include the most pre-trade data.

## Overview of quantified benefits

- We also assessed the potential benefits of greater data consumption in monetary terms, using responses to our survey. As outlined in our CBA, these estimates capture 2 sources of benefits:
  - An estimate of the number of new users of equity trade data under each scenario and the value of this data to these new users.
  - An estimate of the value of any additional data usage by existing trade data users from buying the equity CT. This includes value from gaining access to data from a greater number of equity venues and, for Scenarios 3 and 4, access to a greater depth of pre-trade data than the BBO.
- In estimating the scale of these quantified benefits, we assumed that a CTP would charge a price for its data that covered its operational costs and a 10% margin for the cost of capital and profits. We then estimated users' demand for the CT at this price point, and, of this demand, how much is likely to be substitution from other data products which we did not include in our quantified benefits and how much is likely to be new or additional data usage which, as above, is included.
- 3.31 It is important to emphasise the quantified benefits only include potential impacts on the UK market from 2 specific effects of greater data consumption. As indicated by our qualitative analysis, the overall benefits of an equity CT could be significantly greater. More broadly, increased use of equity trade data, arising from an equity CT, could lead to an increase in market transaction volumes and liquidity. This increased liquidity may in turn decrease transaction costs and encourage further trading, creating a virtuous cycle for UK financial markets.
- While it has not been possible to quantify such longer-term benefits, we have considered them as part of our policy thinking. Once the equity CT is operational, we will observe the broader impacts of increased access to equity trade data on market functioning including via our post-implementation review.
- Assuming an equity CT is provided at the mid-range of the cost estimates and that there is limited or moderate adoption (see the CBA for details), the estimated annual benefits expressed in monetary terms for each option are:

Table 1: Estimated Annual Benefits Expressed in Monetary Terms

Scenario 1	Scenario 2	Scenario 3	Scenario 4
£4m to £8m	£6m to £12m	Not applicable	£14m to £27m

**3.34** Under this assumption, Scenario 4 appears to deliver the highest gross benefits – if the data is provided at a competitive price point. This is in line with our qualitative analysis above.

- operational costs of the CTP offering it, and a 10% margin for costs of capital and profits. This is because its estimated costs are similar to that of Scenario 4 but estimated demand for Scenario 3 is significantly lower. On this basis, we assume that an equity CT would not be successfully delivered under this scenario and so would not deliver benefits. For further details on how we considered the economic viability of each equity CT option, see paragraphs 3.40 to 3.45.
- 3.36 In terms of calculating net benefits, it is important to note that becoming an equity CTP will be a business decision and not a cost that we impose on firms. Nevertheless, for the market to realise the benefits from an equity CT, the CTP will incur set-up, running and financing costs. As outlined in our CBA, we consider that these are the most significant market-wide costs from the introduction of the equity CT.
- The data consolidation firms that we spoke with provided a range of cost estimates for different equity CT options. To estimate quantified net benefits, for each scenario we subtracted the relevant range of cost estimates from the estimated benefits above. On this basis, at the lower-bound of the cost estimates, Scenario 4 appears to provide the highest net benefits by far. However, at the mid-range of cost estimates, it appears Scenario 2 would provide the highest net benefits. At the upper-bound of cost estimates, none of the scenarios appear net beneficial in monetary terms. However, as outlined in paragraph 3.31, we expect broader market-wide benefits which we are not able to quantify. These may result in all scenarios being net beneficial. For further details, see our CBA.
- 3.38 Our findings from the CBA also demonstrate the importance of the CT being provided at a competitive price point. This will increase the likelihood of the CT delivering net benefits to the market from greater data consumption. As a result, these findings strengthen the case for ensuring the equity CTP both meets our requirements on the quality of the service they provide and have an efficient cost base. We discuss this issue further in the section below and Chapter 4.
- The findings also highlight a trade-off between Scenarios 2 and 4. Scenario 4 appears to have the potential to provide significant net benefits in certain circumstances, while Scenario 2 seems more likely to deliver more moderate net benefits in a wider variety of circumstances.

#### Likelihood of successful delivery at a competitive price point

- **3.40** For any of the options, we consider that realising the potential benefits described above will depend on:
  - Whether the design of the equity CT provides a viable business model for the CTP. Providing an equity CT will be a voluntary business decision for firms. Firms will likely only apply to do so if there is a viable business case that delivers an adequate return to equity. We also want to ensure that any firm that does become an equity CT has a sustainable business model with which to provide the service. We are proposing that equity CTs provide this service as a single provider for a 5-year contract period see Chapters 4 and 5 for further details.

- Whether the data is likely to be provided at a competitive price point. As above, many of the benefits of an equity CT stem from providing straightforward and affordable access to equity trade data. We consider that, for each option, if more firms are interested in being an equity CTP then this will lead to greater competitive pressure on price and so a higher likelihood of the CT being delivered at a competitive price point.
- 3.41 Based on our analysis, operating a CTP under Scenario 1 or 2 appears to be an economically viable business model with demand and cost seemingly most closely matched for Scenario 2.
- There is greater uncertainty regarding whether Scenarios 3 and 4 would provide economically viable business models for the CTP. Data consolidation firms that provided us with estimates of costs consider that the costs for Scenarios 3 and 4 are likely similar and provided a very wide range of estimates for both options.
- As outlined at paragraph 3.35, for Scenario 3 at the midpoint of cost estimates the estimated demand for the CT does not appear to cover the estimated operational costs of the CTP offering it and a 10% margin for costs of capital and profits. On this basis, we assume that this form of equity CT would not be successfully delivered.
- In contrast, higher estimated demand for Scenario 4 means that this form of equity CT appears economically viable at the midpoint of cost estimates, but not at the upper end. This means there is significant uncertainty regarding whether Scenario 4 would be a viable business model with which to deliver an equity CT over the proposed 5-year contract period.
- Overall, these findings indicate that, while Scenario 4 appears to have the potential to deliver the highest benefits under certain circumstances, it also carries significant delivery risk. By contrast, Scenario 2 appears to have a higher likelihood of successful delivery and still has the potential to deliver significant market-wide benefits (albeit, not to the extent of Scenario 4).
- For how we propose to select an equity CT that provides data at a competitive price, see Chapter 4. In short, we propose to appoint a single equity CTP via a procurement and authorisation process. If we proceed with this proposal, we will not appoint an equity CTP if it did not appear that they would provide the CT at a competitive price point.
- In assessing how likely the equity CT is to be provided at competitive price point, we considered how many firms have, in response to our <u>notice</u> (published May 2025), expressed interest in bidding to operate different versions of an equity CT. We have had expressions of interest from a range of firms. Now, alongside this CP we are <u>inviting</u> Expressions of Interest in providing the equity CT in light of our proposals. This provides another opportunity for potential CTPs to approach us.
- For any equity CT option, we are aware there is a risk that only a few bidders, or even just one bidder would be interested in bidding to be the equity CTP. If this risk materialises, it could reduce competitive pressure on the CT's price and so present challenges to realising our objectives.

As explained further below, we are proposing to introduce a CT under Scenario 2 – albeit our post-implementation review will consider the case for varying the level of pre-trade data included in the tape at a later stage. We will therefore assess the number of likely bidders expressing interest in operating this form of equity CT. If we proceed with our proposal, we will use this information to design the procurement process.

#### **Risks**

- For any equity CT option, there is likely to be a loss of revenue from data contributors (trading venues and APAs), who we propose must provide necessary data free-of-charge to the equity CTP for the purposes of providing the CT see Chapter 5 for further details.
- 3.51 We do not consider this loss of revenue to be a market-wide cost as it will be offset by revenues for the CTP and savings on the cost of equity trade data for users. Nevertheless, it is crucial that our proposals are the most proportionate means of achieving our objectives. This is especially important as a very significant transfer of revenue away from data contributors could potentially pose risks to UK market structure, for instance, if it reduced trading venues' investment in their listing processes and trading systems.
- **3.52** Paragraphs 3.70 to 3.74 below provide a broader assessment of the potential risk to UK market structure from such transfers of revenue. In summary, while we recognise data contributors will likely incur revenues losses, on balance we do not consider these are likely to be of a magnitude to have a significant adverse effect on UK market structure.
- 3.53 Nevertheless, it is important to recognise that the more pre-trade data is included in the equity CT, the greater the likely loss of revenue by data contributors.
- As a result, we understand that compared to other options under consideration introducing an equity CT under Scenario 1 would likely lead to the smallest loss of revenue by data contributors. However, as explained in the section below, we consider that introducing this form of equity CT would not sufficiently achieve our objectives.
- 3.55 Of the options we consider would sufficiently meet our objectives, Scenario 2 appears to minimise to the extent consistent with our policy objectives revenue losses by data contributors. In contrast, likely revenue losses appear highest for Scenario 4 as it includes the greatest depth of pre-trade data. This suggests that introducing an equity CT under Scenario 2 could effectively balance delivering significant market-wide benefits with ensuring our intervention is proportionate.
- A potential further mitigant to the risk of revenue losses by data contributors is requiring revenue sharing arrangements between the equity CTP and certain data contributors. We discuss this option further in paragraphs 3.75 to 3.82.
- 3.57 Some market participants have also expressed a concern that while the introduction of an equity CT may allow the market to adapt more easily where a significant trading venue suffers an outage (see paragraph 3.22) an outage of the equity CT itself could potentially significantly disrupt the market. This is on the basis that any market participants who relied on the equity CT for trading would not have equal access to

- information as others when placing orders. It has been suggested that an equity CT outage may therefore require trading venues to halt trading because, without the equity CT, there could not be a proper market in the trading of equities.
- Any decision by trading venues to suspend trading in the event of a CT outage will depend on a range of factors and the specific circumstances at the time, including the breadth of access to the tape and how far it is relied on for trading decisions. We consider that an equity CT under Scenario 1 or 2 would likely be used to inform and assess trading decisions, rather than for executing trades. This could reduce the likelihood that its outage would lead to suspensions of equity trading. Including a greater depth of pre-trade data may increase use of the equity CT for trading, although we understand that many participants would still use lower latency feeds for this purpose.
- 3.59 We also propose to reduce the risk of equity CT outages by holding the CTP to the same high standard of operational resilience as we do for bonds (see Chapter 7 for further details). As a result, market participants should have access to a reliably available source of consolidated trade data. This should give the market greater confidence in the price formation process if there is an operational incident at an individual trading venue. We consider therefore that introducing an equity CT under Scenario 2, as proposed, will have an overall positive impact on the market's level of resiliency to operational incidents.
- We are keen to hear market participants' views on this issue, particularly on any impact an outage of our proposed equity CT could have on their ability to trade. Once the equity CT is operational, we will also monitor the impact of its outages including via our post-implementation review.

### **Proposal**

- 3.61 Based on the evidence above, we propose to introduce a tape that includes both post-trade data and the attributed pre-trade BBO (Scenario 2) see MAR 9.2B.34AR(2)(a) and MAR 9.2B.34AR(2)(b) in our draft rules. We consider this option strikes the best balance between delivering significant market-wide benefits, offering a reasonable degree of certainty in delivery, and minimising excessive risk.
- 3.62 We do not propose to introduce a post-trade only tape (Scenario 1). This is because, compared to options including pre-trade data, we consider it would likely have a significantly lower impact in terms of improving the effectiveness of UK secondary markets, advancing the UK's international competitiveness and providing straightforward and affordable access to equity trade data. As a result, we do not think it would sufficiently meet our objectives for the equity CT.
- As explained at paragraphs 3.6 to 3.8, alongside Scenario 1, we also considered an alternative model of a post-trade only tape with streamlined regulatory requirements. This model would involve us authorising multiple CTPs, rather than running a procurement process followed by an authorisation. While we consider that this option could further reduce the costs and delivery time of a post-trade only tape, our view is that the lack of pre-trade data means it would not sufficiently meet our objectives.

- 3.64 Under this alternative post-trade only model, there would also be a risk that while multiple firms could be authorised to provide this tape only one would seek to do so. In these circumstances, streamlined regulatory obligations designed for a context where there are multiple equity CTPs might not be sufficient to ensure the resiliency of a key market infrastructure provider. Therefore, we are not proposing to introduce this alternative form of post-trade only equity CT.
- Regarding options including a greater depth of pre-trade data (Scenarios 3 and 4), we consider that, under certain circumstances, they could deliver greater market-wide benefits than Scenario 2. However, based on the evidence currently available to us, the potential incremental benefits may not justify their increased delivery risk, particularly given the importance of introducing an equity CT quickly.
- To further develop our thinking on this, we are keen to receive any further information on the incremental benefits that a CT with a greater depth of pre-trade data could deliver to both specific firms and the broader UK market. We welcome views both in response to this consultation and in conversations with firms interested in providing the equity CT, in response to our invitation for Expressions of Interest.
- Observing the real-world impact of an equity CT will also further develop our understanding of the most suitable option for UK markets over the long term. Therefore, once the CT has been operational for 2 years, we will start to carry out a detailed post-implementation review on the operation of the equity CT. This review will consider, among other matters, whether there is a case for varying the level of pre-trade data included in the tape for subsequent contract periods.
- In parallel with our longer-term work on the equity CT, we are also exploring options to provide the market with a level of consolidated post trade data more quickly. This includes whether the FCA could aggregate and publish equity market data on an end-of-day basis as an interim solution before the equity CT is operational.
  - Question 1: Do you agree we should introduce an equity CT including post-trade data and the attributed pre-trade best bid and offer? Y/N. Please give your reasons.
  - Question 2: Do you agree we should not introduce a real-time posttrade only equity CT, regardless of its likely speed of delivery? Y/N. Please give your reasons.
  - Question 3: Do you agree, on the basis of the evidence currently available, we should not introduce an equity CT with a greater depth of pre-trade data? Y/N. Please give your reasons.
  - Question 4: Do you have any initial views on whether an outage of the equity CT proposed in Question 1 would affect your ability to trade subject to further evaluation once the equity CT is live?

#### Question 5:

Subject to further assessment of its feasibility, in principle do you think it would be helpful for the FCA to publish end-of-day consolidated post-trade data before the equity CT goes live? Y/N. Please give your reasons.

# **Revenue Sharing**

In this section, we further assess the risk that introducing an equity CT, especially one with pre-trade data, could lead to a significant transfer of revenue away from data providers that would negatively affect UK market structure. We also consider whether requiring revenue sharing arrangements between the equity CTP and certain data contributors could help mitigate this risk and make our intervention more proportionate, without compromising our objectives.

#### Assessment of risk

- 3.70 By introducing an equity CT, we aim to increase usage of consolidated UK equity trade data across a wider range of market participants.
- We recognise however that for any equity CT option, whilst not part of our objectives, there is likely to be a loss of revenue from data contributors (trading venues and APAs). This loss will likely arise if some current customers of data contributors' proprietary data products substitute these for the equity CT. We consider that display data products (especially those that only include post-trade data or the pre-trade BBO) are most likely to be substituted.
- 3.72 Nevertheless, we understand that data contributors, especially trading venues, will still be able to earn significant revenues from selling other data products. Notably, we are not considering introducing an equity CT which would be a direct substitute for a data product that includes all levels of pre-trade data.
- 3.73 Additionally, certain uses of equity market data require it to be disseminated as near to real time as possible (low latencies). The December 2024 EE report noted that high frequency traders currently consume direct data feeds with a latency of around 10-100 microseconds. We are not considering introducing an equity CT that would disseminate data this quickly, so our assumption is that our proposals would not have a material impact on sales of low-latency data. We understand that this type of data is a significant source of income for many venues.
- So, while we recognise data contributors will likely incur revenues losses from the equity CT, on balance our analysis indicates that these are unlikely to be large enough to have a significant negative effect on UK market structure. This risk appears to be further reduced by introducing an equity CT under Scenario 2. This option appears to effectively balance delivering significant market-wide benefits with, to the extent feasible, limiting transfers of revenue between firms.

#### Revenue sharing

- 3.75 Nevertheless, we considered if requiring revenue sharing arrangements between the equity CTP and data contributors could make our proposal to introduce an equity CT under Scenario 2 less burdensome to those that currently sell data, without compromising our objectives.
- As part of our analysis, we commissioned a further report by consultants EE on how revenue sharing could hypothetically be implemented for a UK equity CT. EE considered the role of certain trading systems in contributing to price formation, and the need to ensure predictable outcomes. Their key recommendations included sharing a fixed percentage of the CTP's revenues between trading venues with lit trading systems. The split of revenue between these venues could then be largely determined by the proportion of trades executed on each venue. We consider that, if we were to implement revenue sharing arrangements, sharing revenues only with trading venues operating lit trading systems could be justified. This is because pre-trade data is generally more expensive than post-trade data, which could lead to a greater effect from the equity CT on the revenues of lit venues.
- 3.77 We also considered the regulatory framework in other comparable jurisdictions. Both the current US and planned EU equity CTs have revenue sharing arrangements. In the US, we understand that all the CT's net revenues are shared between data contributors, in a context where data contributors are effectively owners of the CT and usage of the CT is mandatory. In the EU, equity CTP bidders must have revenue sharing arrangements but the level of revenue to be shared is not specified and bidders are not scored on the details of their arrangements.
- 3.78 Overall, our analysis indicated that requiring a CTP to share a plausible percentage of its revenues with lit trading venues (we assumed 10% as an illustrative example for our analysis) would likely reduce the total transfer of revenues between the CTP and venues. However, for individual venues, the amount returned could be relatively small. This implies that requiring revenue sharing may not be effective in significantly compensating individual data contributors. Assuming that above 10% of revenues were shared may increase costs for the CTP; assuming a lower percentage may decrease the amount of revenue returned to venues.
- There is also a risk that requiring revenue sharing arrangements may compromise our objectives for the equity CT. This is because it would increase the CTP's costs, and so potentially reduce the attractiveness of this business model. This may disincentivise potential CTP bidders, and so reduce competitive pressure on the price of the CT.
- 3.80 To reduce any such impact, we could explore options to ensure required revenue sharing was set at the optimal level (either by setting a level in our rules or incorporating this as an element in our procurement process). However, doing so would likely be complex as it will depend on the CT's revenues and costs, which are unknown. The industry also has a strong preference for us to introduce an equity CT as quickly as is feasible. Further, we consider that implementing the equity CT quickly is directly relevant to one of our aims: to maintain the UK's international competitiveness in equities markets.

#### **Proposal**

- 3.81 We do not propose to require revenue sharing arrangements between the equity CTP and data contributors. However, we are keen to hear respondents' views on this and, depending on the feedback received, are open to considering other options.
- **3.82** Our post-implementation review will also revisit the issue of revenue sharing for subsequent contract periods. Any conclusions will not affect the operation of the CT and CTP during the first contract period.
  - Question 6: Do you agree with our proposal not to require revenue sharing arrangements between the equity CTP and data contributors? Y/N. Please give your reasons.

### Systematic Internalisers (SIs)

- Proposing to include pre-trade data in an equity CT also raises the issue of whether data from all entities with an obligation to publish pre-trade data should be included in the scope of the tape. In CP25/20 we said that, where pre-trade information from trading venues is part of an equity CT, there is an argument for consolidating quotes provided by SIs.
- 3.84 SI quotes can give a useful indication of bilateral liquidity available in the market. However, their contribution to price formation depends on their visibility and accessibility. Currently, SI quotes are provided using different reporting mechanisms which creates a challenge for users to consolidate them into a single stream. So, we suggested that including SI quotes in the equity CT could reduce the frictional cost of aggregating quotes, improve access to quotes by making them more visible, and potentially incentivise SIs to improve the quality of their quotes as part of the process of competing with other SIs.
- **3.85** We asked 2 questions in CP25/20 about the inclusion of SI quotes in an equity CT:
  - Would including SI quotes in a consolidated tape improve their contribution to price formation?
  - If so, should all quotes be included, or only those above a certain size or quality threshold? If using a threshold, what should that be?
- 3.86 Most respondents were opposed to including SI quotes in a pre-trade equity CT, saying it would create noise and mix distinct types of data. Most responses did not suggest that including SI quotes in the CT would improve their contribution to price formation.
- 3.87 A few respondents were in favour of including all SI quotes, on the grounds that this would provide a helpful aggregation of the information and give the broadest picture of liquidity. A few respondents also thought that including SI quotes in the CT could improve their contribution to price formation but only advocated for including quotes above a size or quality threshold. Suggestions for the threshold included quotes being above a certain standard market size (SMS) or within measures of the BBO.

- 3.88 SIs are not required to publish quotes above the SMS and so it would be difficult to require any such quote to be included on the CT, other than voluntarily. The logic of including quotes that are within the BBO is that this would be genuinely additional information for the market, whereas quotes that merely follow the BBO are not. It might also create an incentive for SIs to quote within the BBO, leading to improvements in execution quality. However, it might also encourage more trading to be done through SIs and less through CLOBs.
- 3.89 We also need to consider the potential impact on the CTP and operators of SIs from including such quotes in the CT. Including SIs in the tape will increase the number of entities the CTP will need to collect data from. Applying a size or quality threshold, or requiring an SI BBO, could also increase the complexity for the CTP of consolidating this data. Operators of SIs would also need to bear the costs of meeting the standards set for data transmission to the CTP.
- Having reviewed the responses to the relevant questions in CP25/20, we want to clarify the areas we are considering. This is because, when it comes to 'including' SI quotes in an equity CT, there are 2 broad approaches that can be taken. First, to use the quotes as part of determining the BBO alongside quotes provided by trading venues. Second, to publish all the quotes provided by SIs (or a selection based on size or price) and/or a BBO from amongst quotes made public by SIs. This SI BBO would be in addition to the BBO calculated using quotes from trading venues. We did not distinguish between these 2 approaches in CP25/20.

#### **Proposal**

- This CP does not include any proposals about including SI quotes in the equity CT. However, we want to continue to explore the issue given the different options for 'including' SI quotes in the equity CT.
- 3.92 We ask additional questions on this issue below. Depending on the responses, we may make proposals on this topic in the CP on equity market transparency, which we intend to publish in 2026. Our aim is to finalise our thinking on this issue in the PS on the equity CT that follows on from this CP.
  - Question 7: Do you think there is a case for being able to view, via the equity CT:
    - a: All quotes that equity SIs are required to make public under Article 15 of UK Markets in Financial Instruments Regulation (MIFIR, Regulation (EU) No 600/2014).
    - b: The BBO of SI quotes in each liquid equity instrument.
    - The subset of SI quotes made public under Article 15 of MiFIR that are within the BBO for an instrument?
       Y/N. Please give your reasons.

#### Question 8:

Is there any information you can provide about the potential costs for SIs of providing their quotes to the equity CTP; or the complexity and costs for the CTP of being required to publish a subset of SI quotes or the BBO from amongst SI quotes?

### Latency requirements

- 3.93 In this section, we consider the speed (ie latency) at which data in the equity CT should be disseminated. We know equities tend to trade quickly, and so market participants generally also need to receive equity trade data quickly. This suggests the equity CT data needs to be published at a relatively low latency to enable many of its likely use cases.
- The speed with which equity CT data is disseminated will depend on the latency at 3 stages. These are the latency at which:
  - Data contributors transmit input data to the equity CTP.
  - The equity CTP publishes this data once they have received it.
  - Users receive the data after the CTP has published it.
- 3.95 On latency requirements for equity pre-trade data, the December 2024 EE report noted that these vary among market participants. At one end, high frequency traders currently use direct data feeds with a latency (ie the difference between publication by a trading venue and reception by the data user) of around 10-100 microseconds. EE noted that the CT could never be a substitute for such use cases. At the other end, participants focused on post-trade analysis, relationship-based trading or long-term strategies could find a latency of 100-500 milliseconds acceptable.
- 3.96 Based on the EE report, we understand that a latency of around 150 milliseconds (between publication by a data provider and publication by the CTP) would allow many of the envisaged use cases of the equity CT. We know this may not be quick enough for certain types of trading.
- **3.97** The below sections propose latency requirements that seek to balance 2 objectives:
  - To enable as wide a range of equity CT use cases as is feasible.
  - To ensure that our requirements are compatible with an economically viable business model for the CTP and are feasible for UK data contributors.

#### Latency requirements for data contributors

**3.98** For the bond CT, we did not set requirements on the speed at which data contributors must transmit data to the CTP. Instead, we required the bond CTP to monitor how quickly it received data. However, given the greater importance of latency for the equity CT, we consider such requirements are likely necessary for equity data contributors. We want to ensure these requirements are as clear as possible.

- 3.99 We could therefore require data contributors to transmit pre-trade data and post-trade data to the CTP as close to real time as technically possible. In any case, this could be no later than 50 milliseconds after the timestamp of the order (for pre-trade data) or the timestamp of the transaction (for post-trade data). We could apply a daily 95% confidence interval to this requirement.
- 5.100 For data contributors transmitting post-trade data on transactions executed outside of a trading venue (ie APAs), we could require them to transmit such data to the CTP as close to real time as technically possible. In any case, this could be no later than 50 milliseconds after the timestamp of the reception of the trade report (from the investment firm or Designated Reporter). We could apply the same 95% confidence interval to this requirement.
- **3.101** Where the publication of a trade is deferred, the requirements could apply to data contributors from the point at which the deferral ends, or information about a deferred trade has been received by an APA after the deferral has ended.
- 3.102 Regarding amendments or cancellations of trades by APAs, the requirements could apply from the point at which the APA receives information notifying them that such a change is necessary. However, we are aware that this may be a challenging timeframe given the work required to process amendments and cancellations in a way that maintains data quality. Alternative options include extending the period by which the APA must transmit such information or applying our latency requirements from the point at which the APA publishes the amendment or cancellation.
- 3.103 A key advantage of the approach outlined above is that, together with the proposed latency requirements on the equity CTP (set out in the next section), it would help ensure that the CT is disseminated at around 150 milliseconds. This would help us achieve our objective that the equity CT can be used for a wide variety of use cases.
- 3.104 Such requirements would be in line with the approach taken by the EU. Some data contributors will be part of groups in which entities in the UK and EU will have to provide data to the equity CT in the UK and EU respectively. Whether the application of the same standards in both jurisdictions would lead to cost savings will depend on the specific business models and technology builds these groups use when conducting their activities here and in the EU.
- 3.105 However, the benefits of this approach must be weighed against the need to ensure our requirements are proportionate for data contributors. A key disadvantage of this approach is that disseminating data with a latency of 50 milliseconds would be a new requirement on data contributors (currently they must publish reports as soon as technically possible and no longer than 1 minute after a trade has occurred).
- 3.106 In discussions with market participants, it has been suggested to us that a single latency standard across all forms of trading protocol used by trading venues could cause issues. The standard might be more challenging for trading that does not take place on a CLOB.
- **3.107** We have also heard that a challenge for APAs is that the information they send to the CTP must include the time they published a trade. So, on receipt of data, an APA would

- need to conduct its data checks, publish and then send the data to the CTP all within 50 milliseconds.
- **3.108** On balance, we consider such requirements may be necessary to help ensure the equity CT is disseminated quickly enough to market participants to suit a wide variety of use cases and so meet our objectives.
- **3.109** We also understand from the December 2024 EE report that the costs and complexities for UK data contributors in implementing such requirements will be reduced as they are geographically concentrated. This reduces the risk that a data contributor will be disadvantaged by being located significantly further away from the equity CTP's infrastructure than others, but still being required to transmit data to the CTP at the same speed.
- **3.110** Nevertheless, we are interested in views on any alternative options that could limit costs and complexity for data contributors, while still meeting our objectives for the equity CT. These could include:
  - Extending the period by which data contributors must have transmitted an order or transaction to the equity CTP – for instance from 50 milliseconds to 100 milliseconds.
  - Lowering the 95% confidence interval with which data contributors must meet the relevant latency requirements.

#### **Proposal**

- 3.111 We propose to set latency requirements for data contributors in line with those outlined in paragraphs 3.98 to 3.102 (see MAR 9.2B.34BR(1) in the draft rules). We consider, together with our proposed latency requirements for the equity CTP described below, they are necessary to meet our objective of ensuring the equity CT can be used for a wide variety of use cases.
  - Question 9: Do you agree with our proposed latency requirements for data contributors? Y/N. Please give your reasons.
  - Question 10: Do you think there are specific types of trading protocol that should be subject to a higher latency requirement? Y/N. If yes, explain which types of flow and why.
  - Question 11: Do you see any potential challenges in UK data contributors meeting these requirements, including around cancellations and amendments? If so, do you think the alternative options outlined would help reduce these challenges? Please also provide any further suggestions.

#### Latency requirements for the equity CTP

- **3.112** Our contract for the bond CTP specifies that, once it has received details of a trade from data contributors, it must then publish this data within 1 second. It must meet this standard for 99.99% of records.
- The equity CT will likely need to be distributed at a significantly lower latency to enable many of its expected use cases. However, we need to balance this against the fact that disseminating an equity CT including pre-trade data will require the CTP to process a very large amount of data. Indeed if, as proposed, we introduce an equity CT that includes the attributed pre-trade BBO, the equity CT would have to process multiple data feeds containing multiple layers of pre-trade data to calculate this BBO.
- **3.114** To help assess the most appropriate latency for the equity CT, our April 2025 survey suggested ranges for the latency at which each equity CT option should be distributed. These were:
  - Scenario 1: distributed with a latency of 300 milliseconds or less from publication.
  - Scenario 2: distributed with a latency of 100-200 milliseconds.
  - Scenario 3: distributed with a latency of 40-100 milliseconds.
  - Scenario 4: distributed with a latency of 20-40 milliseconds.
- **3.115** Overall, survey respondents did not give a consistent view on the required latency. To ensure a manageable number of survey questions, we did not ask respondents to consider the issues of data coverage and latency separately.
- **3.116** We also asked the data consolidation firms who provided cost estimates for the 4 equity CT options to assume the above latency ranges and that requirements were maintained a minimum of 99% of the time.
- 3.117 Overall, there was no consistent view from the data consolidation firms we spoke to on whether requirements to provide the CT at a lower latency would significantly increase costs. However, we understand from the information provided to us that it may be significantly more expensive to distribute data at 50 milliseconds compared to 100 milliseconds.

#### **Proposal**

- **3.118** As above, our latency requirements for the equity CTP seek to balance 2 objectives: ensuring the equity CT can be used for a wide variety of use cases, and that requirements are compatible with an economically viable business model for the equity CTP. We considered feedback received via the December 2024 EE report and from data consolidation firms to consider which approach would best balance these objectives.
- **3.119** From this analysis, we propose that if we introduce an equity CT under Scenario 2 then, once an equity CTP receives details of a relevant order or trade, it must publish this data within 100 milliseconds. In line with our expectations of the bond CTP, we propose that the equity CTP must at least meet this latency standard with a daily 99.99% confidence interval. See MAR9.2B.34DR(1)(b) in the draft rules.

- **3.120** Combined with our proposed requirements for data contributors, this requirement for CTPs would result in an equity CT latency of around 150 milliseconds. We understand this will enable most anticipated CT use cases.
- 3.121 While this requirement would allow CTPs to disseminate data at a longer latency than data contributors, we consider this may be reasonable given the large amount of data that a CTP offering a pre-trade equity CT will need to process. We would also hold the CTP to a higher standard for consistently meeting its latency requirements (a daily 99.99% confidence interval compared to a daily 95% confidence interval for data contributors).
- **3.122** We are also interested in views on whether there is a case for having separate latency standards for pre- and post-trade data, given the complexities involved in processing pre-trade data.
  - Question 12: Do you agree with our proposal that, once an equity CTP receives details of a relevant order or trade, it must publish this data within 100 milliseconds with a daily confidence interval of 99.99%? Y/N. Please give your reasons.
  - Question 13: Do you think there is a case for having separate latency standards for pre- and post-trade data? Y/N. Please give your reasons.

# **Chapter 4**

# Selecting an equity CTP

# Single or multiple CTPs

- 4.1 Another key question when introducing an equity CT is whether it should be offered by a single provider or whether we should allow multiple equity CTPs to be authorised.
- We discussed this issue briefly in the previous chapter, in the context of an option to deliver a post-trade only tape. This chapter discusses the wider issue of the most appropriate option for the equity CT during the initial phase of the framework regardless of the level of data the CT includes.
- **4.3** There are 3 key considerations relevant to this decision, which we discuss in turn below.
  - Feedback from market participants, the potential users of the CT.
  - Impact on the speed at which the equity CT could be introduced.
  - Implications for market competitiveness, economic viability of the CTP or marketwide costs.
- The Treasury Select Committee asked us about our decision to appoint a single CTP for bonds in a <u>letter</u> in July 2023. In our <u>response</u> (see Question 4) we covered the arguments for having multiple or single CTPs in detail.

#### Feedback from market participants

- 4.5 In CP23/15, we consulted on whether we should appoint a single CTP per asset class through a tender process. While the consultation was in the context of the bond CT, the question and most responses covered multiple asset classes meaning they are a relevant input for designing the equity CT framework.
- 4.6 Based on these responses and further discussions with industry, market participants clearly have a strong preference for a single equity CTP. As with the bond CT, the 2 main reasons given for this preference are to ensure that the CTP is economically viable and to establish a 'single source of truth' that becomes a common reference point for the market.

# Impact on speed of delivery

Following CP23/15, we appointed a single bond CTP using a procurement process. Under the DRSRs, we could also appoint a single equity CT via a procurement process. Procurement processes can take around 6 months, after which point the equity CTP would need to be authorised.

4.8 Alternatively, if we allowed multiple equity CTPs to seek authorisation, we would not need to undertake a procurement process. So, this option could speed delivery of an equity CT by approximately 6 months, depending on the quality of applications for authorisation received. This option could also lead to multiple equity CTs.

#### **Further implications**

- Having multiple equity CTPs could also, in principle, intensify competition in the market, placing downward pressure on the price of a CT and encouraging CTPs to innovate. However, this would depend on multiple firms considering it economically viable to provide an equity CT in such circumstances. There is also a possibility that a single CTP would gain a significant market share, as a result of users coalescing around one provider due to the benefits of using the same data as most other market participants.
- 4.10 On the other hand, in line with our analysis in CP23/15, there are also advantages to appointing a single equity CTP. Notably, a single provider model would be the most economically viable for potential CTPs as it would make them the sole supplier of the service.
- 4.11 A significant part of the reason why no equity CT emerged under the framework in MiFID II, which allowed multiple CTPs, is that the economic model was not attractive enough. A single provider model is one way to help stimulate firms' interest in operating an equity CT. The next chapter outlines further proposals on the economic model of an equity CT.
- 4.12 If a single provider model encouraged several firms to compete to operate an equity CT via a procurement process, this would also increase the likelihood that an equity CT is delivered at a competitive price point. If we took this approach then the design of our procurement process would, as far as possible, seek to mimic the outcomes that would have resulted if there was competition between multiple equity CTPs.
- 4.13 Another advantage of a single provider model is that data contributors would only need to connect to a single CTP to provide data, and users would only have to buy a single CT.
- 4.14 While a single provider model does not allow for ongoing competition in the CT market, it should not inhibit competition in the potentially larger market for value-added services based on consolidated data.

#### **Proposal**

- 4.15 Reflecting market participants' strong preference, we propose that the equity CT is offered over an initial 5-year contract period by a single provider, who we would appoint via a procurement process. Our proposals in this CP are therefore based on having a single CTP for equities.
- 4.16 However, we know that our proposed approach involves trade-offs compared to authorising multiple equity CTPs, especially in terms of how quickly we can feasibly deliver an equity CT. We are keen to hear respondents' views on whether our proposal strikes the right balance between the key considerations outlined above.

- 4.17 Importantly, appointing a single equity CTP for the first contract period does not mean that this must be the model in the longer term. We will consider whether it makes sense to continue with a single provider model when, after 2 years of the equity CT being operational, we start to conduct a post-implementation review.
- 4.18 This approach is broadly in line with that taken by comparable jurisdictions. The CT in the US was initially set up based on a single provider for each of the sets of data it consolidates, and the EU will also start with a single provider per asset class for its CTs.
  - Question 14: Do you agree we should have a single CTP for the first 5-year contract period for the equity CT? Y/N. Please give your reasons.

#### **Procurement process**

4.19 If we appoint a single equity CTP, we will do so via a procurement process, which we will set out in a transparent way. This procurement process would seek to award the contract to the most advantageous tender supplier. To do so, our process would place strong emphasis on both quality and price components. We will decide the details of this procurement process according to what best suits the market, taking account of findings from our engagement with potential equity CTPs.

# Further discussion with those interested in providing the UK equity CT

- **4.20** On 7 May 2025, we published a notice for prospective providers of the UK equity CT.
- 4.21 As noted at paragraph 1.26, alongside this CP, we are now <u>inviting</u> Expressions of Interest in providing the equity CT in light of our proposals. This will enable us to continue our dialogue with interested parties. It also gives other firms the opportunity to express their interest and enter a dialogue with us so we can understand and seek to resolve any of their concerns.

### **Chapter 5**

# **Economic model for an equity CT**

#### Introduction

- The MiFID II framework did not result in CTs being established because the economic model for CTPs was insufficiently attractive. For the bond CT, we made further changes to the MiFID II framework to encourage firms to bid to become the CTP. These included requiring that contributors provide data for free to the CTP and abolishing the requirement for the CTP to provide data for free after 15 minutes.
- In this chapter, we discuss the following aspects of the economic model for an equity CT. As for the bond CT, we want this model to encourage interest in providing the equity CT, thereby making it more likely it is provided at a competitive price.
  - The length of the contract to operate the equity CT.
  - The terms on which data are provided to the CTP.
  - Licensing.
  - Use of the data.
  - Pricing rules for the CTP.

### **Analysis**

### Length of contract to operate the equity CT

- Under the DRSRs, if we operate a procurement process to appoint a CTP then the winning bidder can ordinally operate the CT for a contract period of a maximum of 5 years. To appoint the CTP for the next contract period, we would run a re-tender process. In certain very limited circumstances, we may extend the 5-year contract period by 2 years. For example, if we anticipate significant changes to the obligations on equity CTPs.
- The Treasury chose 5 years as the maximum contract period to balance providing the CTP with a long enough period to recoup their initial investment in setting up the CT, without establishing the incumbent's position in the market to the extent that other firms would be deterred from bidding in a re-tendering process.
- 5.5 Given these requirements are set by the DRSRs, we do not have the power to alter them. To make any changes, we would need to work with the Treasury to decide if this was appropriate and necessary for the equity CT.
- We have received mixed views on whether a 5-year contract period is appropriate. In some discussions with industry on the bond and equity CTs, concerns were raised that

- the commercial uncertainties for potential providers meant that a 5-year contract period may deter bidders and should be extended.
- 5.7 The general view from our discussions with firms potentially interested in providing the equity CT is that a 5-year contract period should be economically viable. Nevertheless, they also felt that extending the contract period by 2 years would provide greater certainty. This could create greater interest from potential bidders and deliver a more affordable and high-quality tape. However, as noted above, the DRSRs only permit contract extension in certain very limited circumstances.

### Provision of data by contributors

- Under the MiFID II regime for CTs, a CTP would have needed to buy data from each relevant data contributor. This was judged to be a significant barrier to the emergence of CTs across all asset classes including equities and bonds.
- Potential CTPs said that providing a CT is not a viable business model if, to break even, they need to charge users a fee high enough to cover the total charges from data contributors across the market for redistributing data.
- 5.10 So, when designing the framework for a bond CT, we placed an obligation on data contributors to provide their data to the bond CTP without charge MAR 9.2B.34R(4).

#### Licensing

- In designing the bond CT framework, we required the bond CTP to offer certain fixed licence types to its users. We designed these licence-types based on advice from the consultants DotEcon and discussions with market participants. They seek to achieve the following objectives:
  - Be less complex than existing market data licences involving a smaller number
    of categories that enable users to easily understand how much they will pay, and
    which licence type is necessary for them.
  - Do not require extensive auditing by market data users to ensure licencing categories are correctly applied.
  - Allow access to market data at a reasonable charge for smaller market participants.
  - Encourage innovation in the creation of value-added products.
- To meet these objectives, we will require the bond CTP to offer 4 licence types, described in more detail below. These will be included in the bond CTP's contract, rather than FCA rules.
  - Individual licences allow professional use of real-time and historical data where a firm only requires a small number of users to have access to the CT. Individual licences are limited to one display or log-in session. Individual licensees are not allowed to sell value-added and derived data services using the CT data. An individual licence does not allow for redistribution of raw data within an organisation.

• **Enterprise licences** allow professional use of real-time and historical data with no restriction on the number of points of access from the enterprise licence holder to the CTP. Enterprise licences allow use of the CT to create value-added and derived data services.

Enterprise licences will be tiered by users' revenue. Revenue will include turnover, from all activities including the provision of value-added services, of the legal entity buying the licence plus that of any parents, subsidiaries or affiliates using the CT data.

Any firms within the group not captured within the enterprise licence will need to buy a separate licence from the CTP or through a redistributor.

• Redistribution licences are needed where a material part of the CT data is made available to an end user (whether or not as part of a value-added service). In particular, information about the instrument traded, and the price and quantity of the trade. Reformatting CT data or linking additional data would still be considered redistribution if a material part of the raw CT data (whether real-time or historical) could be extracted.

The CTP must provide a feed of its data to the redistributor without charge. However, the redistributor needs to make a payment to the CTP for each redistributed licence, with the payment being equal to the price the user would have paid if that licence had been bought directly from the CTP. The redistributor can set its own end-user prices as it chooses.

- Academic/non-commercial licences provide academic and non-commercial users with free access to historical data.
- For individual, enterprise and redistribution licence types, a bond CTP must set separate prices for real time and historical data.
- **5.14** For enterprise licences, we have 5 categories of firm size for the bond CT. These are revenues of:
  - <£10 million
  - ≥£10 million and <£50 million
  - ≥£50 million and <£250 million
  - ≥£250 million and <£1 billion
  - >f1 hillion
- Market participants have raised the following issues regarding our bond CT licencing regime:
  - The licence types require potential providers to adapt their commercial models to the regulator's requirements rather than the market's requirements.
  - The potential overlap between the individual licence and the smaller enterprise licences is a complicated way of allowing smaller users to access the CT at a modest price.

- The failure to distinguish between firms using enterprise licences for internal purposes and those creating value added products creates unfairness in pricing.
- There is a case for distinguishing between firms using the data for asset servicing and other types of enterprise user, as the CT will significantly lower operational costs for the former.
- It is difficult for a relatively small CTP to check whether the revenue figures cited by potential licensees are realistic or not.
- Firms might need to have an enterprise licence and a redistribution licence for the same data where they were both using the data internally and sharing it with clients.
- 5.16 We recognise that firms have different ideas on how the CT can be commercialised and that setting out licence types places a restriction on the range of approaches that can be considered. However, in the procurement process for the bond CTP, we thought that setting out licence types helped ensure a proper comparison between the terms on which different bidders would operate the CT.
- Our licensing regime was also deliberately designed to address concerns about the licensing of market data in our WTDR. For example, concerns about users paying multiple times for different uses of the same data, and extensive auditing requirements (related to complex fee structures based on the number of individuals using data in different ways). This is why we wanted simpler CT licence types that enable very broad use of data and do not require such extensive auditing.
- 5.18 We also recognise that allowing for free provision of historical equity CT data to certain potential users (via academic/non-commercial licences) deprives the CTP of a potential revenue stream. There is therefore a trade-off between our objectives of broadening access to equity trade data and ensuring that providing an equity CT is an attractive business model for firms. However, retail investors play a more significant role in equity markets than they do in bond markets. As a result, the question of what can be done to support retail access to market data has a wider impact for equities.

### Providing data for free after 15 minutes

- Provisions in MiFID II required CTPs to make their data available for free 15 minutes after they had published it (in line with requirements for trading venues and APAs). This requirement aimed to broaden access to market data. However, participants frequently raised this as an aspect of the MiFID II framework that discouraged firms from seeking to become authorised as CTPs.
- The WMR therefore proposed removing this requirement under a new framework for CTPs. The <u>response</u> to the consultation on the WMR said most respondents supported removing the requirement, but some respondents argued that to do so could disadvantage retail investors and non-professional users of the data.
- We then consulted on this issue in CP23/15 for the bond CT and summarised the responses in CP23/33 <u>Consultation on payments to data providers and forms for Data Reporting Services Providers</u>. Respondents generally agreed with our approach, although some argued the requirement should also be removed for trading venues and APAs.

5.22 With bonds, we decided the CTP should not have to make data available for free after 15 minutes because this would likely reduce firms' interest in bidding to provide the CT. We did not change the obligation for trading venues and APAs because we thought this would be inconsistent with our broader aim of widening access to market data. On this issue, we consider that the considerations for an equity CT are very similar to those for a bond CT.

#### Consumption of data

- 5.23 In CP23/15, we considered whether the consumption of data from the bond CT should be compulsory. This is because questions had been raised on whether this would be necessary to ensure the tape's economic viability.
- Under a single provider model, the CTP will be sole supplier of its specific service. However, concerns about the CT's economic viability reflect the market it will have to compete in. At one end of the market, those who require low-latency data are very likely to continue to buy it from trading venues. At the other end of the market, for those whose use of data is not time sensitive, data is available freely 15 minutes after publication. However, the WTDR noted there are issues with accessing this free 'delayed' data.
- 5.25 Nevertheless, in CP23/15, we said that various arguments had been made on why consumption of the CT should not be compulsory. These were:
  - Mandatory consumption removes the CTP's incentives to innovate or improve the data quality of the CT. Without mandatory consumption, the CTP should construct the CT appropriately so that it provides an economically attractive offering to market data users.
  - Mandatory consumption would also remove a critical indicator on whether a CT is fit for purpose and therefore detract from effective CTP governance.
  - Firms may already have access to the necessary price data at a lower latency through direct feeds. Mandatory consumption of the CT would create unnecessary cost increases for those firms.
  - A requirement to consume the full CT might limit competition by creating a barrier to entry for smaller firms.
  - The expectations placed on firms by other regulatory requirements will mean that demand for and use of CT data will be sufficiently widespread even without a mandate requiring its consumption.
- We therefore concluded that the success of a bond CT does not require mandatory consumption. We consider the picture is very similar for an equity CT.

#### **Pricing**

- The MiFID II framework set rules on pricing for CTPs. Pricing had to be on a reasonable commercial basis (RCB). This requirement had 2 main components:
  - First, the price of market data must be based on the cost of producing and disseminating such data and may include a reasonable margin.

- Second, the costs of producing and disseminating this data may include an appropriate share of joint costs for other services provided by APAs.
- We disapplied the RCB rules for the bond CT on the basis that the procurement process would decide the pricing of the bond CT. If we appoint a single equity CTP via a procurement process, we intend to deal with price through the procurement process rather than through our rules.

### **Proposals**

#### Length of contract to operate the equity CT

- The DRSRs set a maximum contract period of 5 years. Our experience with the bond CT and equity CT discussions indicates this length of contract period appropriately balances the CTP's economic viability with the need to ensure a competitive retendering process.
  - Question 15: Do you agree 5 years is an appropriate period for the length of a contract to operate an equity CT? If not, what length of time do you suggest and why? Y/N. Please give your reasons.

#### Provision of data by contributors

- 5.30 We propose that data contributors should have to provide their data to the equity CTP without charge see MAR 9.2B.34AR(1) in our draft rulebook. As with the bond CT, we consider that this will encourage firms to bid to provide an equity CT.
- Relatedly, we do not propose to require revenue sharing arrangements between the equity CTP and data contributors see paragraphs 3.69 to 3.82.
  - Question 16: Do you agree the CTP should not have to pay data contributors for accessing their data? Y/N. Please explain your reasons.

#### Licensing

- For the bond CT, we set a licensing structure through contractual requirements on the CTP (rather than via FCA rules). Our aim with the equity CT is also to deal with licensing issues through the procurement process.
- We are still considering exactly how the procurement process for the equity CTP will work. This includes exactly how we will deal with the issue of licensing. However, it is our intention that the equity CTP will offer a relatively simple licensing structure that will support wide access to and use of the data from the equity CT.

- As licensing will be dealt with through the procurement process rather than through rules, we are not consulting on precise proposals for licensing in this CP. However, we think this is a good opportunity to get feedback on licensing issues. The best starting point for this is to consider whether the licensing structure we will use for the bond CT would also work for the equity CT. This includes requiring the CTP to offer free academic/non-commercial licences for historical data.
  - Question 17: Do you agree the licensing structure we adopted for the bond CT would also work for the equity CT, in particular do you think we need additional provisions relating to access for retail clients to real-time data? If you think there should be differences in the licensing scheme for equities, please set out the changes you think are necessary and their rationale.

#### Providing data for free after 15 minutes

- We do not propose that an equity CTP should provide its data for free after 15 minutes. In our view, setting a simple licencing regime for the equity CT that takes account of use by retail investors and academics is a better way to meet our objective of broadening market data access.
- This would not affect trading venues' and APAs' existing obligation to make data available for free after 15 minutes. This is a well-established feature of the market which we do not intend to change.
  - Question 18: Do you agree an equity CTP should not be required to make its data available for free after 15 minutes? Y/N. Please give your reasons.

#### Consumption of data

- **5.37** We do not propose to require mandatory consumption of equity CT data.
  - Question 19: Do you agree that consumption of the equity CT should not be compulsory? Y/N. Please give your reasons.

#### **Pricing**

- 5.38 We do not propose that an equity CTP should be subject to rules on pricing on a reasonable commercial basis. As with the bond CT, we think these requirements would duplicate the role of the procurement process in relation to price.
  - Question 20: Do you agree an equity CTP should not be subject to rules on pricing on a reasonable commercial basis? Y/N. Please give your reasons.

### Chapter 6

## Data coverage

#### Introduction

- 6.1 Issues of data coverage for the bond CT are mainly dealt with in MAR 9.2B.34R in our Handbook. Many of the issues covered for the bond CT exist for the equity CT too, and there also other issues specific to an equity CT. In this chapter, we discuss the following issues regarding the equity CT's data coverage:
  - The type of instruments covered.
  - The trading venues and APAs whose data would be included in an equity CT.
  - Equity pre-trade and post-trade transparency requirements, and including CT specific requirements in post-trade equity reports.
  - The provision of regulatory data on the status of financial instruments and trading venues.
  - A requirement to provide historical post-trade data.
  - A requirement for a database of pre-trade data.

### **Analysis**

### Type of instruments

- The category of 'equity' for the purposes of the UK's trade transparency regime includes a range of instruments. As well as commercial and investment companies' shares, it also includes depositary receipts, ETFs, certificates and other similar financial instruments. Respondents to CP23/15 generally favoured including all these instruments within the scope of an equity CT.
- We excluded Exchange Traded Notes (ETNs) and Exchange Traded Commodities (ETCs) from the scope of the UK bond CT. These instruments are regarded as 'bonds' for the purposes of our trade transparency regime. However, while they share a legal structure akin to a bond, they are significantly different from most other types of bonds. In contrast to debt issued by corporations or central government, they are designed to give an investor exposure to an underlying basket of assets and trade more like ETFs.
- In CP23/15 we asked whether ETNs and ETCs should be included in the scope of an equity CT. Respondents generally supported this but raised several technical issues. These included that ETNs and ETCs currently do not use the fields and flags for equity transparency. This would create challenges in attempting to consolidate data on trades in ETNs and ETCs with that on trades in equities.

#### Coverage of trading venues and APAs

- A CT should be as comprehensive as possible, providing a complete overview of trading in UK markets. This means it should include data from all UK trading venues trading a relevant instrument and all APAs publishing OTC trade reports in that instrument.
- We consider that we could only justify a restriction on the number of UK data contributors that a CTP connects to if we felt that comprehensive coverage would be a disproportionate cost for the CTP or for individual data contributors.
- 6.7 For the bond CT, we explored the issue of whether the tape should be comprehensive, or whether new trading venues or APAs should be given a certain leeway before connecting to the tape. Ultimately, based on industry feedback, we decided to have a comprehensive tape and to require new trading venues and APAs to connect to the CTP as soon as possible after starting their operations.
- In our pre-consultation discussions on the equity CT, no one has argued for a different approach to the inclusion of trading venues and APAs to that we took for bonds.
- 6.9 Under our proposals, we also consider that the costs for equity trading venues and APAs connecting to the equity CT will be lower than that for bonds. This is because, unlike with the bond CT, we do not propose to require trading venues and APAs to build a specific connection to the equity CTP to send it data. Instead, the CTP will choose one of the data contributors' existing feeds to connect to. This means the main costs to the data contributors will be ensuring that at least one of their data feeds meet the latency and data quality standards required for input to the CTP.
- 6.10 The differences in our proposed approach for equities and approach for bonds reflects broad differences in the preferences of potential CTPs in these markets. Ensuring that providing a CT is an attractive business model in each market is crucial to delivering a CT quickly at a competitive price.

### Equity pre-trade transparency requirements

- 6.11 The UK version of MiFID RTS 1 (Commission Delegated Regulation 2017/587) sets out high level requirements for the pre-trade data that must be published for different types of trading systems (ie pre-trade transparency requirements). Beyond UK RTS 1, there are few specific requirements on the nature of the pre-trade data that trading venues must publish. This is largely the responsibility of trading venues to decide, according to what suits their market and users.
- We consider that this approach works well for trading venues' individual data feeds.

  However, for an equity CT that includes pre-trade data, it is important to ensure the

  CTP receives a consistent set of data that it can process and consolidate effectively. We
  consider this data needs to cover:
  - The terms at which market participants are willing to trade including instrument identification, price (and currency), quantity, side and the trading venue on which the interest was expressed. How some of these fields are filled out will depend on the nature of the trading system. For example, information from a

- CLOB will be a limit order whilst information from an auction will be the potential uncrossing price and quantity.
- **Timing** the most recent point in time the trading interest was expressed and when the trading venue published the information.
- The nature of the liquidity the type of trading system interest is expressed on (eg CLOB, request for quote (RFQ) or periodic auction) and the phase of the trading system interest is expressed on (eg 'on demand' during continuous trading or 'closing auction').
- 6.13 We know most, if not all, of this data is already included in trading venues' pre-trade data feeds. Nevertheless, we do not consider that our current UK RTS 1 requirements are specific enough to ensure that they provide the equity CTP with clarity and consistency about the data they will get from a wide variety of data contributors.
- To resolve this issue, there are 2 approaches that we could take to specifying the pretrade data that must be provided to the CTP. The first is to amend the UK RTS 1 pretrade transparency requirements applying to trading venues so that, as with post-trade data, we specify fields and flags. This more standardised data could then be provided to the equity CTP.
- This option would be broadly in line with the EU's approach, which is also in the process of introducing an equity CT. However, it may not be appropriate for UK markets. Following the implementation of MiFID II, market participants have not raised any significant concerns with us about the specificity of pre-trade transparency obligations or pressed for change. As such, this issue has not been a focus of our recent work on equity market transparency (including CP22/12 Improving Equity Secondary Markets and discussion questions in CP25/20). If UK RTS 1 requirements are working well for the market generally, then it may not be proportionate to amend them solely for the equity CT.
- 6.16 The second option is to leave UK RTS 1 unchanged and to have a standalone set of requirements specifically outlining the pre-trade data that trading venues must provide to the equity CTP.
- This option would still ensure the equity CTP is provided with all necessary pre-trade data in a consistent form but would avoid the need to make changes to the broader pre-trade transparency regime.
- The pre-trade data a CTP must publish will be based on the input data described in paragraph 6.12. However, it also needs to take account of the consolidation process and the nature of trading systems. For information coming from trading systems that generate a quote, the CTP will need to publish fundamental information about instruments, prices and volumes. This needs to be supplemented by the time the BBO was calculated and disseminated by the equity CTP.
- As we propose the UK equity CT will include the attributed BBO, we do not consider there is a strong case for also requiring the CTP to publish the Most Relevant Market in Terms of Liquidity (MRMTL) for an instrument. For context, MRMTL is a measure of where most trading in a particular financial instrument takes place, based on post-trade data.

#### **Equity post-trade transparency requirements**

- In contrast to higher-level requirements on pre-trade data, UK RTS 1 already sets more detailed requirements for post-trade transparency data. Notably, UK RTS 1 sets out the data fields that post-trade reports should include and the flags that should be used to indicate specific trading scenarios. For example, whether a trade was a benchmark trade or carried out as part of a portfolio of transactions.
- 6.21 For the purposes of the bond CT, we did not require trading venues to provide any additional data to the CTP beyond that required by UK RTS 1 or for the CTP itself to publish any additional data.
- Equities generally trade more quickly than bonds and so we have considered if we should require the equity CT to publish any additional data to give users useful information on the timing of trades.
- The introduction of a CTP adds a new event relevant to market participants: the publication of data by the CTP itself. So, we think there is a case for requiring the CTP to add a timestamp to show when it has published a trade. This would enable market participants to see when those using the equity CT have seen information about a particular trade which could be an input to trading decisions.
- We know the EU requires further timestamps to be disseminated to equity CT users (a timestamp for when APAs received data from clients and when the CTP received data from a data contributor). We have considered whether we should have similar requirements for the UK equity CT.
- 6.25 On the one hand, such timestamps would enable participants to trace post-trade data as it moves to its ultimate destination of publication by the CTP. This could help both us and market participants identify any delays in the transmission of this data.
- However, we understand that such information will likely not be used for trading purposes. Its inclusion could also make it more difficult for the equity CTP to provide the CT at a low latency and/or increase the CT's running costs. So, it may not be proportionate to require such information to be included in the equity CT.
- 6.27 We also understand that UK market participants have concerns about the trade reporting regime being designed for regulatory purposes. As a result, we recently introduced changes in PS23/4 <a href="Improving Equity Secondary Markets">Improving Equity Secondary Markets</a> to focus the post-trade transparency regime on information essential for understanding trade flow. Including additional timestamps may therefore not be suitable for a UK equity CT.
- Another relevant issue is whether the equity CTP should be required to flag trades that are potentially incorrect, for example if the price were significantly outside the range of those of recent transactions. We explored this idea for the bond CT. Market participants had differing views and we were concerned that such a flag could cause uncertainty about the status of trades. Therefore, after consultation, we decided not to require such a flag. However, we agreed with potential bond CTPs that they could, following discussion with their consultative committee, choose to use a flag if they considered it

- useful. We think the considerations for whether to require an equity CTP to display a flag are very similar to that for bonds.
- 6.29 Considering post-trade transparency requirements more broadly, ahead of introducing a bond CT, we implemented changes to improve the regime for bonds and derivatives. This will help ensure that the data consolidated by the bond CT is meaningful and useful for market participants.
- We also want to ensure the equity CT consolidates high-quality post-trade data that helps market participants identify addressable liquidity. We published a discussion of potential changes to the equity post-trade transparency regime as part of CP25/20. We will follow up on this topic next year as part of a consultation on the equity transparency regime.
- 6.31 Ideally, as for the bond CT, the equity CT would go live after any changes are made to the equity transparency regime. We do not currently know the exact scale of the changes to be made to this regime and the timetable for their implementation. It is therefore premature to decide on how firmly the launch of the equity CT should be tied to these changes. However, we would expect the changes to be much less significant than those we made to the bond and derivatives transparency regime that take effect on 1 December. This is because the equity market transparency regime is more mature than that in bonds and derivatives.
- As we take forward work on these issues, we will consider how the timing of any changes to the equity transparency regime fits with the timetable for implementing the equity CT. We also are conscious that reporting firms and APAs will need time to implement any such changes.

### Regulatory data

- 6.33 We now examine whether the equity CT should be required to publish regulatory data alongside trade reports. Regulatory data includes data about the status of financial instruments that are Traded on a Trading Venue (ToTV). There are 3 key elements to understanding an instrument's status:
  - **Information to identify the instrument:** its identification code, currency and the trading venue providing the information.
  - Information on the instrument's status: whether it has been suspended, removed, is subject to a trading halt or is available for trading again after a suspension or halt.
  - Information on the latest status update about the instrument: the update's date and time and when the CTP disseminated that information.
- 6.34 It might also be helpful for market participants to have regulatory information on the status of the trading system, including:
  - **Information about the trading system:** its identification code and what type of system it is.
  - Information on the trading system's status: whether it is active, out or partially out.
  - Information on the latest status update on the trading system: the update's date and time and when the CTP disseminated that information.

- When designing the framework for the bond CT, we considered whether the CTP should be required to publish such regulatory data. Market participants did not consider this appropriate due to the relatively decentralised nature of bond trading. As a result, the UK bond CTP will not have to provide regulatory data.
- 6.36 In contrast, more equities trading takes place on CLOBs and it tends to be quicker than bonds trading. As a result, market participants (including most respondents to Question 44 in CP23/15) suggested that it could be useful for the equity CT to disseminate regulatory data about outages of trading systems and trading halts for individual instruments alongside transparency data. Market participants argue that this would provide a single view of the status of instruments and trading systems, which would help to support the overall resiliency of equity trading. In terms of comparable jurisdictions, the US requires its equity CT to publish regulatory data, and, in due course, the EU will as well.
- A potential downside to requiring the equity CT to include such data is it could increase costs for the CTP and make disseminating the tape at a low latency more difficult. However, overall, we consider that such a requirement may be necessary to meet our objective of improving the effectiveness of UK secondary markets.

#### Historical post-trade data

- This section considers whether the equity CTP should be required to provide users with a database of post-trade data published in the past. The aim of this would be to maximise use of consolidated equity data by providing users with an authoritative benchmark of past trades. Such data could be used to backtest trading strategies or perform TCA.
- **6.39** There are 2 forms of information which we could require in such a database:
  - **Historic data**, meaning a database capturing all the prints included on the live feed of CT data. It would not correct trade reports to take account of cancellations and amendments.
  - **Historical data**, meaning a database of trades assembled in date and time order, with any subsequent amendments or cancellations reflected in the feed.
- 6.40 In short, historic data shows what the market saw as it was trading; historical data provides an authoritative version of what was traded.
- We consider it may be more useful for the equity CT to provide a database of historical data. This is a type of data that requires manipulation, so the CTP could provide value to the market by offering an authoritative source of it. This would align with the approach taken for the bond CT.
- **6.42** For historical data, we would expect that:
  - It is updated once a day.
  - The CTP may impose a fair usage policy for the data.
  - It starts with the first trade done after the CT starts operation. The equity CTP would not be expected to source historical data from before it starts operation.

#### A database of pre-trade data

- We propose that the equity CT includes the attributed pre-trade BBO as well as post-trade data. This raises the issue of whether we should require the CTP to offer a database of pre-trade data as well as historical post-trade data. Under our proposals, this would be a database of the evolution of the BBO for each instrument the tape covers.
- The provision of such a database by a single provider seems less crucial than for historical post-trade data. This is because the CTP would be simply capturing pre-trade data, rather than transforming it.
- Keeping a database of pre-trade quotes would also involve costs for the equity CTP. They would need to archive a significant amount of data and build systems to provide access to it. This is therefore an issue that affects the economic attractiveness of the opportunity to become the CTP, as well as our efforts to promote widespread use of equity trade data.
- 6.46 Under the regime we adopted for the bond tape, a CTP cannot offer any service related to the information it receives in its capacity as a CTP, other than those specified. So, unless we specify that an equity CTP should provide a database of pre-trade information or apply a more relaxed restriction to an equity CTP than for bonds, an equity CTP would not be able to provide a database of pre-trade data. This restriction would apply whether it offered this data alongside a post-trade historical database or as a standalone product.
- In the EU there is no requirement for an equity CTP to provide a database of pre-trade data, but there is nothing to stop a CTP from providing such data.

### **Proposals**

### Type of instruments

- We are not proposing that the equity CT should include ETNs and ETCs, because of the technical issues outlined above. MAR9.2B.34AR(1) in the draft rules sets the proposed scope of the equity CT, covering all instruments currently subject to the equity transparency requirements in UK RTS 1.
- One response to CP23/15 suggested that, in due course, we consider whether there is adequate demand for a stand-alone CT for ETNs and ETCs. We do not think that this is a realistic option. We see the potential options as:
  - Reconsider the issue of including ETNs and ETCs in the bond CT, when we conduct a post-implementation review part-way through its first contract period.
  - Reclassify ETNs and ETCs as equities for the purpose of trade reporting so that, in due course, these instruments could be included in the equity CT.
  - Not include ETNs and ETCs in either the equity or bond CTs.

# Question 21: Do you have any comments on the treatment of ETNs and ETCs for equity and bond CTs?

#### Coverage of trading venues and APAs

- We propose to require all equity trading venues and APAs publishing equity trades to provide data to the CTP, see MAR 9.2B.34AR(1) in the draft rules. New trading venues and new APAs will need to provide data from the time they start operating, in line with the usual latency requirements (see our latency proposals in Chapter 3).
  - Question 22: Do you agree that all equity trading venues and all APAs publishing trade reports for equities should be required to provide data to the CTP, and new trading venues and APAs should provide data as soon as possible after they start operating? Y/N. Please give your reasons.

#### Equity pre-trade transparency requirements

- We propose to require trading venues to provide the following information to the equity CTP. This would be a standalone requirement set out in an input table (see table 2 in MAR 9 Annex 11 in the draft rules) and we do not propose to amend RTS 1 for this purpose.
  - Update date and time.
  - Instrument identification code.
  - Side
  - Price.
  - Price currency.
  - Quantity.
  - Venue, ie segment or operating MIC.
  - Trading system.
  - Trading system phase.
  - Publication time and date.
- 6.52 For trading systems generating quotes, the CTP would consolidate this data and, for each instrument, disseminate a single BBO from across UK trading venues, with the quotes and volumes attributed to specific venues.
- 6.53 In addition to this, they would also disseminate:
  - Date and time of the calculation of the BBO.
  - Date and time the information was disseminated by the CTP.
- 6.54 For trading systems using periodic auctions and other types of auctions, the CTP would disseminate the following information (see Tables 10 and 11 in MAR 9 Annex 11):
  - Indicative date and time
  - Instrument identification code.
  - Lowest auction price.

- Highest auction price.
- Volume weighted auction price.
- Currency.
- Auction volume.
- Dissemination date and time.
- Publication date and time.
- These requirements broadly align with the EU's approach, which we think will help to minimise costs and complexity for firms operating across both jurisdictions.
  - Question 23: Do you agree with our proposed pre-trade input table for the information trading venues have to provide to the equity CTP? If not, please set out the amendments you think we should make and the reasons for those amendments.
  - Question 24: Do you agree with our proposed pre-trade output tables for the information the equity CTP will need to publish? If not, please set out the amendments you think we should make and the reasons for those amendments.

#### Equity post-trade transparency requirements

- We propose to use the existing information in UK RTS 1 as the input data to a UK CTP for post-trade data, see MAR9.2B.34AR(2)(b) in the draft rules.
- 6.57 On balance, we do not propose to require APAs to send information to a CTP about the date and time when they received information, or for the CTP to publish the date and time it received information. As above, we do not think these fields are necessary information for trading purposes. Including this information could help demonstrate APAs' and CTPs' compliance with our proposed latency requirements. However, in practice we expect APAs and CTPs will be able to track and report to us (and in the CTP's case its consultative committee) about how long it takes APA clients to send information to the APA and how quickly the CTP publishes information after receiving it.
- We do propose to require a CTP to publish the date and time it has published a transaction. This is consistent with the general approach to trade reporting, where trading venues and APAs are required to include the date of the publication of trades in their trade reports.
- We are also not proposing to require a CTP to flag trade reports that it or an APA think might be incorrect. The flag will not help market participants understand why the data might be incorrect. The possibility of false positives also risks adding noise to the tape. However, as covered in Chapter 8, an equity CTP will have responsibilities for identifying possible problems with data quality to data providers.
- Beyond these changes specifically related to operating the CT, this CP is not proposing any further changes to equity transparency requirements. We will propose broader changes to the equity transparency regime, including the date at which any changes will

take effect, in a separate CP in 2026. That will draw on the responses to Chapter 4 of CP25/20.

- Question 25: Do you agree APAs should not be required to send to the CTP information about the time at which they received details of a trade from a client? Y/N. Please give your reasons.
- Question 26: Do you agree an equity CTP should be required to print the date and time at which it has published a trade? Y/N. Please give your reasons.
- Question 27: Do you agree an equity CTP should not be required to flag trades they or an APA think are potentially incorrect? Y/N. Please give your reasons.

#### Regulatory data

- We propose that data contributors should be required to provide regulatory data on the status of financial instruments and trading systems to the equity CTP. The CTP would then publish this (see MAR9.2B.34AR(2)(c)-(d) and Tables 3 and 4 in MAR 9 Annex 11 in the draft rules). This would support the market by providing a single source of authoritative data involving developments in equity markets. It is also the approach taken in other major jurisdictions for their equity CTs.
- 6.62 To enable consolidated data to be used across the UK and EU, we think it makes sense for our regulatory data fields to align with those used by the EU. We have reflected this in our draft rules.
  - Question 28: Do you agree data contributors should provide regulatory data on the status of instruments and trading systems to the CTP for publication by the CTP? Y/N. Please give your reasons.
  - Question 29: Do you agree we should align our fields for regulatory data with those adopted by the EU? If not, what changes do you think we should make to the fields?

#### Historical post-trade data

We propose that the equity CTP should offer a database of historical post-trade data, see MAR9.2B.34ER in our draft rules. We envisage, as for bonds, that the equity CTP would update this data daily and that it could determine and impose fair use restrictions on those who buy the historical data.

Question 30: Do you agree an equity CTP should be required to make available a database of historical post-trade data? Y/N. Please give your reasons.

#### A database of pre-trade data

- We also propose that the equity CTP should provide a database of pre-trade data it publishes, see the amendment to the definition of historical data in the FCA Handbook glossary and MAR9.2B.34ER in the draft rules. We think this makes sense given that the introduction on an equity CT aims to encourage the widest possible use of market data.
- 6.65 We propose that this historical pre-trade data should be made available in the same formats as historical post-trade data. We discuss data formats further in the next chapter.
- However, given the very large amount of data that could be included in a pre-trade database, we are interested in views on whether the database's coverage should be restricted in any way. This could include limiting it to covering only the previous year's data on a rolling basis.
  - Question 31: Do you agree we should require an equity CTP to make available a database of the pre-trade data it publishes? Y/N. Please give your reasons, in particular indicating use cases you think that such a database might serve.
  - Question 32: If you agree with Question 31, do you think the coverage of the pre-trade database should be restricted and, if so, how?

### **Chapter 7**

# Operational requirements

#### Introduction

- 7.1 In Chapter 8 of CP23/15, we asked whether the proposed general framework of rules for a bond CTP would also be relevant for an equity CTP. Most respondents agreed. So, in CP23/33 we suggested that the rules for a bond CT and CTP provided a good starting point for the operational requirements for an equity CT and CTP.
- This consultation re-visits the topic. We need to take account of our experience with the framework for the bond CT and CTP, as well as the specificities of equity markets and the market for equity trade data. Based on these considerations, we consider there are several adaptations that should be made to the existing framework for bonds for the equity CT and CTP.

### **Analysis**

#### Provisions currently applying to a CTP regardless of asset class

7.3 The following relevant provisions in MAR 9 and elsewhere are currently specified as applying to CTPs regardless of asset class (either as a CTP or more broadly as a DRSP).

Table 2: Handbook Provisions currently applying to an equity CT

Provision in Handbook	Subject matter of obligation
MAR 9.2B.1R	Requirements for the management body of a data reporting service provider
MAR 9.2B.2R	Conflicts of interest
MAR 9.2B.3R	Organisational requirements regarding outsourcing
MAR 9.2B.4R	Business continuity and back-up facilities
MAR 9.2B.5R	Testing and capacity
MAR 9.2B.6R (except 9.2B.6R(2))	Security
MAR 9.2B.7R	Record keeping
MAR 9.2B.8R	Reporting of infringements
MAR 9.2B.13R	Conditions for a CTP – organisational requirements
MAR 9.2B.27R	Conflicts of interest obligations for CTPs
MAR 9.2B.28R	Obligations for CTPs on apportionment of responsibilities
MAR 9.2B.29R	Outsourcing obligations for CTPs

Provision in Handbook	Subject matter of obligation
MAR 9.2B.30R	Non-discrimination obligations for CTPs
MAR 9.2B.31R	Management of incomplete or potentially erroneous information by CTPs
MAR 9.2B.32R	Obligations of CTPs to ensure data quality and report information
MAR 9.2B.33R(1) and (2)	Consolidation of data by CTPs
MAR 9.2B.40R	Governance obligations for a CTP
MAR 9.2C.1R, MAR 9.2C.2G, MAR 9.2C.3G and MAR 9.2C.4G	Financial resource requirements for consolidated tape providers
MAR 9.2D.1R	Complaints concerning the performance of a CTP
MAR 9.3.1R	Notification to the FCA of material changes in information provided at the time of authorisation
MAR 9.3.2R	Notification to the FCA of change to membership of management body
MAR 9.3.4R, MAR 9.3.5G, MAR 9.3.6R and MAR 9.3.7G	Notification to the FCA by an APA or a CTP of compliance with connectivity requirements
MAR 9.3.8R and MAR 9.3.9G	Yearly notifications to the FCA
MAR 9.3.10R and MAR 9.3.11G	Ad hoc notifications to the FCA
MAR 9.3.12R	Provision to the FCA of the forms in MAR 9 Annexes 5R, 6R, 7R, 8R and 9R to the FCA
SYSC 15A	Operational resilience
FEES 3 Annex 14R	Application fees
FEES 4 Annex 11R	Periodic fees

- **7.4** We think most of these provisions do not give rise to any issues for an equity CT and CTP.
- 7.5 There are a few provisions where we have identified possible issues, which we discuss in turn below:
  - First, the application of SYSC 15A.
  - Second, the conflicts of interest rules in MAR 9.2B.2R.
  - Third, the data quality provisions in MAR 9.2B.32R.
  - Fourth, the requirements on data consolidation in MAR 9.2B.33R.

#### SYSC 15A

7.6 Our discussions with firms potentially interested in bidding to be the equity CTP has raised issues around the application of SYSC 15A. Firms noted that it is expensive to have the highest standards of operational resilience. This has implications on how attractive it is to provide an equity CT and implications for the price of consolidated data. Firms suggested that, if the equity CTP were not subject to SYSC 15A, this might

- encourage greater interest in providing an equity CT including if we potentially allowed multiple equity CTPs to seek authorisation.
- 7.7 Chapter 4 discusses whether we should allow a single or multiple equity CTPs to seek authorisation. On balance, our proposals are for a single equity CTP, at least for the first 5 years of the CT's operation. If we proceed with appointing a single equity CT via a procurement process, our view is that it is necessary and important for the CTP to operate to high standards of operational resilience, notwithstanding the costs involved. The equity CT would be an important piece of market infrastructure. Market participants ought to be able to rely on it to provide continuity of service.

#### Conflicts of interest

7.8 The conflicts of interest provisions in MAR 9.2B.2R apply to all DRSPs. As part of the bidder Q&A for the bond CTP tender process, a bidder raised a question about what the initial wording of MAR 9.2B.2R(1) means in respect of a CTP.

'A data reporting services provider must operate and maintain effective administrative arrangements, designed to prevent conflicts of interest with clients using its services to meet their regulatory obligations, and other entities purchasing data from data reporting services providers.'

7.9 A CTP does not have clients using its services to meet their regulatory obligations in the way an APA or an ARM does. Its clients will buy its data for a variety of regulatory and business reasons and those who provide a CTP with data are not its clients. This creates a degree of uncertainty about interpreting the provision for a CTP.

### Data quality

7.10 MAR 9.2B.32R contains a set of provisions relating to a CTP's obligations to ensure data quality and report information. This includes submitting a 6-monthly report to us on various aspects of the operation of the CTP and the CT. In 2024 – between finalising the rules for the bond CT and drafting the <u>Invitation to Tender</u> – we considered how to ensure that our approach to the bond CT delivered a high quality product. We decided that – as well as the reports required by MAR 9.2B.32R(4) – we should have quarterly reports on the performance of a CTP's IT systems so we could deal with any concerns in a timely way. To avoid any confusion from 2 reporting obligations for an equity CTP (the 6 monthly one in MAR 9.2B.32R(4) and the quarterly one in the contract), there is a case for turning the report in MAR 9.2B.32R(4) into a quarterly report.

#### **Data consolidation**

7.11 MAR 9.2B.33R(2) contains a reference to data by a CTP being disseminated as soon as possible or 15 minutes after the first publication. We copied this provision across without amendment from provisions originally part of MiFID II. The '15 minutes' relates to the obligation MiFID II imposed on a CTP to make data available for free 15 minutes after it was first published. We have lifted this obligation from both an equity and a bond CTP and so the reference to 15 minutes in MAR 9.2B.33R(2) is obsolete.

#### Provisions currently applying only to a bond CTP

**7.12** There are several relevant provisions in MAR 9 currently applying only to a CTP for bonds.

Table 3: Handbook provisions currently applying only to a bond CTP

Provision in Handbook	Subject matter of obligation
MAR 9.2A.1G to MAR 9.2A.8R	Selection of a Consolidated Tape Provider
MAR 9.2B.14R	Other services provided by CTPs
MAR 9.2B.33R(3)	Consolidation of data by CTPs
MAR 9.2B.34R	Scope of the consolidated tape for bonds and publication of information
MAR 9.2B.35R	Machine readability and required formats for CTPs for bonds
MAR 9.2B.36R	Obligation for the CTP for bonds to provide market data on a non-discriminatory basis
MAR 9.2B.38R	Unbundling market data for the CTP for bonds
MAR 9.2B.39R	Transparency obligations for the CTP for bonds

- 7.13 In our view there are no specific issues arising out of ensuring the provisions in MAR 9.2A.7R, MAR 9.2A.8R, MAR 9.2B.14R, MAR 9.2B.33R(3) and MAR 9.2B.38R apply to the equity CT and/or CTP. However, we see potential issues in applying other provisions listed above to equities as well as bonds, namely:
  - The arrangements for the receipt of data by the CTP (covered in MAR 9.2B.34R(4) and (5) for bonds).
  - The required formats for the CT (MAR 9.2B.35R for bonds).
  - The amount of notice a CTP must give of price changes (MAR 9.2B.39R(2)(b)).

#### Data to the CTP

- 7.14 For bonds, data contributors must send data to an open-source Application Programming Interface (API) operated by the CTP. Potential bond CTP bidders preferred that approach as they felt it would make the tape more robust by ensuring they received data in a standard format. While we considered our approach was necessary to ensure interest in providing a bond CT, in CP23/33 we recognised concerns from data contributors about the costs of this approach.
- 7.15 We held pre-consultation discussions with market participants when developing our proposals on this area. Those who have expressed interest in bidding to be the equity CTP, and many data contributors, have said they prefer a different approach for equities that the CTP connects to an existing feed from a data contributor. Potential bidders say that this would minimise the risk a data contributor was publishing data to the market but could not send the same data to the CTP. They may also prefer this approach because it aligns with that the EU will take across its bond, equity and derivatives CTs.

**7.16** However, we know some data contributors (notably APAs) would prefer our approach for equities to align with that taken for the bond CT. They consider a different approach for the equity CT could lead to additional costs and complexity.

#### Standards for data transmission to the CTP

- **7.17** For the bond CT, the only specific obligations on data contributors on transmission standards are to send data to the CTP in a timely fashion and to connect to the CTP's API.
- 7.18 If an equity CTP is to choose from existing data feeds from data contributors, then these feeds need to be of a standard that delivers an effective and resilient CT. There are 2 aspects to this. First, whether there is consistency in data formats. Second, whether the communications systems data contributors use are of an adequate standard to ensure the equity CT has reliable and resilient inputs.
- 7.19 There are various standards for data formats. To seek to ensure broad international consistency of the format of data, we could specify that the data should be transmitted in a format adhering to the International Organization for Standardization (ISO) 20022 methodology. This methodology was originally developed for transmitting batch information linked to payments. Firms have raised concerns about its suitability for real-time data feeds. While there is some support for using it for a CT, generally market participants seem to have little enthusiasm for this and there is some scepticism about its possible use for the equity CT's feeds. There are concerns about its cost and whether it can deliver efficient data feeds.
- 7.20 However, one advantage of using the ISO 20022 methodology is it would set clear standards for data contributors. Additionally, adopting these standards would help ensure UK regulations reflect the latest international developments and are aligned with other comparable jurisdictions like the EU. Given many data contributors operate across multiple jurisdictions, this may in fact help limit costs compared to adopting a different transmission standard.
- 7.21 Looking beyond ISO 20022, we could also set standards covering the performance, reliability, security and compatibility of data contributors' feeds. We could split the specific obligations by primary Open Systems Interconnection (OSI) layers, which is a way of delineating the elements of a communication system. This approach would also help ensure international regulatory alignment as it similar to that adopted by the EU.

#### **Data formats**

7.22 For the bond CT, in MAR 9.2B.35R we required the continuous steam of data be made available via a Graphical User Interface (GUI) and at least 2 machine readable formats: API and Comma Separated Value (CSV). The historical data had to be made available in GUI and one (unspecified) machine-readable format. These requirements aimed to ensure that CT data could be both ingested into data systems but could also be made available through screen access. We consider the equity CT will need to be accessed in the same ways.

#### Notice of price changes

7.23 Based on a provision in the original MiFID II regime, MAR 9.2B.39R(2)(b) specifies a bond CTP must give 90 days' notice of price changes. This MiFID II obligation was part of a framework for multiple CTPs, who it was intended would be authorised on an openended basis. However, the bond CTP will be appointed via a procurement process that embeds various pricing controls over pricing – and this could potentially also be the case for the equity CTP. In this context, it is not clear that having such a lengthy period for price changes to take effect would protect clients in the same way as in the original framework.

#### Other issues

#### **Best execution**

- 7.24 One of the potential use cases for an equity CT is to help intermediaries with compliance monitoring. As such, it is likely to be particularly useful for monitoring best execution. COBS 11.2A.31R requires firms to monitor the effectiveness of their order execution arrangements and policy to identify and correct any deficiencies. In particular, they must regularly assess whether the execution venues included in the order execution policy provide for the best possible result for the client or whether they need to make changes to their arrangements taking into account relevant data or other internal analyses.
- 7.25 This is supplemented by COBS 11.2A.33G which says that, to obtain best execution for a client, a firm should compare and analyse relevant data.
- 7.26 Intermediaries executing equity orders will need to consider if the equity CT's data can improve their execution arrangements and monitoring compared to the data they already use. A firm will not need to use the CT if it has access to alternative sources of data.

#### **UKRTS3**

7.27 The UK version of MiFID RTS 3 (Commission Delegated Regulation 2017/577) requires a CTP, in any asset class, to provide information to the FCA to assist with transparency calculations. The transparency regime is currently operating without data from a CTP, and we have a separate provision requiring a CTP to provide data to us. So, the requirements in UK RTS 3 as they relate to a CTP appear to be obsolete.

#### Clock synchronisation

Article 50 of MiFID II introduced a clock synchronisation obligation for trading venues and their members. This was to ensure consistent time stamping for events linked to the trading of financial instruments, such as the time of the submission of orders and executions of transactions. The high-level requirements on clock synchronisation are contained in the Recognition Requirements for Investment Exchanges (RRRs) and the MAR Sourcebook in our Handbook. The detailed implementing requirements are included in the UK version of MiFID RTS 25 (Commission Delegated Regulation 2017/574). However, these obligations did not cover APAs and CTPs who also have time

- stamping obligations for publishing trades. This means there is a gap in the approach to synchronising clocks for trade reporting.
- 7.29 One way this issue could potentially be addressed is via legislative change, amending UK RTS 25. This could help provide clarity to the market and would broadly align with the EU's approach.
- 7.30 However, the FCA does not have the power to make such changes. We can only address the issue via making rules.
- 7.31 Making rules on clock synchronisation for equities would result in a difference between our approach for the bond and equity CTs. As our bond CT framework does not apply these timestamping requirements, we did not apply clock synchronisation requirements to relevant APAs and the bond CTP. With work on the implementation of the bond CT now in progress, we do not think it would be appropriate to apply these requirements to the bond CTP, or APAs for bond transactions, at this point.

### **Proposals**

#### Provisions currently applying to a CTP regardless of asset class

#### SYSC 15A

- **7.32** We intend to apply SYSC 15A where there is a single equity CTP.
  - Question 33: Do you agree SYSC 15A should apply to a single equity CTP? Y/N. Please give your reasons.
  - Question 34: If we were to allow multiple equity CTPs, do you think it would be necessary to apply SYSC 15A to them? Y/N. Please give your reasons.

#### Conflicts of interest

7.33 We propose amending the conflicts of interest provision in MAR 9.2B.2R in relation to CTPs. The reformulation – see MAR9.2B.2R(1A) in the draft rules – is as follows:

'A CTP must operate and maintain effective administrative arrangements, designed to prevents conflicts of interest with clients of the CTP, those redistributing the consolidated tape provided by the CTP and data contributors.'

Question 35: Do you agree with our proposal to amend MAR 9.2B.2R on conflicts of interest for CTPs? Y/N. Please give your reasons.

#### Data quality

- 7.34 We propose to require an equity CT to send us a data quality report on a quarterly basis (the obligation for a bond CTP will be unchanged) see the revised MAR 9.2B.32R(4) in the draft rules. We also propose to add requirements for an equity CT on the need to have automated price and volume alerts for potentially erroneous trades and a mechanism to allow equity CT users to flag to it any concerns about the data it publishes. See the revised MAR 9.2B.32R(2) and MAR 9.2B.32R(2A) in the draft rules.
- 7.35 As with the bonds CT, we do not plan to require the equity CTP to flag data that is potentially erroneous in its continuous feed.
  - Question 36: Do you agree the equity CTP should send us a report on its operation on a quarterly rather than 6-monthly basis? Y/N. Please give your reasons.
  - Question 37: Do you agree with our proposals to add requirements on automated alerts and a mechanism for data users to raise concerns about potential issues with the data published by the equity CTP? Y/N. Please give your reasons.
  - Question 38: Do you agree with our proposals for specific data quality requirements for an equity CTP? Y/N. Please give your reasons.

#### Data consolidation

- **7.36** We propose to remove the reference to 15 minutes in MAR 9.2B.33R(2) see the provision in our draft rules.
  - Question 39: Do you agree with removing the reference to 15 minutes in MAR 9.2B.33R(2)? Y/N. Please give your reasons.

#### Provisions currently applying only to a bond CTP

#### Data to the CTP

7.37 To make operating the CTP as attractive as possible to potential bidders, we intend to have a different approach for the equity CT on how data is sent to the CTP. Data contributors will be required to send the specified input data to the CTP – see MAR9.2B.34AR(1) in our draft rules. However, the CTP will be able to choose to receive the information in one of the ways a data contributor currently publishes transparency data – see MAR9.2B.34CR.

Question 40: Do you agree data contributors should be required to send the specified input data to the CTP and the CTP should be able to choose to receive the information in one of the ways that a data contributor currently uses to publish transparency data? Y/N. Please give your reasons.

#### Standards for data transmission to the CTP

- 7.38 We do not propose to require data contributors to transmit data to the CTP using a format that complies with the ISO 20022 methodology. Given the concerns raised about doing so, we believe it is better to give market participants the flexibility to decide the format that works best for them.
- 7.39 We propose to require the feeds of data contributors to adhere to standards covering performance, reliability, security and compatibility specified by primary OSI layers see tables 5-8 in MAR 9 Annex 11 in our draft rules.
  - Question 41: Do you agree data contributors should not be required to send the specified input data to the CTP using a format adhering to the ISO 20022 methodology? Y/N. Please give your reasons.
  - Question 42: Do you agree we should have standards on the transmission of data to the CTP across performance, reliability, security and compatibility and do you have any comments on the standards we have proposed?

#### **Data formats**

- 7.40 We propose see MAR9.2B.35R(1), (1A) and (2) in our draft rules to require the CTP to disseminate the equity CT using the same formats as for the bond CT: GUI and at least 2 machine-readable formats: API and CSV; and historical data in GUI and at least 1 machine readable format.
  - Question 43: Do you agree with having the same requirements on the formats for the dissemination of the equity CT as for the bond CT in the UK? Y/N. Please give your reasons.

#### Notice of price changes

7.41 We propose to change the current 90-day requirement for the notification of changes in prices for both the bond and the equity CT to a 30-day requirement – see the change to MAR9.2B.39R(2)(b) in our draft rules. Given the constraints on the pricing of the CTP we think this gives users adequate notice.

Question 44: Do you agree with reducing the notice period a CTP for bonds or equities should give of price changes to 30 days? Y/N. Please give your reasons.

#### Other provisions

7.42 We propose amending MAR 9.2B.14R, MAR 9.2B.33R(3) and MAR 9.2B.38R – see the relevant provisions in our draft rules – so they apply to the equity CT and/or CTP as well as to the bond CT and/or CTP.

Question 45: Do you agree with our proposal to amend MAR 9.2B.14R, MAR 9.2B.33R(3) and MAR 9.2B.38R so they apply to the equity CT and/or CTP? Y/N. Please give your reasons.

#### Other issues

#### **Best execution**

7.43 We do not propose to add specific provisions to the Handbook on best execution and the CT. In our view it is obvious the CT is a potential source of relevant data for well-run best execution arrangements and monitoring. As such, intermediaries ought to consider whether it can help them meet their best execution obligations.

Question 46: Do you agree firms should consider whether using CT data can improve their best execution arrangements and monitoring but there is no need to add a provision in the Handbook on this? Y/N. Please give your reasons.

#### **UKRTS3**

7.44 We propose to delete references to a CTP in UK RTS 3 – see the amendment to UK RTS 3 in our draft rules – as we do not think it is necessary.

Question 47: Do you agree we should delete references to a CTP in the UK version of RTS 3? Y/N. Please give your reasons.

#### Clock synchronisation

7.45 We propose to introduce requirements in MAR 9 – see MAR 9.2B.34FR in our draft rules – for the equity CTP, and APAs in relation to equity trades, to be subject to the same clock synchronisation requirements as trading venues. This aims to ensure consistent approaches to time stamping.

Question 48: Do you agree the equity CTP, and APAs in relation to equity trades, should be subject to the same clock synchronisation requirements as trading venues? Y/N. Please give your reasons.

#### Annex 1

# Questions in this paper

Question 1: Do you agree we should introduce an equity CT including

post-trade data and the attributed pre-trade best bid and

offer? Y/N. Please give your reasons.

Question 2: Do you agree we should not introduce a real-time post-

trade only equity CT, regardless of its likely speed of

delivery? Y/N. Please give your reasons.

Question 3: Do you agree, on the basis of the evidence currently

available, we should not introduce an equity CT with a greater depth of pre-trade data? Y/N. Please give your

reasons.

Question 4: Do you have any initial views on whether an outage of the

equity CT proposed in Question 1 would affect your ability to trade – subject to further evaluation once the equity CT

is live?

Question 5: Subject to further assessment of its feasibility, in principle

do you think it would be helpful for the FCA to publish endof-day consolidated post-trade data before the equity CT

goes live? Y/N. Please give your reasons.

Question 6: Do you agree with our proposal not to require revenue

sharing arrangements between the equity CTP and data

contributors? Y/N. Please give your reasons.

Question 7: Do you think there is a case for being able to view, via the

equity CT:

a: All quotes that equity SIs are required to make public under Article 15 of UK Markets in Financial

Instruments Regulation (MIFIR, Regulation (EU) No 600/2014).

- b: The BBO of SI quotes in each liquid equity instrument.
- c: The subset of SI quotes made public under Article 15 of MiFIR that are within the BBO for an instrument?

Y/N. Please give your reasons.

Question 8: Is there any information you can provide about the

potential costs for SIs of providing their quotes to the equity CTP; or the complexity and costs for the CTP of being required to publish a subset of SI quotes or the BBO

from amongst SI quotes?

- Question 9: Do you agree with our proposed latency requirements for data contributors? Y/N. Please give your reasons.
- Question 10: Do you think there are specific types of trading protocol that should be subject to a higher latency requirement?

  Y/N. If yes, explain which types of flow and why.
- Question 11: Do you see any potential challenges in UK data contributors meeting these requirements, including around cancellations and amendments? If so, do you think the alternative options outlined would help reduce these challenges? Please also provide any further suggestions.
- Question 12: Do you agree with our proposal that, once an equity CTP receives details of a relevant order or trade, it must publish this data within 100 milliseconds with a daily confidence interval of 99.99%? Y/N. Please give your reasons.
- Question 13: Do you think there is a case for having separate latency standards for pre- and post-trade data? Y/N. Please give your reasons.
- Question 14: Do you agree we should have a single CTP for the first 5-year contract period for the equity CT? Y/N. Please give your reasons.
- Question 15: Do you agree 5 years is an appropriate period for the length of a contract to operate an equity CT? If not, what length of time do you suggest and why? Y/N. Please give your reasons.
- Question 16: Do you agree the CTP should not have to pay data contributors for accessing their data? Y/N. Please explain your reasons.
- Question 17: Do you agree the licensing structure we adopted for the bond CT would also work for the equity CT, in particular do you think we need additional provisions relating to access for retail clients to real-time data? If you think there should be differences in the licensing scheme for equities, please set out the changes you think are necessary and their rationale.
- Question 18: Do you agree an equity CTP should not be required to make its data available for free after 15 minutes? Y/N. Please give your reasons.
- Question 19: Do you agree that consumption of the equity CT should not be compulsory? Y/N. Please give your reasons.

- Question 20: Do you agree an equity CTP should not be subject to rules on pricing on a reasonable commercial basis? Y/N. Please give your reasons.
- Question 21: Do you have any comments on the treatment of ETNs and ETCs for equity and bond CTs?
- Question 22: Do you agree that all equity trading venues and all APAs publishing trade reports for equities should be required to provide data to the CTP, and new trading venues and APAs should provide data as soon as possible after they start operating? Y/N. Please give your reasons.
- Question 23: Do you agree with our proposed pre-trade input table for the information trading venues have to provide to the equity CTP? If not, please set out the amendments you think we should make and the reasons for those amendments.
- Question 24: Do you agree with our proposed pre-trade output tables for the information the equity CTP will need to publish? If not, please set out the amendments you think we should make and the reasons for those amendments.
- Question 25: Do you agree APAs should not be required to send to the CTP information about the time at which they received details of a trade from a client? Y/N. Please give your reasons.
- Question 26: Do you agree an equity CTP should be required to print the date and time at which it has published a trade? Y/N. Please give your reasons.
- Question 27: Do you agree an equity CTP should not be required to flag trades they or an APA think are potentially incorrect? Y/N. Please give your reasons.
- Question 28: Do you agree data contributors should provide regulatory data on the status of instruments and trading systems to the CTP for publication by the CTP? Y/N. Please give your reasons.
- Question 29: Do you agree we should align our fields for regulatory data with those adopted by the EU? If not, what changes do you think we should make to the fields?
- Question 30: Do you agree an equity CTP should be required to make available a database of historical post-trade data? Y/N. Please give your reasons.

- Question 31: Do you agree we should require an equity CTP to make available a database of the pre-trade data it publishes?

  Y/N. Please give your reasons, in particular indicating use cases you think that such a database might serve.
- Question 32: If you agree with Question 31, do you think the coverage of the pre-trade database should be restricted and, if so, how?
- Question 33: Do you agree SYSC 15A should apply to a single equity CTP? Y/N. Please give your reasons.
- Question 34: If we were to allow multiple equity CTPs, do you think it would be necessary to apply SYSC 15A to them? Y/N. Please give your reasons.
- Question 35: Do you agree with our proposal to amend MAR 9.2B.2R on conflicts of interest for CTPs? Y/N. Please give your reasons.
- Question 36: Do you agree the equity CTP should send us a report on its operation on a quarterly rather than 6-monthly basis? Y/N. Please give your reasons.
- Question 37: Do you agree with our proposals to add requirements on automated alerts and a mechanism for data users to raise concerns about potential issues with the data published by the equity CTP? Y/N. Please give your reasons.
- Question 38: Do you agree with our proposals for specific data quality requirements for an equity CTP? Y/N. Please give your reasons.
- Question 39: Do you agree with removing the reference to 15 minutes in MAR 9.2B.33R(2)? Y/N. Please give your reasons.
- Question 40: Do you agree data contributors should be required to send the specified input data to the CTP and the CTP should be able to choose to receive the information in one of the ways that a data contributor currently uses to publish transparency data? Y/N. Please give your reasons.
- Question 41: Do you agree data contributors should not be required to send the specified input data to the CTP using a format adhering to the ISO 20022 methodology? Y/N. Please give your reasons.
- Question 42: Do you agree we should have standards on the transmission of data to the CTP across performance, reliability, security and compatibility and do you have any comments on the standards we have proposed?

- Question 43: Do you agree with having the same requirements on the formats for the dissemination of the equity CT as the bond CT in the UK? Y/N. Please give your reasons.
- Question 44: Do you agree with reducing the notice period a CTP for bonds or equities should give of price changes to 30 days? Y/N. Please give your reasons.
- Question 45: Do you agree with our proposal to amend MAR 9.2B.14R, MAR 9.2B.33R(3) and MAR 9.2B.38R so they apply to the equity CT and/or CTP? Y/N. Please give your reasons.
- Question 46: Do you agree firms should consider whether using CT data can improve their best execution arrangements and monitoring but there is no need to add a provision in the Handbook on this? Y/N. Please give your reasons.
- Question 47: Do you agree we should delete references to a CTP in the UK version of RTS 3? Y/N. Please give your reasons.
- Question 48: Do you agree the equity CTP, and APAs in relation to equity trades, should be subject to the same clock synchronisation requirements as trading venues? Y/N. Please give your reasons.

### Cost benefit analysis questions

- Question 1: Do you have any comments on our cost benefit analysis?
- Question 2: Do you agree with the assumptions made in our cost benefit analysis?
- Question 3: Are there any significant costs or benefits to the market that we did not adequately consider in our cost benefit analysis?

#### Annex 2

# Cost benefit analysis

### **Summary**

#### The market

- Significant amounts of data are generated and used in UK public equity markets. These data are used extensively and by different market players across several different use cases that require different speeds and varying amounts of information.
- 2. Equity market data can be categorised into pre-trade and post-trade data. Pre-trade data contains prices and volumes at which investors offer to buy and sell equities. Traders use pre-trade data to assess current addressable liquidity, market conditions, analyse order flow, and identify potential trading opportunities. Post-trade data contains information on executed transactions. Post-trade data is crucial for evaluating investment performance, benchmarking against market indices, and analysing portfolio risk. Both pre- and post-trade data also allows ex-post evaluation of trading decisions.

#### Problem and rationale for intervention

- **3.** There are two related market failures in the UK equity data:
  - Market power in the provision of equity trade data: In 2023, we published the findings of our WTDR, which found limited competition in pre- and post-trade data markets.
  - Incomplete information around equity market prices and liquidity due to a lack of coordination: data is spread across disparate datasets. There is a coordination failure, as collectively the industry would be better off with universal aggregated data. Some market participants currently aggregate data individually or use a third-party aggregator, leading to cost duplication. Many market participants use a narrower range of data from different sources, so there are incomplete and differing views of market liquidity and prices.
- **4.** These market failures lead to sub-optimal market outcomes:
  - Sub-optimal consumption of data by market participants, which is driven by both high costs of data acquisition and aggregation, and data licensing complexities. Market participants interact with equity markets with incomplete information, inhibiting their ability to manage risks and make well-informed decisions.
  - A lack of a common view of market liquidity and prices, which leads to inaccurate
    and misaligned opinions of available liquidity. This creates challenges for various
    key business processes, such as best execution monitoring and listing decisions.
- **5.** Sub-optimal market outcomes are associated with multiple harms, including:

- Investors are harmed because their investment and trading decisions are based on limited information on trading activity. Thus, they incur higher trading costs and may, as a result, trade less often. They also make inefficient capital allocation and investment decisions, for instance because the lack of complete information on liquidity restricts their investable universe.
- The UK equity listing market is distorted via higher cost of capital and inaccurate understanding of available liquidity by current and prospective listed firms.
- The above harms are associated with reduced market participation in the form of lower trading, fewer listings, and less investment. These effects reinforce each other as lower liquidity reduces the incentive to invest, trade, and list on UK equity markets. A reduction in this financial market activity also depresses demand for ancillary services, such as compliance or trade settlement.
- Due to information asymmetries and high cost of reaching mutually beneficial agreements, the market participants can't redistribute efficiently access to market data, and the market fails to self-correct. As a result, harm persists, and our proposals can be used to address it.

#### Our proposed intervention

- 7. We propose to introduce an equity CT that includes both post-trade data and the attributed pre-trade best bid and offer.
- 8. An equity CT will provide a comprehensive picture of transactions in equities, bringing together trades executed across different trading venues as well as those arranged OTC.
- 9. In our assessment of proportionality of our proposals, we have considered various regulatory options to address the harms, including price regulation, and assessed different versions of consolidated tape. Among the options considered, a consolidated tape emerges as the most proportionate choice for addressing the harms. It is also a viable solution, with costs recoverable through data sales. Most importantly, compared with other proportionate options, the consolidated tape carries significantly lower delivery and market distortions risks. For these reasons, it is our preferred option.

# **Summary of impacts**

# Table 4: Summary of costs and benefits

#### Summary of Benefits

#### Quantified benefits:

- Present value of £100m quantified benefits over 10 years
- Stemming from increased use of trade data by UK equity market participants

#### Unquantified benefits:

- Improved trading and investment performance for investors
- Increased liquidity in equity markets
- Improved listings decisions
- Lower cost of capital for firms
- Greater activity in UK equity and capital markets leads to higher revenues

## Summary of costs

#### Quantified costs:

- Present value of £93m direct costs expected from the CT proposals over 10 years. Including:
- One-off costs from building the consolidated tape infrastructure
- Running costs from operating the consolidated tape
- Costs to data providers from familiarisation and connecting to the consolidated tape
- Costs to bidders in the procurement of the consolidated tape
- Costs to the FCA from the procurement of the consolidated tape and regulating the consolidated tape provider
- **10.** There are three key benefits from the greater use of data in UK equity markets:
  - Investors using more trade data will make better investment and trading decisions.
     Investors are expected to incur lower transaction costs and receive higher returns on investments
  - With a more complete view of the market, firms can improve their listings and capital-raising decisions lowering their listing costs and cost of capital. This effect will be reinforced by higher levels of liquidity further reducing the cost of capital for listed firms.
  - Greater investing, trading, and capital-raising activity on UK equity markets will
    have beneficial impacts for the wider UK economy. For instance, in the form of
    higher investment levels of publicly listed companies and increased sales of
    services ancillary to trading.
- 11. CT customers will also benefit from cost savings on data spending by sourcing from a single provider rather than aggregating data from multiple sources themselves.
- The complete scale of all the above benefits is not quantified as the size of the effects is conditional on changes in firm behaviour, which may very over time and are challenging to predict. However, we do estimate a subset of the benefits that arises from greater data use by the customers of the CT. The impacts stem from improved data access of users with limited or no prior access to equity data and contain effects such as those described in relation to investor benefits above. Some of these benefits will be captured by the CT provider in the form of profits earned from newly served users. We estimate these benefits to be in the range of £50m to £154m present value (PV), with a midpoint estimate of £100m.

- 13. We estimate the costs to the market from our proposals to be in the range of £57m to £130m PV, with a midpoint estimate of £93m. The key costs of our proposals arise from building and running the tape, which will fall upon the CTP provider. They will recoup these costs by charging data users for the data they provide. We assume that the CT is built twice of over the 10-year appraisal period as we will appoint a second CT after 5-years.
- 14. We also expect there will be transfers between market participants. Notably, there will likely be some substitution away from existing data products to the CT and its customers. This loss in revenue for data providers (e.g. trading venues) will be offset by an increase in revenue generated by the CT and an associated change in consumer surplus if the price of the data is different.
- 15. We expect our proposal to be net beneficial overall. This is because we have chosen a tape that will be viable for a provider to profitably build and deliver quantified benefits at least equal to the costs. We also expect that there are wider benefits to UK equity markets and the UK economy that further ensure that the proposal is net beneficial.
- Our analysis accounts for a range of uncertainties, including those related to cost estimates, which we have addressed through scenario analysis of various CT designs. Additionally, we recognise that some factors, such as the actual adoption of the CT and the evolution of market practices and structure, remain uncertain. Our evaluation framework incorporates ongoing monitoring and flexibility to adjust regulatory measures as new information emerges. This involves evaluating the effects of the CT on the quality of price formation and efficiency of capital allocation, considering potential modification to its features, and identifying any possible unintended market dynamics.

#### Introduction

- 17. Section 138I of FSMA 2000 requires us to publish a CBA of proposed rules, defined as 'an analysis of the costs, together with an analysis of the benefits that will arise if the proposed rules are made'.
- 18. This analysis presents estimates of the significant impacts of our proposal to introduce a framework of establishing an equity consolidated tape in the UK. We provide monetary values for the impacts where we believe it is reasonably practicable to do so. For others, we provide a qualitative explanation of their impacts. Our proposals are based on weighing up all the impacts we expect and reaching a judgement about the appropriate level of regulatory intervention.
- **19.** The CBA has the following structure:
  - The market
  - Problem and rationale for intervention
  - Options assessment
  - Our proposed intervention
  - Baseline and key assumptions
  - Summary of impacts

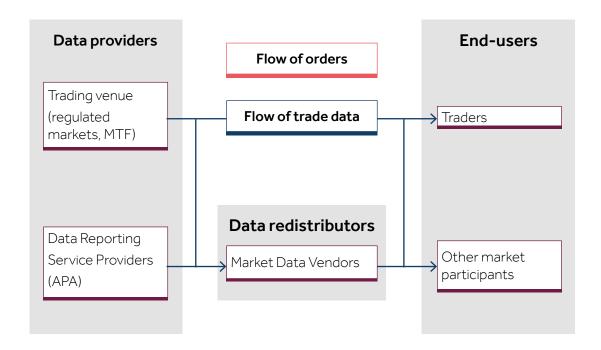
- Benefits
- Costs
- Wider economic impacts
- **20.** Supporting materials and analysis are in annexes.

## The Market

## **Equities data**

- 21. Significant amounts of data are generated and used in UK public equity markets.
- Data can be accessed directly from trading venues or from APAs who make public OTC trades concluded bilaterally away from trading venues. Users of data direct feeds from these parties, but many users choose to access data through market data vendors. Direct data feeds can provide data at very low levels of latency (often in the microseconds). In contrast, data consumed through market data vendors is slower but still with a typical delay of well under a second.
- **23.** Figure 1 below shows the simplified process by which data is created and disseminated to data users.

Figure 1: Simplified diagram of the relationship between trading and trade data, and market participants



24. In the UK, individual venue data streams on equities are accessed individually from the relevant trading venues though direct feeds, or indirectly through Market Data vendors.

In contrast, an equities consolidated tape collates market data from all venues to provide a comprehensive picture of transactions in equities, bringing together trades executed on trading venues as well as those arranged OTC. The US has had consolidated tapes for equities since the 1970s. The EU is currently developing a consolidated tape for equities.

**25.** Data from individual venues or on a consolidated tape can be divided into those that are generated prior to trades taking place (pre-trade), and then after a trade has occurred (post-trade).

#### Pre-trade data

- Pre-trade data contains prices and volumes at which investors offer to buy and sell equities. This is important because, to trade effectively on financial markets, participants need to know the prices and the volumes available for a particular equity. Hence, pre-trade transparency is known to reduce execution risk (the risk that a trade occurs at a worse price than expected or the quantity required is not purchased). Pre-trade data supports confidence in the market as it provides information about the ability to hedge risk.
- There are varying levels of 'depth' of pre-trade data. Top of book (sometimes known as 'level 1' data) shows the best bid and offer limit orders available on a venue for a specific instrument, the top row in the example below (Figure 2). Data has greater depth where the next best limit orders are also provided. Full depth (sometimes called 'level 2' data) contains all limit orders currently on the market no matter what the price. We note that there are orders and markets where all limit orders are not visible (e.g. iceberg limit orders where only a proportion of the total order is visible to the market).

Figure 2: Illustrative example of limit order book

		Bid		Ask	
Data		Price	Size	Price	Size
Level 1		99	200	100	150
	Level 2	98	250	101	120
		97	150	102	100

#### Post-trade data

**28.** Post-trade data contains information on executed transactions. After a trade has been concluded, the executed price, the volume, and the time of trade are published-under post trade transparency rules. Other information, such as the type of transaction (e.g. benchmark trade) is also published.

#### The demand for market data

#### Consumers of market data

- **29.** Within financial markets, there are three key categories of market participants who consume and use data: the buy side, the sell side, and liquidity providers.
- The buy side refers to institutions or individuals who are buying financial products, such as equities, for investment purposes. Generally, they are not directly connected to trading venues and therefore access the market via an intermediary. Buy-side firms can also create investment products that are themselves listed on stock exchanges, such as ETFs and closed-end investment funds.
- **31.** Individual investors or retail traders are also part of the buy side. They do not have direct access to trading venues, so they typically trade through online brokers and use their own analysis and trading strategies.
- The sell side are intermediaries that facilitate buying and selling of financial products for investors. They may also provide research and analysis to help their clients make informed decisions. Sell-side firms typically trade directly on venue, rather than through an intermediary, and have a direct connection to the venue and therefore require the most data at the highest speeds to inform these interactions.
- **33.** Liquidity providers and market makers are institutions that provide liquidity in the trading order book by continually offering to trade. These firms can either be sell-side banks or proprietary trading firms. They trade on their own account and continuously buy and sell prices (or quotes) for securities. This helps to stabilise prices and ensure that buyers and sellers can execute trades efficiently.
- There are other users of equity market data that do not trade equity but provide services or information to market participants. There are index providers that use the prices in markets to provide market benchmarks, such as the FTSE 100. In addition, the firms listed on markets, or those considering listing, will use equity market data to inform their listing choices and to understand market sentiment. Other market infrastructure providers, such as clearing houses and security depositories, will also use equity trade data.

#### Uses of market data

- Market data are used extensively and by different market players across several different use cases that require different speeds and amounts of information. In many cases data is an essential requirement for interacting with equity markets.
- Traders use pre-trade data to assess current addressable liquidity, market conditions, analyse order flow, and identify potential trading opportunities. Those directly trading on limit order books purchase direct data feeds from trading venues and seek to optimise the speed at which they receive and process the current state of the market to inform trading decisions.
- **37.** After a transaction has been executed, market data allows ex-post evaluation of trading decisions. For example, such an analysis may help an investor to assess whether their

- broker executed the transaction at the 'best possible' conditions (otherwise called assessing 'best execution').
- **38.** Market data assist market participants in their investment decisions such as asset allocation. Post-trade data is crucial for evaluating investment performance, benchmarking against market indices, and analysing portfolio risk.
- There are also many other use cases for market data. This includes risk management, especially as relates to market, credit, and counterparty risk. Firms also use pre and post trade data to ensure they comply with their regulatory obligations. Other use cases cover index calculation, benchmarking against other firms' performance, and research and analysis.
- **40.** Europe Economics (2024) contains further information on the use of UK equity market trade data by different participants.

# The supply of equities data

#### Overview of the market

- 41. In 2007, MiFID introduced competition in trading with the aim of lowering costs and improving efficiency. Before this, equities were traded on the exchange they were listed on or OTC. Now, a broker or investor that wants to trade can choose from different venues. Equities can be traded on venues, such as regulated markets (RMs) or multilateral trading facilities (MTFs), or with SIs that offer trading in a particular equity. Thus, the UK trading landscape became fragmented, and consequently, the equities data picture became more fragmented.
- 42. In the UK, there are 3 Recognised Investment Exchanges (RIEs) running RMs and 14 firms running MTFs in equities. In addition, there are 24 firms acting as SIs dealing in equities and 4 APAs that publish equity trade data. Some firms undertake more than one of these activities. Overall, there are 37 firms undertaking these activities.
- 43. According to internal analysis of equity transactions on the largest UK venues in UK listed stocks (see Figure 3), the London Stock Exchange (LSE) had a volume share of over 50% in 2024. The next largest venue, Chicago Board Options Exchange (Cboe), had a volume share of turnover of c. 30%, followed by Acquis at 5%. The Alternative Investment Market (AIM) is operated by LSE and Turquoise is a member of the London Stock Exchange Group (LSEG).

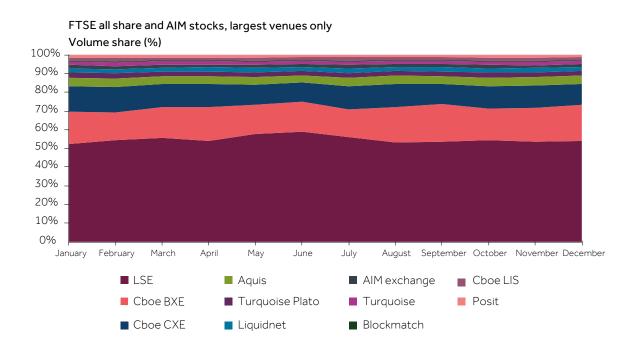


Figure 3: UK trading by venue, 2024

Source: FCA Analysis

44. It follows that both the volume and value of trade data increases with volume of underlying transactions. Market participants want to trade with as much information as possible on the amount of available liquidity. Therefore, the greatest demand for data accrues to the venues with greatest volumes. Consequently, market shares in UK equity data follow market shares in equity volumes with the LSE capturing around 80% of the market. 14% is generated by Cboe and the market share of the remaining trading venues are each in single digits.

# Market dynamics and business models for equities data

- 45. Equity trading venues are two-sided markets with three distinct groups operating within them. There are firms raising finance, investors, and the sell-side firms that allow investors to access markets and provide liquidity. There are strong network effects in equity markets. Firms will only list where there is a wide investor base to invest in their assets. Investors will only use trading venues when there are firms listed (or admitted to trading) in which to invest. Finally, investors benefit from other investors trading in markets as this increases the opportunity to engage in mutually beneficial trades.
- **46.** There are three key revenue sources for trading venues. Firstly, firms pay to list their equity on exchanges. Secondly, investors and sell-side firms pay to trade on trading venues. Finally, venues sell data about the trading on their markets to investors.
- 47. As noted above, there are around 40 trading venues in equities, but most trading activity and revenue is concentrated in a few large venues.

- **48.** Equity data is sold under licence to users. Each licence restricts the use of data to a specific purpose. Only the largest trading venues sell data and earn significant revenues from these data sales. The larger the trading volumes on the venue, the greater the value to market participants, and the higher the revenue venues earn from selling data.
- 49. Equity market participants value trade data quite differently. Sell side firms and proprietary trading firms, who often trade directly on venues, require fast data (in microseconds) from multiple venues showing all trading activity. Buy side firms, who interact with venues via brokers, typically require less data and slower latency (often in real time but used by humans rather than trading algorithms).
- Data is licenced by venues based on data types and its intended use by market participants. There are four broad categories of licence: display data, non-display data, redistribution licences, and derived data licences. Display data is for individual users, while non-display data is used by trading algorithms. Redistribution data is for onward distribution to users outside the firm. Derived data is used to create other products, such as benchmarks (e.g. FTSE 100). For each of these categories, post-trade and different levels of pre-trade data may be available.
- We estimate that there are between 40-80,000 display data licences for accessing equity market data. We note that some licences allow data to be accessed from a single terminal and therefore the number of users of the data may be much greater than this. There are many fewer licences for other types of data. Given the variety of data licences, we do not estimate these.

## Problem and rationale for intervention

#### Market failures

- We have identified two related market failures in the UK equity data market that lead to sub-optimal outcomes and negatively impact both the UK financial markets and the wider economy. These market failures are:
  - Market power in equity trade data provision
  - Incomplete information around equity market prices and liquidity due to lack of coordination
- **53.** We describe these market failures in turn below.

# Market power

- In 2023, we published the findings of our <u>WTDR</u> covering pre-trade and post-trade data. The review found that competition in trade data markets was limited, and the key findings included:
  - Users had little choice but to purchase the data from trading venues- especially the largest ones- because this data was considered essential. Users are required to purchase separate data licences for specific uses. This makes it difficult for

- users to make informed decisions. This complexity also increases costs, such as the need for compliance teams, which raises the overall cost base for wholesale financial markets.
- Together, these factors led to high prices for users of trade data.
- As part of this current analysis, we have explored whether these findings still hold. We note:
  - Since the WTDR, we have seen no significant change in how firms buy data. We note that the available source show that revenues continue to grow as a proportion of revenue for trading venues.
  - Trade data of different venues are differentiated products with little substitution effects between them see Glosten (2020). Data from a particular trading venue is only informative of trading activity on that venue, and market participants cannot meaningfully use the data to decide how to place trades elsewhere. Thus, venues do not exert competitive pressure on each other in the trade data market.
  - While trade data of one venue is not a substitute for trade data of another, trade execution services are. But the trade execution markets are influenced by network effects: the more participants trade on a venue, the more advantageous the trading conditions are. This encourages traders to pay more for accessing the venue. Because trade data is essential for trading, demand for data products also increases, allowing venues with strong network effects to charge higher data fees.
  - In many instances, the data from the primary venue remains the sole source of reference prices for the market. Reference prices are used for many activities including the valuation of assets, dark pool trading, and pricing of derivatives. These activities represent additional sources of inelastic demand for the primary venue data.
  - Complex licensing structures persist. This was highlighted in our industry engagements, including <a href="Europe Economics">Europe Economics</a> (2024) interviews and data user survey. Further, <a href="Market Structure Partners">Market Structure Partners</a> (2025) also emphasised the detrimental impacts of complex licensing practices and provide illustrative case studies of the challenges they create for firms.

# Incomplete information due to lack of coordination

- Trading in equities generates significant amounts of data. For example, on the LSE order book there were over 13 million trades in May 2025 alone.<sup>2</sup> Executed trades are only a small proportion of the data. Order books of venues are updated many more times than transactions take place. In 2023, there was 75 times more orders (new orders, amendments, cancellations, fills and expires) than trades on LSEG trading venues.<sup>3</sup>
- **57.** But this substantial amount of data is spread across disparate datasets. Currently, there are three RMs and 38 MTFs in UK equity markets (we note that some firms run multiple

Glosten, L. R. (2020). Economics of the stock exchange business: Proprietary market data. *Available at SSRN 3533525*.

<sup>2</sup> London Stock Exchange, Summary Order Book Analysis by Market, May 2025, <a href="https://docs.londonstockexchange.com/sites/default/files/reports/">https://docs.londonstockexchange.com/sites/default/files/reports/</a> Secondary%20Markets%20factsheet%20May%202025.pdf

<sup>5</sup> DON STOCK EXCHANGE, MARKET DATA Transparency obligation disclosures – 2025, <a href="https://docs.londonstockexchange.com/sites/default/files/documents/lse-plc-rcb-disclosure-document-2025.pdf">https://docs.londonstockexchange.com/sites/default/files/documents/lse-plc-rcb-disclosure-document-2025.pdf</a>

- venues). Since data is produced and disseminated by trading venues, this fragmentation of trading landscape leads to fragmentation of market data.
- To have a complete picture of the available liquidity, market participants must therefore either aggregate data themselves or use a third-party aggregator, such as Bloomberg. Both methods pose operational and financial challenges that mean users often do not use all data to inform their view of the market.
- Post-trade data and top of book pre-trade data is available free after 15 minutes. However, there are significant challenges in downloading and aggregating data from multiple sources to build a view of the market. Lack of data standardisation across trading venues and APAs make this a challenging task, too. Larger market participants perform in-house data aggregation for ultra-fast data gathered from direct feed connections to trading venues. However, the time and expense of data consolidation is not worthwhile for smaller market participants or firms considering whether to list or to maintain a listing in UK equity markets.
- Consequently, market participants incur significant costs when trying to obtain a consolidated view of the market regardless of the approach whether it is aggregating free or licensed data in-house or paying for third-party solutions. This is corroborated by responses to our WTDR, the survey of market data users, and interviews conducted by Europe Economics (2024). Across these sources, respondents indicated that the cost of creating an internal version of a tape may be prohibitively high for many firms. Moreover, the resultant views of the market inevitably differ, for instance, in terms of depth and venue coverage.
- There is therefore a coordination failure as collectively the industry would be better off with universal aggregated data. But each market participant currently aggregates data individually or uses another third-party, which leads to cost duplication and differing views of market liquidity and prices.

#### Market outcomes and the resultant harm

- **62.** These market failures lead to sub-optimal market outcomes, which are:
  - Sub-optimal consumption of data by market participants, which is driven by both high costs of data acquisition and aggregation and data licensing complexities. In our survey of data users, we asked about current data purchases, which enabled us to identify under-consumption occurring across different dimensions. For example, some users choose to rely on post-trade data only, rather than a combination of post-trade and some level of pre-trade data when making decisions based on the level of available liquidity. Additionally, licensing terms limit the use of the purchased data to specific uses cases, which inhibits the firms' ability to experiment and innovate with the data for other uses. Consequently, some market participants interact with equity markets with incomplete information, which inhibits their ability to, e.g., manage risk, monitor trade execution costs, or inform trading strategies.
  - Lack of a common view of market liquidity and prices. A lack of a common view of the market leads to inaccurate and misaligned opinions on the available liquidity.

This creates challenges for various key business processes in the market, such as best execution monitoring and listing decisions.

- There is thus inefficient allocation of data access in the market. But data users and trading venues have strong incentives to negotiate mutually beneficial agreements that better align access with firms' needs and willingness to pay. Likewise, users could benefit from jointly developing a single, authoritative consolidated product, sharing costs in proportion to individual gains. According to Coase theorem, the market could thus achieve efficient allocation of data access
- 64. However, several frictions hinder effective coordination between market participants causing inefficiencies to persist. There is asymmetric information concerning private valuation of data by market participants. Reaching mutually beneficial agreements across the entire market would also likely incur prohibitive coordination costs. Consequently, the market does not self-correct, creating harm at the level of individual data users, such as investors, and the entire system (across wider equity markets and the UK economy).

# Harm on UK equity trading and investing

- The activity in UK equity markets is dominated by buy-side firms, sell-side firms, and liquidity providers (see 'Consumers of market data'). To make efficient investment and trading decisions, these market participants would require unencumbered access to complete information on trading activity. But this is currently not the case in the market, which leads to a range of harms.
- First, without a clear view of market liquidity, market participants are less able to make efficient trade execution decisions. As a result, they may incur higher trading costs, e.g. in the form of larger implementation shortfalls. Cespa and Foucault (2014)<sup>4</sup> and Easley et al (2016)<sup>5</sup> show how charges for market data lead to a market-wide increase in these costs.
- 67. Second, higher trading costs incentivise market participants to alter their trading strategy. A likely response is trading less and more defensively to reduce the risk of losses, which comes at the expense of foregone gains from trading and investment. For example, Colliard and Hoffman (2017) found that an increase in trading costs in French equity markets was associated with a 10% fall in trading volume.<sup>6</sup>
- Third, incomplete information about market prices and liquidity can distort capital allocation decisions. If information on available market prices is incomplete, or if prices do not accurately reflect the fundamental value of the securities, investment decisions become inefficient. Similarly, market participants may fail to spot instances of market abuse. Incomplete and inaccurate information on market liquidity can further undermine the quality of capital allocation decisions as it prevents market participants from appropriately judging returns net of trading costs.

<sup>4</sup> Cespa, G., & Foucault, T. (2014). Sale of price information by exchanges: does it promote price discovery?. Management Science, 60(1), 148-165.

Easley, D., O'Hara, M., & Yang, L. (2016). Differential access to price information in financial markets. *Journal of Financial and Quantitative Analysis*, 51(4), 1071-1110.

<sup>6</sup> Colliard, J. E., & Hoffmann, P. (2017). Financial transaction taxes, market composition, and liquidity. The Journal of Finance, 72(6), 2685-2716.

- A notable example of distorted allocative decisions is the exclusion of stocks from the investible universe when a firm's view of liquidity is incomplete. Industry engagements revealed that some firms consider stocks only if they exhibit a certain minimal level of liquidity. But trade associations and respondents to <a href="Europe Economics">Europe Economics</a> (2024) interviews highlighted that the lack of a common, consolidated view of the market means the liquidity of UK stocks is often underreported. This leads to the exclusion of some stocks from investment considerations and therefore inefficient capital allocation choices.
- **70.** Fourth, there is duplication of data aggregation costs. Collecting data from multiple venues and consolidating it into a single dataset requires building appropriate IT infrastructure. These costs are duplicated as there are multiple data providers with a consolidated product, and some market participants aggregate data in-house, too.
- Finally, there are also indirect impacts on all market participants when individual participants restrict their trading. One impact concerns price discovery. When market participants submit publicly visible orders, they reveal private information about a stock's fundamental value, helping the market to identify it; reduced participation undermines this process. Another impact is related to liquidity. A decline in the number of market participants lowers the probability of finding a counterparty to a trade, so firms either do not trade or trade on less favourable terms, resulting in higher trading costs for everyone. Empirical studies by Cespa and Foucault (2014), Easley et al (2016), and Brogaard et al (2024) all find that trade data fees have negative effects on market-wide price discovery and liquidity.

# Harm on the UK listings market

- 72. The identified drivers of harm distort UK equity listings market via higher cost of capital and an inaccurate understanding of available liquidity by current and prospective listed firms
- As a result of current market imperfections, participants trade less often, adversely impacting the cost of capital in UK equity markets. Lower liquidity lowers the prices investors are willing to pay for stocks, which is demonstrated by a well-developed theoretical and empirical literature see, for instance, Amihud et al (2006). As a result, the issuers face higher costs of equity capital as investors require a higher rate of return when liquidity is lower. For instance, Ellul and Pagano (2006) found that illiquidity reduces the amount raised during Initial Public Offering (IPO). Similarly, Domowitz and Steil (2001) estimated that a 10% fall in trading costs would be likely to lead to a 1.4-1.7% decrease in cost of equity.
- 74. Current and prospective listed firms also face challenges when assessing available liquidity in UK equity markets to inform listing decisions. Due to the relationship between illiquidity and cost of capital firms have strong incentive to list on more liquid venues.

<sup>7</sup> Cespa et al., Sale of price information by exchanges.

<sup>8</sup> Easley et al., Differential access to price information.

<sup>9</sup> Brogaard, J., Brugler, J., & Rösch, D. (2024). Competition and exchange data fees. Available at SSRN 3703431.

<sup>10</sup> Amihud, Y., Mendelson, H., & Pedersen, L. H. (2006). Liquidity and asset prices. Foundations and Trends® in Finance, 1(4), 269-364.

<sup>11</sup> Ellul, A., & Pagano, M. (2006). IPO underpricing and after-market liquidity. The Review of Financial Studies, 19(2), 381-421.

Domowitz, I., & Steil, B. (2002). Innovation in equity trading systems: the impact on trading costs and the cost of equity capital. Technological Innovation and Economic Performance, 314-327.

- The Investor Relations Society found that liquidity and depth of markets are among the most important factors in deciding on the listing location.<sup>13</sup>
- Tiquidity in UK markets is strong, even when compared to jurisdictions such as the US. However, market participants and industry associations have noted that the lack of a comprehensive view of liquidity means that the data used by firms in deciding on where to list are incomplete. Consequently, firms make sub-optimal listing decisions. For, example, choosing to list in another jurisdiction rather than on UK equity markets, when the UK market will be at least as liquid for that firm.
- **76.** Higher cost of capital and sub-optimal listing decisions lead to multiple harms for current and potential issuers.
- 77. Firstly, higher cost of capital is a direct loss to firms, which are restricted in terms of the amount of equity funds raised via IPOs and follow-on issuance. The impact can be substantial because public equity markets are a significant source of investment funds. In 2022, the market capitalisation of UK-listed firms was c.£2.4tn or around 90% of Gross Domestic Product (GDP),<sup>14</sup> and firms raised £8.8 billion through IPOs and follow-on issuances on UK venues in the first half of 2025 alone.<sup>15</sup>
- 78. Secondly, higher cost of funding reduces the incentives for firms to undertake investments. Lower investment means that otherwise profitable investment opportunities will not be taken forward, lowering firm profits. For instance, research by <a href="Bank of England">Bank of England</a> found that an adverse shock to cost of capital can cause UK firms to contract real capital expenditure by up to 1.8%.
- **79.** Thirdly, there are costs incurred when firms make inefficient listing choices. These are:
  - Direct costs of changing listing location, which include venue listing fees as well as compliance-related costs, such as regulatory, accountant, and legal fees.
  - Indirect costs if firms make greater use of alternative financing sources, which may be more expensive or have disadvantages relative to public equity.

# Harm on the wider UK economy

- **80.** We have identified two key harms impacting the UK economy.
- 81. The first and largest harm is the effect on capital allocation. As discussed above, a lack of information on available market prices and liquidity, along with market-wide distortions to price discovery, adversely impacts investment choices. Furthermore, changes to trading costs affect the risk-return profiles of stocks and may result in funding not being directed to the most productive uses, for example, if the liquidity of investments is low. These market imperfections, in the form of trading costs and information frictions, reduce the efficiency of capital allocation and lower economic

<sup>13</sup> https://irsociety.org.uk/resources/news/item/findings-from-iro-survey-on-listing-rules-and-investment-research

<sup>14</sup> Based on ONS data

<sup>15</sup> https://www.ft.com/content/74db8359-a76e-4a65-a424-5624d7af22d6

<sup>16</sup> See for instance: Bencivenga, V. R., Smith, B. D., & Starr, R. M. (1996). Liquidity of secondary capital markets: Allocative efficiency and the maturity composition of the capital stock. *Economic Theory*, 7(1), 19-50.

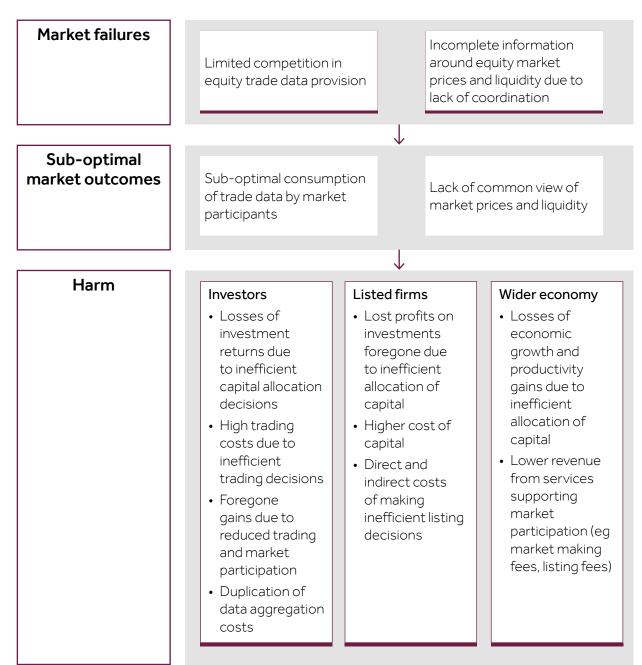
- growth a link demonstrated by a rich body of theoretical and empirical literature, as reviewed in Levine  $(2021)^{17}$
- 82. In 2024, the total capital expenditure of FTSE 350 companies is estimated to have been around £134.7bn. A consensus estimate of the elasticity of investment to cost of capital is around -1. A 0.01% increase in the cost of capital can thus be associated with a reduction of £13.5m additional annual investment.
- 83. The second harm concerns reduced market participation by investors and listed firms in the form of lower trading, fewer listings, and less investment. These effects reinforce each other as lower liquidity reduces the incentive to invest, trade, and list on UK equity markets, which diminishes liquidity, listings, and investment opportunities further still.
- Lower market participation in turn adversely impacts wider business activity in the UK. There is an entire ecosystem built around firms listed in UK equity markets and supporting their interaction with the financial sector. The ecosystem provides a wide range of services for processes such as trading, investment, and regulatory compliance. A reduction in listings activity or the volume of trading will lead to a fall in demand for these services and revenue losses for the firms supplying them, including trading venues and investment banks.

<sup>17</sup> Levine, M. R. (2021). Finance, growth, and inequality. International Monetary Fund.

<sup>18</sup> According to Oxera (2007), total capital expenditure by FTSE 350 companies was £98.3bn in 2006. Projecting this forward using 2006-2024 growth in UK-wide gross fixed capital formation (source: ONS), we obtain £134.7bn.

<sup>19</sup> For US-listed firms, Gilchrist and Zakrajsek (2007) obtained an estimate ranging from around -0.75 to -1.4. The value generated by Guiso et al (2001) for Italian firms is about -1.

Figure 4: Harm diagram



# Options assessment

- 85. In deciding our preferred intervention to address the above harms, we have considered a range of options. Our final assessment is guided by the overarching principle of balancing each option's ability to effectively address identified harms with risks and costs. Specifically, the assessment was guided by these critical success factors:
  - Viability: the achievability of the options, which is governed by the costs of implementing the policy.

- Proportionality: the extent to which the benefits arising from our proposal will outweigh the costs.
- **86.** The options considered were:
  - Delayed data rules
  - Price regulation
  - Regulation of licences
  - A consolidated tape
- **87.** We consider each in turn and provide an overall assessment to identify the preferred option.

## Delayed data rules

- 88. There are currently requirements on trading venues and approved publication arrangements to make pre- and post-trade data available for free after 15 minutes. The intention was to make market data accessible, encouraging consolidation and creating a single view of the market. But, as highlighted by the WTDR, there were issues with the quality of some of the data and there was no standardised approach to formatting and dissemination. Further, data suppliers were allowed to impose charges and licensing conditions. These factors made it complex and costly to consolidate the data, restricting wide use.
- **89.** The delayed data rules could be revised. Changes might include standardising data formats and dissemination means, as well as enabling the firms wishing to sell a consolidated product to access the data for free.
- This policy would be a low-cost option as it would only involve changing the rules and impose limited costs to data providers. But it would not adequately address the harm. While the accessibility of delayed data would be improved, it would benefit only a limited set of use cases with high tolerance for latency, such as portfolio valuation. 15 minutes is a substantial delay for equity markets where market conditions change frequently. This intervention would therefore create little benefit for many lower latency applications, including real time risk management, monitoring, and trade execution. It would therefore be unlikely to facilitate material improvement in the efficiency of secondary trading and the realisation of market benefits. It would however mitigate any potential adverse consequences, including the impact on data suppliers. There are also some delivery risks as we cannot know for certain whether providers would step in to offer consolidated delayed data products.
- **91.** Nonetheless, this intervention is low cost, and we have identified interest by market participants. We will be publishing a CP in 2026 on equity transparency that will seek to address some of the concerns that have been raised about the quality of equity trade reporting.

# **Price regulation**

- 92. Price regulation limits the prices or revenue collected by trading venues from their trade data products. This would directly address the high costs of data and therefore generate expansion in data consumption due to lower prices. Since data costs also prevent firms from developing a consolidated data product, it would incentivise the market to develop a single, authoritative source of information on market liquidity and prices.
- 93. In its 2014 consultation on market data rules, the European Securities and Markets Authority (ESMA) assessed different forms of price regulation, including:<sup>20</sup>
  - Quantitative price caps
  - Limits on charging based on revenues and costs

## Quantitative price caps

- **94.** Quantitative price caps would require specifying individual limits for each relevant price and restricting price increases. This would be an effective option and could positively impact data consumption and the development of a single view of the market, which is partly inhibited by high data charges.
- 95. However, there are substantial risks of market distortions and questions about feasibility and delivery. There is significant complexity in the pricing of trade data in the UK with dozens of data charges and differences across venues. Moreover, innovation in the financial sectors leads to continuous evolution of data needs, manifesting itself in the continuous creation of new data sets (WTDR). Using quantitative price caps risks creating material distortions inhibiting data consumption, business models, and innovation. There would also be substantial costs and delivery risks as it would be challenging to calibrate and monitor the price caps to ensure expansion in data consumption in the context of market complexity and lack of informative data on data use.

#### Revenue restrictions

- P6. Revenue restrictions would involve imposing high level limits on the share of revenue obtained from trade data encouraging a potentially substantial reduction in harm. Relative to the price caps, the costs would be lower both for the venues and for the FCA as the policy requires developing and monitoring only simple revenue shares.
- 97. But it would risk imposing arbitrary restrictions on prices/revenues leading to market distortions. Revenue share restrictions would not be connected to market dynamics and would not work efficiently with the heterogeneity in user preferences and their continuous evolution. There would therefore be a material risk that the choice of data for users was diminished. Further, applying the same percentage limit to all suppliers would not account for specific firm circumstances and would therefore be incompatible with the current variety of trading venues with different and evolving business models and

cost-recovery structures. There would also be delivery risks from inefficient calibration undermining the intended policy aim.

## LRIC approach

- 98. Another form of restriction could be to limit revenue gathered based on costs. In 2014, ESMA considered the long-run incremental cost (LRIC) approach, which allows efficiently accounting for the joint costs in the provision of trade execution services and trade data. Under the method, trading venues would be allowed to recover the difference between what it would cost them to run their business with and without market data products.
- 99. When compared to revenue share limits, the LRIC approach would also be an effective option with mitigated risks of market distortions and delivery. This approach relates prices more directly to what would be charged in a competitive market and allows suppliers to recover incremental and joint costs, limiting unintended effects on pricing and business models. The risks would however persist as applying the LRIC method involves a lot of judgement (e.g. in the allocation of costs) with room for discretionary calibration. This risks inconsistent application and market distortions, such as adverse impacts on data supplier competition and regulatory arbitrage. While the mitigation of risks remains limited, the policy may also be costly as it requires complex cost modelling.

# Regulation of licenses

- Regulation of licenses would involve simplifying the licensing structure. Respondents to the WTDR identified harms in the form of costs incurred in the procurement and management of data spending related to the complexity of data licensing. Market Structure Partners (2024) also highlighted that the complexity was adversely affecting product innovation. On a standalone basis, this policy option would not address the key harms. But combined with price regulation, it could help to minimise majority of the identified harms. It would also be associated with low implementation and monitoring costs.
- However, a broad-based simplification of licenses risks increasing the underconsumption of data, undermining one of the key aims. Current complex licensing structures allow the trading venues to charge higher prices on customers who value the data a lot while charging lower prices on customers with lower valuation. This benefits the latter customer group at it enables them to purchase more of the data and at lower prices than they would if prices were uniform across all customers (WTDR). Once licenses are simplified, the trading venues would need to charge the same price to all customers, potentially leading to price increases for users who value the data less and reducing their data consumption. Removing venues' ability to price discriminate has the risk that there will be a reduction in the data used by participants. This would negatively impact equity markets.

# A consolidated tape

**102.** A CT collates market data, such as prices and volume associated with equities. It will bring together transactions across various trading mechanisms, creating

a comprehensive picture of trading activity in UK equity markets and making it accessible at a competitive price achieving widespread adoption and expansion on data consumption. Below, we assess the tape against our success factors, leveraging findings from various sources, including cost collection, data user survey, and <a href="Europe Economics">Europe Economics</a> (2024) interviews of market participants.

## Feasibility

- 103. A CT is a feasible option. While establishing and running a CT entails substantial costs, sales revenues from voluntary firm purchases will be used for cost recovery. In our evidence gathering, we collected information on potential demand and costs for different scenarios of the CT. The findings show robust demand, which grows as more and better data is added to the tape. But the costs, and the uncertainty around them, also increases noticeably. The version of the CT we propose is estimated to be commercially feasible across the range of our cost estimates.
- We have also identified feasibility risks. There is uncertainty about the cost estimates, which significantly increases together with the level of the costs as we consider different design scenarios. We have limitations in our demand data, too. Respondents to our data user survey struggled to answer tape demand questions, more so for more ambitious tape versions. It is thus possible that the tape may not be commercially viable for some design choices.

# Proportionality

- **105.** We consider the CT to be an effective option for addressing market harms, comparable in impact to price regulation.
- In terms of data consumption, our evidence gathering (including <u>Europe Economics</u> industry interviews and a survey of data users) shows that the tape delivers benefits across a wide range of use cases, many directly linked to trading and investment decisions. Our estimates of quantifiable benefits indicate both an increase in the number of data users and improvements in the quality of data consumed (e.g. venue coverage). These benefits are broad-based, extending across different business models and firm sizes.
- 107. The tape also has the potential to serve as a single authoritative source of information on market prices and liquidity. Venues will be required to supply data free of charge under harmonised standards specified and monitored by the FCA. This will remove the key barriers that have previously prevented the creation of an authoritative consolidated product. The interviews with firms Europe Economics conducted and our data user survey also confirms strong demand for such a source, to be widely used for market liquidity and pricing data.
- 108. Finally, the tape will contribute to resolving the harm caused by complex licensing arrangements (e.g. barriers to innovation, high procurement costs). Rather than a broad-based simplification of licensing, the introduction of simple tape-specific licences would enable licensing benefits to accrue directly to tape use cases, while also allowing cross-subsidisation between high- and low-valuation data users. This, in turn, will enhance

- aggregate data consumption for other use cases. In this way, these harms will be addressed efficiently.
- 109. We have considered various designs for the CT. While we have not been able to estimate all the benefits a CT would likely bring forth, we think that all the likely tape designs would be net beneficial overall, if implemented. This is because under plausible designs of the tape, the positive effects on equity markets outweigh the costs of building the tape.
- 110. The tape will also be subject to market distortion like those under the price regulation option; however, these risks will be lower. Unlike price regulation, the price of the tape will be determined by market forces, responding to user demand. This allows the price to more closely reflect market dynamics. If the tape provider sets an inappropriate price, data users can continue using products from existing data suppliers. We still would expect there to be positive net benefits from increased data use. In contrast, poorly calibrated price regulation would affect all data suppliers, distorting data consumption across the entire market
- 111. While changes to delayed data rules are low-cost and carry only limited delivery risks, they do not adequately address the harm caused by restricted use cases. Similarly, easing licensing restrictions mitigates only peripheral harms when considered in isolation. By contrast, various forms of price regulation (such as quantitative price caps, revenue restrictions, or LRIC) are effective and involve comparatively modest costs, but these policy options carry higher risks of market distortions and implementation challenges.
- 112. Among the options considered, a CT emerges as the most effective, addressing most harms in a satisfactory manner. It is also a feasible solution, with costs recoverable through data sales. Most importantly, compared with other highly effective options, the CT carries significantly lower risks of delivery challenges and market distortions. For these reasons, we consider it our preferred option.
- 113. We, nevertheless, note a CT carries risks (as set out above), and we thus consider below how its design can be done in a way that minimises or eradicates such risks.

# Option assessment on the design of the consolidated tape

- 114. In our survey of data users, we collected information on 4 design options of the CT to inform our final design choice. In the survey, we have referred to them as scenarios, and we therefore use this label across the document. These were:
  - Scenario 1: a post-trade only tape for UK equities from all trading venues and APAs, distributed with a latency of 300 milliseconds or less from publication.
  - Scenario 2: a tape with post-trade data and the attributed best pre-trade bid offer (i.e. top of book) from lit UK venues, distributed with a latency of 100-200 milliseconds.
  - Scenario 3: a tape with post-trade data and the attributed top 3 pre-trade bids and offers from lit UK venues, distributed with a latency of 40-100 milliseconds.
  - Scenario 4: a tape with post-trade data and the attributed top 5 pre-trade bids and offers from lit venues and SIs, distributed with a latency of 20-40 milliseconds.

115. We assessed the above design forms against the critical success factors, leveraging data collections on expected demand, benefits, and costs. In the following sections we consider the viability, effectiveness and risk arising from each of these designs. We use the costs and benefits we have analysed and estimated to inform these considerations. Further details of these costs and benefits are described later in this CBA.

## Viability

- 116. We define viability as the capacity to generate sufficient revenue to cover operating costs, including amortised costs of building the CT, and earn a profit.
- As providing an equity CT would be a voluntary business decision for firms, they are likely to apply to become a CTP only if there is a viable business case. This means that the profits from the CT must make up for the costs of building and running the CT. If the CT is loss-making under a given scenario, we consider the scenario not viable.
- 118. Our viability assessment is based on an analysis of both costs and demand for the CT. For costs, we use information from our cost survey and interviews with equity data experts, while our assessment of potential demand is based on our data users survey.
- 119. The following table shows our estimates for the 10-year discounted costs for each scenario. There is considerable variation in the estimates for the CT, especially for the scenarios with greater pre-trade depth (Scenarios 3 and 4). There are several reasons why this is the case. These include:
  - Different approaches to building and running the underlying technology.
  - The assumptions for second order design elements of the tape (while we attempted to detail the key details of each scenario there was still room for assumptions when estimating costs).
  - The inherent uncertainty in the build costs of technology that has not yet been built
  - Their experience of running a regulated entity for essential market infrastructure.
  - Their ability to leverage existing resources to build and run a tape.

# Table 5: Costs of setting-up and running the CTP, discounted costs over 10 years

£	Scenario 1 (range)	Scenario 2 (range)	Scenarios 3 and 4 (range)
Total	50m – 110m	57m – 130m	60m – 400m

Source: FCA analysis of costs information collected from firms Note: Figures are discounted and rounded to the nearest ten million

120. We estimate user demand at a price point that would allow the CTP to cover its costs, including the cost of the initial investment to build the CT. We also add a 10% profit margin over these annualised costs to account for the cost of capital associated with

- covering the upfront cost of the CT. We note that changing this margin would not significantly affect our assessment of proportionality.
- 121. We also assume that over the first five years of the CT becoming an established and trusted data source, 50% of existing level 1 direct feed customers switch their demand to the CT.
- **122.** Our findings on the feasibility of the CT are summarised in the table below.

Table 6: Summary of cost estimates and revenue required to break-even

Scenario	Cost estimate	£ cost estimate	Break-even revenue w/ 10% margin	Break-even price per user
Scenario 1	Lower end	£ 5.9m	£ 6.5m	£23.1 per month
	Midpoint	£ 9.6m	£10.6m	£42 per month
	Upper end	£13.4m	£14.7m	£69.9 per month
Scenario 2	Lower end	£ 6.7m	£ 7.4m	£16.4 per month
	Midpoint	£11.0m	£12.1m	£28.8 per month
	Upper end	£15.3m	£16.8m	£43.5 per month
Scenario 3	Lower end	£ 7.4m	£ 8.1m	£11.6 per month
	Midpoint	£27.8m	£30.6m	Not viable
	Upper end	£48.1m	£52.9m	Not viable
Scenario 4	Lower end	£ 7.4m	£ 8.1m	£8.7 per month
	Midpoint	£27.8m	£30.6m	£39.2 per month
	Upper end	£48.1m	£52.9m	Not viable

- 123. Costs are total annualised costs with the initial costs of building the CT amortised over five years. The revenue figure is the cost with 10% profit added. The break-even price is the price required for revenue to equal the break-even revenue, based on our estimated demand function for each scenario.
- Our analysis indicates that Scenarios 1 and 2 are profit making and therefore represent viable business models. In contrast, there is greater uncertainty associated with Scenario 4 and even more uncertainty with Scenario 3 with these scenarios being loss-making depending on assumed cost estimates.

# **Proportionality**

125. To assess the proportionality of the different scenarios, we estimated the costs and benefits from the CT for each scenario. Our assessment of benefits considers only the private benefits to data users from increased access to data as we could not reliably estimate market benefits relating to market functioning and the wider economy. We expect, however, that these market benefits will be proportional to the extent that the

- CT increases data use by equity market participants. Increased private benefits should therefore also be associated with higher market wide benefits.
- 126. In the table below, we summarise estimated net benefits to data users using the implied break-even price at the lower-end of cost estimates for each scenario.

Table 7: Estimated net benefits from increased data use using break-even price by scenario, lower-end cost estimates

	Scenario			
Measure	1	2	3	4
Net benefits, annual	£2.8m	£5.6m	£12.3m	£23.7m
Net benefits, NPV over 10-year period	£23.2m	£46.6m	£102.3m	£197.1m

- When comparing Scenarios 1 and 2, Scenario 2 has net benefits to data users of £46.6m over the 10-year appraisal period, twice as much as Scenario 1. As discussed in the CP, the inclusion of pre-trade data will substantially increase the number of the tape's use cases and broaden access to equity trade data as more data is included, and findings from our data user survey suggest stronger demand for this data too.
- In terms of market benefits, we can also expect Scenario 2 to have a more marked impact on improving the functioning of UK equity markets. Pre-trade data is necessary for accurate assessment of transaction costs and execution risks. A post-trade tape only would therefore be unlikely to have significant effects on trading and investing, as suggested by most respondents to our data user survey. In contrast, scenario 2 would improve efficiency of trading and investment decisions more, leading to greater market benefits, such as lower transaction costs and increased trading. This scenario would also be in line with and slightly improve upon the US current and EU planned equity CTs and would therefore enhance international competitiveness to a greater extent than scenario 1.
- 129. Similarly, we can compare Scenarios 3 and 4 where the latter scenario improves upon the depth and latency of data covered. Scenario 4 has two times higher estimated net benefits to data users of £197.1m over the appraisal period (using the lower end of our cost estimates), which is driven by a substantial increase in demand from large sell-side participants for scenario 4 with no significant difference in estimated costs. This is in line with the emphasis by market participants on depth and latency, especially for the higher value use cases.
- Do market benefits, we did not receive as much qualitative information on the difference between Scenarios 3 and 4 as we did for Scenarios 1 and 2. However, under Scenario 4 we see a substantially larger increase in the additional use of data due to the CT. Market wide benefits from the CT are unlocked as the CT increases the access to and use of data. Since we see a larger increase in this access and use of data under Scenario 4, we would expect the associated market benefits to be higher, too.

- **131.** However, if we look at the high-end cost-scenarios for costs, as Scenarios 3 and 4 are not viable there is a risk that there are no benefits delivered as the procurement process could fail.
- For Scenarios 1 and 2, we see that the benefits of tape quantified benefits do not exceed these high costs estimates. However, the benefits we have estimated are a fraction of the overall market benefits that we expect from a CT. For Scenario 1 and 2 to be net beneficial we need our unquantified benefits to exceed £5.8m and £3.8m per year, respectively. We expect the unquantified benefits of Scenario 2 to be larger than Scenario 1 given the positive effect a comprehensive source of pre-trade data would provide. Scenario 2 is therefore a preferred option to scenario 1. We also prefer Scenario 2 because there is a greater certainty in implementing a viable tape which positively impacts on UK equity markets.

## Other CT design considerations

- **133.** We have also considered other dimensions of the CT tape design that affect the impact of the CT. The key dimensions are:
  - Whether we should have one or multiple providers of a CT.
  - The rationale for the proposed length of incumbency.
  - The process for determining the CT provider.
  - The terms and restrictions on the CT provider, including on price.
  - Whether we should streamline certain regulatory obligations (for a post-trade only equity CT).
- We considered whether the CTP should be offered by a single provider or whether we should allow multiple equity CTPs to be authorised (see also Chapter 4 of the CP). Our consultation proposes that the equity CT should be offered over an initial 5-year period by a single provider. Relevant considerations include:
  - In consultation with industry, market participants clearly have a strong preference for a single equity CT to ensure that the CT is economically viable and to establish a 'single source of truth' that becomes a common reference point for the market.
  - If we allow multiple equity CTPs, the competitive dynamics in the market may result in a single dominant provider with market power. There are significant fixed costs of building the tape and it may not be the case that multiple firms would find it economically viable to supply the product. Moreover, the users may in the end choose to consume data primarily from a single provider due to the benefits of using the same data as most market participants. In contrast, competition for the market through a competitive tender process may result in a more competitive outcome.
  - We note that the US currently uses a single provider model (albeit with different tapes for different sets of equities). The EU is also using a single provider. While the US is seeking to introduce competition in their market, the US equity markets are much larger and therefore more likely to be able to sustain competition among multiple CTs.

- 135. However, we note that this approach also involves trade-offs, especially in terms of how quickly we can feasibly deliver a CT and potential competition benefits. See Chapter 4 of the CP for further details.
- We are constrained by the DSRSs to a contract length of a maximum of 5-years. A shorter contract period would not enable a CTP provider to recoup their initial investments. Our analysis shows that a contract of 5 years is viable for our chosen option.
- 137. If we appoint a single equity CTP, we will do so via a procurement process that we will set out in a transparent way. This procurement process would seek to award the contract to the most advantageous tender supplier. To do so, our process would place strong emphasis on both quality and price components. We will decide the details of this procurement process according to what best suits the market, taking account of findings from our engagement with potential equity CTPs. We do not think that the procurement process would move the costs or benefits of our proposals outside those presented here. The tender process and subsequent contract will help to ensure that there is downward pressure on the CT prices.
- In this CBA, we assume that after 5 years, we appoint another CT provider via a procurement process for another 5 years. If we do so, there is a risk that the existing provider would have some incumbency advantage at the next procurement round. We do not believe this will necessarily mean that we only have one bidder to provide the CT during the second contract period. Given the large range of estimated costs, a high cost winning bid during the procurement process for the first contract period may attract new bidders for the second. In addition, we have been told that an incumbent's IT infrastructure would likely need to be refreshed before they provided a CT for 10 years.
- 139. We also considered a post-trade only equity CT with streamlined regulatory obligations, that may be provided by multiple CTPs. In relation to obligations that may be open to streamlining, these could include those that set a higher standard than for other types of data reporting services, notably operational resiliency standards in SYSC 15A. This approach could deliver an equity CT more quickly because, given multiple providers would be permitted, a procurement process would not be necessary.
- As this option was not included in our survey, we could not estimate its costs and benefits in our current CBA. We assume that demand and market-wide benefits would be similar to that of Scenario 1, perhaps at the lower end of costs. However, despite the reduced risk of market disruption were the framework to produce multiple CT providers, we believe that a lowering of operational resiliency standards relative to the obligations of the bond CT would be problematic given the importance of the role of the equity CT. There are many other policy dimensions in the design of the tape. We do not think

any of these materially affect the costs or benefits of the tape. Please see the CP for further details on these design considerations.

#### Final assessment

#### **141.** In summary:

- Our assessment suggests Scenarios 1 and 2 are likely to be viable across the range of our cost estimates. Scenario 4 is viable using the midpoint of cost estimates and Scenario 3 is only viable given the lower end of our cost estimates.
- Our assessment of proportionality of the tape suggests that Scenario 2 is preferable to Scenario 1. Our quantified benefits for Scenario 2 are higher across our cost estimates, due to (1) an increase in the demand for the tape given its inclusion of pre-trade data and (2) an increase in the amount of additional data accessed and used by data users. Scenario 2 also has stronger qualitative justification for its effectiveness as it creates additional use cases for the CT summarised above.
- Our assessment of proportionality jointly with viability also suggests that Scenario
  4 is preferable to Scenario 3. Scenario 4 is more likely to be viable due to an
  increase in demand for this version of the tape with no substantial difference in
  costs. Scenario 4 is also more effective across our range of cost estimates in
  creating benefits.
- Our assessment of viability suggests that Scenario 2 is preferable over scenario 4. Scenario 2 is more likely to be viable. It is therefore more likely to attract a more competitive bidding process and reduce delivery risks due to the reduced uncertainty in its estimated costs.
- Our assessment of proportionality does not provide a clear conclusion when comparing Scenarios 2 and 4. Although Scenario 4 is anticipated to create greater quantified benefits on the lower end and midpoint of cost estimates, at the upper end of estimates, since Scenario 4 may not be feasible, Scenario 2 would create more quantified benefits. We might expect that the important unquantified benefits we describe are proportional to the ones we quantify.
- 142. At this stage, we do not have evidence suggesting that the potential incremental benefits between Scenarios 2 and 4 justify taking on the increased risks associated with the latter option. We therefore propose to introduce a tape in line with Scenario 2, which we consider strikes the best balance between delivering significant market-wide benefits and minimising risks associated with delivery and impacts on trading venues. As discussed in the CP, we will carry out detailed post-implementation review on the tape's operations to consider whether there is a case for expanding the level of pre-trade data included.

# Our proposed intervention

143. We propose to introduce an equity consolidated tape that includes both post-trade data and the attributed pre-trade best bid and offer. This proposed tape is broadly in line with Scenario 2 considered in our data user and cost surveys. Therefore, we use the estimated costs and benefits for Scenario 2 in our CBA.

- 144. We propose that our rules set latency requirements for data contributors they must transmit data as close to real time as technically possible and no later than 50 milliseconds after the order or transaction timestamp. We also consider such requirements are necessary to ensure a latency of the equity CT that meets our objective of enabling as wide a range of use cases as if feasible.
- 145. We propose that, once an equity CTP receives details of a relevant order or trade, it must publish this data within 100 milliseconds. In combination with the latency requirements for data contributors, this would give an overall latency range of just over 100 milliseconds to 150 milliseconds. We consider that this requirement effectively balances our objectives enabling both a wide variety of CT use cases and an economically viable business model for the CTP.
- 146. We are proposing to set input and output tables for pre-trade data for the CTP see Chapter 6 of the CP.
- 147. In terms of the length of the contract to operate the CT, we are of the view that 5 years appropriately balances the financial viability of the CTP against the desire to ensure that the retendering process is properly contestable.
- **148.** We propose that, to ensure an attractive economic model for the equity CTP, data contributors should have to provide their data to the equity CTP without charge.
- 149. We do not intend to impose a licensing structure on the equity CTP through rules. As with the bond CT we think this is best achieved by setting it as part of the contractual requirements for the CTP.
- 150. We are not proposing that an equity CTP should provide its data for free after 15 minutes. In our view it is better to address the issues that underlay this requirement through a simple licensing regime.

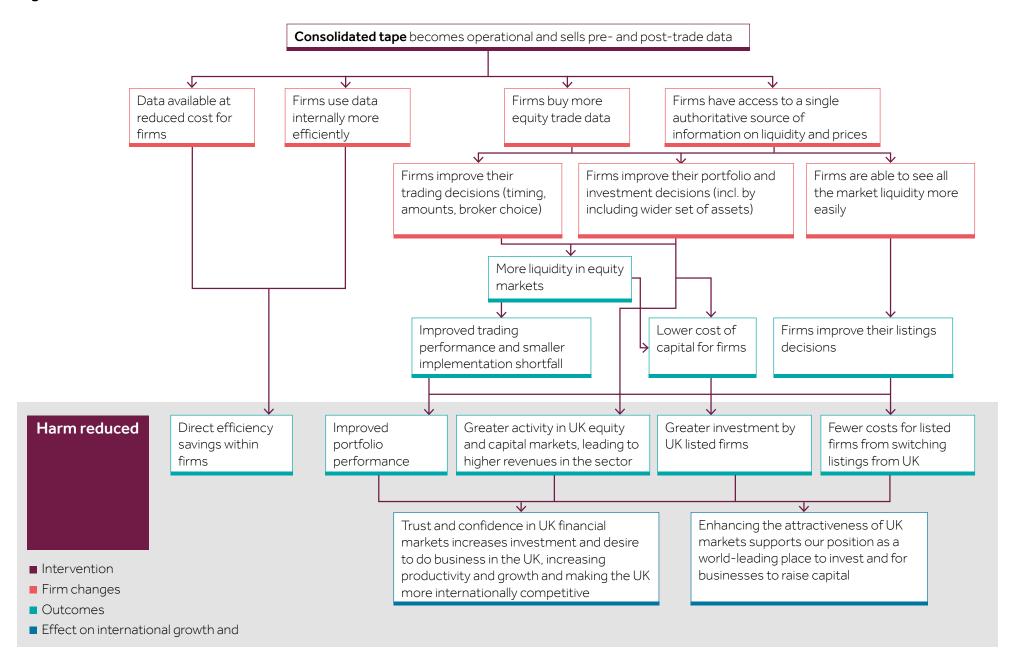
#### Causal chain

- 151. The causal chain in the following figure demonstrates how we expect our proposal to deliver benefits for equity market participants and the wider UK economy. Once our rules and tender process is in place, we will seek bids from the interested parties and appoint a winning provider. Our chosen CT design gives us the best chance of a successful tender exercise.
- We expect a significant proportion of equity market participant firms will buy the tape.

  The first part of the causal chain shows the savings to firms from buying cheaper data.

  There may also be some efficiencies within firms from wider use of more available data.
- 153. Better data for investors, listed firms and other market participants will lead to better investment, trading and listing decisions. As well as directly impacting on portfolio performance and listing and investment activity, there will be an increase in liquidity in the market. The final benefits are improved returns for investors, greater investment in the UK economy, reduced costs to firms of incorrect listing decisions, and, finally, greater activity and profits in UK equity markets ecosystem (such brokers, lawyers, accountants, etc).

Figure 5: The causal chain



# Baseline and key assumptions

#### **Baseline**

- **154.** We assess the impact of our proposal against a baseline or counterfactual of what would happen in the absence of the proposed intervention.
- MiFID II specifically allows for a CT. However, no firms in the UK or EU applied for authorisation to provide a CT under that regime. Our assumption, based on our experience and analysis of market trends and structure, is that the market is unlikely to provide one without regulatory intervention.
- 156. There have been several recent changes to UK equity markets that inform our choice of baseline. There has been a fragmentation of equity market trading and a shift away from trade execution on CLOBs. CLOBs are the most transparent execution services offered by multilateral venues.

Figure 6: Shifts between execution mechanisms

Execution Mechanism	Jan 2018	May 2025	Absolute change
Multilateral	69%	60%	-10%
CLOB	47%	29%	-19%
Regular Auctions	13%	17%	+4%
Dark	8%	9%	+1%
Periodic Auctions	0.5%	5%	+5%
Bilateral	31%	40%	+10%
Off-Book (On-Exchange)	12%	11%	-1%
Off-Exchange/SI	15%	19%	+4%
Off-Exchange/OTC	4%	10%	+6%

Source: big-xyt

- 157. Without a CT, as this market fragmentation persists, challenges in making informed decision making and difficulties in price discovery will remain due to lack of unified view of trades. Scattered liquidity and lack of visibility across different venues will continue to make it difficult for investors to find best execution for their orders, potentially increasing bid-ask spreads and trading costs.
- 158. Under our baseline, other jurisdictions will continue to move forward with their plans for a CT. Notably, the EU is implementing its own equities CT (and the US already has three), and absent its own CT, the UK could be at a competitive disadvantage and face negative impacts.
- Relatedly, while the lack of CT is not the sole or main reason for decline in UK listings, a lack of unified view may continue to contribute to firms choosing to list elsewhere and/or firms using alternative financing rather than public equity markets.

- The LSE has made pre-trade equities data free to eligible retail investors through brokers from January 2025. 21 This means that retail investors can observe real-time prices on the LSE through their retail broker. We do not think that this will materially affect the costs and benefits of our intervention. This is because most retail trading is done via the Retail Service Provider (RSP) system in the UK, rather than through lit markets. The value to retail investors of pre-trade information may be less than if they traded on lit markets. In addition, Europe Economics (2024) found that to affect retail participation in equity market, retail investors would need education on the functioning of equity markets. By implication, retail investors may not be able to make improved investing and trading decisions from this additional data. While some retail investors may benefit from the LSE's data, and from data from the CT, we do not think either effect is material for the impact of our proposal for an equity CT.
- The FCA is also currently considering publishing daily volume data on UK equities transactions as an interim solution prior to the introduction of the real-time equity CT. This could reduce some of the harms around lack of a clear view of overall liquidity in the market. This may help reduce the harm for firms considering listing decisions or for smaller investors that require high level information on volumes to decide whether an equity meets their investment criteria. While this is an important initiative and precursor to a CT, we do not think that this data will materially affect the demand for the CT and its viability. However, there may be an effect of the non-quantified benefits, especially the benefits that arise for listed firms from having a complete view on liquidity, and the impact this has on listing decisions.

# **Key assumptions**

- 162. We use standard appraisal period of 10 years, reflecting the assumption of a retender after 5 years. Even though the appointment of the CT is subject to 5-year contractual agreement, we do not expect a retender process in itself would require re-consultation or a new CBA. We therefore assume that the CT is retendered for a second 5-year period. We assume that the costs for the 5-year tender are repeated for the second 5-year term. We have no reason to believe the costs and benefits will be materially different for the second 5-year period, compared to the first.
- 163. We have made an assumption on the number of data users that switch from existing data sources to the tape. This is because our survey likely underestimated the numbers of likely users of a tape. Our assumption is that the CT is likely to be a superior data source for many users and therefore, we would expect many current data users to switch, even though survey respondents were unable to predict their demand under a tape.
- Our benefits arising are contingent on receiving at least one bidder. We expect under our proposal that the CT will be profitable and therefore we expect at least one bidder to come forward, even under the high-cost scenarios for the CT we have considered. We expect a similar outcome at the second tender (in 5 years' time). We may alter the requirements on the tape for the second appointment, but we cannot predict

- this and therefore we assume that the estimates we have collected apply to both CT appointments.
- **165.** The appraisal period will start in 2027/28, with prices in financial year 2024/25. The standard 3.5% discount rate is applied to future costs and benefits.
- **166.** We do not assume any real change in prices (all prices vary by Consumer Price Index (CPI) only).
- We do expect that certain costs will be incurred after the initial tender contract of 5 years for example, potential switching costs between CTPs, or establishment costs for new CTPs and that benefits will continue to accrue. We assume that the costs of building the tape are repeated in year 5 at which a new CTP is appointed.
- We rely on the Standardised Cost Model (SCM) for certain cost estimates in the CBA. The underlying assumptions remain the same as in Annex 1 of our <u>Statement of Policy on Cost Benefit Analyses</u>. There may be small discrepancies in the numbers reported in tables due to rounding.
- **169.** Additional assumptions are explained in the relevant sections.

## Number of relevant market participants

- 170. There are three types of participants that will be directly affected by our proposals as they will need to provide data to the CT. These are RIEs, MTFs and APAs. Some of these firms will also lose revenue as participants reduce spend on their data as they switch to the CT.
- 171. In the UK, there are 3 RIEs and 14 firms running RMs or MTFs in equities. In addition, there are also 4 APAs that publish equity trade data. Some firms undertake more than one of these activities. Overall, there are 14 firms undertaking these activities.
- 172. There are firms that may consider bidding, or will bid, for the contract to provide the equity CT. It is not possible to estimate their precise number, however, we expect fewer than 10 firms to consider bidding for the CT.
- 173. The firm winning the tender process will provide the equity CT for a period of 5 years. For the purposes of the CBA, we assume we will then appoint another single provider for the next term of the CT. There would result in only one equity CT (and 1 provider) at each stage. The chosen provider is likely to come from either one of firms described above or a firm that is already experienced in data and analytics of equity market data.
- 174. According to MiFID data, there were 3,447 investment firms with over £10m in volume traded in UK equities (AIM and LSE All Share) in 2024, with 2,700 buy-side and 735 sell-side firms. We do not have reliable estimates for the number of other equity data market participants.

# **Summary of Impacts**

- 175. The CT is designed to address longstanding market failures in the provision of equity market data, namely market power among data providers and lack of consolidated data products. By establishing a single, authoritative source of consolidated pre- and post-trade data, the CT aims to improve transparency and support more efficient decision-making. The intervention will generate various benefits and costs for different stakeholders via both direct and indirect impacts. There will also be some transfers between market participants. Table 8 presents the main benefits and costs.
- **176.** We expect several benefits.
- 177. The firms investing and trading in UK equity markets (e.g. the buy side, the sell side, and liquidity providers) will primarily benefit from better investment and trading decisions thanks to improved data access. The resultant better market outcomes, such as lower trading costs and improved capital allocation, will attract additional trading and investing and cause further improvements in market functioning.
- 178. These impacts will be transmitted downward to UK listings markets, e.g., lowering the cost of capital and stimulating investments. Thanks to access to the CT, current and potential issuers will also gain clearer understanding of available market liquidity, which will help them avoid inefficient listings and issuance decisions.
- 179. We also expect benefits for the wider UK economy. More efficient capital allocation will boost productivity and economic growth, supported by increased investment by UK-listed firms. Greater market participation will drive additional revenues for firms offering ancillary services related to investment, trading, and listings.
- **180.** Greater investing, trading, and capital-raising activity on UK equity markets will have a beneficial impact on the wider UK economy. For instance, in the form of higher investment levels of publicly listed companies and increased sales of services ancillary to trading.
- **181.** Given the complex causal links between the CT and its impacts, it is not reasonably practicable to estimate all the benefits of our proposals. Instead, we discuss the potential scale in 'The potential scale of benefits' and provide quantitative estimates for benefits to data users, which primarily comprise firms trading and investing in UK equity markets, such as the buy side and the sell side.
- 182. Data users are estimated to accrue benefits in the range of £50m to £154m in present value terms over 10 years, with a midpoint of £100m. These values comprise benefits from improved data access of users with limited or no prior access to equity data and profits earned by the CT providers from newly served users. We estimate these from the demand for the CT data from which we can derive the value users attach to the data. The estimates aggregate all the potential benefits to the users, including lower trading costs and higher portfolio returns.
- 183. The estimated 10-year market costs range from £57m to £130m PV, with a midpoint of £93m and an Equivalent Annual Net Direct Cost to Business (EANDCB) of £11m. Core costs stem from building and operating the tape. As existing infrastructure will be

- leveraged, connection costs for data providers are expected to be minimal. Remaining costs primarily relate to industry familiarisation and FCA oversight.
- **184.** At our mid-point, the Net Present Value (NPV) of our proposals is estimated to be £8m, which makes the intervention net beneficial. However, actual gains may be considerably higher, as several non-quantified effects could be substantial.
- 185. Some transfers are anticipated. Data providers may lose customers to the CT, resulting in revenue shifts to the CT and its data users—particularly where users previously paid higher prices. The overall impact on data providers is expected to be limited, however. Improved access to information will level the playing field between firms investing and trading in UK equity markets, redistributing returns towards firms with currently disadvantageous data access.

Table 8: Summary table of benefits and costs

Group		Benefits (£)		Cost	ts (£)
affected	Item description	One off	Ongoing	One off	Ongoing
CTP Provider	Build and running costs			£3.0 – £16.0m	£6.0m – £12.0m
	Profits from the CT from customers with no previous access to equity data		£1.5m – £2.6m		
Bidders for the tape (per firm costs)	Bidding costs (Participating in tender)			£0.1m – £0.2m	
Data users	Saving on data costs		Redacted*^		
	Private benefits from expansion of data use		£4.4m – £15.9m		
	Potential savings from data fees (transfer not included in calculations)		Redacted*		
Data providers	Familiarisation and legal review costs			<£0.1m	
	Loss of revenue**		Redacted*^		
Investors	Lower trading costs		Not quantified		
	Improved portfolio performance		Not quantified		
Listed Firms	Lower costs of capital and higher profits		Not quantified		
	Reduction in listings costs		Not quantified		

Group		Bene	fits (£)	Cos	ts (£)
affected	Item description	One off	Ongoing	One off	Ongoing
FCA costs	CT tender process			£0.2m	
	Ongoing supervision of the CTP				£0.1m
UK economy	Better capital allocation in UK economy to support growth		Not quantified		
	Greater demand for UK equity market infrastructure		Not quantified		
Total			£5.9m – £18.5m	£3.4m -£16.5m	£6.1m – £12.1m

**Table 9: Present Value and Net Present Value** 

	PV Benefits	PV Costs	NPV (10 yrs) (benefits-costs)
Total impact	<b>£100m</b> (£50m – £154m)	<b>£93m</b> (£57m – £130m)	£8m (mid-point)
-of which direct		<b>£93m</b> (£57m – £130m)	<b>£93m</b> (£57m – £130m)
-of which indirect	£100m (£50m – £154m)		<b>£100m</b> (£50m – £154m)
Key unquantified items to consider			Lower trading costs Improved portfolio
			performance Lower costs of capital and higher profits
			Reduction in listings costs
			Better capital allocation in UK economy to support growth
			Greater demand for UK equity market infrastructure

#### Table 10: Net direct costs to firms

	Total (Present Value) Net Direct Cost to Business (10 yrs)	EANDCB
Total net direct cost to business (costs to businesses – benefits to businesses)	£93m	£11m

#### Costs

- **186.** Introducing an equity CT will result in costs to market participants which will vary by nature and magnitude.
- **187.** We expect the following parties to incur costs because of our proposals:
  - CTP
  - Bidders
  - Data providers
  - FCA
- **188.** For some types of costs, such as familiarisation and legal review of our new regime and participation in a tender process, we utilised our SCM. We discuss SCM estimates, including related methodology and assumptions in the relevant cost sections.
- 189. For costs of setting up and running the CTP, we have used information collected during structured interviews with six firms and the data these firms submitted to us. Our quantitative estimates of setting up and running the CTP are based on responses we received from five of these firms.

#### Costs to the CTP

- 190. The provider of the CTP will be the successful bidder who will incur one-off and running costs to set-up and operate the CT based on the requirements in the tender contract. These costs can be broadly categorised as operational costs, administrative costs and compliance costs.
- 191. The costs to the CTP will depend on the extent to which existing resources can and will be utilised across existing business models. For example, firms with existing platforms may incur lower incremental costs of setting up the CTP compared to firms starting from a less advantageous position.
- **192.** Some firms benefit from scale, meaning they don't have to build all the infrastructure from scratch and can benefit from outsourcing from a business group. This allows

scaling up or down during build-up time and can appoint existing staff and services to a project as required.

#### Cost estimates

- 193. The estimated costs to the CTP are based on discussions with experts in equity trade data and submissions of data following these discussions. Discussions were conducted in May/June 2025 with six firms, including data firms and trading venues. We identified those firms and trading venues that have significant expertise in the equity data space.
- 194. We received responses from five firms which included quantification of costs. Some responses were based on EU CT specific costs which broadly respond to our preferred scenario. We have followed up with firms and obtained qualitative responses. Qualitative responses enabled us to compare and validate costs across different scenarios for the UK version of the CTP.
- **195.** We have considered all the costs and evidence as discussed and provide an indicative range which reflects the costs and break-even revenue for the UK CTP.
- 196. The CTP will incur one-off set up costs. This includes but is not restricted to physical infrastructure costs, connectivity, software and data collection and data distribution infrastructure including software and hardware to clean, quality check and aggregate data and to distribute data to users in both human readable and machine-readable formats.
- 197. In addition to infrastructure and IT costs, the CTP will incur administrative, project management and additional IT systems costs for customer licence management, cyber security and resiliency.
- 198. The CTP will also incur governance and costs associated with SYSC 15A. Some respondents to our Cost Survey have considered governance arrangements and included these in their cost estimates whereas other firms have not done so. Our highend cost estimates do include returns from firms who have considered these hence we do not include them separately in our analysis.
- The CTP will incur one-off compliance costs. The main compliance cost will be authorisation, where the chosen CTP will need to submit a formal application for authorisation. MAR 9.2 covers authorisation and verification requirements. The successful CTP will need to provide, as part of its application for authorisation, information on the organisation itself, corporate governance arrangements, members of its management body, conflicts of interest, organisational requirements regarding outsourcing, business continuity and back-up facilities, testing and capacity arrangements, security, management of incomplete or potentially erroneous information, other services provided by the CTP, and publication arrangements.
- We estimate that the one-off costs of building a tape are £3-16m one-off and £6-12m ongoing. We note that the relative proportion of costs incurred to set-up the CT compared to run the tape are different for different estimates. Most of the costs arise from building and maintaining the IT infrastructure required to collate and distribute data, and the staff required to support this infrastructure. The compliance costs that

the CT provider will incur were to some extent included in these costs and therefore we are unable to split these out from our estimates. We note that in  $\underline{\text{CP 23/15}}$  we estimated the compliance costs on the bond CT at £491,000-567,000 one-off and 222,000-379,000.

We assume that there are 2 tender processes for the CT and that the CT build costs are incurred twice. We think this is reasonable as we understand that the IT for the CT will need to be updated on broadly the same time frame as the 5-year tender process. Consequently, regardless of who wins the second stage tender, the costs are likely to be within the same range we estimate for the first tender.

Table 11: Costs of setting-up and running the CTP

£	Cost of setting-up and running the CT
One-off (in first year, and sixth year)	£3-16m
Ongoing, per year	£6-12m
Total (10 years, discounted costs)	£57m – 130m

Source: FCA analysis of costs information collected from firms Note: Figures are discounted and rounded to the nearest ten million

We have also given regard to externally published cost estimates. We considered estimates published by Oliver Wyman, Adamantia, and Market Structure Partners. These estimates were calculated for the cost of a European CT. While these estimates provide an indication of the costs of building a CT, the European equity market has many more venues and is much more dispersed geographically. Therefore, an EU CT might be expected to cost more than a UK one. Europe Economics (2024) attempted to scale down estimates to account for specific features of the UK equity market. Overall, they estimated that a pre-trade equities tape in the UK would cost £6-26 million to set up and £5-21 million a year ongoing, in comparison with £3-16m to set up and £6-12m ongoing we have estimated. This wide range highlights different approaches taken by Oliver Wyman, Market Structure Partners, and Adamantia around the overall cost of setting up a pre-trade consolidated tape, particularly how much it would cost to outsource the technology to achieve real-time latency. However, we note that our estimates broadly fall within the range suggested by these other estimates.

#### Costs to data providers

**203.** Data providers will need to incur familiarisation, one-off and ongoing costs because of the rules we are proposing.

#### Familiarisation costs

204. Data providers are expected to incur costs from familiarising with the rules we are proposing. In total, we expect there will be 12 firms. We used our SCM to estimate familiarisation costs

- We anticipate that there will be 65 pages of policy documentation with which data providers will need to familiarise themselves. Assuming that there are 300 words per page and a reading speed of 100 words per minute, it would take around 3.3 hours to read the policy documentation. We assume a cost of around £68 per hour for large firms and £63 for medium firms. It is further assumed that 20 compliance staff at large firms and 5 compliance staff at medium firms read the document.
- We also expect those affected will undertake a legal review of the new requirements against current practices. We, again, use the SCM to estimate these costs. There is around 30 pages of legal instrument with relevance to trading venues and APAs to review. We assume it takes around 30 minutes to review each page with 4 staff reviewing large firms and 2 reviewing in medium size ones. We also assume a cost of around £79 per hour for large firms and £74 for medium ones.
- **207.** We estimate one-off costs of familiarisation and legal of £3,000 for medium firms and £10,000 for large firms.
- **208.** In total, we expect total one-off industry-wide costs of familiarisation and legal of £70,000.

#### Connection costs

- **209.** Data providers will be required to provide data to the appointed CTP on preferential terms: free of charge and in accordance with existing data quality requirements.
- 210. For the data feeds from venues to the consolidated tape, existing data feeds can be used hence, we expect the costs of connecting to CTP to be negligible. Existing UK venues have already developed data formats which data vendors and traders receiving direct feeds are comfortable operating with. Evidence from the Europe Economics report suggests that using existing feeds is desirable, not only because new feeds would incur extra costs, but also because using new feeds may introduce new risks to the market resilience given the degree to which the current distribution system is merged with trading systems and strategies. Either all these participants would have to incur costs themselves to accept the new feed, or the venues would be operating with two separate feeds with potential consequences for market integrity if either of those feeds went down.
- **211.** Data providers are already expected to comply with existing data quality requirements and regulatory obligations. As a result, do not expect our additional requirements for data contributors providing data to the equity CTP will cause them to incur significant extra costs.
- 212. We also heard from firms through our bond CT consultation process that, if trading venues fulfil their regulatory obligation under MiFID II by making public their trade data through an APA, costs associated with the requirement to transmit data to the CTP could be incorporated into their existing costs of using APA service. Hence, the incremental costs to trading venues relying on such arrangements are limited to familiarisation and legal costs.

We are proposing to require specific data fields to be provided to the CT. We expect that for most data providers this data is already available in their feeds. Some data providers might need to change their systems to add this data to their feeds. We expect that these costs will not be material.

#### Costs to bidders

- **214.** Firms bidding to become the CTP will incur costs to participate in the procurement process regardless of whether the firm is successfully appointed.
- 215. We provide per firm estimates of costs to bidders as it is not possible to determine the precise number of firms who will decide to participate in the procurement process.
- Bidders will incur costs from familiarising themselves with the rules we are proposing. We anticipate there will be 65 pages of documentation to familiarise with. We assume 300 words per page and a reading speed of 100 words per minute which would take 3.3 hours to read the policy documentation. We assume a cost of around £68 per hour for a large firm and £63 for a medium firm.
- 217. We use standard assumption that 20 compliance staff at large firms and 5 compliance staff at medium firms read the document. We also expect that bidders will undertake legal review of the requirements. We use SCM to estimate these costs too. There are around 30 pages of legal instrument. We expect one-off familiarisation and legal review costs to be £10,000 for a large firm and less than £3,000 for a medium firm.
- 218. In addition to familiarising themselves with policy documentation and legal text contained in this CP, bidders will need to incur costs related to familiarisation and participation in the procurement process itself. These costs will vary by bidder and may depend on bidder size, complexity, efficiencies from current activities, and sunk costs that have been incurred prior to this consultation. The costs may also depend on the final format of the procurement process, but we do not expect them to vary significantly based on this.
- 219. We use the same resource time estimates we used in CP 23/15 to estimate these costs. We estimate the average cost per project team member to be around £400 per day.
- We estimate that the costs range from £110,000 £220,000 for a large firm and £60,000 £120,000 for a medium firm.
- We don't expect bidders to incur significant technology proof-of-concept costs because of participating in the procurement process. This is because firms will be able to utilise existing efficiencies which stem from their current activities and already developed technologies.

We note that greater bidding costs will likely reduce the overall costs of our proposals. This is because more bids imply greater competition and more efficient cost of building and running of the tape.

#### Costs to the FCA

- **223.** For the FCA, there will be costs from running the procurement process for consolidated tape provider.
- Based on our experience of the bond CTP procurement process, we expect the one-off costs of running a procurement process to equate to two FT staff for a period of nine months to one year. This represents a total one-off cost of £200,000. There will also be an ongoing cost of supervising the CT, which we assume is £100,000 per year.

#### **Benefits**

- 225. In 'Problem and rational for intervention', we said that the market failures lead to suboptimal market outcomes in UK equity markets. These outcomes included (a) suboptimal consumption of data by firms, and (b) a lack of a common view of market liquidity and prices.
- 226. In this section, we first assess evidence of whether the CT will alleviate the identified sub-optimal market outcomes and then discuss anticipated benefits from the CT to UK equity trading and investing, the listings market, and the wider economy. We also consider transfers between firms in this section because they are associated with the same impacts that generate benefits.
- We conclude by providing both illustrative estimates of the potential scale of all benefits and values for the benefits to firms trading on UK equity markets that we managed to quantify using the data user survey information.

#### Addressing identified sub-optimal market outcomes

#### Expansion in data access

- **228.** The evidence we gathered suggests that the CT has the potential to expand data access and benefit many internal processes for a broad range of market participants.
- **229.** Our estimation of demand for the CT in Annex 3 demonstrates a substantial increase in the access to data by both sell-side and buy-side firms.
- We also reviewed qualitative evidence, including the one gathered in our data user survey and by <u>Europe Economics (2024)</u>. The key findings to note in relation to the buy-side users are:
  - In our survey of data users, 100% of large buy-side respondents and 58% of small buyside firms said they would find data from the proposed CT useful. Among the most common use cases by firms with demand for the CT were best execution

- monitoring (63% and 79% for large and small firms respectively), trading and transaction cost monitoring (100% and 50% for large and small firms respectively), risk management, surveillance and audit (55% and 35% for large and small firms respectively), and portfolio management (27% and 50% for large and small firms respectively).
- Most of buy-side respondents to Europe Economics interviews suggested that the CT could be used extensively for most display data use cases. Over 30% of these firms said that a CT could also lead to behavioural change with additional functions making use of pre-trade data.
- 231. Some of the important messages from the collected qualitative evidence concerning the sell-side users are:
  - 42% of large sell-side respondents and 16% of small sell-side respondents to
    the data user survey said they would find data from the proposed CT useful.
    The majority of respondents said use cases would include are risk management,
    surveillance, and audit, transaction cost analysis, and best execution monitoring.
  - 81% of sell-side participants interviewed by Europe Economics agreed that a CT would not be a substitute to direct data feeds for trading purposes. This is because of high data requirements as well as the firms' preference to ingest raw, unconsolidated feeds. But 19% argued it could replace the current display data in middle- and back-office functions. A further 33% highlighted an expansion in the number of users of real-time pre-trade data in these functions, improvement in their decision-making capabilities, and creation of new use cases.
  - One small broker interviewed by Europe Economics, who engaged in high touch relationship trading, suggested a pre-trade CT would make a material difference to their business model, broadening the venue coverage of their real time data. Another broker said that the tape could replace some of the vendor data feeds in their algorithmic trading stacks. Lastly, even the large proprietary traders admitted tape's value as an additional dataset, especially in the context of best execution and a reference for pricing, if it becomes widely adopted.
- 232. In summary, we interpret our findings as strong evidence that the consolidated tape will contribute towards increasing the use of data across market participants, with particularly pronounced benefits for users that currently have access to limited data.

#### A common view of market liquidity and prices

233. By consolidating liquidity across UK venues, the CT will make accessible an overview of available liquidity across the UK equity market. The CT could become a single authoritative source of information and common source of reference on the prices and liquidity in UK equity markets. This was supported by a broad group of market participants we engaged with across the buy side, the sell side, and trading venues, which makes us confident that the CT will address the current lack of such view.

#### **Description of benefits**

Our analysis supports the view that the CT will help to mitigate sub-optimal market outcomes caused by the drivers of harms. It will expand data use and introduce a clear,

common view of market prices and liquidity. This will create benefits for UK equity trading and investing, the listings market, and the wider economy.

#### Benefits for UK equity trading and investing

- 235. An expansion in the use of trade data will positively impact capital allocation and trading decisions of market participants. This will happen via an effect on key related processes, such as risk management and monitoring of transaction costs (see 'Expansion in data access'). There will also be enhanced information to incorporate into portfolio construction, risk-return assessments, and market abuse surveillance. The improvements in investment and trading decisions will attenuate the identified harm and create benefits in the form of lower transaction costs and higher investment returns.
- 236. Better trading and investment outcomes will encourage market participants to increase their trading volumes, improving market liquidity for the benefit of all participants. Increased volumes and liquidity will further decrease transaction costs, encourage additional trading and create a virtuous cycle in UK equity markets. <sup>22</sup>
- **237.** The CT will help to reduce the duplication of data aggregation costs. For instance, some firms that currently consolidate trade data in-house may shift to buying just the CT data.
- As argued in <u>Europe Economics (2024)</u>, there will also be positive impacts on trading and investment outcomes when the CT becomes a commonly accepted reference source for market liquidity and prices. Since such source is currently missing in the market, its establishment vis-à-vis the CT will lead to more efficient interactions between the buy side and the sell side. Buy-side participants will improve broker selection decisions and monitoring of best execution, while sell-side firms will have greater ability to demonstrate best execution. Having a common data and view of the market will also make it easier for the two groups to discuss trade execution strategies. These impacts will contribute to improving trading efficiency.
- 239. Lastly, if the CT becomes a widely used and trusted source of information, it will also build confidence in the level of available market liquidity. During outages on the primary venue, a consolidated tape could create confidence to continue trading by showing that there remains sufficient liquidity on other venues. Furthermore, for market participants with limited access to venues, a CT can create confidence to participate in the market as they can form a view of how competitive prices available to them are compared to prices on other venues.

#### Benefits for UK listed firms

As discussed in 'Problem and rationale for intervention', current and prospective listed firms are harmed by higher cost of capital and an incomplete view of market liquidity. As a result, they incur direct losses in the form of lower proceeds from IPOs and follow-on issuance, foregone investment, and various costs due to inefficient listing decisions. The CT will mitigate these harms, creating multiple benefits.

- A reduction in transaction costs due to improved trading and capital allocation decisions in UK equity markets will lower the cost of capital of listed firms.<sup>23</sup> Listed firms will thus be able to raise more equity capital and at more advantageous prices, which will be a direct saving for them.
- The reduction in the cost of capital will contribute to increasing the investment levels of UK listed companies and pushing up their profits. It is commonly estimated that a one per cent decrease in cost of capital leads to one per cent increase in capital expenditure. However, only a proportion of additional investment may be in the UK economy as UK listed companies often operate globally.
- 243. Finally, actual or perceived lack of liquidity is a commonly cited reason for the decision to delist from UK equity markets or to pursue an IPO elsewhere. <sup>26</sup> During our evidence gathering, market participants and industry associations highlighted that the data currently available often underreports available liquidity. By aggregating data from venues across the market, the CT can change the perception of available liquidity. This will help firms to make better listing decisions and avoid costs incurred when the decisions are inefficient, such as the direct costs of delisting.

#### Benefits for the wider UK economy

Positive impacts of the CT on investors and listed firms will create benefits for the wider UK economy. There will be positive effects on the efficiency of capital allocation in the UK leading to productivity gains and higher economic growth. Further, there is a whole ecosystem around firms listed in UK equity markets to support trading, investment, and regulatory compliance. The effects such as stronger listings and trading activity will raise revenues from all these services.

#### **Transfers**

**245.** The impacts discussed in the preceding section are likely to also lead to various transfers. We discuss the key ones below.

#### Data providers and third-party data providers

We expect data providers (trading venues and APAs) to lose some customers to the CT. In our data user survey, there were respondents that indicated some degree of substitution away from existing data products. Further, <a href="Europe Economics">Europe Economics</a> (2024) interviews revealed potential for substitution effects, especially for display data products. We consider the revenue lost as a transfer from data providers to the CT and its customers (if the customers pay higher price before switching). Since the costs of data production are largely fixed, we do not expect offsetting cost savings for the data providers.

<sup>23</sup> EFor instance as argued in https://cepr.net/documents/publications/ftt-2012-03.pdf

See for instance: Guiso, L., Kashyap, A. K., Panetta, F., & Terlizzese, D. (2002). How Interest Sensitive is Investment? Very (when the data are well measured). Unpublished manuscript (draft dated July 29), 20.

<sup>25</sup> See also: Gilchrist, S., & Zakrajšek, E. (2007). Investment and the cost of capital: New evidence from the corporate bond market.

More recent examples are covered in FT (https://www.ft.com/content/4f556f92-5099-4c0c-9b78-df5434e65f4e), the Guardian (https://www.theguardian.com/business/2025/jun/02/invidior-london-stock-exchange), and Fortune (https://fortune.com/europe/2025/06/05/fintech-wise-main-listing-new-york-london-lse/)

- 247. We expect our proposals to have only limited impact on data providers, however. Based on review of qualitative evidence, we expect display data products (especially those that include only post-trade data or pre-trade best bid and offer) as most likely to be substituted. But data providers will still be able to earn significant revenues from selling other proprietary data products. Further discussion can be found in 'Waterbed effects'.
- **248.** Third-party data providers selling services utilising venue data may also lose some customers to the tape. These loses will constitute a transfer to the CT and customers in the same way as for trading venues.

#### Other market participants

- As relates to investment and capital allocation decisions, we expect some transfer from investors with superior access to data to investors whose data consumptions improves thanks to the tape. As the informational advantage of the former investors is eroded, the latter investors can increase investment returns at their expense. But market-wide improvement in the efficiency of capital allocation due to higher level of aggregate information and increased market participation will constitute a benefit under our proposals.
- Moving onto trade execution decisions, there will be some transfer between firms with differential access to information on market liquidity. This will include buy-side firms facing smaller bid-ask spreads quoted by their brokers thanks to better ability to compare brokers and challenge them on best execution. It will also cover less informed direct traders, such as smaller or overseas brokers. These firms will be able reduce their trading costs thanks to greater ability to judge available market liquidity and therefore competitiveness of quotes obtained from more informed traders. Some of these liquidity-related transfers will be passed onto issuers, too. We also expect increased market participation and market-wide improvement in trading decisions, which will create benefits in the form of lower trading costs.
- **251.** The findings of theoretical and empirical literature support the discussion above. For instance, Easley et al (2016)<sup>27</sup> and Cespa and Foucault (2014)<sup>28</sup> demonstrate that greater market-wide access to trade data leads to a transfer from more informed to less informed market participants.
- **252.** However, some firms may attempt to protect their informational advantage and attenuate the transfers by innovating:
  - Firms could centre operations around faster data. Hasbrouck (2021) found that at higher time resolutions (10 or 100 microseconds) direct exchange feeds offer much more decision useful information than the US consolidated tape.<sup>29</sup>
  - There are also algorithmic trading strategies whose unique product proposition does not heavily depend on latency (see article by FlexTrade).<sup>30</sup> Firms operating the strategies could respond by improving their algorithms and broader technological stacks.

<sup>27</sup> Easley et al (2016) Differential access to price information.

<sup>28</sup> Cespa and Foucault (2014) Sale of price information.

<sup>29</sup> Hasbrouck, J. (2021). Price discovery in high resolution. Journal of Financial Econometrics, 19(3), 395-430.

<sup>30</sup> https://flextrade.com/resources/consolidated-market-data-feeds-surpassing-sip-in-trading/

- The firms could also invest more in acquiring fundamental information. Easley et al (2016) argue that greater access to price information will encourage collection of data on stock fundamentals, because price and fundamental information are complementary.<sup>31</sup>
- 253. Innovation may limit monetary transfers in UK equity trading and investing caused by our proposals. But it will also lead to better market-wide outcomes as firms use faster data, improve their technology, and collect more fundamental information. These impacts will thus also be associated with benefits

#### **Estimation of benefits**

There is a complex causal chain between the introduction of the CT and the end impacts on market participants. Moreover, the scale of the effects is conditional on changes in firm behaviour, which may vary over time. It is therefore difficult to predict the relative benefits for different market participants. For these reasons, we do not provide quantitative estimates for total benefits as it is not reasonably practicable to do so. Rather, we discuss the potential scale in 'The potential scale of benefits' and outline our estimates of benefits for firms trading on UK equity markets in 'Quantified portion of benefits'.

#### The potential scale of benefits

- **255.** In this section, we outline illustrative estimates of total benefits of the proposals to demonstrate their potential scale.
- A major benefit of the CT is improved capital allocation thanks to reduced transaction costs and enhanced price discovery. This impact is likely to be associated with greater demand for UK stocks and can therefore be modelled via a reduction in the cost of capital of UK-listed firms, stimulating their investment activity. In 2024, the total capital expenditure of FTSE 350 companies is estimated to have been around £134.7bn. A consensus estimate of the elasticity of investment to cost of capital is around -1. A 0.01% fall in cost of capital can thus be associated with benefits in the form of £13.5m additional annual investment with present value of £112m over 10 years. These investments will generate additional benefits, for instance, in the form of extra revenue.
- **257.** To demonstrate the potential benefits of increased transaction volumes, we can focus on trading fees. Assuming trading costs of around 35 basis points in total,<sup>34</sup> with around c. £5tn annual trading on UK equity markets,<sup>35</sup> a 0.5% increase in trading would create an extra £87.5m in annual equity market revenues (or £753m in present value terms over the appraisal period). There will also be additional benefits for counterparties initiating the trade.

Easley et al (2016) Differential access to price information.

According to Oxera (2007), total capital expenditure by FTSE 350 companies was £98.3bn in 2006. Projecting this forward using 2006-2024 growth in UK-wide gross fixed capital formation (source: ONS), we obtain £134.7bn. Oxera (2007) can be accessed here: https://www.theia.org/sites/default/files/2019-05/20070501Stampdutyreport.pdf

For US-listed firms, Gilchrist and Zakrajsek (2007) obtained an estimate ranging from around -0.75 to -1.4. The value generated by Guiso et al (2001) for Italian firms is about -1.

These services are broker trade execution, market making services, and trade clearing. The source for the information is: https://www.oxera.com/wp-content/uploads/2014/02/Pricing-of-market-data-services-3-1.pdf

<sup>35</sup> https://www.oxera.com/wp-content/uploads/2024/10/Oxera-report-on-UK-equity-market-October-2024.pdf

The impact on investor returns from a reduction in transaction costs can be substantial. Busse et al (2021) found that transaction costs affected annual performance of actively managed US equity mutual funds by 0.40-1.05 percentage points of lost returns. Further, 56% of investment firms responding to European Commission's study on the creation of an EU CT estimated that their slippage due to the absence of consolidated tape in Europe was between 0.25 and 2 basis points. With £5tn of annual trading on UK equity markets and average slippage of 20-40 basis points, a 1% reduction in trading costs due to market-wide efficiency gains (0.2 to 0.4 basis points) translates to £100m-£200m in aggregate annual cost savings.

#### Quantified portion of benefits

- 259. In our data user survey, we collected information on the demand from regulated firms trading on UK equity markets either directly or indirectly. The information allows us to quantify benefits for these market participants using contingent valuation of willingness to pay.
- We establish the number of expected tape users within firms who currently either do not have access to trade data or have access to less data without the tape. We then estimate the area under the demand curve corresponding to the users without previous access to data, and the value of the additional data for users with improved access to data, thereby valuing the benefit they get from improved data access. This value aggregates the potential benefits to UK equity trading and investing, which are outlined in detail in 'Description of benefits' and include effects such as higher investment returns from better investment and trading decisions. In our moderate adoption scenario with the midpoint of cost estimates, we estimate a total of 35,000 customers to the CT. Of these, c. 7,000 would have had no previous access to equity market data, 21, would have had no previous access to data from Cboe venues, 29,000 would have had no previous access to Aquis data.
- **261.** More detail on how we arrived at these estimates and how we estimated how many of the customers with access to additional data value having access to the data is provided in Annex 3.
- Table 12 below provides a summary of quantified benefits for different cost estimates of providing the CT. The cost estimates include the cost of setting up and running the tape for the provider on an annualised basis as well as £100k annual costs to the FCA for regulating the tape provider. The benefits values are computed under the assumption that the price, which is charged monthly on a per user basis, is such that the tape operations break even accounting for an additional 10% profit margin over the costs to the provider for covering their cost of capital. Higher annualised costs imply a higher breakeven price, which in turn reduces demand from users and the benefits they derive from better access to trade data.

Table 12: Estimated benefits using break-even price by cost estimate (present value terms in brackets)

Cost estimate	Annualised total cost of CT	Annual benefits	Annual net benefits
Lower end	£6.8m (£57m)	£12.4m (£103m)	£ 5.6m (£47m)
Midpoint	£11.1m (£92m)	£12.0m (£100m)	£ 0.9m (£7m)
Upper end	£15.4m (£128m)	£11.6m (£96m)	£-4.8m (£-40m)

The present value of the quantified portion of benefits over the appraisal period therefore ranges from £96m to £103m in our moderate adoption scenario. When accounting for the uncertainty involved around our adoption estimates, the full range of the present value of quantified benefits is from £48m (limited adoption, upper end costs) to £154m (substantial adoption, lower end costs). Once costs to the CT provider are subtracted, the proposals are net beneficial for both the midpoint and lower end cost estimates, generating between £7m and £47m in 10-year net benefits on a present value basis, respectively. At upper end cost values, the proposals are not net beneficial. But our discussion of the potential scale of total benefits in the preceding section demonstrates that even a very modest impact on market functioning will translates to dozens of millions in additional annual benefits. These will likely significantly outweigh the £4.8m annual losses from the proposals at upper end cost estimates.

#### Secondary International Competitiveness and Growth Objective

- Our proposals are well aligned not only with our primary objectives, but also the secondary objective of international competitiveness and growth. In fact, wider market and economic impacts are among the primary benefits of the policy. Thus, details on channels of impact, evidence, and scale can be found in 'Benefits' and 'Problem and rationale for intervention'. This section focuses specifically on the effects of our proposals through the lens of the secondary objective.
- 265. Starting with the impact on growth, improved access to information will boost productivity in the UK financial sector, enhancing investment and trading processes. Equalising data access will also spur competition, driving innovation and further efficiency gains. These effects will support UK economic growth in several ways:
  - More efficient capital allocation will direct funds to the most productive investments.
  - UK-based providers of investment and trading services will offer better quality or lower-cost products, increasing customer demand and competitiveness both domestically and internationally.
  - Rising demand will benefit related sectors, such as accounting and legal advisory.
- **266.** Our proposals will strengthen trust and confidence in UK financial markets and enhance the attractiveness of UK markets. This will support our position as a world-leading place to invest and for businesses to raise capital.

- Greater access to data will make it more attractive for current and prospective financial services firms to do business in the UK. As trade data is vital for production and innovation, our proposals will reduce input costs, unlock innovation potential, and narrow informational gaps—particularly benefiting smaller firms. As noted earlier, UK-based firms will be better positioned to compete globally, further boosting the UK's business appeal.
- Our proposals will also enhance the UK's competitiveness as a hub for equity finance. Issuers will gain clearer visibility of market liquidity, which is currently underreported. As trading costs decline and investor participation grows, the resulting lower cost of capital will encourage more issuance and investment. The uptick in issuance activity will also support economic growth through increased demand for ancillary services like trade settlement.

#### Other impacts

#### Waterbed effects

- In our industry engagements, potential waterbed effects in the trade execution and listing markets have been raised as a concern. It has been argued that trading venues losing revenues to the tape may seek to offset the losses by either raising fees on these related products or reducing quality (eq via lower investment spending).
- 270. Such actions could lead to adverse effects on market-wide outcomes. In the trade execution market, a substantial increase in fees may, for instance, impact trading frequency, order sizes, or the choice of trading mechanisms. This could affect price discovery and market liquidity. Higher listings fees could deter IPO activity and harm the competitiveness of the UK economy. Similarly, underinvestment in these product lines would cause continuous decrease in quality and prevent gains from innovation. This would deter participation and harm efficiency of these markets creating a wide range of harms. The harms could include misallocation of capital due to inefficient price discovery and lower economic growth resulting from reduced listings activity.
- **271.** For waterbed effects to take place, trading venues would need to have both the incentives and the ability to increase prices on or reduce quality of trade execution and listing services.
- 272. Trade data market is linked with these markets whereby trade data charges are a relevant component of expected profits per customer. Trade execution services and trade data products are linked because trade data is an input in trading decisions. Thus, if a firm decides to trade, it will have demand for both trade execution services and trade data. The listing market is related, too. Once a stock is listed, the trading venues generate revenues by charging for the data on the trading activity. Those sales are an important source of profits from newly listed instruments alongside listing fees.
- **273.** Due to these interdependencies, a loss of trade data revenue to the CT will reduce per-customer profits of trading venues in trade execution and listing markets. It may

- therefore disincentivise venues to compete for these customers leading them to increase trading and listing fees or reduce investment in these services.
- But the tape may have only limited impact on trading venue overall sales. For the largest lit trading venues, LSE and Cboe, trade data constitutes around 15% of total revenues and is therefore important, but not a major source of sales. <sup>37</sup> Moreover, qualitative evidence implies that only display data products will be exposed to substantial substitution effects leaving venues with other proprietary data products they could earn significant revenue from (e.g. low-latency, full-depth data). Indeed, according to estimates obtained by leveraging data user survey results, only a portion of trade data market revenue may be reasonably expected to be diverted to the tape. Thus the policy will likely have limited impact on overall sales of trading venues, which means that the incentives to hike prices, or reduce quality and investment spending, in other product segments will be constrained.
- 275. Even though there are some incentives for venues to make changes to the pricing and quality/investment levels of trade execution and listings services following the introduction of the CT, the ability to do so is limited by competition in the respective markets. In contrast to trade data markets, where data from one venue is not a meaningful substitute for data in another, trade execution and listing markets exhibit a higher degree of competition.
- As argued by Europe Economics (2024), the ability of UK trading venues to raise prices or reduce quality in trade execution market is constrained by competitive pressures from a range of trading mechanisms and overseas competitors. Analysis by Oxera (2024) shows that at least 30-35% of 2023 UK-venue turnover in UK-domiciled share was executed via dark venues, SI, or OTC. Further, the market is characterised by network effects whereby the attractiveness of the venue rises with the level of trading activity on its platform. Thus, if a venue suddenly loses market share due to large price hikes or substantial reduction in quality, it may never gain it back, which discourages such actions. For example, when trading venue called Island stopped displaying order book quotes in 2002, its market share fell by 50% and did not rebound even after quotes were restored.<sup>38</sup>
- The scope for waterbed effects in listings market is also constrained by competition. A significant source of competitive pressures are overseas locations, as demonstrated by recent change of primary listing from London to the US by <u>Indivior</u> and <u>Wise</u>. There is also substantial competition from alternative sources of equity capital, such as private equity funds. These markets offer large pools of capital from sophisticated investors and distinct advantages over public equity<sup>39</sup> with many firms globally having taken preference for this channel.<sup>40</sup> Moreover, IPOs are an important marketing tool helping

<sup>37</sup> Based on trading venues data disclosures.

Hendershott, T., & Jones, C. M. (2005). Island goes dark: Transparency, fragmentation, and regulation. *The Review of Financial Studies*, 18(3), 743-793

<sup>39</sup> For overview, see 'European Commission (2020) Primary and secondary equity markets in the EU: Final report'

There is academic literature which identified private equity as an important factor driving down IPO activity. See, for example, Ewens M. and Farre-Mensa, J. (2017), 'The Evolution of the Private Equity Market and the Decline in IPOs'; http://gsf.aalto.fi/seminar\_papers/ewens%20and%20 farre%20mensa.pdf; and Lattanzio, G., Megginson, W. and Sanati, A. (2019), 'Listing Gaps, Merger Waves, and the Privatization of American Equity Finance', https://ssrn.com/abstract=3329555.

- to raise revenues across product segments. Effectiveness of this tool will be reduced if venues decide to charge higher listing fees.
- 278. The discussion above demonstrates that there is not sufficient evidence in support of waterbed effects. In fact, while waterbed effects were at times mentioned during our industry engagements and data collections (e.g. the data user survey), they were not voiced as a major impact. But we will monitor market developments post-implementation to identify any emerging risks.

#### Impact on the structure of trading

- 279. As one of the key concerns, it has been raised that the CT could cause a shift away from transparent CLOBs to less transparent forms of trading such dark pools, harming price formation.
- 280. CLOBs have traditionally served as the foundation of transparent price formation. They offer a multilateral environment open to the widest range of participants with visible real-time bid-offer prices, which facilitates efficient price discovery. But there has been a long-term trend of reduced volume of trading on CLOB, creating concerns that at some point the volume could be so low as to harm price formation. If this happened, it could lead to losses as investor trade at 'wrong' prices and face higher trading costs due to reduced market liquidity.
- Based on our analysis, we do not expect the tape to cause a shift in trading volume from CLOBs. This trend is driven by structural changes in market microstructure, including the emergence and growing appeal of alternative trading mechanisms (e.g. period auctions, dark pools), trading strategies (smart order routing, high frequency trading), and passive investing. As discussed in <a href="Europe Economics">Europe Economics</a> (2024), the tape is unlikely to impact these drivers and therefore affect the CLOB use with most interview respondents not seeing how the tape could have an effect. Similarly, an overwhelming majority respondents to our data user survey did not expect any change in their CLOB use due to the CT.
- But there are some mechanisms through which this could happen, one of which was put forward by Oxera (2024). Under our proposals, some investors will have better view of available liquidity and so they will be better able to assess how well their brokers are executing orders. Under greater pressure from clients, brokers with restricted venue connectivity could choose to send trades to venues with less pre-trade transparency (e.g. dark pools) that match the consolidated BBO rather than incurring the costs of expanding venue connections.
- 283. It is not clear whether brokers would change their behaviour this way as best execution has many dimensions. These include immediacy and execution risk on top of transaction costs. Using trading mechanisms alternative to CLOB involves different trade-offs in relation to these factors and sending orders to an SI or a dark pool to achieve a BBO may not deliver better execution. For instance, there are stocks where the primary venue is a dominant source of liquidity and redirecting the volume to other trading mechanisms would not improve execution.

- Europe Economics (2024) found that the majority of stakeholders they spoke to were sceptical of this impact, given that the brokers and market makers responsible for the majority of trading are already connected to all lit venues and consuming their pre-trade data. Where brokers are not connected to all venues, we might expect greater price transparency would lead to clients switching to brokers with better venue connectivity who can deliver better execution than just matching the BBO. This was suggested in our engagements with industry participants and relates to one of the key benefits of the CT best execution monitoring and broker competition. Thus, there may be no increase in dark venue trading via the mechanism suggested by Oxera (2024).
- Even if there was a shift in trading, it would concern only trading volumes of brokers with restricted venue connections. To gauge the size of these volumes, we used MiFID data on transactions in UK equity markets. In the data, we observe whether a broker has routed a trade through a particular lit venue. The following chart shows the relationship between trading volumes and the proportion of the market that direct market participants have access to (measured by a least one trade on a lit venue). We observe that the larger the broker the more likely the broker has access to a higher proportion of lit market activity. There may be a limitation in our data as although a participant has not used a venue, they may still be able to access it. Alternatively, a venue may not be relevant as it does not offer liquidity in the assets they trade.

Proportion of lit volumes firms have access to (number of firms above bars) 100% 21 5 11 90% 27 80% 56 15 70% 60% 50% 40% 30% 20% 10% 0% <£1b £1b-£5b £5b-£10b £10b-£25b £25b-£50b >£50b Annual trading volume

Figure 7: Relationship between trading volumes and lit venue access

Source: FCA analysis of FCA transaction reporting data

The largest brokers already have access to nearly all liquidity, which is consistent with the findings of <a href="Europe Economics">Europe Economics</a> (2024). There are some smaller broker providers that do not have access (or appear to have access) to all lit markets. This does not necessarily imply that these brokers would direct trades from lit markets. As discussed above, investors may put pressure on brokers to connect to other venues or switch entirely to brokers with better venue connectivity. Regardless, the scope for significant trading volume to be diverted from lit markets seems limited.

#### Monitoring and evaluation

- 287. Monitoring and evaluation stage is an important part of the policy development cycle. It helps policymakers understand the impact of an intervention (including any unintended outcomes) and can be used as a feedback mechanism to improve the policy.
- 288. We will conduct a post-implementation review two years into the CT's operation to assess its effectiveness and a case for adjusting the economic model and regulatory framework. The review will cover all significant emerging themes, including:
  - The impact of the CT on the quality of the price formation process in the UK equity market, notably on the level of trading on CLOBs.
  - The case for varying the level of pre-trade data in the tape and/or requiring revenue sharing arrangements between the CTP and data contributors.
  - The case for introducing competition in the consolidation of equity trade data.
- As part of this work, we will consider the scope for evaluating the impact of the proposals on market outcomes using granular data on trading activity and advanced econometric techniques. Such work might include how the CT has improved market efficiency, enhanced capital allocation and strengthened market integrity. It may also be valuable to consider potential unintended market dynamics, particularly any effects on firms that could lose a competitive advantage as a result of the intervention.

#### Consultation with the FCA Cost Benefit Analysis Panel

We have consulted the independent CBA Panel in the preparation of this CBA in line with the requirements of s138IA(2)(a) FSMA 2000. A summary of the main group of recommendations provided by the CBA Panel and the measures we took in response to Panel advice is provided in the table below. In addition, we have undertaken further changes based on wider feedback from the CBA Panel on specific points of the CBA. The CBA Panel publishes a summary of their feedback on their website, which can be accessed here.

#### Table 13: CBA Panel feedback and our response

Panel feedback

# Improve the presentation and clarity of the CBA. The Panel recommends that the CBA be improved by making it shorter, clearer, and more consistent. At present, it is overly long and complex, which obscures the key messages. The main costs and benefits should be set out clearly in the summary and then developed consistently in the detailed analysis through quantification and valuation. The structure should provide a clear line of sight from summary to detail, ensuring accessibility as well as a transparent audit trail for calculations. In addition, the CBA should distinguish more clearly between genuine economic impacts, such as resource savings and improved market efficiency, and transfers between parties, which are, at times, conflated in the analysis.

We have rewritten substantial sections of the CBA to improve the clarity of the analysis. We have sought to reduce the length of the CBA but there is a trade-off between completeness and brevity.

Response

We ensured that economic transfers and genuine economic impacts are correctly described in the analysis.

Panel feedback	Response
<b>Strengthen the evidence supporting key market design choices.</b> The Panel commends the CBA's assessment of alternative options for improving the market for data, alongside the proposed solution of a consolidated tape. The CBA would however add greater value if it analysed critical design options for the provision of a consolidated tape – such as alternative numbers of providers, incumbency terms, and governance arrangements – as well.	We have added additional text on the key design questions for the CT. This includes a discussion on the relative merits of critical design features.
More effectively leverage data collected. The Panel commends the CBA for the quality of data collected but notes that it could be used more fully to strengthen the benefit estimates. In particular, the contingent valuation survey could be used to estimate benefits to new data users.	We have added additional analysis and description of the benefits to data users from accessing additional data.

- Question 1: Do you have any comments on our cost benefit analysis?
- Question 2: Do you agree with the assumptions made in our cost benefit analysis?
- Question 3: Are there any significant costs or benefits to the market that we did not adequately consider in our cost benefit analysis?

#### Annex 3

# Estimation of demand, revenue, and quantified benefits

#### Demand for the CT

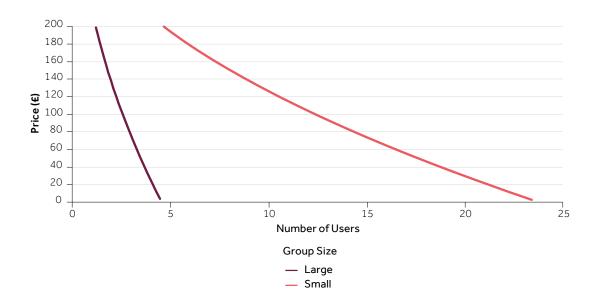
#### Our data user survey

- In May 2025, we sent out a survey to firms asking them questions about their data use and their demand for the CT. The key questions for our demand analysis were concerning the current number of display data users for UK equity data in the firm, and the projected number of display data users under the 4 versions of the CT described previously. We interpret our survey responses as initial demand for the CT.
- Our population for the survey were groups that traded more than £10m in UK equities (FTSE All Share and AIM stocks) in 2024. Our population does not represent all groups that trade in UK equities and may have demand for the consolidated tape as we are excluding firms with less than £10m in total volume traded. Our estimated demand curves are therefore only representative for this proportion of the population.
- 3. From this population we randomly sampled 250 groups to survey. We stratified our sample so that we ensured we had good coverage of groups split of different sizes<sup>41</sup>, as well as different types of firm (buy-side, sell-side and intermediaries). We sampled more buy-side groups with respect to the rest of the population as in past engagement with industry we have had less engagement from this segment, especially smaller buy-side groups, and small buy-side firm groups make up the largest proportion of firms in the population.
- 4. We received 77 responses to our survey. The responses are split evenly between large and small (37 and 40 respectively). We do not disaggregate responses by group type in the analysis to ensure at least 30 firms are in each subsample.
- Groups responding to our survey correspond to 46.4% of trading volumes by firms with over £10m traded in UK equities in 2024. This large proportion is due to us surveying a bigger share of the groups most active in UK equity trading due to the stratification by large and small. We scale our survey responses to the population separately for large and small firms so that the responses from large groups do not bias our estimated demand for groups firms.

#### Estimated demand for the proposed CT (i.e. Scenario 2)

6. The figure below shows our estimated demand curve for the CT for representative large and small groups under the proposal to include both post-trade data and the attributed BBO in the CT.





- 7. This is the estimated average initial demand per group for the CT in number of data users as a function of the monthly cost of the CT in £ per data user. We estimated demand as a quadratic function of the price to better account for the difference in slope between different price options.
- 8. Not all firms in our sample indicated immediate demand for the CT at any price level. We estimated the above demand function only for groups with demand and we scale the estimated representative demand function adjusting for those without demand. The below table summarises this approach.

**Table 1: Survey responses** 

Size	Survey respondents	Percent without demand	Population size	Estimated population with demand
Small	40	47.4 %	3,202	1,684
Large	37	24.3 %	245	184

**9.** We note that a substantial proportion of respondents do not have initial demand for the CT. This may be because they do not see value in the CT, or they were uncertain about the use of it within their firm.

#### Scaling demand to the population

- 10. The estimated demand above is based on our survey respondent's stated immediate demand for the CT. Scaling our demand functions to the estimated population with demand, separately for large and small, we estimate that immediate demand for the tape implies 9,083 immediate users of the CT at a cost of £50.
- 11. However, there are several reasons to suspect that over the five years proposed initial tender period of the CT (and thereafter), demand will significantly exceed this estimate of initial demand.
- 12. Based on data from UK equity venues, we estimate that in 2024 there were c. 40 to 60 thousand customers purchasing top of book pre-trade market data at an average cost to user of c. £50 per month. This is 4 to 7 times as many customers as our estimated initial demand. Since the proposed CT would represent a close substitute to existing data sources with some additional attractive features to participants (consolidation across venues, and data from all venues), we may reasonably expect a substantial portion of this existing customer pool to switch to the CT as it becomes established as a reliable and affordable source of UK equity data.
- 13. There are several potential reasons that explain the discrepancy between our scaled up initial demand for the tape and the estimated number of customers for top of the book equity market display data:
  - Equity market participants may not immediately realise the value of the CT.
  - They may require time to adjust to using the CT.
  - They may require the CT to become established and trusted to change their demand from existing sources of data to the CT.
  - There may be significant differences between data from a direct venue feed and the CT that would imply users prefer the direct feed to the CT.
- One way in which the two data sources could differ is by latency and the extent that existing data customers substitute the CT for their existing data sources will be a function of the extent to which their demand for the CT relies on latency. Feedback from regulated firms suggests that at least for a substantial portion of firms, the differences in latency between the CT and direct feeds will not be a material consideration.
- **15.** Given this discussion and the uncertainty involved in estimating the extent to which we will see substitution between the CT and existing venue feeds, we model the demand for the CT under three scenarios:
  - In our core estimate, labelled *moderate adoption*, over the first five years of the CT becoming an established and trusted data source, 50% of existing level 1 direct feed customers switch their demand to the CT.
  - Under *limited adoption*, 25% of existing top of the book direct feed customers switch their demand to the CT.
  - Under *substantial adoption*, 75% of existing top of the book direct feed customers switch their demand to the CT.

- 16. In the remainder of the analysis, we use moderate adoption as our baseline estimates and provide estimates for limited and substantial adoption for cost-benefit scenario analysis.
- To scale our estimated demand to moderate adoption of 50% substitution from existing data users we note that some of the estimated data users from our survey are "additional data users" that do not currently purchase display trade data. At £50, our estimated additional data users scaled to the firm population are 1,819. Equivalent to c. 20% of the total estimated demand. The demand for the CT would then need to grow by a factor of 3.4 over the first 5 years of the CT to achieve 50% substitution. <sup>42</sup> The growth factor required for limited adoption would be 1.7 and for substantial adoption, 5.1. We note that the growth factors for the moderate and limited adoption scenarios are noticeably more conservative than what providers of the bond consolidated tape expect to see over its first 5 years.

#### Viability of the CT

18. To assess the viability of the CT we calculate revenue generated by the CT given our estimated demand curve above. Here total revenue, as a function of the price of the CT, is the sum of the population demand functions for large and small firms multiplied by price. The revenue graph shown is for demand assuming "moderate adoption" as described above. Note that we estimate here the revenue generated by display data only and exclude any revenue from other data products, such as derived data.

Figure 2: Estimated revenue from CT



- 19. To interpret the graph, we see that total revenue expected from the CT is initially increasing in the monthly user fee but then falls. Total revenue is maximised at £131 per month, resulting in £28.3 total annual revenue with 18,000 CT users (revenue/price\*12). At £50 a month estimated annual revenue would be £18.5m with 31.000 data users.
- **20.** We assume that the marginal cost of one additional data customer to the CT provider are £0. Profits to the CT provider will therefore be maximised where revenue is

- maximised and the CT will be profitable, and therefore viable, when annual revenue exceeds annual fixed costs of operating the CT. We assume that the CT provider requires an additional margin of 10% above cost.
- Finally, the revenue generated by the CT is a function of its price. We do not know the price charged by the CT provider and therefore provide a range of revenue generated between (1) a break-even price where the CT provider just breaks even given the annual cost of providing the CT (adding the 10% profit margin to account for the provider's cost of capital and including set up costs), and (2) the revenue maximising price. The actual price of the CT will be a function of the competitiveness of the CT's procurement process. The table below summarises the cost and revenue of the CT under each cost estimate to assess the viability of the CT.

Table 2: CT revenue and profits

Cost scenario	Cost estimate including 10% profit margin	Break-even price	Revenue at break- even price	Profit margin	Revenue at its maximising price	Profit margin
Lower end	£ 7.4m	£16.4 per month	£ 7.4m	10%	£28.3m	322%
Midpoint	£12.1m	£28.8 per month	£12.1m	10%	£28.3m	157%
Upper end	£16.8m	£43.5 per month	£16.8m	10%	£28.3m	85%

- 22. The table shows that according to our estimated demand and revenue, the CT is economically viable for the whole range of our cost estimates given our assumption of moderate adoption. For our alternative scenarios of limited and substantial adoption, the CT remains viable for all scenarios except limited adoption with the upper end of cost estimates, where the CT provider would not be able to realise a profit on their invested capital.
- This table also shows that the CT has the potential to be highly profitable for the provider should the bidding process not be competitive and drive down the price of the CT. This outcome could have potentially adverse effects on the benefits from the CT for UK equity data customers, which we will discuss further below.
- 24. We note once again that the revenue generated by the CT is a transfer and not counted as a benefit in our evaluation of whether the CT will be net beneficial.

#### Quantified benefit estimates

- **25.** The quantifiable net benefits of the CT arise from two sources:
  - Additional data users who access the CT and without the CT would not be accessing pre- and post-trade equity data, and

• Additional data use by users of the CT with previous access to pre- and post-trade equity data due to improved data availability in the CT relative to these sources.

#### Additional data users

- We estimate additional data users as above based on our survey responses. These users are the CT customers our survey suggests would purchase trade data under the CT but do not currently purchase trade data. We estimated additional data users based on the estimated number of users under scenario 2 given a price of £50 for the CT. This scenario cost closely matches our estimate of current cost and detail of data received by customers of level 1 venue data. This analysis showed that c. 20% of our estimated customers are additional to existing users. Note, again, that this does not consider users that would purchase the CT in addition to existing subscriptions from venues and can be interpreted as a lower bound estimate for additional data users.
- 27. We assume that the share of additional data users grows proportionally with the total number of data user. This means that at any price and total demand, additional data users always make up 20% of total users.
- 28. The benefits of the CT from additional data users are the sum of the private benefits (consumer surplus) to the data customers and the revenue (producer surplus) generated by the CT provider from the customer. Note again that we assume a marginal cost of £0 of providing the CT to one additional customer.

#### Additional data use

- **29.** To estimate the value of *additional data use* we make a distributional assumption on the added value of increased data access under the CT.
- At the baseline, we estimate (as above) that there are currently 50,000 customers for top of the book pre-trade data in the UK, paying on average c. £50 for access to this data on the main UK venue (LSE). Relative to this baseline, added value from the CT comes from the CT providing data on all UK exchanges.
- **31.** We estimate the value of additional data by creating boundary conditions on the distribution over the value this data would provide.
- We estimate that of current users, 50% already have access to level 1 data from Cboe venues (25,000 users), 20% already have access to level 1 Turquoise data (10,000 users), and 4% already have access to level 1 data from Aquis (2,000 users). For these users, the value of the additional data will be £0. These values are informed by data published by venues on the revenue generated by trading venues and the prices they charge for data.
- For all other users, the maximum value of the added data will be its current market price as given this price these users currently do not purchase the data. This is approximately:
  - £25 per month for Cboe data.
  - £10 per month for Turquoise data.
  - £25 per month for Aguis data.

- Depending on the venue, there may be a substantial portion of the population that value the data at £0. We assume that the population that values a venue's data above £0 but below its price is proportional to the current customer base of the data. That is:
  - 50% of users of the CT do not have access to Cboe data and of those all 25,000 value it above £0.
  - 80% (40,000) of users of the CT do not currently have access to Turquoise data and of those 25% (10,000) value it above £0.
  - 96% (48,000) of users of the CT do not have access to Aquis data and of those 4.2% (2,000) value it above £0.
- Finally, if we assume that the value of the data for those with a positive value is uniformly distributed, the average value of the data will be halfway between the lower bound (£0) and the upper bound (£25 or £10). However, the distribution may be more left-skewed than a uniform distribution if valuations are more concentrated around £0. We therefore assume that the average value of the data for those with demand is 50% of the value assuming a uniform distribution. We therefore get valuations of:
  - £6.25 per additional user of Cboe data.
  - £2.5 per additional user of Turquoise data.
  - £6.25 per additional user of Aquis data, all per month.
- **36.** We think these assumptions are reasonable estimates of average valuation. We have taken the prices levels from the publicly available prices from trading venues to inform these assumptions.

#### Summary of quantified benefits

- **37.** We can now combine the above estimates to generate estimates for the expected benefits from the CT.
- The estimated benefits for additional data users are based on the total surplus (revenue plus consumer surplus) from these users. We think that the total surplus is an appropriate measure for the benefits from additional users as these are users that would not otherwise purchase trade data and therefore any surplus (producer and consumer) generated by the users is attributable to the CT.
- The estimated benefits for additional data use are based on the estimated values summarised above. We show estimated benefits for a scenario where the CT is sold at a break-even price as above. This, in effect, assumes that the bidding process for the CT will be competitive. For higher prices, the benefits can be expected to be lower as the number of CT customers will be lower, reducing the benefits from additional data users and additional data use. Costs here are annualised and include costs to the CT provider, costs to the FCA, and familiarisation costs.

Table 3: Estimated benefits using break-even price by cost estimate

Cost estimate	Break- even price	Total annual cost estimate	Benefits from additional users	Benefits from increased use	Total annual benefits	Net benefits
Lower end	£16.4	£ 6.8m	£10.7m	£1.7m	£12.4m	£ 5.6m
Midpoint	£28.8	£11.1m	£10.4m	£1.6m	£12.0m	£ 0.9m
Upper end	£43.5	£15.4m	£10.1m	£1.5m	£11.6m	£-3.8m

- 40. This table shows that given the midpoint of our cost estimates, moderate adoption, and using the price implied by a 10% profit margin for the CT provider, the CT is expected to be net beneficial using the quantified portion of benefits alone.
- 41. However, the table also shows that the quantified benefits are tied to the price charged by the CT provider. An increase in the CT's price decreases the number of CT data users, and therefore decreases both the benefits realised from additional data users and additional data use. Moreover, we expect that market wide benefits from the CT that we do not quantify here will also be directly linked to the amount of additional data use that the CT enables. Therefore, a CT that is established through a more competitive procurement process and at a lower price to the user, will not only increase the benefits from additional data use, but should also lead to more substantial market benefits. The pricing constraint on the CT provider from a competitive procurement process are thus crucial for the CT to create these anticipated benefits for the market.
- 42. At the upper end of the cost estimates, the CT does not appear net beneficial when considering only the quantified benefits. Similarly, considering our alternative scenarios for the extent of adoption, although under *substantial adoption*, the CT is net beneficial using the quantified portion of benefits alone across the cost scenarios, given *limited adoption* the CT is not net beneficial with the quantified portion of benefits alone.
- 43. In conclusion, whether the CT will be net beneficial given only the private benefits to data customers is uncertain. In our core estimate using moderate adoption and the midpoint of our cost estimates we estimated it to be net beneficial using these benefits alone. Furthermore, given the discussion in the remainder of this section, we expect that the quantified portion of benefits will only be a small proportion of the overall benefits from the CT and that, including these wider, unquantified impacts, the CT will be net beneficial across our adoption scenarios and cost estimates.

#### Annex 4

### Compatibility statement

#### Compliance with legal requirements

- This Annex records the FCA's compliance with a number of legal requirements applicable to the proposals in this consultation, including an explanation of the FCA's reasons for concluding that our proposals in this consultation are compatible with certain requirements under FSMA 2000.
- When consulting on new rules, the FCA is required by section 138I(2)(d) FSMA to include an explanation of why it believes making the proposed rules (a) is compatible with its general duty, under section 1B(1) FSMA, so far as reasonably possible, to act in a way which is compatible with its strategic objective and advances one or more of its operational objectives, (b) so far as reasonably possible, advances the secondary international competitiveness and growth objective, under section 1B(4A) FSMA, and (c) complies with its general duty under section 1B(5)(a) FSMA to have regard to the regulatory principles in section 3B FSMA. The FCA is also required by section 138K(2) FSMA to state its opinion on whether the proposed rules will have a significantly different impact on mutual societies as opposed to other authorised persons.
- This Annex also sets out the FCA's view of how the proposed rules are compatible with the duty on the FCA to discharge its general functions (which include rule-making) in a way which promotes effective competition in the interests of consumers (section 1B(4) FSMA). This duty applies in so far as promoting competition is compatible with advancing the FCA's consumer protection and/or integrity objectives.
- 4. In addition, this Annex explains how we have considered the recommendations made by the Treasury under section 1JA FSMA about aspects of the economic policy of His Majesty's Government to which we should have regard in connection with our general duties.
- **5.** This Annex includes our assessment of the equality and diversity implications of these proposals.
- 6. Under the Legislative and Regulatory Reform Act 2006 (LRRA) the FCA is subject to requirements to have regard to a number of high-level 'Principles' in the exercise of some of our regulatory functions and to have regard to a 'Regulators' Code' when determining general policies and principles and giving general guidance (but not when exercising other legislative functions like making rules). This Annex sets out how we have complied with requirements under the LRRA.

## The FCA's objectives and regulatory principles: Compatibility statement

- 7. The proposals set out in this consultation are primarily intended to advance the FCA's operational objective of market integrity. They are also relevant to the FCA's operational objectives of consumer protection and competition.
- 8. The FCA's market integrity objective is to protect and enhance the integrity of the UK's financial system. The rules we are consulting on enhance the transparency of the price formation process in the equity market by creating the conditions for wider access to consolidated data. This should assist in making the equity market more stable, resilient and orderly.
- 9. The FCA's consumer protection objective is to secure an appropriate degree of protection for consumers. The rules we are consulting on will enhance the availability of information on trading in equity markets to market participants. This will improve efficiency of price formation and so reduce implicit costs of trading for consumers. It should also make it easier for consumers to check the effectiveness of arrangements that intermediaries put in place to secure best execution.
- 10. The FCA's competition objective is to promote effective competition in the interests of consumers. Greater availability of consolidated data on equities trading should enhance the ability to compare the quality of execution on different execution venues and the quality of execution obtained by different intermediaries when executing client orders. This in turn should intensify competition between execution venues and intermediaries respectively.
- 11. We consider these proposals are consistent with the FCA's strategic objective of ensuring that the relevant markets function well. They are aimed at improving the functioning of equity markets by making better quality data available to a wider range of market participants.
- In preparing the proposals set out in this consultation, the FCA has had regard to the regulatory principles set out in section 3B FSMA. The proposals set out in this consultation are consistent with an efficient and economic use of our resource. Having a single CTP for equities will reduce the amount of supervisory resource we need to devote to CTPs.
- 13. When considering the design of the framework we have had regard to our secondary international competitiveness and growth objective. Our remit letter (received on 14 November 2024) also says we should have regard to creating a regulatory environment which facilitates growth and maintaining and enhancing the UK's position as a world-leading global finance hub.
- 14. We have had regard to other overlapping regulatory initiatives and attempted to minimise undue costs to firms for example, setting the scope of the CT consistently with the equity transparency regime requirements. Design of the CT framework itself aims to minimise unnecessary costs to firms. Driving proportionate regulation, by ensuring any cost or restriction imposed is proportionate to the benefits expected as a result for the wider regulatory system, enhances competition and makes the UK a more

- attractive place for firms to enter or operate, thus improving the UK's competitiveness as a financial hub.
- The WTDR findings report noted that a well-functioning wholesale market where participants can access good quality trade data at fair and reasonable prices would make the UK, overall, more competitive in the global market. A key way in which our work on the CT aligns with the FCA's secondary international competitiveness and growth objective is that we expect the CT to improve UK market functioning and liquidity (see Chapter 2 for further details). The establishment of the CT also could lead to the CTP, data providers, and market data vendors attempting to differentiate their data aggregation products and services from that of competitors. This should benefit consumers by simultaneously increasing the variety of data products they have access to, while reducing the prices of those products. In turn, this should increase the relative competitiveness of the UK's trade data products and services.
- Awarding a contract to be a single equity CTP through a procurement process means that there will be only one officially recognised CTP. As a result, that CTP will not be subject to competition from other CTPs in respect of the quality of its product and its prices. However, we will seek to design a procurement process to award a contract to be the equity CTP that through competition to be awarded the contract delivers a high-quality product at a competitive price.

## The principle that a burden or restriction should be proportionate to the benefits

17. As set out in the CBA, we have estimated the costs and benefits of our proposals. We are satisfied that the net benefits of these proposals outweigh and justify the costs.

The need to contribute towards achieving compliance by the Secretary of State with section 1 of the Climate Change Act 2008 (UK net zero emissions target) and section 5 of the Environment Act 2021 (environmental targets)

**18.** Overall, we do not consider that the proposals are relevant to contributing to those targets.

## The general principle that consumers should take responsibility for their decisions

**19.** An equity CT will make information about equity markets more readily available to retail clients therefore supporting their ability to take responsibility for their own investment decisions.

#### The responsibilities of senior management

**20.** The proposals build on existing requirements to make clear the responsibility of a CTP's senior management for its compliance with its regulatory obligations.

## The desirability of recognising differences in the nature of, and objectives of, businesses carried on by different persons including mutual societies and other kinds of business organisation

We have spoken to a wide range of market participants in preparing these proposals. This has been done to seek to ensure that our proposals recognise differences, and objectives of, businesses carried on by different persons and their interest in how an equity CT will operate.

#### The desirability of publishing information relating to persons subject to requirements imposed under FSMA, or requiring them to publish information

Requirements are placed on firms to make public data on transactions in equities that are ToTV to enhance the efficiency of the price formation process, protect consumers and stimulate competition. The benefits from these requirements are balanced against the risks to individual firms of such information being widely available through calibration of the regime including, in specified circumstances, deferral of the publication of certain trades. An equity CT will not publish new information, just bring together existing information in a single feed.

## The principle that we should exercise of our functions as transparently as possible

- Our consultation processes are intended to ensure that we are transparent about the thinking behind our proposals and clearly explain what we expect to achieve. We believe that this CP meets these objectives. We have also spoken to a wide range of market participants in developing these proposals for rules changes.
- 24. In formulating these proposals, the FCA has had regard to the importance of taking action intended to minimise the extent to which it is possible for a business carried on (i) by an authorised person or an RIE; or (ii) in contravention of the general prohibition, to be used for a purpose connected with financial crime (as required by s. 1B(5)(b) FSMA). We consider that this principle is not relevant to these proposals but will continue to keep this under review.

#### **Expected effect on mutual societies**

**25.** The FCA does not expect the proposals in this paper to have a significantly different impact on mutual societies.

## Compatibility with the duty to promote effective competition in the interests of consumers

- In preparing the proposals as set out in this consultation, we have had regard to the FCA's duty to promote effective competition in the interests of consumers. Having a single CTP for equities is not the most pro-competitive option available to us to establish an equity CT. It does not provide for competition in the market for CTP services. However, we believe having a single CTP is important to promoting our operational objectives and we will seek to design a procurement process for awarding a contract to be the equity CTP that, as far as possible, promotes effective competition for the market.
- There are 2 key ways in which an equity CT should promote wider competition. First, by providing wider access to trade data under a liberal licensing regime it should stimulate firms to compete to provide innovative products that use trade data. Second, greater access to trade data should help to spur greater competition between trading venues to ensure they attract the most competitive orders and between brokers to provide the best possible execution quality to their clients.

#### **Equality and diversity**

- We are required under the Equality Act 2010 in exercising our functions to 'have due regard' to the need to eliminate discrimination, harassment, victimisation and any other conduct prohibited by or under the Act, advance equality of opportunity between persons who share a relevant protected characteristic and those who do not, to and develop good relations between people who share a protected characteristic and those who do not.
- 29. As part of this, we ensure the equality and diversity implications of any new policy proposals are considered. The outcome of our consideration in relation to these matters in this case is stated in Chapter 2 of the CP.

#### Legislative and Regulatory Reform Act 2006 (LRRA)

- We have had regard to the principles in the LRRA for the parts of the proposals that consist of general policies, principles or guidance and consider that they are proportionate and consistent with the need for increased transparency.
- We have had regard to the Regulators' Code for the parts of the proposals that consist of general policies, principles or guidance and consider that the proposals are proportionate to the potential market failures identified.

#### Annex 5

## Abbreviations used in this paper

Abbreviation	Description
AIM	Alternative Investment Market
APA	Approved Publication Arrangement
API	Application Programming Interface
ВВО	Best Bid and Offer
СВА	Cost Benefit Analysis
Cboe	Chicago Board Options Exchange
CLOB	Central Limit Order Books
COBS	Conduct of Business Sourcebook
СР	Consultation Paper
СРІ	Consumer Price Index
CSV	Comma Separated Value
СТ	Consolidated Tape
СТР	Consolidated Tape Provider
DRSP	Data Reporting Service Provider
DRSRs	Data Reporting Services Regulations
EANDCB	Equivalent Annual Net Direct Cost to Business
EE	Europe Economics
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
ETC	Exchange Traded Commodity

Abbreviation	Description
ETF	Exchange Traded Fund
ETN	Exchange Traded Note
EU	European Union
FSMA	Financial Services and Markets Act
GDP	Gross Domestic Product
GUI	Graphical User Interface
IPO	Initial Public Offering
ISO	International Organisation for Standardization
LRIC	Long-Run Incremental Cost
LRRA	Legislative and Regulatory Reform Act 2006
LSE	London Stock Exchange
LSEG	London Stock Exchange Group
MAR	Market Conduct Sourcebook
MDV	Market Data Vendors
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MRMTL	Most Relevant Markets in Terms of Liquidity
MTF	Multilateral Trading Facility
NPV	Net Present Value
ОТС	Over-the-Counter
PS	Policy Statement
PV	Present Value
RCB	Reasonable Commercial Basis
RIE	Recognised Investment Exchange

Abbreviation	Description
RM	Regulated Market
RSP	Retail Service Provider
RTS	Regulatory Technical Standard
RFQ	Request for Quote
SCM	Standardised Cost Model
SMS	Standard Market Size
SYSC	Senior Management Arrangements, Systems and Controls Sourcebook
SI	Systematic Internaliser
ToTV	Traded on a Trading Venue
TCA	Transaction Cost Analysis
US	United States
WDMS	Wholesale Data Market Study
WMR	Wholesale Markets Review
WTDR	Wholesale Trade Data Review

## Appendix 1

## **Draft Handbook text**

#### DATA REPORTING SERVICES (AMENDMENT) INSTRUMENT 2025

#### **Powers exercised**

- A. The Financial Conduct Authority ("the FCA") makes this instrument in the exercise of the following powers and related provisions in or under:
  - (1) the following sections of the Financial Services and Markets Act 2000 ("the Act"):
    - (a) section 137A (The FCA's general rules);
    - (b) section 137T (General supplementary powers);
    - (c) section 139A (Power of the FCA to give guidance);
    - (d) section 300H (Rules relating to investment exchanges and data reporting service providers); and
    - (e) section 395 (The FCA's and PRA's procedures);
  - the following sections of the Act as applied by regulation 18 (Application of Part 11 of FSMA 2000 (information gathering and investigations)) and regulation 19 (Disciplinary measures) of the Data Reporting Services Regulations 2024 (SI 2024/107):
    - (a) section 169 (Investigations etc. in support of overseas regulator); and
    - (b) section 312J (Statement of policy); and
  - (3) the other powers and related provisions listed in Schedule 4 (Powers exercised) to the General Provisions of the FCA's Handbook.
- B. The rule-making powers listed above are specified for the purpose of section 138G(2) (Rule-making instruments) of the Act.

#### Commencement

C. This instrument comes into force on [date].

#### Amendments to the Handbook

D. The modules of the FCA's Handbook of rules and guidance listed in column (1) below are amended in accordance with the Annexes to this instrument listed in column (2).

(1)	(2)
Glossary of definitions	Annex A
Market Conduct sourcebook (MAR)	Annex B
Decision Procedure and Penalties manual (DEPP)	Annex C

#### Amendments to material outside the Handbook

E. The Enforcement Guide (ENFG) is amended in accordance with Annex D to this instrument.

#### Notes

F. In the Annexes to this instrument, the notes (indicated by "*Editor's note*:") are included for the convenience of readers but do not form part of the legislative text.

#### Citation

G. This instrument may be cited as the Data Reporting Services (Amendment) Instrument 2025.

By order of the Board [date]

#### Annex A

#### Amendments to the Glossary of definitions

In this Annex, underlining indicates new text and striking through indicates deleted text, unless stated otherwise.

Insert the following new definitions in the appropriate alphabetical position. The text is not underlined.

consolidated tape for equities

a consolidated tape for equities including shares, depositary receipts, *ETFs*, certificates or other similar financial instruments traded on a *UK trading venue*.

Data Reporting
Services Regulations
2024

the Data Reporting Services Regulations 2024 (SI 2024/107).

ODAU

an on demand auction (frequent batch auction) which:

- (a) is for trading equities, including shares, depositary receipts, *ETFs*, certificates or other similar financial instruments traded on a trading venue; and
- (b) consists of an auction of very short duration that is triggered by an event such as a buy and sell order matching or the submission of a buy or a sell order.

OSI model

the open systems interconnection model published by the International Organisation for Standardization, which consists of the standards referred to in the International Classification of Standards using 'ICS.35.100'.

OSI layer

(in MAR 9.2B) a layer of the OSI model (for example, Layer 1 (Physical).

Amend the following definition as shown.

historical data

(in relation to the *CTP* for bonds or the *CTP* for equities) a database of all the information published by the operator of the *CTP* for bonds on that provider relating to trades (including, where relevant, pre-trade bids and offers) in date and time order, including any amendments or cancellations subsequent to those trades taking place.

#### Annex B

#### Amendments to the Market Conduct sourcebook (MAR)

In this Annex, underlining indicates new text and striking through indicates deleted text, unless stated otherwise.

9 Data reporting service

. . .

#### 9.2A Consolidated tape providers

Selection of a consolidated tape provider

. . .

- 9.2A.7 R A CTP must publish information relating to its costs for establishing, maintaining and operating the consolidated tape for bonds or the consolidated tape for equities in such a way as to be accessible to potential bidders in a re-tender process.
- 9.2A.8 R A CTP for bonds must take all reasonable steps to transfer without delay to a successor CTP the assets, data and operational information necessary to enable it to operate the consolidated tape effectively. It must also have in place agreements with its clients which enable those clients who decide to do so to transfer to a successor CTP.

# 9.2B Operating requirements

...

#### Conflicts of interest

- 9.2B.2 R (1) A data reporting services provider other than a CTP must operate and maintain effective administrative arrangements, designed to prevent conflicts of interest with clients using its services to meet their regulatory obligations, and other entities purchasing data from data reporting services providers. Such arrangements must include policies and procedures for identifying, managing and disclosing existing and potential conflicts of interest and must contain:
  - (1A) A CTP must operate and maintain effective administrative arrangements, designed to prevent conflicts of interest with clients of the CTP, those redistributing the consolidated tape provided by the CTP and data contributors.
  - (1B) The arrangements mentioned in (1) and (1A) must include policies and procedures for identifying, managing and disclosing existing and potential conflicts of interest and must contain:

		(2)	include	entory of conflicts of interest referred to in (1 <u>B</u> )(a) must conflicts of interest arising from situations where the <i>data</i> ag services provider:
•••				
	Bu	siness co	ntinuity a	and back-up facilities
9.2B.4	R			
		(3)		reporting services provider must have effective business ity arrangements in place to address disruptive incidents, ag:
			•••	
			(f)	the target maximum recovery time for critical functions, which must be as short as possible and, in any case, no longer than 6 hours in the case of <i>approved publication arrangements</i> (APAs) and <i>consolidated tape providers</i> (CTPs) and until the close of business of the next working day in the case of approved reporting mechanisms (ARMs); and
			(g)	staff training on the operation of the business continuity arrangements, individuals' roles, including specific security operations personnel ready to react immediately to a disruption of services-; and
			<u>(h)</u>	for the CTP for equities, the target minimum data loss, which must be zero.
•••				
	Co	nditions f	for a CTP	P – organisational requirements

R A CTP must:

9.2B.13

- (2) maintain adequate resources and have back-up facilities in order to offer and maintain its services at all times. as follows:
  - (a) for the CTP for bonds, at all times;

- (b) <u>for the CTP for equities, in accordance with the minimum</u> uptime requirements.
- (3) The minimum uptime requirements mentioned in (2) are:
  - (a) for the ingress of data to the consolidated tape, 99.95% of market hours;
  - (b) for real-time access to data consolidated into the continuous electronic live data stream, 99.95% of market hours; and
  - (c) for accessing historical data, 99.95% of any 14 hours in each business day.
- (4) <u>In (3):</u>
  - (a) percentages must be calculated on an annual basis; and
  - (b) 'market hours' means, for any given day, the period between the time when the first UK trading venue that contributes data to the consolidated tape for equities opens for business and the time when the last such UK trading venue closes for business.

Other services provided by CTPs

- 9.2B.14 R (1) A CTP for bonds must not provide any additional service which utilises the information it receives from UK trading venues and APAs in its capacity as a CTP.
  - Where a *CTP* for bonds is a member of a *group*, a member of that *group* may provide an additional a service utilising information from the consolidated tape for bonds each consolidated tape provided by that *CTP*, provided it has paid for the group member has accessed that information in accordance with *MAR* 9.2B.36R(1).

. . .

Obligations of CTPs to ensure data quality and report information

9.2B.32 R ...

(2) A *CTP* must set up and maintain appropriate arrangements to identify on receipt trade reports that are incomplete or contain information that is likely to be erroneous, and must inform the provider of the trade report in each instance. For the *CTP* for equities, these arrangements must include automated alerts for prices and volumes.

(2A) The CTP for equities must maintain mechanisms through which users of the data it provides can flag to it potential inaccuracies in that data.

. . .

(4) The A CTP for bonds must submit a report to the FCA every 6 months and a CTP for equities must submit a report to the FCA every 3 months on the quality of the data that it has received during that period. The report must include at least the following information:

. . .

Consolidation of data by CTPs

#### 9.2B.33 R A *CTP* must:

. . .

- (2) ensure that the information which must be made public is sent through all distribution channels at the same time, including when the information is made public<sub> $\bar{2}$ </sub>:
  - (a) as close to real time as technically possible or 15 minutes after the first publication; and
  - (b) in the case of the CTP for equities, no later than 100 milliseconds after receiving the information, with a 95% confidence interval measured on a daily basis; and
- (3) provide the *FCA* with direct and immediate access to the *consolidated tape for bonds* each consolidated tape that the *CTP* provides.

Scope of the consolidated tape for bonds and publication of information

9.2B.34 R ...

Scope of the consolidated tape for equities – provision of information to the consolidated tape for equities by UK trading venues and APAs

- 9.2B.34 R (1) Following the appointment of a provider of a consolidated tape for equities, each UK trading venue and each APA must:
  - (a) connect to the *CTP* for equities before commencing or continuing operations; and
  - (b) send the information referred to in (2) to the CTP for equities in respect of shares, depositary receipts, ETFs,

- certificates and other similar financial instruments traded on a *UK trading venue*:
- <u>(i)</u> in accordance with the latency requirements in *MAR* 9.2B.34BR; and
- (ii) using the means chosen by the CTP for equities in accordance with MAR 9.2B.34CR.
- (2) The information mentioned in (1)(b) is:
  - (a) for a *UK trading venue*, the following information from that which it makes public in accordance with article 3 of *MiFIR*:
    - (i) the best bid and offer for each instrument and the volumes associated with that bid and offer; and
    - (ii) in respect of auctions, the price at which the auction trading system would best satisfy its trading algorithm and the volume of transactions that would potentially be executable at that price by participants in the system,

including the details, by reference to each best bid and offer and each price at which the auction system concerned would best satisfy its trading algorithm, set out in table 2 in MAR 9 Annex 11.2R (pre-trade data to be transmitted to, and published by, the CTP for equities).

- (b) for a *UK trading venue* or an *APA*, the information which it makes public in accordance with articles 6 and 20 of *MiFIR*, including:
  - (i) the details of a transaction specified in table 3 of Annex I to MiFID RTS 1; and
  - (ii) the appropriate flags listed in table 4 of Annex I to MiFID RTS 1;
- for a *UK trading venue*, the details, by reference to each financial instrument, set out in table 3 in *MAR* 9 Annex 11.3R that are flagged as 'both' in the last column of that table (Regulatory data for shares, ETFs, depositary receipts, certificates or other similar financial instruments per instrument); and
- (d) for a *UK trading venue*, the details, by reference to each trading system, set out in table 4 in *MAR* 9 Annex 11.4R that are flagged as 'both' in the last column of that table (Regulatory data for shares, ETFs, depositary receipts,

<u>certificates or other similar financial instruments, per order matching system).</u>

Provision of information to the consolidated tape for equities by UK trading venues and APAs – latency requirements

[*Editor's note*: the definition of 'designated reporter' used in MAR 9.2B.34BR takes into account the changes introduced by the Markets in Financial Instruments (Non-Equity Transparency Rules) Instrument 2024 (FCA 2024/38), which comes into force on 1 December 2025.]

# 9.2B.34 R Information sent to the CTP for equities under MAR 9.2B.34AR must be provided:

- (1) (in the case of the data specified in MAR 9.2B.34AR(2)(a)), to the CTP for equities as close to real time as is technically possible and in any case no later than 50 milliseconds after the timestamp of the order with a 95% confidence interval measured on a daily basis;
- (2) (in the case of the data specified in MAR 9.2B.34AR(2)(b) relating to transactions executed on a UK trading venue) to the CTP for equities as close to real time as is technically possible and in any case no later than 50 milliseconds after the timestamp of:
  - (a) the transaction; or
  - (b) where publication of the transaction is deferred in accordance with article 15 of *MiFID RTS 1*, the time when details of the transaction must be published in accordance with that article,

with a 95% confidence interval measured on a daily basis; and

- (in the case of the data specified in MAR 9.2B.34AR(2)(b) relating to transactions executed outside of a UK trading venue) to the CTP for equities as close to real time as is technically possible and in any case no later than 50 milliseconds after the timestamp of:
  - (a) the reception of the trade report by the APA from the MiFID investment firm or designated reporter concerned; or
  - (b) where publication of the transaction is deferred in accordance with article 15 of *MiFID RTS 1*, the time when details of the transaction must be published in accordance with that article,

with a 95% confidence interval measured on a daily basis.

<u>Provision of information to the consolidated tape for equities by UK trading venues and APAs – selection of transmission protocol</u>

- 9.2B.34 R (1) Subject to (2), the CTP for equities must choose, from among the transmission protocols that a UK trading venue or an APA offers to other users of data it provides, which transmission protocol must be used by that UK trading venue or APA for transmitting data directly to the CTP for equities (the 'selected protocol').
  - (2) The selected protocol must comply with the minimum requirements set out in tables 5 to 8 in MAR 9 Annex 11.
  - (3) <u>UK trading venues</u> and <u>APAs</u> must ensure the selected protocol continues to comply with the minimum requirements set out in tables 5 to 8 without interruption.

<u>Scope of the consolidated tape for equities – publication of information by the CTP for equities</u>

- 9.2B.34 R (1) The CTP for equities must have adequate policies and arrangements in place to:
  - (a) receive the information specified in MAR 9.2B.34AR(2) in respect of shares, depositary receipts, ETFs, certificates and other similar financial instruments traded on a UK trading venue; and
  - (b) make the information specified in (2) in respect of shares, depositary receipts, *ETFs*, certificates and other similar financial instruments traded on a *UK trading venue* available to the public:
    - (i) as close to real time as technically possible; and
    - (ii) no later than 100 milliseconds after receiving the information, with a 99.99% confidence interval measured on a daily basis.
  - (2) The information mentioned in (1)(b) is:
    - (a) the information referred to in MAR 9.2B.34AR(2)(a) to (b);
    - (b) the details, by reference to each financial instrument, set out in table 3 in MAR 9 Annex 11.3R (Regulatory data for shares, ETFs, depositary receipts, certificates or other similar financial instruments per instrument);
    - (c) the details, by reference to each trading system, set out in table 4 in MAR 9 Annex 11.4R (Regulatory data for shares, ETFs, depositary receipts, certificates or other similar financial instruments, per order matching system);

- (d) the details, by reference to each instrument and each best bid and offer price at which any auction system concerned would best satisfy its trading algorithm, set out in:
  - <u>table 9 in MAR 9 Annex 11.9R (Pre-trade market data to be disseminated by the CTP for equities best bid and offer (BBO);</u>
  - (ii) table 10 in MAR 9 Annex 11.10R (Pre-trade market data to be disseminated by the CTP for equities indicative auction price (except when trading phase is set to 'ODAU')); and
  - (iii) table 11 in MAR 9 Annex 11.11R (Pre-trade market data to be disseminated by the CTP for equities indicative auction price when trading phase is set to 'ODAU'); and
- (e) the time and date at which the CTP for equities publishes any of the information specified in (a) to (d).
- When a new *UK trading venue* or *APA* starts operating, the *CTP* for equities must include the information provided to it by that *UK* trading venue or *APA* in accordance with *MAR* 9.2B.34AR in the electronic data stream of its consolidated tape as soon as possible after the start of the operations of the *UK trading venue* or *APA*.
- (4) The CTP for equities must be able to disseminate the information referred to in (2) efficiently, consistently and in a way that:
  - (a) ensures fast access to the information on a nondiscriminatory basis; and
  - (b) <u>is in a generally accepted format that is interoperable,</u> easily accessible and utilisable for market participants.

# Publication of historical information by the CTP for equities

9.2B.34E R The CTP for equities must have adequate policies and arrangements in place to make historical data available in response to a request for it in accordance with MAR 9.2B.35R(2).

Synchronisation of business clocks in relation to the consolidated tape for equities

- 9.2B.34F R In relation to the consolidated tape for equities, APAs and the CTP for equities must:
  - synchronise the business clocks they use to record the date and time of any reportable event with:

- (a) the coordinated universal time (UTC) issued and maintained by the timing centres listed in the database maintained by the Bureau international des poids et mesures; or
- (b) UTC disseminated by a satellite system, provided that any offset from UTC is accounted for and removed from the timestamp;
- (2) record the date and time of reportable events up to one millisecond or better; and
- ensure that their business clocks used to record the time of reportable events do not diverge by more than one millisecond from the relevant reference time in (1)(a) or (1)(b).

Machine readability and required formats for CTPs for bonds a CTP

- 9.2B.35 R (1) The A CTP for bonds must publish the relevant information referred to in MAR 9.2B.34R(1) in Graphical User Interface (GUI) and at least 2 machine-readable formats: Application Programming Interface (API) and Comma Separated Value (CSV).
  - (1A) The relevant information mentioned in (1) is:
    - (a) (for the *CTP* for bonds) the information referred to in *MAR* 9.2B.34R(1); and
    - (b) (for the *CTP* for equities) the information referred to in *MAR* 9.2B.34DR(2).
  - (2) The <u>A</u> CTP for bonds must make *historical data* available in response to a request for it in GUI and one machine-readable format.

. . .

(5) The A CTP for bonds must:

. . .

Obligation for the <u>a</u> CTP for bonds to provide market data on a non-discriminatory basis

- 9.2B.36 R (1) The A CTP for bonds must make market data available at the same price and on the same terms and conditions to all customers falling within the same category in accordance with published objective criteria.
  - (2) The A CTP for bonds must charge for the use of historical data when it is requested separately from the use of market data, except where it is provided in a machine-readable form through an API.

(3) For the purposes of MAR 9.2B.36R(1), the <u>a</u> CTP for bonds must have scalable capacities in place to ensure that customers can obtain timely access to market data at all times on a non-discriminatory basis.

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### Unbundling market data for the a CTP for bonds

9.2B.38 R The A CTP for bonds must make market data available without being bundled with other services.

Transparency obligations for the a CTP for bonds

- 9.2B.39 R (1) The A CTP for bonds must disclose and make easily available to the public the price and other terms and conditions for the provision of the market data in a manner which is easily accessible.
  - (2) The disclosure must include the following:

. . .

(b) advance disclosure with a minimum of 90 30 days' notice of future price changes.

Governance obligations for the a CTP

9.2B.40 R (1) The A CTP must establish a consultative committee composed of a representative range of its users and data producers. CTP users and data producers may apply to the CTP to be members of the committee.

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# 9 Annex Application form to provide the service of ARM and/or APA and/or CTP 1

D The form can be found at this address: [insert link]



# **ANNEX I**

# Application form for authorisation to provide data reporting services

Content
Information on the scope of the consolidated tape for bonds and publication of information as set out in MAR 9.2B.34R.
Information on the scope of the consolidated tape for equities and publication of information as set out in MAR 9.2B.34AR to MAR 9.2B.34FR.
Information on non-discrimination obligations, as set out for APAs in MAR $9.2B.20R_7$ and for CTPs in MAR $9.2B.30R$ and for the CTP for bonds in MAR $9.2B.36R$ .
9 Annex Yearly notification form for a Data Reporting Service Provider (DRSP) 8

R The form can be found at this address: [insert link]



#### Yearly Notification Form for a Data Reporting Service Provider (DRSP)

...

Notification details

I confirm that the DRSP continues to be compliant with the conditions of authorisation, as follows:

...

# 2.13 Information on publication arrangements (MAR 9.2B.19R and, MAR 9.2B.34R and MAR 9.2B.34AR to MAR 9.2B.34FR)

...

Insert the following new annex after MAR 9 Annex 10 (MIS confidentiality agreement). The text is not underlined.

# 9 Annex 'Consolidated tape for equities - receipt and transmission of data 11

- 9 Annex R (1) This *rule* sets out table 1, which defines certain notation used in the tables in this annex for formats in which data must be received or transmitted.
  - (2) A reference in table 1 to 'ISO', followed by a reference number and year, is to a standard published by the International Organisation for Standardisation.

Table 1 – Notation used in this annex

Notation	Data type	Definition
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{DATE_TIME_FORMAT}	The date and time format as defined in ISO 8601: 2019 (on representing the date and time).	Date and time in the following format:  YYYY-MM-DDThh:mm:ss.dddddZ.  - 'YYYY' is the year; - 'MM' is the month; - 'DD' is the day; - 'T' means that the letter 'T' shall be used - 'hh' is the hour; - 'mm' is the minute; - 'ss.dddddd' is the second and its fraction of a second; - Z is UTC time.  Dates and times shall be reported in UTC.
{ISIN}	12 alphanumerical characters.	ISIN code, as defined in ISO 6166: 2019 (on the structure of international securities identification numbers (ISIN)).
{MIC}	4 alphanumerical characters.	Market identifier, as defined in ISO 10383: 2012 (on identification of exchanges and markets).
{DECIMAL-n/m}	Decimal number of up to n digits in total of which up to m digits can be fraction digits.	Numerical field for both positive and negative values.  - decimal separator is '.' (full stop); - negative numbers are prefixed with '- ' (minus).  Where applicable, values shall be rounded and not truncated.
{CURRENCYCODE_3}	3 alphanumerical characters.	3-letter currency code, as defined by ISO 4217: 2012 (on currency codes).

Pre-trade data to be transmitted to, and published by, the CTP for equities

9 Annex R (1) This *rule* sets out table 2 (referred to in *MAR* 9.2B.34AR). 11.2

(2) A *UK trading venue* must send to the *CTP* for equities the information described in column 3 (Description and details to be published) of table 2:

- (a) in the relevant format in the corresponding row of column 4 (Format to be populated (where relevant, as defined in table 1)) of table 2; and
- (b) labelled with the identifier in the corresponding row of column 2 (Field identifier) of table 2.
- (3) The relevant format in column 4 is:
  - (a) the format within quotation marks (for example, 'BUY') that correctly describes the trade concerned; or
  - (b) if the format is a notation defined in table 1, the format within brackets (for example, {MIC}).
- G (4) A reference in table 2 to 'ISO', followed by a reference number and year, is to a standard published by the International Organisation for Standardisation.

Table 2 – Pre-trade data to be transmitted to, and published by, the CTP for equities

#	Field identifier	Description and details to be published	Format to be populated (where relevant, as defined in table 1)  Equivalent formats can be used, depending on the syntax used for data transmission
1	Update date and time	For non-aggregated orders or quotes, the date and time when the order or quote was received for execution, cancelled or modified into the trading system.  For aggregated orders or quotes, the date and time when the aggregated bid price or volume or the aggregated offer price or volume was received	{DATE_TIME_FORMA T}
		for execution, cancelled, or modified into the trading system.  For periodic auction trading systems, the date and time at which the price would best satisfy the trading algorithm and any modification of the price or quantity thereafter.  For auction trading systems, the date and time at which the price would	

2	Instrument	best satisfy the trading algorithm and any modification of the price or quantity thereafter.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.  Price and quantity should be updated at the end of every trading phase.  Code used to identify the instrument.	{ISIN}
	identification code	Code used to identify the instrument.	(IOII4)
3	Side	The side of the order or quote.  This field is mandatory only for continuous order book trading systems.	'BUY' or 'SELL'
4	Price	The price of orders and quotes, excluding, where applicable, commission and accrued interest.  For auction trading systems, the price at which the auction trading system would best satisfy its trading algorithm.  The price shall be provided in the major currency unit.  Where price is currently not available but pending or not applicable, this field shall not be populated.	{DECIMAL-18/13} when the price is expressed as monetary value in the case of equity and equity-like financial instruments. {DECIMAL-11/10} when the price is expressed as percentage or yield in the case of certificates and other equity-like financial instruments. {DECIMAL-18/17} when the price is expressed as percentage, yield or basis points in the case of certificates and other equity-like financial instruments.
5	Price currency	Major currency unit in which the price is expressed (applicable if the price is expressed as monetary value).	{CURRENCYCODE 3}
6	Quantity	Number of units of the financial instrument attached to quotes or orders.	{DECIMAL-18/17} in case the quantity is expressed as number of units in the case of equity

		For auction trading systems the aggregated quantity attached to the price that would best satisfy the trading algorithm.	and equity-like financial instruments.  {DECIMAL-18/5} in case the quantity is expressed as monetary or nominal value in the case of certificates and other equity-like instruments.
7	Venue	Identification of the trading venue through the system of which orders and quotes are advertised.  Use the segment MIC specified in ISO 10383: 2012 (on the identification of exchanges and markets) or, where the segment MIC does not exist, the operating MIC.	{MIC}
8	Trading system	Type of trading system where the order or quote is advertised.  This field shall be populated for central limit order book trading systems and periodic auction trading systems.	'CLOB' for a central limit order book trading system. This includes a continuous order book trading system as defined in table 1 in Annex I to MiFID RTS 1 and a trading system combining elements of a continuous order book trading system and of a periodic auction trading system. 'QDTS' for a quote driven trading system. 'PATS' for a periodic auction trading system. 'RFQT' for a request for quote trading system. 'HYBR' for a hybrid trading system. A trading system combining elements of a continuous order book trading system and of a periodic auction trading system shall not be considered a hybrid system but a CLOB.

			'OTHR' for any other trading system.
			In this row a reference to a type of trading system (other than a hybrid trading system) is to that system type as defined in table 1 in Annex 1 to <i>MiFID RTS 1</i> .
			A hybrid system is a system that falls into more than one of the first 4 system types described in this row.
9	Trading system phase	Type of trading system phase where the order or quote is advertised.	'SIAU' for a scheduled intraday auction.
			'UAUC' for an unscheduled auction.
			'ODAU' for an on- demand auction.
			'CONT' for continuous trading.
			'MACT' for at market close trading.
			'OMST' for out of main session trading.
			'OTHR' for any other trading phase.
10	Publication date and time	Date and time when the information was published by the trading venue.	{DATE_TIME_FORMA T}
		The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	

Information to be provided to the CTP for equities – regulatory data per instrument

9 Annex R (1) This *rule* sets out table 3 (referred to in *MAR* 9.2B.34AR). 11.3

(2) A *UK trading venue* must send to the *CTP* for equities the information described in column 3 (Description) of table 3:

- (a) in the relevant format in the corresponding row of column 4 (Format (where relevant, as defined in table 1)) of table 3; and
- (b) labelled with the identifier in the corresponding row of column 2 (Field identifier) of table 3.
- (3) The relevant format in column 4 is:
  - (a) the format within quotation marks (for example, 'SUSP') that correctly describes the trade concerned; or
  - (b) if the format is a notation defined in table 1, the format within brackets (for example, {MIC}).

Table 3 – Regulatory data for shares, ETFs, depositary receipts, certificates or other similar financial instruments per instrument

#	Field identifier	Description	Format (where relevant, as defined in table 1)  Equivalent formats can be used, depending on the syntax used for data transmission	Input/output data field
1	Instrument identification code	Code used to identify the financial instrument.	{ISIN}	Both
2	Instrument status start date and time	Date and time from which the instrument status is valid.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FOR MAT}	Both
3	Currency	Major currency in which the instrument trades.	{CURRENCYCODE _3}	Both
4	Dissemination date and time	Date and time on which the regulatory data is disseminated by the <i>CTP</i> for equities.  The level of granularity shall be in accordance	{DATE_TIME_FOR MAT}	Output

		with the requirements set out in <i>MAR</i> 9.2B.34FR.		
5	Instrument status	Description of the status of the financial instrument.	'SUSP' – the instrument is suspended.	Both
		The status of the financial instrument shall be one of the following:	'RMOV' – the instrument is removed.	
		(1) suspended from trading, on the trading venue identified in the field 'Trading venue';	'HALT' – the instrument is subject to a trading halt.  'ACTV' – the	
		(2) removed from trading, on the trading venue identified in the field 'Trading venue';	instrument is available for trading after a suspension, removal or halt.	
		(3) subject to a trading halt, on the trading venue identified in the field 'Trading venue';		
		(4) available for trading after a suspension, removal or halt.		
6	Trading venue	Identification of the trading venue on which the instrument status is valid (segment MIC where available, otherwise operating MIC).	{MIC}	Both
		The trading venue is a regulated market or an MTF.		
7	Trading system	Type of trading system on which the instrument is traded.	'CLOB' for a central limit order book trading system.	Both
			'QDTS' for a quote driven trading system.	
			'PATS' for a periodic auction trading system.	

			'RFQT' for a request for quote trading system. 'HYBR' for a hybrid trading system. 'OTHR' for any other trading system. In this row a reference to a type of trading system has the same meaning as in row 8 of table 2.	
8	Trading system phase	Type of trading phase of the trading system on which the instrument is traded.	'UDUC' for an undefined auction.  'SOAU' for a scheduled opening auction.  'SCAU' for a scheduled closing auction.  'SIAU' for a scheduled intraday auction.  'UAUC' for an unscheduled auction.  'ODAU' for an on-	Both
			demand auction (frequent batch auction).  'COTR' for continuous trading.	

Information to be provided to the CTP for equities – regulatory data per order matching system

9 Annex R (1) This *rule* sets out table 4 (referred to in *MAR* 9.2B.34AR). 11.4

- (2) A *UK trading venue* must send to the *CTP* for equities the information described in column 3 (Description) of table 4.
- (3) It must send that information in the relevant format in the corresponding row of column 4 (Format (where relevant, as defined

in table 1)) of table 4 and labelled with the identifier in the corresponding row of column 2 (Field identifier) of table 4.

- (4) The relevant format in column 4 is:
  - (a) the format within quotation marks (for example, 'CLOB') that correctly describes the trade concerned; or
  - (b) if the format is a notation defined in table 1, the format within brackets (for example, {MIC}).

Table 4 – Regulatory data for shares, ETFs, depositary receipts, certificates or other similar financial instruments, per order matching system

#	Field identifier	Description	Format (where relevant, as defined in table 1)  Equivalent formats can be used, depending on the syntax used for data transmission	Input/output data field
1	Trading venue	Identification of the trading venue on which the order matching system status is valid (segment MIC where available, otherwise operating MIC).  The trading venue is a regulated market or an MTF.	{MIC}	Both
2	Trading system	Type of trading system on which the system status is provided.	'CLOB' for a central limit order book trading system. 'QDTS' for a quote driven trading system. 'PATS' for a periodic auction trading system. 'RFQT' for a request for quote trading system. 'HYBR' for a hybrid trading system. 'OTHR' for any other trading system.	Both

			In this row, a reference to a type of trading system has the same meaning as in row 8 of table 2.	
3	System status start date and time	Date and time from which the system status is valid.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FORMAT}	Both
4	System status dissemination date and time	Date and time on which the system status is disseminated by the <i>CTP</i> for equities.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FORMAT}	Output
5	Trading system status	Status of the trading system.	'ACTV' – the system is active.  'OTAG' – there is an outage of the trading system.  'POTG' – there is a partial outage of the trading system.	Both

Provision of information to the CTP for equities – performance requirements

9 Annex R (1) This *rule* sets out table 5 (referred to in *MAR* 9.2B.34CR). 11.5

(2) The selected protocol used by a *UK trading venue* or *APA* for transmitting data to the *CTP* for equities (following selection of the protocol by the *CTP* for equities) must comply with the requirements in column 2 (Minimum requirements) of table 5, in relation to the *OSI layers* specified in the corresponding row of column three (Primary OSI layers) of table 5.

Table 5 – Performance requirements

Metrics/ features	Minimum requirements	Primary OSI layers
Latency	Latency shall be maintained below 50 milliseconds for the transmission of data to the <i>CTP</i> for equities.	Layer 3 (Network)
Throughput	Throughput shall exceed 100 Megabits per second (Mbps).	Layer 1 (Physical) Layer 2 (Data link)
Connection setup time	Round Trip Time (RTT) for connection setup shall be less than 500 milliseconds.	Layer 4 (Transport)
Scalability	The protocol shall support operation in clustered or load-balanced environments.	Layer 2 (Data link) Layer 3 (Network) Layer 4 (Transport) Layer 7 (Application)

Provision of information to the CTP for equities – reliability requirements

9 Annex R (1) This *rule* sets out table 6 (referred to in *MAR* 9.2B.34CR). 11.6

(2) The selected protocol used by a *UK trading venue* or *APA* for transmitting data to the *CTP* for equities (following selection of the protocol by the *CTP* for equities) must comply with the requirements in column 2 (Minimum requirements) of table 6, in relation to the *OSI layers* specified in the corresponding row of column 3 (Primary OSI layers) of table 6.

Table 6 – Reliability requirements

Metrics/features	Minimum requirements	Primary OSI layers
Error detection mechanism	The protocol shall include error detection mechanisms to ensure accurate identification of data transmission errors.	Layer 2 (Data link), or Layer 4 (Transport), or Layer 7 (Application)
Error correction mechanism	The protocol shall incorporate error correction mechanisms to automatically rectify detected errors.	Layer 2 (Data link), or Layer 4 (Transport), or

		Layer 7 (Application)
Recovery mechanism	The protocol shall feature recovery mechanisms to swiftly recover from transmission failures or interruptions, ensuring seamless continuity of data transmission operations.	Layer 4 (Transport), or Layer 5 (Session), or Layer 7 (Application)

Provision of information to the CTP for equities – security requirements

- 9 Annex R (1) This *rule* sets out table 7 (referred to in *MAR* 9.2B.34CR). 11.7
  - (2) The selected protocol used by a *UK trading venue* or *APA* for transmitting data to the *CTP* for equities (following selection of the protocol by the *CTP* for equities) must comply with the requirements in column 2 (Minimum requirements) of table 7, in relation to the *OSI layers* specified in the corresponding row of column 3 (Primary OSI layers) of table 7.

Table 7 – Security requirements

Metrics/features	Minimum requirements	Primary OSI layers
Secure transport layer	The protocol shall support a secure transport layer to ensure the confidentiality of data during transmission.	Layer 4 (Transport) Layer 7 (Application)
Authentication	The protocol shall support credentials-based or certificate-based authentication mechanisms to verify the identity of communicating parties.	Layer 7 (Application)
Authorisation	The protocol shall implement authorisation mechanisms to control access to specific resources or functionalities based on user roles or permissions.	Layer 7 (Application)
Non-repudiation	The protocol shall incorporate non-repudiation mechanisms to ensure that the originator of a message cannot deny sending it.	Layer 7 (Application)

Provision of information to the CTP for equities – compatibility requirements

- 9 Annex R (1) This *rule* sets out table 8 (referred to in *MAR* 9.2B.34CR). 11.8
  - (2) The selected protocol used by a *UK trading venue* or *APA* for transmitting data to the *CTP* for equities (following selection of the protocol by the *CTP* for equities) must comply with the requirements in column 2 (Minimum requirements) of table 8, in relation to the *OSI layers* specified in the corresponding row of column 3 (Primary OSI layers) of table 8.

Table 8 – Compatibility requirements

Metrics/features	Minimum requirements	Primary OSI layers
Open solution	The implementation of the protocols shall adhere to non-proprietary standards.	Layer 7 (Application)
Interoperability	The protocol shall support at least one widely recognised internet standard.	Layer 7 (Application)
Backward compatibility	The protocol shall be capable to work with older versions of itself or previous technologies.	Layer 7 (Application)

Information to be disseminated by the CTP for equities – pre-trade data (best bid and offer (BBO))

- 9 Annex R (1) This *rule* sets out table 9 (referred to in *MAR* 9.2B.34DR). 11.9
  - (2) The *CTP* for equities must make available to the public the information described in column 3 (Description) of table 9, using the format in the corresponding row of column 4 (Format as defined in table 1) and labelled with the identifier in the corresponding row of column 2 (Field identifier).

Table 9 – Pre-trade market data to be disseminated by the CTP for equities – best bid and offer (BBO)

#	Field identifier	Description	Format as defined in table 1
			Equivalent formats can be used,
			depending on the

			syntax used for data transmission
1	Entry date and time	The information described in row 1 of table 2 ( <i>MAR</i> 9 Annex 11.2R), applied to the best bids and offers entered into the order book, as reported by the trading venue.  The <i>CTP</i> for equities shall publish the most recent among the dates and times of the best bids and offers entered into the order book that participate in the BBO as reported by the data contributors.	{DATE_TIME_FOR MAT}
2	Instrument identification code	The information described in row 2 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{ISIN}
3	Currency	Major currency unit in which the United Kingdom best bid and offer prices are expressed. This corresponds to the information described row 5 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{CURRENCYCODE _3}
4	Best bid	United Kingdom best bid in continuous order books. This corresponds to the information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/13}
5	Best bid volume by trading venue	The aggregated volume attached to the United Kingdom best bid at each trading venue at which that price is available. This corresponds to row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17} {MIC}
6	BBO timestamp	Date and time of the calculation of the BBO.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FOR MAT}
8	Best offer	United Kingdom best offer in continuous order books. This corresponds to row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/13}

9	Best offer volume by trading venue	The aggregated volume attached to the United Kingdom best offer at each trading venue at which that price is available. This corresponds to row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17} {MIC}
10	Dissemination date and time	Date and time when the data related to the order was disseminated by the <i>CTP</i> for equities.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FOR MAT}
11	Publication time and date	This corresponds to row 10 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DATE_TIME_FOR MAT}

Information to be disseminated by the CTP for equities – pre-trade data, indicative auction prices (except when trading phase is set to 'ODAU')

# 9 Annex R (1) This *rule* sets out table 10 (referred to in *MAR* 9.2B.34DR). 11.10

(2) The *CTP* for equities must make available to the public the information described in column 3 (Description) of table 10, using the format in the corresponding row of column 4 (Format as defined in table 1) and labelled with the identifier in the corresponding row of column 2 (Field identifier).

Table 10 – Pre-trade market data to be disseminated by the CTP for equities – indicative auction price (except when trading phase is set to 'ODAU')

#	Field identifier	Description	Format as defined in table 1
			Equivalent formats can be used, depending on the syntax used for data transmission
1	Indicative date and time	The information described in row 1 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DATE_TIME_FORM AT}
		The <i>CTP</i> for equities shall publish the most recent among the dates and times of the prices that participate in the <i>CTP</i> 's indicative auction price as reported by the data contributors.	

2	Instrument identification code	The information described in row 2 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{ISIN}
3	Lowest auction price	The information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
4	Highest auction price	The information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
5	Volume weighted auction price	This field corresponds to the information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R) weighted by the information described in row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
6	Currency	Major currency unit in which the auction price is expressed. This field corresponds to the information described in row 5 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{CURRENCYCODE_ 3}
7	Auction volume	Total auction volume, where applicable, across venues. This corresponds to the information described in row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/13}
8	Dissemination date and time	Date and time when the data related to the indicative auction price and size was disseminated by the <i>CTP</i> for equities to the subscribers.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FORM AT}
9	Publication date and time	The information described in row 10 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DATE_TIME_`}
10	Trading venue	Identification of the trading venue conducting the auction (segment MIC where available, otherwise operating MIC).  The trading venue is a regulated market or an MTF.	{MIC}

Information to be disseminated by the CTP for equities – pre-trade data, indicative auction prices in ODAU phase

- 9 Annex R (1) This *rule* sets out table 11 (referred to in *MAR* 9.2B.34DR). 11.11
  - (2) The *CTP* for equities must make available to the public the information described in column 3 (Description) of table 11, using the format in the corresponding row of column 4 (Format as defined in table 1) and labelled with the identifier in the corresponding row of column 2 (Field identifier).

Table 11 – Pre-trade market data to be disseminated by the CTP for equities – indicative auction price when trading phase is set to 'ODAU'

#	Field identifier	Description	Format as defined in Table 1  Equivalent formats can be used, depending on the syntax used for data transmission
1	Indicative date and time	The information described in row 1 of table 2 ( <i>MAR</i> 9 Annex 11.2R).  The <i>CTP</i> for equities shall publish the most recent among the dates and times of the prices that participate in the <i>CTP</i> 's indicative auction price as reported by the data contributors.	{DATE_TIME_FORMA T}
2	Instrument identification code	The information described in row 2 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{ISIN}
3	Lowest auction price	The information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
4	Highest auction price	The information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
5	Volume weighted auction price	This field corresponds to the information described in row 4 of table 2 ( <i>MAR</i> 9 Annex 11.2R) weighted by the information described in row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/17}
6	Currency	Major currency unit in which the auction price is expressed. This field corresponds to the information	{CURRENCYCODE_3}

		described in row 5 of table 2 (MAR 9 Annex 11.2R).	
7	Auction volume	Total auction volume, where applicable, across venues. This field corresponds to the information described in row 6 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DECIMAL-18/13}
8	Dissemination date and time	Date and time when the data related to the indicative auction price and size was disseminated by the <i>CTP</i> for equities to the subscribers.  The level of granularity shall be in accordance with the requirements set out in <i>MAR</i> 9.2B.34FR.	{DATE_TIME_FORMA T}
9	Publication date and time	The information described in row 10 of table 2 ( <i>MAR</i> 9 Annex 11.2R).	{DATE_TIME_FORMA T}
10	Trading venue	Identification of the trading venue conducting the auction (segment MIC where available, otherwise operating MIC). The trading venue is a regulated market or MTF.	{MIC}

#### Annex C

# Amendments to the Decision Procedure and Penalties manual (DEPP)

In this Annex, underlining indicates new text.

[*Editor's note*: This Annex takes into account the proposals and legislative changes suggested in Chapter 2 of the consultation paper 'Quarterly Consultation Paper No. 49' (CP25/24) as if they were made final.]

# Sch 4 Powers Exercised

## Sch 4.1 G

The following powers and related provisions in or under the <i>Act</i> have been exercised by the <i>FCA</i> to make the statements of policy in <i>DEPP</i> :				
	Section 169(9) (Investigations etc in support of overseas regulator) (including as applied by paragraph 3 of Schedule 5 to the <i>Payment Services Regulations</i> and by regulation 18 of the <i>Data Reporting Services</i> Regulations 2024)			
	Section 312J (Statement of policy) (including as applied by Part 1 of Schedule 1 to the <i>Pisces sandbox regulations</i> and by regulation 19 of the <i>Data Reporting Services Regulations</i> 2024)			

. . .

## Annex D

# Amendments to the Enforcement Guide (ENFG)

In this Annex, underlining indicates new text and striking through indicates deleted text.

App 2	Non-FSMA powers			
App 2.1	Stater	ments of policy		
•••				
App 2.1.2	G	The FCA's approach to the exercise of the powers listed in the table below is consistent with the use of powers under the Act and the FCA's general policy outlined in this guide, unless stated otherwise.		

Legislation	Description	Statement of Policy
The Data Reporting Services Regulations 2017 2024  (https://www.legislation. gov.uk/uksi/2017/699/co ntents https://www.legislation.g ov.uk/uksi/2024/107/cont ents)	The DRS Regulations implemented MiFID. The FCA has investigation and enforcement powers in relation to both criminal and non-criminal breaches of the DRS Regulations (including requirements imposed on persons subject to the DRS Regulations by MiFIR and any onshored regulation which was an EU regulation made under MiFIR or MiFID).	Public censure and penalty policy  DEPP 6.2 and DEPP 6.4 (relevant factors) and DEPP 6.5 to DEPP 6.5D (regarding level of a financial penalty).  Conduct of interviews in response to overseas requests  Procedures in DEPP 7 (as required by section 169 of the Act for the purposes of the DRS Regulations).

# Appendix 2

# **Draft Handbook text**

## TECHNICAL STANDARDS (DATA REPORTING SERVICES) INSTRUMENT 2025

## **Powers exercised**

- A. The Financial Conduct Authority ("the FCA") makes this instrument in the exercise of the following powers and related provisions in or under:
  - (1) article 22(4) (Providing information for the purposes of transparency and other calculations) of Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012; and
  - (2) the following sections of the Financial Services and Markets Act 2000 ("the Act"):
    - (a) section 137T (General supplementary powers).
    - (b) section 138P (Technical standards);
    - (c) section 138Q (Standards instruments); and
    - (d) section 138S (Application of Chapters 1 and 2).
- B. The provisions listed above are specified for the purposes of section 138Q(2) (Standards instruments) of the Act.

# **Pre-conditions to making**

- C. The FCA has consulted the Prudential Regulation Authority and the Bank of England as appropriate in accordance with section 138P of the Act.
- D. A draft of this instrument has been approved by the Treasury in accordance with section 138R of the Act.

### Interpretation

E. In this instrument, any reference to any provision of assimilated direct EU legislation is a reference to it as it forms part of assimilated law.

### **Modifications**

F. The FCA amends the following technical standard in accordance with the Annex to this instrument.

Commission Delegated Regulation (EU) 2017/577 of 13 June 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on the volume cap mechanism and the provision of information for the purposes of transparency and other calculations.

# Commencement

G. This instrument comes into force on [date].

# Citation

H. This instrument may be cited as the Technical Standards (Data Reporting Services) Instrument 2025.

By order of the Board [date]

In this Annex, underlining indicates new text and striking through indicates deleted text.

#### Annex

Commission Delegated Regulation (EU) 2017/577 of 13 June 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on the volume cap mechanism and the provision of information for the purposes of transparency and other calculations.

#### **Preamble**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012, and in particular Articles 5(9) and 22(4) thereof,

Whereas:

. . .

(3) Provisions should be laid down specifying, in general terms, the common elements with regard to the content and format of data to be submitted by trading venues, and approved publication arrangements (APAs) and consolidated tape providers (CTPs) for the purposes of transparency and other calculations. Those provisions should be read in conjunction with Commission Delegated Regulations (EU) 2017/587, (EU) 2017/583, (EU) 2017/567, (EU) 2017/565 and (EU) 2016/2020 which describe the methodology and data necessary to perform the relevant calculations and specify the content and scope of the data necessary to perform the transparency calculations. Therefore, the content, format and quality of the data submitted with regard to trading venues, APAs and CTPs should be consistent with the applicable methodology prescribed in the relevant implementing acts of Directive 2014/65/EU and Regulation (EU) No 600/2014 when performing such calculations.

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Article -2

**Application** 

This Regulation applies to:

- (1) those persons described in Article 1(2) of Regulation 600/2014/EU;
- (2) approved publication arrangements (APAs) as defined in Article (2)(1)(34) of Regulation 600/2014/EU and consolidated tape providers (CTPs) as defined in Article (2)(1)(35) of Regulation 600/2014/EU;
- (3) the Financial Conduct Authority as a competent authority.

#### Article -1

### Interpretation

- (1) This Regulation sets out, the details of the data requests to be sent by the FCA and the details of the reply to those requests to be sent by trading venues, and approved publication arrangements (APAs) and consolidated tape providers (CTPs), for the purposes of calculating and adjusting the pre-trade and post-trade transparency and trading obligation regimes and in particular for the purposes of determining the following factors:
- (2) The definition of all other terms defined in article 2 of Regulation 600/2014/EU shall apply for the purposes of this Regulation.

#### Article 1

#### Subject matter and scope

(1) This Regulation sets out the details of the data requests to be sent by the FCA and the details of the reply to those requests to be sent by trading venues, and approved publication arrangements (APAs) and consolidated tape providers (CTPs), for the purposes of calculating and adjusting the pre-trade and post-trade transparency and trading obligation regime and in particular for the purposes of determining the following factors:

. . .



© Financial Conduct Authority 2025 12 Endeavour Square London E20 1JN Telephone: +44 (0)20 7066 1000 Website: www.fca.org.uk

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