

Market Data in the Secondary Equity Market

Current Issues and Considerations



OICU-IOSCO

**BOARD OF THE
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Foreword

On December 3, 2020, the Board of the International Organization of Securities Commissions (IOSCO) published a Consultation Report, *Market Data in the Secondary Equity Market*. This paper described several issues relating to market data in equity markets and asked for views on both the issues and possible solutions. The comment period closed on February 26, 2021.

In response to the request for comments, thirty-nine comment letters were received and were reviewed by IOSCO in the preparation of this Final Report. Commenters included both buy and sell side firms, data vendors, trading venues and industry groups. This paper includes a high-level summary of the comments received and a series of considerations that may be helpful for regulators involved in the regulation of market data and to further the public debate in this area. IOSCO thanks all commenters for their contributions.

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Chapter 1 - Executive Summary

Market data and access to market data are necessary to trade in the secondary markets. Market data is an essential element of efficient price discovery and helps to support fair and efficient markets. Market participants, including investors, need timely access to market data to make investment, order routing and trading decisions. Further, market data is necessary for market participants to comply with certain regulatory requirements, including risk management, best execution and order protection rules, where applicable.

As the markets have evolved to become largely electronic, the market data needs and means to access such data have likewise changed for many market participants. Market participants in many jurisdictions have raised concerns about the content, costs, accessibility, fairness and consolidation of market data. The Consultation Report described several issues relating to market data in equity markets and asked for views on both the issues and possible solutions. These issues include:

- What market data is necessary to facilitate trading in today's markets (i.e., what is considered "core" market data for use by market participants, including investors);
- Fair, equitable and timely access to market data;
- Fees for market data and how fees are determined and charged to subscribers;
- The need for and extent of data consolidation; and
- How other products or services that relate to accessing market data are provided by trading venues or other regulated data providers (RDPs), and the fees associated with such products and services.

This Final Report provides a high-level summary of the comments received on the Consultation Report and offers three considerations based on the information gathered that may be helpful for regulators involved in the regulation of market data provided by trading venues or over the counter (OTC):

- **Pre-trade data (i.e., information about orders or quotations) and post-trade data (i.e., information about executions) are important in promoting transparency of trading.** As appropriate, it is important to consider the elements of market data that are necessary to facilitate the ability of all market participants to effectively and fairly participate in secondary markets and to make informed investment, order routing and trading decisions. The needs of market participants may differ depending on factors such as, participants' business model, market structure in the particular jurisdiction, or the type of participants in the market (retail, institutional, proprietary).
- **Fair access to market data is an important consideration in the provision of market data to market participants.** Fair access may cover issues including market data pricing, connectivity terms and pricing, and contractual arrangements. Market data is not interchangeable in all cases, and where appropriate, helping to ensure fair access across different execution venues is an important consideration. In addition, the extent to which access to free or delayed data can meet the needs of some participants may be a useful consideration.

- **Where appropriate, consolidation of data may improve access to market data and may, in some circumstances, be useful in helping to reduce costs of market data, identify liquidity and compare execution quality in jurisdictions where there may be fragmented liquidity.**

Chapter 2 – Introduction

Market data typically refers to both pre- and post-trade information. Pre-trade data refers to information about current orders and quotes (i.e., prices and volume for buying and selling interest) and provides market participants with information about current trading opportunities. Post-trade data refers to trade information when or after a trade occurs. Access to market data is essential for market participants, including investors, to trade on an informed basis, and for enhancing fairness and investor protection and promoting market efficiency. Specifically, market data enables:

- investors to make informed investment decisions;
- market participants to identify liquidity and make informed order routing decisions; and
- market participants to comply with regulatory requirements such as best execution.

As described in the Consultation Report, the importance of market data and access to market data is reflected in Principle 35 of the IOSCO Objectives and Principles of Securities Regulation, which provides that “[r]egulation should promote transparency of trading.” IOSCO has stated that transparency, defined as the degree to which pre-trade and post-trade information is made publicly available, is “central to both the fairness and efficiency of a market, and in particular, to its liquidity and quality of price formation” and “strengthens users’ confidence that they will trade at fair prices.”¹

In the last two decades, financial markets have experienced significant changes in trading strategies, market models, technology advances and regulatory reforms. In December 2013, IOSCO considered “transparency of trading”² in its report on *Regulatory Issues Raised by Changes in Market Structure*, which discussed changes brought about by technological advances and the impact of market fragmentation (Market Structure Report).³ In this report, IOSCO focused on the then-current regulatory frameworks of IOSCO Committee 2 on Regulation of Secondary Markets (C2) member jurisdictions related to pre- and post-trade transparency as well as the consolidation of market data. The Market Structure Report included a recommendation (Recommendation 2) related to monitoring the impact of fragmentation on market data, which provides:

¹ See IOSCO Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation (May 2017) at 236.

² Principle 35 of the IOSCO Principles of Securities Regulation states “[r]egulation should promote transparency of trading.”

³ See *Regulatory Issues Raised by Changes in Market Structure*, IOSCO Final Report (December 2013), available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD431.pdf>.

In an environment where trading is fragmented across multiple trading spaces, regulators should seek to ensure that proper arrangements are in place in order to facilitate the consolidation of information and dissemination of information as close to real-time as it is technically possible and reasonable.

The Market Structure Report, however, did not consider the extent to which changes have created new market data demands both in the content of market data that is provided to market participants, including investors, and the means to access such data.

Market data and access to market data are intrinsically tied to secondary market issues that are of interest to IOSCO, including investor protection and market integrity. These issues relate to topics including:

- the market data that is necessary to facilitate trading in today’s markets (i.e., what is considered “core” market data for use by investors and market participants);
- fair, equitable and timely access to market data;
- interchangeability of market data;
- fees for market data and how these fees are determined and charged to subscribers;
- the need for and extent of data consolidation; and
- how other products or services that relate to accessing market data are provided by trading venues or other RDPs and the fees associated with such products and services.

IOSCO published the Consultation Report *Market Data in the Secondary Equity Markets* on December 3, 2020. The Consultation Report explored these issues and asked for feedback and potential solutions to some of the concerns raised. This Final Report includes a high-level summary of the comments received and a series of considerations based on the information gathered, highlighting current issues that may be helpful for regulators who are responsible for the regulation of market data provided by trading venues or OTC and to thereby further the public debate.

Chapter 3 – Defining Core Market Data

One of the issues explored in the Consultation Report related to identifying the basic market data, or “core” market data (Core Market Data) that is necessary to participate effectively and competitively in today’s secondary markets and to make investment, order routing and trading decisions. The two main components of Core Market Data are pre-trade data (i.e., information about orders or quotations) and post-trade data (i.e., information about transactions).

Many jurisdictions have set out expectations regarding what information trading venues and RDPs should make available to market participants, including investors.⁴

⁴ In December 2020, the U.S. SEC adopted rules to expand the content of the information that will be required to be collected, consolidated and disseminated under the national market system (NMS). The U.S. SEC defined “core data” under Regulation NMS to include data that is currently provided on a

The Consultation Report requested comments on the market data that is necessary to participate effectively and competitively in today's markets.

Summary of Comment Received

Commenters did not provide significant comments regarding the specific data elements that should be considered Core Market Data. However, there was a broad consensus that market data needs vary depending on the type of investor or consumer of market data. For example, the needs of a retail investor and an institutional investor may be very different because of the different ways they use the data. The general view was that delayed data, top-of-book data and post-trade data was generally sufficient for a retail user, but that institutional investors required more granular data (such as, for example, full depth of order book or at least 5 price levels and delivery of data in real-time with minimal latency). In addition, low latency and depth of book data was thought to be most relevant for execution purposes (e.g., what order type or which trading venue to direct an order to) and was therefore more relevant for brokers, market makers and proprietary traders.

A few commenters suggested that information on running auctions such as indicated price or volume is beneficial.

Based upon the information gathered, IOSCO recognizes that "Core Market Data" is not a uniform global concept. Individual jurisdictions have different regulatory requirements governing market data and changes in the markets, whether due to technology or market structure, mean that more or different data may be now needed to participate effectively and competitively in today's markets when compared to the past. Consistent with the comments received, there does not appear to be consensus on what information would be considered "Core Market Data". Different types of market participants may have different market data needs – what one market participant considers Core Market Data for a particular use case may not necessarily be the same for another type of user. Moreover, differences between types of intermediaries and their various business models may create different needs in terms of data content, and the terms and means of obtaining this data.

Chapter 4 – Uses of Market Data

The Consultation Report explored the uses of market data and how this varies between different market participants and different functions. Different market participants and investors use

consolidated basis, such as the best bids, best offers, last sale information and the national best bid and national best offer ("NBBO") as well as additional information, including certain depth of book information, information about smaller quotations in high priced stocks and auction information. In the European Union (EU) and the United Kingdom (UK), the Markets in Financial Instruments Directive or MiFID II defines pre- and post-trade transparency information that trading venues must publish. The scope of such information varies depending on the execution protocol operated by a trading venue. For example, trading venues operating an order book must publish at least the five best bids and offers and volumes at each price level; for periodic auctions, trading venues must disclose the equilibrium price and executable volumes. In China, according to Securities Law and Trading Rules of Shanghai and Shenzhen Stock Exchanges, exchanges shall make real-time market information available to the public.

market data in different ways, such as for example, assisting with trading or order routing decisions or for compliance with regulatory requirements and have different needs.

Summary of Comments Received

Comments support the view that uses of market data vary depending on the type of market participant.

For buy-side firms, post-trade market data is used for regulatory and other purposes such as monitoring for best execution, transaction cost analysis, asset allocation, portfolio construction and management and on-going performance measurement and evaluation. Further, they use post-trade market data for risk management and compliance functions (e.g., execution quality monitoring, reporting requirements, and asset valuation requirements). Pre-trade market data is typically used for trading and routing decisions.

Sell-side firms indicated that pre- and post-trade market data are used for front office functions (e.g., trading and sales), middle office functions (e.g., trade support and risk) and back-office functions (e.g., credit administration, custody services corporate actions, and clearing and settlement). In general, commenters noted that low latency pre- and post-trade market data are needed for trading, risk and compliance.

IOSCO's observation is consistent with the views expressed in the comments received – real-time and delayed market data is used by market participants for a variety of functions. The uses of market data are broad and vary based on the needs of the different types of market participant. Further, different market data may be used for different functions and the means of access may also vary depending on how it is used. For example, delayed data may be sufficient as “indicative” data (i.e., market data from one trading venue is used as a proxy to assess all trading venues trading the same security) for some market participants whereas in other cases, such as market making or proprietary trading, real-time low latency and more granular data may be more important to them.

Chapter 5 – Access to Market Data

Fair, equitable and timely access

As set out in the Consultation Report, fair, equitable and timely access to market data is necessary to enable market participants, including investors, to make informed decisions regarding investments, order routing and trading. Fair, equitable and timely access also helps to ensure that no participant has an unreasonable advantage over other market participants, and that no market participant is competitively disadvantaged. Fair, equitable and timely access to market data enhances market confidence, competition and efficiency and barriers to such access may undermine these elements. It is important to understand the types of access market participants are provided with to market data. The Consultation Paper requested comments on what factors should be considered in the context of evaluating “fair, equitable and timely access” and on the types of access currently provided by trading venues and RDPs.

In addition, comments were sought on the types of access needed for different types of market participants, including investors as well as any other concern related to fair, equitable and timely access to market data.

Summary of Comments Received

The comments varied based on the type of respondent (e.g., trading venue versus sell and buy-side respondents).

Comments from sell and buy-side suggested that their views are that data products and services should be distinguished based on data usage and type of market participant and that a single product offering to all users may increase the cost to users who may not need all the data or services. There was also a general view from these commenters that trading venues should have sufficient and scalable technical capacity to distribute market data products and services and that technological infrastructure should be designed fairly so users are not disadvantaged by their choice of data transmission channel. Commenters also suggested that data licensing terms should be clear and understandable, and subject to regulatory oversight.

It was further noted that fee policies and bundling policies are relevant factors. For example, some comments suggested that fees be developed on a reasonable commercial basis, and data be made available in disaggregated packages. There was also a view that high data cost has made it economically difficult for smaller firms (investment firms and brokers) to continue operating. Some respondents noted that market data provided to a consolidated tape and to users via proprietary data feeds should be at the same latency.

One respondent suggested that a broad-based standardization of feeds and published pricing per use case/customer type would enable far easier comparison of pricing and would act as a benchmark to compare prices across trading venues. This level of standardization would, in their view, enhance cost transparency and reduce data costs - as there will be a reputational impact for those providers that are seemingly charging a significant premium for standardized data.

Some respondents noted the absence of a level playing field for market data provision. Some sell-side respondents noted that most data vendors are not covered by a regulatory framework governing the provision of market data. Others expressed concern that exchanges may benefit from a monopoly situation and use this position to limit some participants' ability to receive and use data on reasonable commercial basis. Other respondents stated that some execution venues, Systematic Internalisers in the EU for instance, do not have the same obligations to provide fair and non-discriminatory access to market data as other execution venues.

Consistent with other sections of this report, there was general consensus among respondents that different users have different market data needs. Some respondents suggested that the different needs in the market justify the existence of data packages at different prices. However, others expressed concerns about trading venues "fragmenting" market data to increase fees. Some respondents suggest that promoting competition between trading venues in the market data space is crucial to encouraging innovation and driving costs down.

Concerns were raised about the usability of the data (machine readability, data quality and ease of copying by using widely and freely available software). Trading venues emphasize that electronic data can theoretically be duplicated, repackaged and sold by customers which is why trading venues generally charge per user and per type of use. It was also suggested that real time and delayed data should be available in the same format and through the same infrastructure. It was raised that latency should be consistent across delivery mechanisms (e.g., latency should be the same for a consolidated feed as proprietary data feeds).

Some regulated exchanges that provide market data argued that other competing execution venues, such as Systematic Internalisers in the EU and dark pools in the U.S., are “free-riding” in their use of exchange market data to run commercial businesses. These regulated exchanges stated that this practice could threaten the quality of the price formation process and argued that the competing trading or execution venues do not bear the costs of price formation and that regulated exchanges should be remunerated for their investments in maintaining high quality pricing.

Finally, some commenters identified the need for market data providers to have sufficient backups and redundancies to continue functioning during technological disturbances.

Interchangeability

In some jurisdictions, trading in a particular listed equity security may occur on different markets. When this occurs, liquidity for these securities is fragmented and may raise questions as to whether the market data can be substituted by, or is “interchangeable” with, market data on the same security from another trading venue. The Consultation Report requested comments regarding the interchangeability of market data from different trading venues.

Summary of Comments Received

Some respondents indicated that market data from one trading venue cannot be substituted by market data from another trading venue. They suggested that the market data of each trading venue is unique and necessary. Also, it was suggested that it is important for market participants to be able to source market data from all trading venues that trade a particular security so that they can make informed decisions about where to execute orders. These comments note that indicative pricing is not sufficient for this purpose. Further, the best execution obligation in some jurisdictions⁵ requires brokers to consider a range of factors other than just price. These factors can include costs, speed of execution, likelihood of execution, size, nature or any other consideration relevant to the execution of the order. This typically means that, to meet the best execution obligation, brokers must be able to assess the market data for a security across multiple venues, taking into account the above-mentioned factors. This may be feasible only if they have access to data from all venues that make the security available to trade.

In contrast, some respondents suggested that investment decisions can be made using market data from one or a subset of trading venues as indicative data and that market data is interchangeable. In other words, the prices and volumes of a subset of trading venues are such

⁵ See e.g., Canada, EU, UK, and US

that they can be relied upon to be indicative of the state of the market as a whole and as a result, market data from every source is not necessary.

Based on the information gathered, IOSCO recognizes that in some jurisdictions market data from one execution venue is not interchangeable with data from another venue in relation to the same or similar financial instrument. While the prices across multiple execution venues where the instrument is traded will typically reflect the prevailing market conditions, there may be some variation in the price of the instrument given a different level of trading activity in each execution venue. Where an instrument is available to trade across different markets, and to the extent such markets may provide comparable market data, it is important that data users are able to access market data from these execution venues to compare execution conditions and deliver the best outcomes for investors. IOSCO also notes that some jurisdictions permit the use of a subset of certain data, i.e., indicative data, for certain purposes.

Fees Associated with Market Data

Trading venues and some RDPs make market data available for a fee. Market data fees may be based on the:

- type of products – top-of-book vs depth-of-book, historical data;
- means of delivery/access – mode of transmission (e.g., microwave, fiber); and/or
- nature of use – redistribution, displayed, non-displayed.

As set out in the Consultation Paper, while price regulation typically lies outside the remit of most IOSCO members, the fees that trading venues charge for market data are addressed by regulation in some jurisdictions. Regulatory approaches often address barriers to access and/or whether the fees charged are reasonable or are unfairly discriminatory.

The Consultation Report requested comments on how market data fees should be assessed and what factors should be considered.

Summary of Comments Received

Commenters noted that there should be regulatory interest in ensuring that market data fees and licensing practices are fair and reasonable and not detrimental to competition. Commenters acknowledged the trading venue obligation to provide fair, equitable and timely access to market data, however some expressed the view that not all trading venues provide access to market participants at transparent prices and viewed fees for market data as unfair and discriminatory. They further noted that market data fees can restrict access to some types of market data and connectivity, such as low-latency connections. Some buy-side commenters noted that commercial policies may also limit the access of small firms to market data. A concern was raised by some about how different fees may be charged for the same data depending on the intended use of the data.

Consistent with comments received in response to other areas of consultation, it was noted that different types of users of market data have different needs. Some commenters noted that a “one size fits all” model may not be ideal as it implies cross-subsidies. Some commenters,

generally intermediaries, suggested that fees should be related to the cost of production of market data (cost plus reasonable mark-up) and there should be transparency regarding the cost of production. In contrast, comments from trading venues expressed the view that fees should be related to the commercial value and the benefit obtained by the user.

It was further suggested that the largest increases in market data fees have arisen as a result of market fragmentation with the emergence of new trading venues and new charges for their market data. Some commenters raised the concern when there is fragmentation, liquidity is often concentrated on a reference market and therefore market data from the reference market is not interchangeable with market data from the secondary trading venues. In such cases the reference market may have a monopoly position and exploit this position to charge excessive fees to access market data. Some trading venues argue that reference market status or being the most liquid market is not a given and is subject to competition by secondary trading or less liquid trading venues. Accordingly, these commenters believe that demand for market data and market data fees are determined by competitive forces.

Some comments suggested that the whole market data value chain needs to be considered when assessing the price of market data. They note that there can be competitive issues among the different actors, since many firms such as data redistributors, software providers, custodians, administrators, and other intermediaries play an important role in the value chain of market data. Therefore, to evaluate the changes in overall costs of market data, it is important to look at the wider market data ecosystem. In addition, one commenter noted that it is important to recognize that the costs of using market data go beyond purchasing the data itself. The cost may also include connectivity, colocation, software and hardware maintenance, change management and operational and compliance costs. Some comments indicated that a reason for increasing market data costs is increasingly complex licensing terms.

Trading venues generally expressed the view that where markets are competitive, market forces should determine the price of market data. They caution that any potential regulation should focus only on the principles of fair access, otherwise there is a risk to continued innovation. They further add that the fees charged for market data should be directly linked to the value derived by the user and any “cost-plus” model may inhibit competition and innovation.

Finally, one commenter suggested that the development of a cost benchmark for producing and distributing market data could help address the problem of excessive market data fees.

In some circumstances, trading venues or RDPs provide other products or services related to market data. The Consultation Report requested comments on the types of other products or services provided by trading venues or other RDPs and on the fees for connected services that are necessary to access essential market data.

Commenters noted that connectivity and port fees are an increasingly important revenue stream for trading venues and expressed the view that pricing of these services should be based on the same principles as the pricing of the market data itself (e.g., cost-plus). It was also suggested that there is a lack of transparency in some jurisdictions around the provision of co-location services. It was further noted that as co-location and access to exchanges’ market data continues

to grow it is important that the timing and latency standards should be considered to help ensure a level playing field. Additional comments noted the importance of unbundling of data from services to increase transparency of fees and services provided.

Chapter 6 – Data Consolidation

As noted previously, in some jurisdictions, securities are traded on multiple trading venues. Data consolidation addresses the fragmentation of liquidity that occurs when multiple trading venues make the same securities available for trading.⁶ In jurisdictions where fragmentation exists, consolidated market data assists market participants in making informed trading decisions by providing a consolidated view of the multiple sources of liquidity.⁷ In some jurisdictions, market data consolidation also includes data about OTC trading.⁸ Market participants generally need consolidated market data to make order routing and trading decisions. They may also need this data for compliance with several regulatory requirements. The Consultation Report requested comments on the need for data consolidation where securities are traded on multiple venues and whether a consolidated data feed is the most efficient mechanism to achieve consolidation and deliver the desired outcome.

Summary of Comments Received

The views regarding consolidated data differed across commenters based on their usage of data. For example, data vendors generally consider consolidated data as a valuable tool for retail and institutional investors and to support market transparency. Some noted that the importance of and need for consolidated data depends to some degree on the market structure. For example, the level of market fragmentation may affect the ability to achieve a low-latency consolidated tape.

Comments indicated that a consolidated tape can provide comprehensive, credible, and standardized data for securities thereby increasing investor confidence. It was also noted that a consolidated tape has to be appropriately structured and governed to achieve the desired outcome. Some commenters expressed the view that regulators should focus on market transparency and data quality which may be negatively impacted when data providers are not properly compensated and incentivized to produce high quality data. One comment noted that the efforts to build a consolidated tape may outweigh its advantages, while the adoption of “enterprise” solutions could be easier to implement.

Consolidated data, as noted by some commenters, can facilitate best execution analysis and compliance through the ability to access price data across trading venues. However, the usefulness is limited in other areas, such as market making where direct low latency feeds are typically necessary. From a data cost perspective, a consolidated tape, as noted by some buy-side entities, can reduce the cost of data access through the allocation of cost across a large

⁶ In jurisdictions where there is only a single trading venue, data consolidation is not necessary because that venue will likely be the only entity producing market data and making it available to the public.

⁸ For example, in the US, all required pre and post-trade data from the exchanges and OTC is consolidated and made available by the exclusive SIPs via the consolidated tapes.

customer base. However, other buy-side commenters argued that a consolidated tape is not considered a fundamental solution for market data cost issues, since consolidated market data, in some cases, will not be a substitute of the exchanges' direct data feeds of its market data. Further, many trading venues have recommended an in-depth cost benefit analysis to be carried out prior to development of any solution, since data consolidation is costly to implement.

Commenters expressed different views about the efficiency of the consolidated data mechanism. Some commenters believe that a consolidated data feed is the most efficient mechanism in terms of overall market transparency. However, some comments emphasized that market structure and regulatory environment are a consideration. Other commenters were of the view that consolidation should be done by a public non-profit entity. Finally, other comments noted that solving data quality issues and establishing a common data model were important considerations.

Chapter 7 – Other Comments Received

The Consultation Report requested comments regarding any other issues or concerns not specifically raised in the Consultation Report.

Some comments noted a potential risk of an increasing trend towards downscaling the purchase of market data to an absolute minimum in light of the increasing costs of accessing and using market data. It was noted that this may hamper the introduction of new products and innovation as well as compromising interest in less significant markets or products.

Comments also raised concerns with auditing procedures, including exposing stakeholders retroactively to significant liabilities. Other comments raised the issue of the burden associated with audit requirements imposed by marketplaces. Further concerns were raised regarding other data licence practices of early termination of data contracts to enter into new more expensive contracts. Finally, one comment suggested that internal uses of data should be a consideration and should not be subject to redistribution fees.

Chapter 8 – Conclusions and Considerations

As noted above, the involvement of regulators with the oversight of market data is often limited and varies between jurisdictions. Moreover, the responses to the consultation indicated that in some areas, views on how to address issues, and the extent of regulatory involvement, often differed and in many cases diametrically opposed positions were presented. Consequently, in many areas it has not been possible to identify common or consistent considerations that could be helpful for regulators when setting requirements or addressing issues related to market data. However, the Consultation Report together with the comments received presents an opportunity to identify three considerations that may be helpful for regulators setting requirements related to market data.

- **Pre-trade data (i.e., information about orders or quotations) and post-trade data (i.e., information about executions) are important in promoting transparency of trading.** As appropriate, it is important to consider the elements of market data that are necessary to facilitate the ability of all market participants to effectively and fairly participate in secondary markets and to make informed investment, order routing and trading decisions. The needs of market participants may differ depending on factors such as, participants' business model, market structure in the particular jurisdiction, or the type of participants in the market (retail, institutional, proprietary).
- **Fair access to market data is an important consideration in the provision of market data to market participants.** Fair access may cover issues including market data pricing, connectivity terms and pricing, and contractual arrangements. Market data is not interchangeable in all cases, and where appropriate, helping to ensure fair access across different execution venues is an important consideration. In addition, the extent to which access to free or delayed data can meet the needs of some participants may be a useful consideration.
- **Where appropriate, consolidation of data may improve access to market data and may, in some circumstances, be useful in helping to reduce costs of market data, identify liquidity and compare execution quality in jurisdictions where there may be fragmented liquidity.**