February 26, 2021

Via Electronic Transmission

Giles Ward
International Organization of Securities Commissions (IOSCO)
Calle Oquendo 12
28006 Madrid
Spain

Re: MFA and AIMA Response: "Market Data in The Secondary Equity Markets"

Dear Mr. Ward:

Managed Funds Association (MFA)[1] and Alternative Investment Management Association (AIMA)[2] (together, the "Associations") are grateful for the opportunity to provide input on behalf of our members on the crucial topic of market data. MFA and AIMA represent alternative investment managers whose fund investors include pension plans, university endowments, charitable organizations, family offices, and qualified individuals, among others. The Associations' members engage in a range of investment strategies for which access to market data is essential. We are concerned that the high and increasing costs for exchange market data are inconsistent with statutory and regulatory requirements, decrease market competition, negatively impact capital raising and harm investors.

Over the last few decades exchanges have evolved in response to market forces and technological and regulatory developments. The privatization[3] of exchanges incentivizes the exchange to assess higher fees for market data. Simultaneously, market participants' regulatory

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[1] MFA represents the global alternative investment industry and its investors by advocating for public policies that foster efficient, transparent, fair capital markets, and competitive tax and regulatory structures. MFA supports member business strategy and growth via proprietary access to subject matter experts, peer-to-peer networking, and best practices. MFA's more than 140 member firms collectively manage nearly $1.6 trillion across a diverse group of investment strategies. Member firms help pension plans, university endowments, charitable foundations, and other institutional investors to diversify their investments, manage risk, and generate attractive returns over time. MFA has a global presence and is active in Washington, London, Brussels, and Asia, supporting a global policy environment that fosters growth in the alternative investment industry.

[2] The Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with more than 1,900 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than $2 trillion in hedge fund and private credit assets.

[3] In some countries/regions is it more correct to use the phrase "demutualization" rather than "privatization" as governments did not own the exchanges. However, in this memo, the term "privatization" is used generally for simplicity reasons.

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obligations of best execution, fiduciary duties, and other requirements (discussed below) apply pressure on firms to purchase the best available market data products from the exchanges. These costs are compounded as a result of market fragmentation, which in turn requires many firms to consume market data products from each venue and pay for connectivity to these venues. As the importance of market data has increased since the implementation of MiFID II, the costs of obtaining data have also significantly increased, far outstripping both inflation and the input costs associated with creating and distributing market data.

The negative effects of increased market data costs are widely recognized, including by supervisory authorities.[4] Various regulatory requirements have effectively required firms to increase their consumption of market data and ability to process that data, including: (i) requirements relating to the monitoring of execution quality; (ii) regulatory reporting requirements; (iii) rules on inducements; (iv) asset valuation requirements; and (v) data security, risk management and business continuity requirements (such as maintenance of redundant feeds and archives). Furthermore, there are no substitutes for the market data products produced by venues and providers. Under these uncompetitive conditions, many trading venues have dramatically increased prices for market data which has had negative implications for investors, capital markets, and the economy.

On the investment side, most of our managers generally need access to bid and offer quotations, information regarding the venues displaying each quotation, last sale transaction data, trading volumes, and other basic information. This data is integral to making trading decisions. Managers use market data both to determine what order to make, when to execute, where to execute, and to confirm and document the manager's best execution (as appropriate). Having easy access to machine-readable market data that is accurate and complete helps our members deliver returns for their investors by maintaining high execution quality and also helps promote efficient markets as market data facilitates the routing of orders to the best markets.

MFA and AIMA believe as a starting point, IOSCO should recognize that trading venues have inelastic demand for their market data products, giving them substantial pricing power over a market utility. Accordingly, market data costs (the market data pricing, licensing practices, definitions, audit procedures and connectivity fees) must be subject to regulatory oversight. Rigorous supervision of the entire market data business (as well as contiguous markets and products where the search for revenue could shift once there is increased scrutiny of market data sales) is crucial in order to maximize the economic benefits of financial marketplaces. Additionally, members of IOSCO should play a key role in developing standardized market data definitions to ensure that there is not undue variation across jurisdictions when it comes to the terms employed in market data policies.

We would propose that any regulatory structure for "Core Market Data" should be designed in accordance with three objectives. First, the price of market data and connectivity must be based on the efficient costs of producing and distributing the market data (as opposed to the value market participants derive from market data) with a reasonable mark-up to curb monopoly pricing power. Second, trading venues of each market system should standardize key market data

[4] See ESMA report from 5 December 2019 in response to the market data consultation https://www.esma.europa.eu/sites/default/files/library/mifid_ii_mifir_review_report_no_1_on_prices_for_market_data__and_the_equity_ct.pdf, see actions taken by SEC: https://www.sec.gov/news/public-statement/statementchairman-clayton-2018-10-16). And in Canada the authorities are following SEC; https://insurancejournal.ca/article/rising-market-data-costs-raising-operating-costs/.

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contract definitions, terms, and interpretations. Ideally, these could eventually be standardized across all market systems. Without standardization, compliance burdens and costs increase dramatically as different market systems adopt different: (i) definitions or interpretations of definitions for commonly used terms, (ii) market data usage policies and associated fees, (iii) and audit procedures to verify compliance. Third, market data licensing contracts should be simplified to ease administrative burdens and to eliminate market data usage audits to the greatest extent possible. Our members report having to submit to regular, invasive "data usage" audits performed by venues and data providers, in which the burden of proof is on our members to prove that they have acted in accordance with their usage agreements (rather than on the venues and data providers to prove they have not). In certain instances, steep fines for unintentional technical violations are imposed. Firms have little or no recourse to dispute unfair findings or contractual penalties because they need to remain connected to (and are often regulated by) the exchanges selling them the market data.

MFA and AIMA also welcome IOSCO's inquiry into market data consolidation across fragmented trading venues. In the U.S., while the current consolidated data needs to be modernized, market participants have found access to a low-cost market data product consolidating market data from all relevant trading venues that contain sufficient content and is delivered with sufficient efficiency (i.e., in terms of latency) to be a critical alternative. The U.S. consolidated tape has provided investors with a reliable source of the current traded price and a view into trading activity across the market. A consolidated tape in other regions thus could similarly support investor confidence, facilitate compliance with best execution, and promote efficient markets.

Greater and more efficient access to market data from all venues promotes greater market liquidity, narrows bid-ask spreads, and enhances competition among trading venues competing to attract order flow. It is therefore essential that the regulatory framework for market data address (i) exchange monopoly pricing power; (ii) the absence of alternative market data products that can act as a substitute for exchange proprietary data feeds; and (iii) inefficiencies that arise from complex market data fees and usage arrangements. Without efforts to ensure these issues are addressed, the costs of market data will increase, which in turn can impair market liquidity and overall competition.

Respectfully submitted,

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/s/ Adam Jacobs-Dean

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Annex 1

Q1: Please identify the data elements that are necessary for investors and/or market participants to participate effectively and competitively and make informed trading decisions in today's markets. In your response, please consider:
• The type of investor (e.g. retail or institutional) that uses the data;
• How orders are sent to a trading venue (e.g. electronic, manual, direct access by clients; and,
• How orders are routed.
Please provide the reasons why each element is necessary.

The investors in MFA and AIMA member funds include institutional investors such as pensions, endowments, and charitable giving organizations.

Market data from exchanges are indispensable for market participants to carry out their core business and compliance functions. In order to trade and meet compliance obligations, our members need, at minimum, access to price, volume, top of book quotations from each trading venue, and last sale transaction data. It is also extremely difficult to trade competitively without some opening auction, closing auction, and trading halt information as well as at least some amount of depth of book data (e.g., at least five levels away from the best top of book bid and offer quotation in the market). These market data elements are integral to the timing and execution of orders, developing an investment strategy, and meeting regulatory requirements. Most all trading by our members occurs electronically and uses algorithms (either their own or that of a broker-dealer) to execute an order routing strategy. Order routing decisions to different venues depend on a variety of factors such as: (i) execution costs (and any available rebates); (ii) liquidity at each venue and the size of the order; (iii) regulatory compliance considerations (e.g., best execution); and (iv) whether the order seeks to minimize price impact, and might therefore prefer to execute against dark liquidity.

Additionally, market data are latency-sensitive. If the market data is not available efficiently, its utility is compromised as it no longer provides firms with an accurate picture of available prices and liquidity. For example, in the U.S., the current consolidated market data feed is materially slower than the exchanges' proprietary data feeds. This has made the consolidated market data feed of little practical use in making trading decisions and has obliged firms to purchase exchange proprietary market data products at great expense to trade competitively. Firms that use broker-dealers for trade execution may find the consolidated market data feed sufficient.

Q2: Are there other data elements that, while not necessary to all market participants, may be necessary for some market participants or business models? Please provide the reasons for your answer.

As noted above, some amount of depth of book market data is practically necessary in order to trade competitively. The reason is that only a small amount of liquidity may be available at the top of book price, so information related to the amount liquidity and additional price points is necessary to facilitate the execution of large orders. Firms may require more or less depth of book market data depending on their business. In addition, odd-lot quotation and transaction data are increasingly important in today's markets as a substantial amount of liquidity, particularly in higher-priced stocks, may be non-displayed as odd-lot orders.

Q3: Please share your view on defining Core Market Data and how such a definition can be used (for example, for compliance purposes or as a mechanism to make routing decisions, etc.).

Core Market Data should be defined to include price, volume, top of book quotations, and depth of book quotations to at least five levels away from the best top of book bid and offer quotation in the market from each trading venue displaying quotations, last sale transaction data, opening auction, closing auction, and trading halt information.

Core Market Data can be thought of as a baseline of information necessary for market participants to trade effectively. Core Market Data should be made available to market participants on fair and reasonable terms, including in particular that fees should be tied to a reasonable cost-based standard. The definition should be flexible to account for the evolution of markets overtime, which may require more or less content or other enhancements. Core Market Data must also be disseminated in a manner that makes it useful to market participants—i.e., with sufficiently low latency to allow market participants to use a Core Market Data feed to reasonably compete with market participants consuming faster, more detailed proprietary data feeds. Without assuring relatively timely distribution relative to proprietary data feeds, the democratizing purpose of Core Market Data cannot be realized.

The use of Core Market Data depends in large measure on the surrounding market structure. For example, the U.S. equity market has order protection for most all displayed quotations. This prevents an execution from occurring at a price that would trade through a better priced displayed quotation on another market. Core Market Data, thus, would be used by U.S. market participants to comply with the order protection rule as well as best execution obligations. Because it should include a complete view of essentially all displayed quotations, it should be superior in preventing trade throughs and promoting compliance with best execution obligations than market data feeds that include less than all displayed quotations in the market.

Q4: How is market data used by different types of investors or different functions of your firm? Consider, for example:
• Type of investor (e.g. retail or institutional)
• Trading Desks (proprietary or client-servicing including retail and institutional), Institutional, proprietary)
• Compliance
• Risk-Management
• Back office functions

The allocation of capital function of the financial system is dependent on financial prices being set through an effective price discovery process. This is in turn dependent, amongst other things, on the cost and quality of information—*i.e.*, market data—that is available to financial market participants, including investors and securities issuers who interact through the market process.

With respect to trading functions, our members use data to determine what order to make, when to execute, where to execute, how to execute (e.g., over the course of a trading day) and to document best execution. Second, market data is used by our members to develop their trading strategy, this includes using data to better tune algorithmic trading strategies and information to drive investment choices and improve execution quality. Market data also plays a key role in risk management process as well.

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Our members also use market data to meet compliance obligations, such as best execution. Our members have fiduciary obligations to their clients and regulatory obligations which require them to submit data to document best execution with respect to completed trades. Various other regulatory requirements have also required firms to increase their consumption of market data and their ability to process that data, including: (i) requirements relating to monitoring of execution quality; (ii) regulatory reporting requirements; (iii) rules on inducements; (iv) asset valuation requirements; and (v) data security, risk management and business continuity requirements (such as maintenance of redundant feeds and archives).

Q5: What impact do different uses have on the need to access data? How can these impacts be managed or addressed?

As described in the response above to Q4, MFA and AIMA members use data for both trade execution/timing, risk management, and for compliance functions such as regulatory reporting for best execution and asset valuation. While these reporting obligations occur after the fact, and not in real time like trading decisions, it is still important to have a complete and accurate picture of bid/ask spreads, pricing, trading volumes, and depth of book. Some of these uses require the payment of fees for derived data despite firms already paying for real-time market data.

We recognise there are factors that naturally increase the cost of some market data products. For instance, data with lower latency is naturally more expensive given the importance of speed in receiving and consuming market data. However, many derived uses of data used in connection with regulatory compliance are subject to additional derived data fees. The costs may be excessive and require closer regulatory scrutiny.

Ultimately, we believe that the public utility nature of market data, or at least Core Market Data, must be integrated into the market structure. Trading data is collectively generated from all market participants. While exchanges function as the source of that market data, they control the pricing of a product that is effectively a public good. Market data pricing should consequently be tied to a reasonable cost-based standard based on the costs of producing it with an appropriate mark-up. MFA and AIMA suggest that regulators require trading venues to submit detailed cost and revenue data in order to understand the amount of mark-up exchanges impose.

Q6: What factors should be considered in the context of evaluating "fair, equitable and timely access"? How should these factors be considered?

MFA and AIMA agree with IOSCO that "fair, equitable and timely access" to market data is necessary to enable market participants to make informed decisions regarding investments, order routing and trading. The structure should be principles-based, seeking to achieve a level playing field where no one market participant has a structural or unreasonable advantage over another.

For example, the price for Level 1 equity market data charged by five of the largest trading venues in Europe was estimated to have increased by 11% net of inflation between 2004-2006 and 2018[5]. ESMA has reported instances of market data prices increasing by up to 400% in the space of six months following the implementation of MiFID II. In addition, the numerous fees attached to

[5] *See* https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-marketdata.pdf.

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accessing data, have grown increasingly complex. The number of different fees charged by the LSE, for instance, doubled in the decade leading to 2018[6]. Our members are charged access fees, site fees, distribution fees, connectivity fees, display fees, delayed data fees, non-display fees, fees for creating and storing derived data/work, and more. The complexity of those fees has led to our members spending more resources on ensuring that the data they use is as strictly controlled internally as possible.

Our members are also deeply concerned over the increasing complexity of data pricing and licensing terms. This result is our members spending an increasing amount of money not just on acquiring market data, but on abiding by the limitations that come with it. Our members are forced to dedicate increasing levels of resources to parsing fee schedules and ensuring access to data is strictly controlled. Many of our members are forced to hire full time staff or consultants specifically to deal with the intricacies of their data usage agreements; the agreements are often so complex that they require specialized and rare—and thus expensive—knowledge to interpret them. Our members are also often compelled to purchase new extremely expensive software specifically to deal with their market data, in order to abide by the strictures of their data usage agreements.

Additionally, our members are increasingly subjected to invasive 'data usage' audits to ensure their compliance with the highly complex fee schedules dictated by data vendors and venues. Oftentimes, these audits leave our members with no recourse for unfair findings and punitive fees as they risk exchanges disconnecting market data feeds which would jeopardize the licensee's business. This is especially problematic as exchanges use ambiguous and vague definitions in their market data licensing contracts, which allow auditors to easily cite unauthorized data usage and charge backpay and interest. Such predatory practices involving audits to extract greater market data revenue from market participants emerged with excessive pricing. The need to comply with these schedules, and to prepare for such audits, leads to serious costs for our members.

MFA and AIMA recommend that regulators require trading venues to submit detailed cost and revenue data in order to understand the amount of mark-up exchanges impose, standardize terminology, and encourage the simplification of licensing agreements to curb invasive audit practices. In addition, greater transparency to connectivity options and the advantages (or disadvantages) a market participant may have based on their access option to receive market data.

Q7: What types of access do trading venues and RDPs provide? Are some forms of access provided only to specific market participants?

In the U.S., exchanges typically provide several forms of access that range in price based on the latency and bandwidth of the connection. Exchanges vary in their arrangements, but most provide for some form of co-location at the data center, which is the lowest latency way to connect to and receive market data from an exchange. In the U.S., all forms of access are generally available to all market participants, but the costs of the best, lowest-latency connections likely preclude firms that can't afford the high price tag.

[6] *See* https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-marketdata.pdf.

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Q8: Please identify the type of access necessary for different investors and/or market participants to participate and make informed trading decisions in today's markets and the rationale for the type of access and identified differences. In your response, please consider:

- **Type of investor (e.g. retail or institutional)**
- **Trading Desk (Proprietary or client-servicing including retail and institutional)**
- **How orders are sent to a trading venue (e.g. electronic, manual, direct access by clients)**
- **Order routing**
- **Business models**
- **Compliance and regulatory issues**

MFA and AIMA members need access to market data for three main reasons. The first is to ensure they are executing timely, strategic trades on behalf of their investors. Second, our members use market data to hone their investment strategy including using data to develop algorithms that better respond to market changes. Last, due to regulations surrounding MiFID including best execution reporting requirements, as well as requirements surrounding the valuation of assets, our members also use market data for regulatory reporting. Whether our members employ a long-short, event driven, macro, or similar strategies, in all cases they need fair and equitable access to data in order to satisfy both investment and regulatory duties to investors and regulatory authorities.

Our members have reported that the data they access in the EU is sometimes incomplete or presented in a format that cannot be read by machines. We would suggest requiring that all data, including EU post-trade data which is supposed to be published free of charge after 15 minutes, be made available in a format that can be easily read, used and copied through computer software that is widely and freely available. For some non-equity assets, our members reported that delayed data (which is supposed to be provided free of charge after 15 mins) is missing entirely. ESMA recently echoed these concerns, noting the importance of standardized access in its consultation entitled "Guidelines on the MiFID II/ MiFIR obligations on market data." In the consultation, ESMA stated "[w]hen the data is accessed in large amounts and on a regular basis, the information has to be provided on a machine-readable basis to ensure that it can be accessed through robust channels allowing for automatic access."[7]

Q9: What issues or concerns arise in the context of fair, equitable and timely access to market data?

As previously stated in Question 6, one of the most important factors impacting market data for our members are the numerous fees attached to accessing data. Our members are charged access fees, site fees, distribution fees, connectivity fees, display fees, delayed data fees, non-display fees, fees for creating and storing derived data/work, and more. The complexity of those fees has led to our members spending more resources on ensuring that the data they use is as strictly controlled internally as possible as to avoid additional fees and/or the threat of an audit.

Our members are also deeply concerned over the increasing complexity of data pricing and licensing terms. This results in our members spending an increasing amount of money not just on acquiring market data, but on abiding by the strictures that come with it. Many are forced to hire full time staff or consultants specifically to deal with the intricacies of their data usage agreements;

[7] https://www.esma.europa.eu/sites/default/files/library/esma70-156-2477_cp_guidelines_on_market_data.pdf.

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the agreements are often so complex that they require specialised and rare—and thus expensive—knowledge to interpret them.

Additionally, our members are increasingly subjected to invasive 'data usage' audits to ensure their compliance with the highly complex fee schedules dictated by data vendors and venues. Oftentimes, these audits leave our members with no recourse for unfair findings and punitive fees as they risk exchanges disconnecting market data feeds which would jeopardize the licensee's business. Such predatory practices involving audits to extract greater market data revenue from market participants emerged with excessive pricing. The need to comply with these schedules, and to prepare for such audits, leads to serious costs for our members.

These extra costs pull money from other areas of the investment firm as well as time spent attempting to parse through and comply with licensing agreements and audits. MFA and AIMA recommend IOSCO examine fee structures, standardized terminology, and ensure that licensing agreements and audits are fair for all parties involved.

Other specific issues that arise in the context of fair, equitable and timely access include ensuring that market participants are on a level playing field with respect to their access to market data at the point of distribution. There is very little transparency with respect to the inner workings of at least some exchange data centers with respect to how market data is distributed and whether some market participants may receive a latency advantage in the receipt of market data over other market participants. For example, the fiber route within an exchange data center to deliver market data may be unnecessarily longer than other market participants depending on where they are co-located. This can provide a small, structural latency advantage to certain market participants over others.

Fair, equitable, and timely access also means that there should be a reasonable substitute to exchange proprietary market data feeds that is at least anti-competitive with those proprietary data feeds. In the U.S., a key issue has been that consolidated market data, the distribution of which is controlled by the exchanges that sell competing proprietary data products, is substantially slower than the exchanges' proprietary data products Thus, establishing an alternative to exchange proprietary market data products that is delivered in a sufficiently timely manner and with sufficiently rich content to allow market participants to compete is essential to ensuring fair, equitable and timely access to market data.

Q10: Please share your view on interchangeability of market data between trading venues. If concerns are identified, please provide suggested mechanisms to address them.

Over the last 20-30 years, there has been a global trend towards privatization of government-controlled or member-owned organizations. While privatization has increased competition in trading and provided increased investor choice, it has also allowed for the development of certain harmful anti-competitive behavior. In many countries exchange privatization was followed by the adoption of a single market system allowing trading to become fragmented across multiple venues.

Under current regulatory requirements, market participants are subject to order protection, best execution, and/or fiduciary duty requirements. As such, they have an obligation to price compare among markets, and to do so they need market data from each (relevant) market/exchange. Market participants' need for market data is effectively inelastic due to the uniqueness of the data at each venue and their regulatory obligations to seek best execution for their clients and

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investors, as well as the commercial imperative of trading firms to have access to the same level of price information that is available to the competitors. Frequently, exchanges have the dominant market share for stock listed with them. However, regardless of where a stock is listed, all exchanges are in the unique position of being the only entity in a position to provide top of book stock information for their market with the least amount of data latency.

In order to stem this anti-competitive and monopolistic behavior, MFA and AIMA propose that the price of market data and connectivity should be based on the costs of producing and distributing the market data (as opposed to the value market participants derive from market data) with a reasonable mark-up. The cost should be measured against a recognised cost benchmark. Additionally, regulators should require trading venues to submit detailed cost and revenue data in order to understand the amount of mark-up exchanges impose.

Q11: How should market data fees be assessed? How could this be implemented in practice? What factors should be considered and how can they be defined or applied?

When taking into account how to assess fees imposed on market data, MFA and AIMA recommend that market data costs (i.e. market data pricing, licensing practices, definitions, audit procedures, and connectivity fees) be subject to close regulatory scrutiny to ensure that market data fees are fair, reasonable, and not a burden on competition. As outlined in Question 3, we believe that the market structure for Core Market Data should be tied to a cost-based standard with standardized agreement terms that minimize audits.

The price of market data and connectivity should be based on the costs of producing and distributing the data with a reasonable mark-up and measured against a recognized cost benchmark. IOSCO should clarify that the value market participants derive from market data is irrelevant to the calculation of cost and the determination of appropriate fees. Market data providers should simplify contract terms and eliminate “non-display” and “derived use” categories. Instead, we recommend providers consider simply differentiating between professional and non-professional users. We would encourage regulators to actively review the methodologies published by market data providers and take steps to ensure that the data are being offered on a reasonable commercial basis (RCB).

Trading venues effectively act as natural monopolies, and our members often have no choice but to use their services and purchase their data. Consequently, the normal dynamics of market competition do not apply. Even if a member was to determine that the trading venue was not offering their data at a reasonable cost, they are unable to take their patronage elsewhere. Rigorous supervision of the entire market data business, as well as contiguous markets and products where the search for revenue could shift once there is increased scrutiny of market data fees, is crucial in order to maximize the economic benefits of financial marketplaces.

Q12: Please provide details of other products or services related to market data that are provided by trading venues or other RDPs.

Despite the use by market participants of two basic raw data products – pre and post-trade market data – exchanges such as the London Stock Exchanges and Nasdaq Nordic have tripled the number of data products since 2007. The new “non-display” fee categorization has been particularly burdensome, since non-display data is used in all stages of the value chain, from research to trading, middle- and back office applications. Rigorous supervision of the entire market data business (as well as contiguous markets and products where the search for revenue

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could shift once there is increased scrutiny of market data sales) is crucial in order to maximize the economic benefits of financial marketplaces.

Q13: Please share your views on the fees for connected services that are necessary to access essential market data. If concerns are raised, please identify mechanisms to address them.

Fees for connectivity to exchanges must come under similar scrutiny. Market participants must connect to an exchange to receive the lowest latency market data and therefore these colocation expenses have high demand. While not all market participants may need or want the lowest latency connection, the delta between the utility of the more reasonably priced market data products should not be significantly large. For example, if the only reasonably priced connectivity option provides market data that is too delayed to be of use, market participants have little choice but to pay for more expensive options. Accordingly, regulators should similarly assess connectivity fees according to a cost-based, reasonable mark-up lens.

Q14: Please provide your view on the need for consolidated data where there are securities trading on multiple trading venues. What should be the primary objectives of consolidated data and what outcomes should it lead to? How should these objectives and outcomes inform the nature of the consolidated data made available?

In the U.S., consolidated data is necessary given the national market system and connectivity of markets. Consolidated data should offer Core Market Data at a reasonable price to market participants. In the EU, access to post-trade consolidated data would deliver clear benefits to all market participants, whether institutional or retail, and is long overdue.

We believe that consolidated data providers should deliver low cost (or free of charge) consolidated post-trade data to market participants (supported by the mandatory submission obligation on trading venues and APAs). We would also recommend that this be expanded to ETFs and non-equities asset classes, although there could be a different consolidated tape provider per asset class.

Additionally, EU post-trade data should be provided in real-time and be comprehensive, covering all trading activity in the relevant instrument. Real-time data is necessary to provide market participants with a current snapshot of market trading activity. All the consolidated tapes established in the US provide real-time data. In order to remedy the current situation, we recommend that all trading venues and APAs be required to submit data to the consolidated tape provider free of charge. Adding this requirement would transform the business case for a consolidated tape provider.

A post-trade consolidated tape will provide all investors with a reliable source of the current traded price and a view into trading activity across the market. This supports investor confidence, facilitates compliance with best execution, and helps investors hold liquidity providers accountable. In addition, a consolidated tape generally levels the playing field with respect to access to information, removing existing information asymmetries. A post-trade execution data is available in a wide variety of asset classes in the US, including equities, corporate bonds, municipal bonds, and OTC derivatives. In each, academic research has found that greater transparency has resulted in real benefits for market participants in terms of better liquidity and more competition.

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Q15: Is a consolidated data feed the most efficient mechanism to achieve these objectives and outcomes? If not, what are the alternatives that could help achieve these objectives and outcomes? How do these alternatives affect the cost of and access to market data? How can they be addressed?

Whether a consolidated data feed is the most efficient mechanism depends on the regulatory and market structure. We believe for U.S. markets that consolidated market data is an effective way to promote fair, equitable, and widespread access to consolidated market data. The EU should move towards developing a consolidated tape.

Q16: Please describe any issues or concerns not raised by IOSCO in this Consultation Paper and describe any suggested mechanisms to address them.

One important issue not specifically addressed in the consultation is product unbundling and bundling, which is used by venues or providers to obtain higher fees for a less useful product. The act of bundling essentially requires customers to pay for data they do not want in order to access data they need, and is not a reasonable practice. It adds undue costs to investment managers, limiting the resources they can devote to such matters as risk management, investment due diligence, and investor relations. On the other hand, we note that there are also clear profit incentives for exchanges to unbundle services previously purchased together, increasing the complexity of product offerings, and to group (for public and regulatory reporting purposes) profit and loss for multiple exchange functions such as trading, surveillance and other technology-based services. This forces our members to buy new products at a higher cost to access the same data they were already using. We raise this for regulatory awareness on some of the market data product dynamics that regulators should monitor.

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About the Global Alternative Investment Industry

The global alternative investment industry, including hedge funds, managed futures and private investment firms, has assets under management of approximately $3.7 trillion. The industry serves hundreds of public and private pension funds, charitable endowments, foundations, sovereign governments, and other global institutional investors by providing portfolio diversification and risk-adjusted returns to help meet their funding obligations and return targets.

About the Alternative Investment Management Association

The Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with more than 1,900 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than $2 trillion in hedge fund and private credit assets.

About the Managed Funds Association

Managed Funds Association (MFA) represents the global alternative investment industry and its investors by advocating for public policies that foster efficient, transparent, fair capital markets, and competitive tax and regulatory structures. MFA supports member business strategy and growth via proprietary access to subject matter experts, peer-to-peer networking, and best practices. MFA's more than 140 member firms collectively manage nearly $1.6 trillion across a diverse group of investment strategies. Member firms help pension plans, university endowments, charitable foundations, and other institutional investors to diversify their investments, manage risk, and generate attractive returns over time. MFA has a global presence and is active in Washington, London, Brussels, and Asia, supporting a global policy environment that fosters growth in the alternative investment industry.

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