



Frankfurt am Main,
26 February 2021

BVI position on the IOSCO Consultation Report on Market Data in the secondary equity markets

We¹ welcome the initiative started by IOSCO and its members (e.g. ESMA, FCA, SEC) to analyse and address the significant issue of ever-increasing market data costs. In this context, we strongly support the paper “Global Memo: Market Data Costs” published by EFAMA, ICSA and MFA² to highlight continuing increases in market data costs and their negative effects on capital markets. The paper recommends that governments, regulators, central banks, and standard setters establish core principles to address the problem. Authorities need to recognize and act upon the fact that exchanges hold disproportionate market power on market data. Market data pricing, licensing practices, including terms & conditions definitions, audit procedures and connectivity fees should all be subject to regulatory oversight. We therefore welcome all future regulatory action to monitor and control the increase of cost in financial data (including market-, benchmark- and rating data) to support vibrant and active capital markets where participants of all sizes may conclude transactions based on transparent data.

Backed by supervisory laws and regulations monopolies and dominant players in this space such as the regulated markets (“exchanges”) but also benchmark (index) administrators, and credit (as well as increasingly ESG analytics and) rating agencies jeopardize the functioning of the financial markets by adding layer upon layer of data licenses on users, especially in the Asset Management industry. We argue in the EU for changes to applicable supervisory laws that are needed to:

- Close gaps between existing legislations;
- Achieve a coherent regulation of financial market data (FMD) pricing focused primarily on a long run cost of production basis for at least market data (transaction data) in MiFID, index data in the Benchmarks (BMR) and credit rating data in the Credit Ratings (CRAR) regulations;
- Impose price (as in public price lists) and cost of production of data transparency rules across the different data sources and data vendors (market data distributors - MDD).
- Address certain license practices such as early termination of data delivery (“cut-offs”) and excessive audit practices which are used also by exchanges as a third revenue generation possibility besides price increases and licensing of all steps of the value chain (slicing & dicing of licenses based on use cases and perceived value generation).
- Regulation should also sponsor independent data sources which offer FMD at cost based preferred rates or for free to the market participants. The consolidated tapes for market data in the US, Canada and as discussed in the EU come to mind, as well as the European Rating Platform (ERP) operated by ESMA which offers all EU based credit rating agency data for free. A database for regulatory required (especially exchanges) index data is currently missing, but advocated by BVI in a reform of the EU BMR;

¹ BVI represents the interests of the German fund industry at national and international level. The association promotes sensible regulation of the fund business as well as fair competition vis-à-vis policy makers and regulators. Asset Managers act as trustees in the sole interest of the investor and are subject to strict regulation. Funds match funding investors and the capital demands of companies and governments, thus fulfilling an important macro-economic function. BVI's 112 members manage assets more than 3.6 trillion euros for retail investors, insurance companies, pension and retirement schemes, banks, churches and foundations. With a share of 27%, Germany represents the largest fund market in the EU. BVI's ID number in the EU Transparency Register is 96816064173-47. For more information, please visit www.bvi.de/en.
²<https://www.efama.org/Publications/20%2006%20Joint%20associations%20Global%20Memo%20on%20Market%20Data%20Costs.pdf#search=market%20data%20cost>



- Finally a coherent regulatory scheme should not only encompass the regulated financial market data providers, such as exchanges, but also their unregulated group FMD companies, e.g. SIX Financial, LSE-Refinitiv, Deutsche Börse/Quantigo, ICE-Data, and index companies belonging to exchange groups such as FTSE or STOXX, as well as other dominant data sources and MDDs, such as Bloomberg, Factset, or locally WM-Daten which are important for the proper functioning of the markets and ultimately financial stability. Within the EU the planned Digital Operational Resilience Act (DORA) addresses a few of the issues related to FMD procurement across all regulated financial services.

We would like to make the following detailed comments:

3. Defining Core Market Data

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 type of investor (e.g. retail or institutional) that uses the data;**

Our members are regulated asset management firms, in particular fund management companies (FMC under EU AIFMD and UCITS Directive, as well as investment firms licensed for investment advice and individual portfolio management under EU MiFID/IFD). As such they represent the majority of the Buy Side in Germany and stand between the retail fund investor and institutional asset owner community on the one side and the trading community, i.e. the exchanges and other trading venues, as well as the brokerage community on the other side

The various use cases for market data including and beyond the securities trading aspect are well analysed and described for the EU in a recent study on the need for an European Consolidated Tape Provider (ECTP).³ Generally, our members use both delayed historical and real time price data in the various business processes associated with the value chain of asset management. Important usages are asset allocation, portfolio management, pre-trade analysis, trading, monitoring of trades, post-trade analysis/best execution, middle- and back-office processes, valuations, collateral management/securities lending/repos, market surveillance, risk management, performance measurement and total cost analysis (TCA), and client or regulatory reporting.

For example, real time prices are used in the trading- and portfolio management to secure good trading outcomes on behalf of the regulated investment funds (UCITS/AIFs) and segregated portfolio

³ European Commission & Market Structure Partners, The Study on the Creation of an EU Consolidated Tape, Final Report, September 2020.; <https://www.marketstructure.co.uk/wp-content/uploads/Full-Report--The-Study-on-the-Creation-of-an-EU-Consolidated-Tape.pdf>



management accounts. The main type of trading data used during order execution (on a pre- and intra-trade basis) is real-time level 1 and level 2 exchange data.

Going forward on the back advanced analytical and IT capacity also the use of more level 3 raw tick size data by the Buy Side is expected. This provides the Buy Side trading desks and the portfolio manager with real-time information on current market prices and, in the case of equities, the number of shares available at all levels of the central limit order book.

Furthermore, the Buy Side trading desks and the portfolio management also use a broader set of market data feeds which include real-time news, economic calendar events, Sell Side ratings changes, index data, and so on. Such additional usage of (enhanced) data is typically consumed via third-party data vendors (e.g. Bloomberg or Refinitiv) which aggregate multiple data feeds into a single location.

Moreover, historical trading data is used within analytics and research teams on a post-trade basis to perform transaction cost analysis (TCA) on the executed trades to improve the performance in the future, as well as other forms of analysis around market liquidity, volatility, and any changes in market dynamics which are relevant to the trading desk.

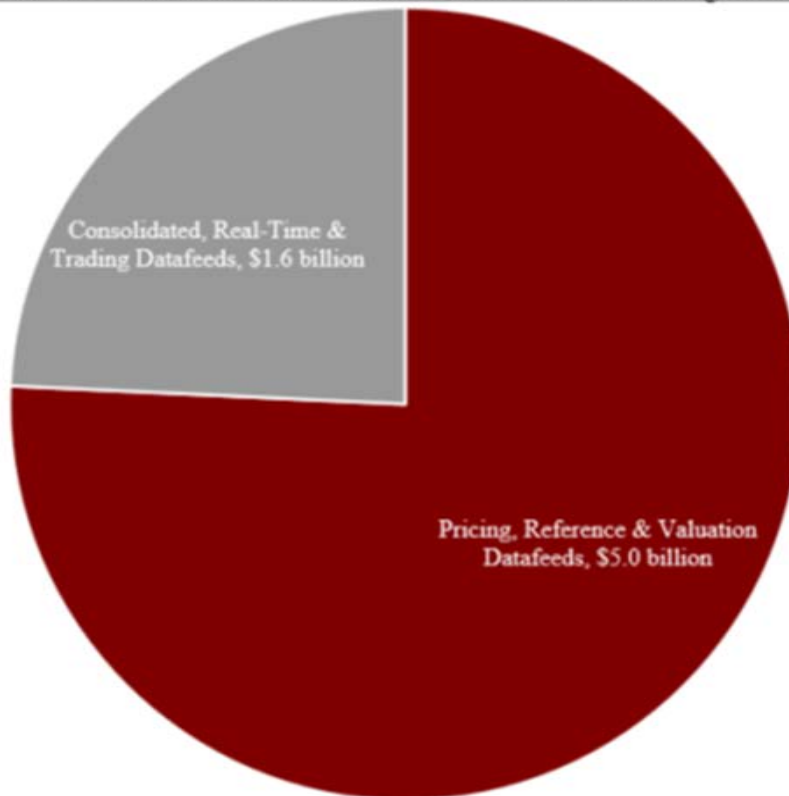
For our members, it is impossible to carry out trading without access to real time data on every major exchange or other trading venue (e.g. MTF, OTF, SI in the EU or ATS in the US) for each asset class they are trading in each time zone. The primary listing exchanges enjoy in this context a factual monopoly with respect to the prices of trades in stocks listed on the exchange in question as market practice and regulation usually prevent liquid price formation at other venues. For example, in the region of Europe the trading on alternative venues such as MTFs usually halts too when the primary listing venue is not able to publish reference prices as seen during the recent exchange outages at LSE, Euronext and Deutsche Börse and the other exchanges using the same trading systems. Other trading venues, such as MTFs, do not have the capability to list stock and therefore are often limited to trading at the reference price, which is derived from the RM price.

There is no competition between RMs and other trading venues in terms of market data distribution. Consequently, the exchanges are fully aware of this dominant position vs. other trading venues and are able to charge significant amounts for their live data streams and other trade related data licenses as they are in a monopoly position. This applies especially in case of so-called "Non-Display" real time data feeds which are targeted at consumption by computers, e.g. in so-called algo-trading situations. Realtime data feeds are - because of the less than seconds speed and the sheer amount of data involved - not made for human consumption which focus on paper or screen-based consumption of price data ("Display License).

Besides in the trading process, investment fund management companies are obliged to use high latency, delayed, end of day or historical market data in order to meet their regulatory obligations, e.g. best execution, Transaction Cost Analysis (TCA), performance and regulatory reporting among many others. The regulatory obligations reinforce the monopoly of market data sources, especially the primary exchanges (regulated markets, RM) which because of their listing capability solely have the capability to set trading prices for the listed stock. Furthermore, the market data distributors, such as Bloomberg and Refinitiv, which consolidate the dozens (in Germany) or even hundreds (globally) of trading venue market data (price) services into one manageable feed for non- an display consumption, also charge excessive prices and data licenses which by far exceed the amounts paid to RMs.

As illustrated in the graph below, global financial market data revenues increased by 7% in 2018 to USD 30.5 bn of which USD 6.6 bn includes data feeds (consolidated feeds, real-time and trading feeds) and pricing, reference and valuation data revenue. Bloomberg, ICE and Refinitiv are among the largest data providers; but Fact, IHS Markit, and Moodys Analytics are also growing rapidly.

Pricing, Reference & Valuation vs. Consolidated, Real-Time & Trading Datafeeds - exit 2018



Quelle: Burton Taylor International Consulting in TabbFORUM,
Towards a New Data Landscape, Jennifer Milton, April 24, 2019

Also Audits on exchange contracts have become so aggressive and time consuming that our members have put extensive and seemingly excessive measures in place to ensure compliance and avoid any audits. Audit by trading venues is perceived by our members as a third revenue generation source besides pricing and license policies. Increasingly exchanges like other data suppliers' resort to a form of precontractual audit by requiring potential users of their data to describe in detail the intended use case and often general business model as a precondition to a contract. For example, Deutsche Börse introduced a "declaration of use"/DUD statement in July 2020 only following the example of LSE over five years ago. The user provides information that enables the exchange as well as other monopolistic or oligopolistic users of such statement of use (SoU) to misuse their dominant market power to be able to offer new, often competing products and services, based on the in-depth level of insights into their client business which would not be possible in an at arms-length business relationship with a not dominant data source or MMD, e.g. a small exchange such as German regional exchanges, a small independent index provider like EDHEC or Solactive or a smaller rating agency such as DBRS or Scope.

By introducing DUD/SoU concepts and overall interacting more and directly with data consumers, exchanges and data vendors can start to understand client data usage, allowing them to more easily identify even more market data revenue opportunities. Analysis by the consultant TRG Screen suggests



that connecting directly with data consumer clients can result in growth in financial information service revenues of between 12 % and 24 % on top of the large returns generated already today.

For example: “TRG Screen found that instituting incoming monthly reports can be used to trigger validation alerts and business rules thresholds, yielding a 2%-4% revenue improvement, and compliance controls that help exchanges detect discrepancies between contracts and data usage can boost revenues by between 3% and 6%. On the service improvement side of the equation, TRG Screen estimates that improved client insights can help exchanges to leverage more realistic marketing and product roadmaps, resulting in a 3% to 4% increase in data revenues. Implementation of a self-service portal helps exchanges to automate the process of reporting, contract management, product ordering and onboarding, boosting revenues by 2% to 6%. And finally introducing a robust audit solution helps exchanges both perform more audits and optimize the process of auditing, yielding 2% to 4% revenue increases. This kind of ROI makes sense both for content originators who are only just embarking on their data monetisation journeys, and for established providers for whom a 20% bump in data revenues would have a significant impact on overall corporate performance.”⁴

As a result, overall revenue situation of exchanges at its historical peak, largely driven by market and other data revenues, and by far exceeding operating margins of banks and other market participants.⁵

- **How orders are sent to a trading venue (e.g. electronic, manual, direct access by clients; and how orders are routed**

German fund management companies usually are not members of the stock exchange, and do not have direct access to a regulated trading venue. They place their electronic orders indirectly via brokers/dealers to regulated venues. Besides the ever-receding voice/chat trading with electronic confirmation e.g. bond trading on Bloomberg, German Asset Managers use generally communication industry standards or exchange/RTV proprietary gateway/API formats as required by the respective trading platforms. In this context, our members may use the following communication channels:

– **FIX Connection**

The Financial Information eXchange (FIX) Protocol is a series of messaging specifications for the electronic communication of trade-related messages. It is used as protocol between a Sell Side and Buy Side clients for enquiry/order routing and is usually already implemented in the relevant OMS/EMS.

– **EMS**

Execution Management Systems (EMS) are front end displays (Execution terminals like Bloomberg EMSX, LSEG/Refinitiv Redi, etc...) used by Buy Side as tools providing liquidity aggregation and access to smart order routing, algorithmic trading tools, and TCA. While equities were the first asset class, FX and futures/options have now caught up available as electronic order books from brokers and trading venues for order driven markets. Even for illiquid instrument EMS embedded functionality now covers, price discovery, TCA and even automated Request for Quotes (RFQ).

– **OMS**

Order Management Systems (OMS) allow for the two separate areas at Buy Side (firms – front-office and middle/back office) to work together. Back office systems were typically designed as static

⁴ A-Team-Group, TRG-Revenue-Management-Report, January-2021

⁵ Market Infrastructures_ Evolution And Outlook, by Andre Cappon, Yanlin Zhu, Kevin Mellyn, Stephan Mignot, Guy Manuel, Marina Alcalde, The CBM Group, New York NY, January 16 2021, available at: <https://mondovisione.com/media-and-resources/news/market-infrastructures-evolution-and-outlook-by-andre-cappon-yanlin-zhu-kevi?disablemobiledirect=true>



processing and accounting systems; they were not intended to handle intra-day trading or other front-office data. For example, in relation to trading workflow, there was no capability to implement different Financial Information eXchange (FIX) workflows. There were no real-time updates when algorithms sent back fills, execution traders could not quickly generate an order or bulk orders to get out to the market during volatile periods, and splitting allocations on grouped orders were almost impossible. To solve these front-office workflow challenges, and interact with the back-office systems, the OMS was created. OMS's were built to load Start-of-Day positions to give the Buy Side trader a view of their positions. They were able to react to market conditions with quick trade tickets, they could route grouped orders via FIX to several Sell Side execution desks and split the order into its corresponding allocations.

– **ORS**

Order Routing Systems (OTS) are used by Buy Side (but also Sell Side dealers) firms to recreate the best view of the market. ORS are the “eye and ears” of the Buy Side as it allows them for each instrument and each market to see the bids & offers available so that when the OMS creates an order and the EMS activate it, the ORS will have the best bid and best offer already identified taking into account limits, broker preferences and other risk and analytics parameters.

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.

Please see our answer to question 1. The exchange data can be used for different business models even within the same fund management company entity such in the area of trading and portfolio management compared to the fund accounting. It is important that latency in data access is very low, in order to achieve the best outcome on each transaction on behalf of the investment fund. Data is being delivered in a very close to raw data format, which also helps to keep latency low, as it does not have to go through a layer of processing before being delivered from the exchanges. Once trading algorithms have been programmed, executions can be conducted electronically without any human ever seeing the direct feed data. The data is typically delivered fully bundled, divided only on asset class (equities, bonds, derivatives). Processed data from the trading venues is used for trading and portfolio management staff functions. Such units determine the trading strategy, document best execution/fiduciary obligations. Rough estimates suggest that this data constitutes most data usage. While the front office of the Asset Manager typically uses real time data, middle and back office uses both real time and delayed data/end of day data for many purposes. The above mentioned ECTP study mentions the following data requirements:

- For real-time, pre-trade order data with five levels of order book depth, auction imbalance, and volume weighted BBO at millisecond speed.
- Realtime post trade data at milliseconds for equities and minutes for bonds.
- Reference data such as session administration events, end-of-day or session statistics, as well as regulation specific data, e.g. for MiFIR trading obligation determination in the EU.
- Historical data (after T=0).

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.).

We generally agree with IOSCO assessment that the two main components of Core Market Data are pre-trade and post trade data. Pre- and post-trade data have the following elements:



- **Pre-trade data:** Data leading up to a trade, which consists of bids and asks for different financial instruments, including the identification of the traded security (ISIN, etc.). This is often divided into “level 1”, which contains the top of the order book, i.e. best bid/ask, and “level 2”, including Level 1 and the top 5 or 10 levels of the order book. The full order book is contained in what is often called "TotalView", i.e. all bids and asks.
- **Post-trade data:** A trade creates post-trade market data covering, for example, the identification of the traded security (ISIN, etc.), the price, the volume, and the time of the trade, i.e. the timestamp.

Such data are often categorized after latency, which is the speed with which the market data is distributed to the user (e.g. Asset Manager). The higher the speed, the lower the latency. Market data with low latency may have other applications than market data with higher latency. Market data with low latency may be crucial in achieving the best possible outcome on a trade, and necessary for a fund management company to meet the fiduciary obligations/best execution requirements, whereas market data with higher latency may be sufficient for ex-post analytical purposes. The exchanges data is indispensable for trading activities and cannot be substituted between exchanges (it is not possible to use data from exchange A to trade on exchange B). Furthermore, both real time and delayed Pre-and Post-Trade data could be considered as Core Market Data, which we also may label as Raw Market Data. These data are indispensable for both trading purposes (including routing) as well as documenting best execution/fiduciary obligation, to fulfil order protection rules etc.

4. Uses of Market Data

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**

Please see our answers above. Our members use market data along the whole value chain within the Asset Management industry. Investment fund management companies are obliged to use market data in order to meet their regulatory obligations, e.g. best execution, Transaction Cost Analysis (TCA), performance and regulatory reporting among many others. Furthermore, the market data need include but is not limited to market data for asset allocation and transition management as well as data for portfolio construction, on-going monitoring, portfolio rebalancing etc. The market data need is a combination of real-time and delayed/historical data. For performance measurement and evaluation (not shown in the figure) the need data include but is not limited to market data for calculation of the rate of return, index/benchmark creating and pricing, macro performance and pricing, macro performance attribution for both equities and fixed income. Delayed data will be sufficient for this purpose. Market data in derived form as classic capital weighted, or more recently in the form of factor based or ESG indices and benchmarks is for most members of higher importance than real time trade prices.

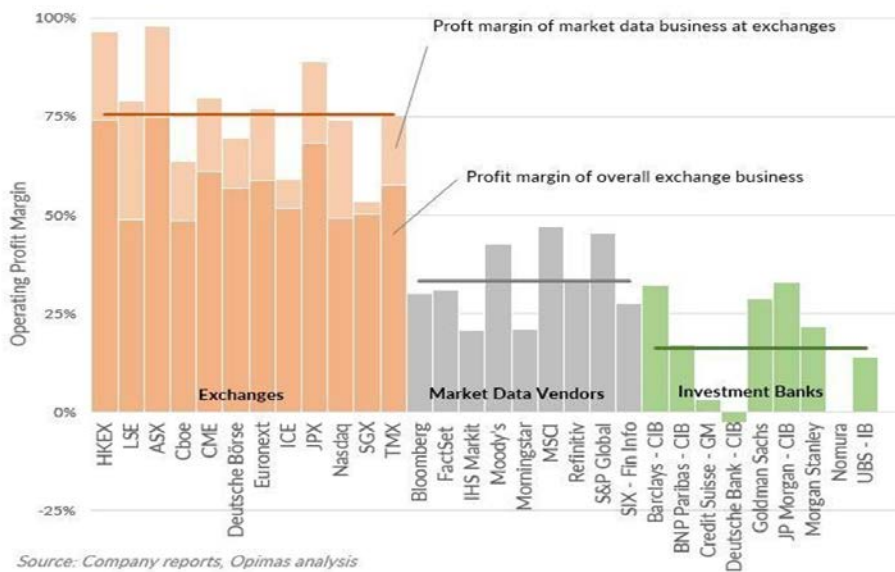
Q5: What impact does different uses have on the need to access data? How can these impacts be managed or addressed?



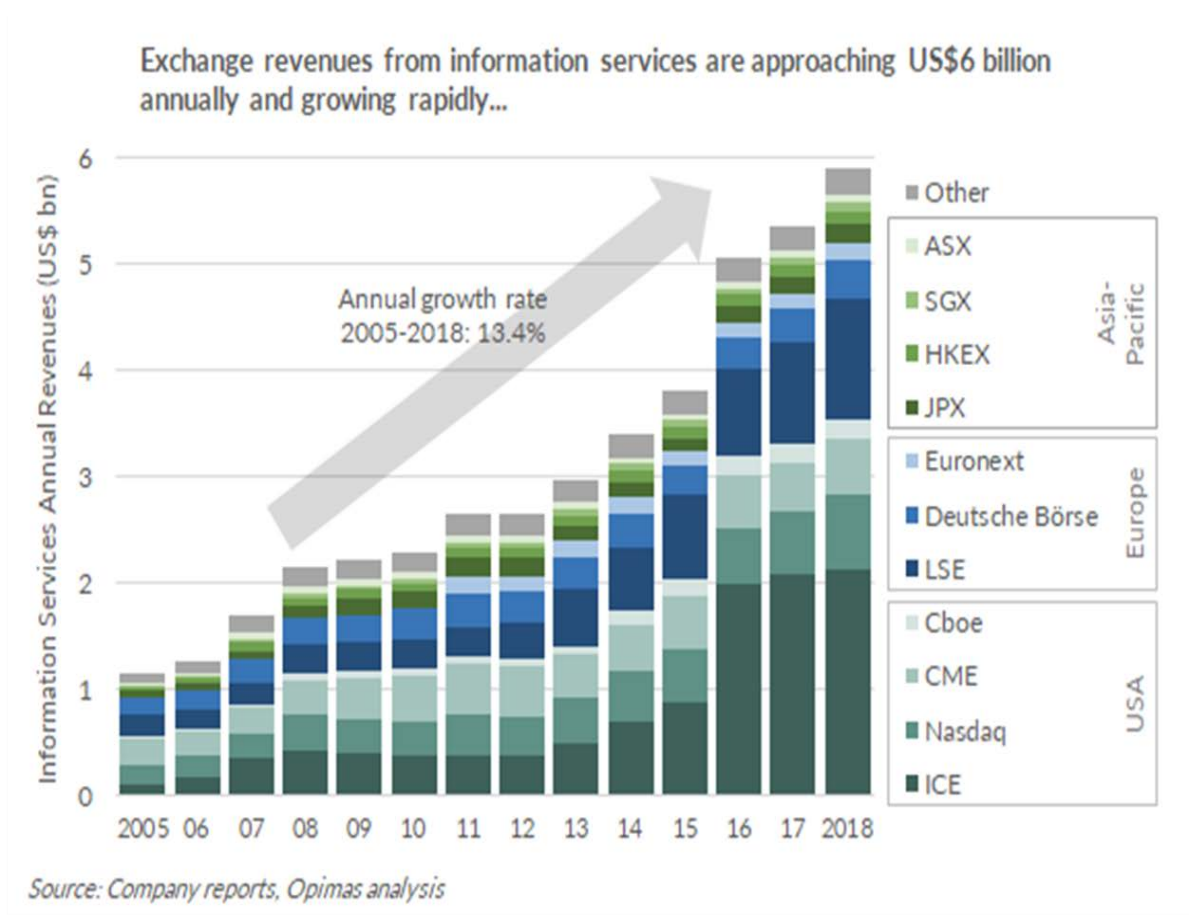
As already mentioned above, regulatory obligations require the Buy Side to have access to market data and reinforce the monopoly of market data sources, especially the primary exchanges (regulated markets, RM) which because of their listing capability solely have the capability to set trading prices for the listed stocks.

Therefore, our members are unsatisfied with the high price and data license cost of market data. The prices and consistently above-inflation fee increases are difficult to justify as they do not reflect the true cost of supplying that data. In a practical sense, this adds costs to our members' businesses both directly via the fee increases themselves, as well as indirectly in the form of increasingly complex monitoring of market data. Trading data fees are increased aggressively by the monopolistic exchanges and market data (distributor) vendors because they are aware that there is no other source for the data, and market participants are required to consume the data to satisfy best execution and reporting requirements.

The graph below (2018) clearly shows that major listing venue/exchanges enjoy a 75 % operating profit margin on market data, which is indicative of a concentrated market without competition, and certainly does not evidence cost based pricing or a pricing based on reasonable commercial basis as it is the EU standard (RCB).



Furthermore, exchanges have generated a significant annual growth rate as shown in the following graph:



For the avoidance of any doubt, the root cause of this issue is not with the best execution regulations themselves, but rather with the pricing policies of trading data providers who have an understanding that most market participants have almost no commercial choice over whether to consume this data.



We witness considerable increase in non-display data use and correspondingly in price for real-time data feeds since the introduction of MiFID2. As an example, please see the attached overview on selected price increases at Deutsche Börse based on their official pricelists which increases of more than 500% within 2 years:

Trading Venue	Category of Fee	Name of Product (Jul17 -> Jul19)	Real time / Delayed	Pre MIFID II July 2017 fee (per month, EUR)	Post MIFID II July 2019 fee (per month, EUR)	Change (EUR)	% Change	EU CPI Jul17->Jul19
Deutsche Boerse	Distribution	Xetra Ultra	Real time	3500,64	3675	174	5%	1,60%
Deutsche Boerse	Distribution	Stoxx Indices	Real time	686,4	1100	414	60%	1,60%
Deutsche Boerse	Distribution	Eurex Ultra	Real time	1200	1575	375	31%	1,60%
Deutsche Boerse	Non Display	Xetra Ultra Internal -> Xetra Ultra Tier 1 (inc Tier 2, Tier 3, Tier 4)	Real time	1750,32	5350	3600	206%	1,60%
Deutsche Boerse	Non Display	Stoxx Indices Internal -> Stoxx Indices Tier 1 (inc Tier 2, Tier 3, Tier 4)	Real time	343,2	1025	682	199%	1,60%
Deutsche Boerse	Non Display	Eurex Ultra Internal -> Eurex Ultra Tier 1 (inc Tier 2, Tier 3, Tier 4)	Real time	520	3210	2690	517%	1,60%

IOSCO should strongly recognize that exchanges hold disproportionate market power on market data generated from orders and trades conducted on their venues. As such, 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.

Authorities should consider developing a cost benchmark for producing and distributing market data, such as recommended in the Copenhagen Economics reports from 2013, 2014, 2018 and 2019⁶ and the IEX report (January 2019).⁷

The Core principles should entail

1. 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. The cost should be measured against a recognised cost benchmark. Please see the IEX' cost study and Copenhagen Economics guideline to a cost benchmark for inspiration in addressing principle one in more detail.
 - a) Regulators should require trading venues to submit detailed cost and revenue data in order to understand the amount of mark-up exchanges impose.

⁶ <https://www.copenhageneconomics.com/publications/publication/a-guideline-to-a-cost-benchmark-of-market-data-how-to-obtain-reasonable-prices-of-market-data>

⁷ <https://iextrading.com/docs/The%20Cost%20of%20Exchange%20Services.pdf>



- b) As market data should be based on cost with a potential reasonable mark-up, exchanges should simplify contract terms and eliminate “non-display” categories. Instead, exchanges should consider simply differentiating pricing on a per user firm between professional user firms and non-professional users.
2. Trading venues of a single market system should standardize key market data contract definitions, terms and interpretations. Contract definitions, terms and policies should be specific and avoid overly broad or general terms.
 - a) Market data licensing contracts should avoid “derived data” terms, which are lopsided and unfair and standardized agreements should be subject to regulatory review.
3. Market data licensing contracts should be simplified to ease administration and so that audits are not necessary.

As a further alternative, we encourage IOSCO to also engage with the relevant Competition Authorities to tackle the monopolistic market behaviour of the exchanges. Exchanges increase constantly worldwide their dominant positions in their respective market segments, which facilitate by ever-increasing prices (Price Policy) and incremental licensing (Data Policy) requests. As exchanges are by nature monopolies in the provision of their own market data, we believe that to provide data on a reasonable commercial basis, market data fees should have some relation to the cost of production of the data. The existence of monopolies at the data source level is not an issue but the abuse of a dominant position by those monopolies is a problem. On the consumer side, the market is inelastic, as the Buy Side cannot simply reduce data consumption in response to price increases. The issues that face market participants with respect to dominant regulated trading venues are:

- driving up the costs of market data in a way not clearly linked to their costs of supply.
- imposing restrictions on what downstream use can be made of market data without further payments. For example many trading venues, including the London Stock Exchange, Borsa Italiana and Wiener Börse, currently charge market participants relatively new separate “created works” or “derived data” licenses based on use of trading venue data to create (e.g., through mathematical or other manipulations or processes) new data. Regulated market clearly do not have any production costs associated with a market participant’s created works/derived data uses and, accordingly, we do not think such licenses meet the reasonable commercial basis test as defined under the EU-MiFIR regulation.
- creating a significant bureaucracy and cost around data licensing through multi-tiered licensing with variations by dataset without standardisation between vendors.

The existence of monopolies combined with the regulatory mandates (Best Execution, rating and regulatory reporting) means that market participants have little or no leverage in negotiations with exchange markets (and in fact trading venues argue they are not able to negotiate bilaterally with market participants).

Also, data vendors passing on market data usually do not protect the end-user client through data source authorisation, e.g. by exchanges, but enforce their policies without due consideration of the impact on the clients after an alleged incident or the claims of data sources. For example, Bloomberg routinely threatens clients with US-ISIN data of cut-off at the request of S&P CUSIP without requiring any check or proof of insufficient licensing. Similar data cut-off could occur with stock exchanges following market data license disputes. In the absence of market power affecting exchange practices, regulators



and policymakers need to intervene to block such market power abuse by the exchanges ensure the desired benefits. That the behaviour of the (perceived) data monopolies or oligopolies is facing increased scrutiny by the competition authorities, however, is not sufficiently fast and only covering individual cases. Therefore, these negative impacts of the data monopolies clearly call for detailed regulation of dominant position-backed activities and oversight on these entities by the securities regulators.

5. Access to Market Data

Fair, Equitable and Timely Access

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

We believe that the following factors should be considered:

- Transparent, clear, unambiguous and reasonable **market data policies**, including audit terms
- Transparent, clear, unambiguous **price information**, including comparison with past years’ prices
- **Cost of production:** Market data is a by-product of the primary function of an exchange, which is trading. As orders are placed and executed, market data is automatically produced. This implies that the marginal costs of production are close to zero and the incremental costs associated with data production are limited to collecting the information and distributing it to customers. Present EU legislation allows that an appropriate share of joint costs may be included. However, definition of costs is lacking and therefore it is impossible to compare and for Competent Authorities to ensure enforcement. A cost benchmark which shows the costs that may be included, and which may serve as a benchmark and a tool for supervisors in their assessment on what is reasonable and whether the Exchanges and other data providers comply with the requirements. Please see e.g. IEX report for which kind of costs that could be included in the assessment.
- Availability of machine-readable data without restriction in access
- No difference in latency in case an exchange should contribute to a consolidated tape – same latency on CT data as well as proprietary data feeds
- Usage of IP free identifier for Issuer (LEI), financial instruments (ISIN) and Market Identifier (MIC) as well as market model typology flags and identifiers, e.g. the FIX MMT.

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

Please see our answer to Q1.

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**



Please see our answer to Q1.

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

In general, the prices for market data have increased significantly since the introduction of EU-MiFID II over the last five years, as explained above. Similar developments have been observed with exchanges outside the EU. Such significant price increases create a chilling effect for new businesses and products. It increases barriers to entry for new competitors and makes it harder for smaller Asset Managers to survive as their fixed costs increase.

Our members have witnessed a general trend of exchanges introducing additional fees or changing agreements to increase market data costs and license practice in excess of the regulated level 1 and level 2 user fees. There was even a petition a few years ago by the local brokerage community to the European Parliament to prohibit the Portugal stock exchange to excessively raise prices to a level which seemed to put the local retail broker community out of business.

In London, CBOE BATS introduced a few years ago UK equities indices as an alternative to LSE FTSE (100) index family at the request of the local retail brokerage community which claimed not be able to continue to afford the very high LSE prices for both market and indices data. After price hikes on the Spanish exchange for market data used by competing MTF and SIs last year, at least one very large broker firm in London stopped trading Spanish stocks on its MTF thereby reducing market access and choice of trading venues.

As a final example, exchanges have defined each instance of an application displaying real-time data as a fee liable service which means a trader with access to Bloomberg, Factset, and several other real time market data distributor services on the same computer will be charged separately for each feed, even though the data received in each instance is identical. Historically, exchanges charged fees only once per user, but now MISU (multi-instance single user) agreements are rare.

Similarly, outside the exchanges, market data vendors now offer increasingly “enterprise pricing” licenses only. The vendors’ justification for this strategy is because they believe data is being freely shared between different users and departments within the firm. Therefore, they believe the costs should be applied to all employees. Previously, firms were able to purchase market data for a certain number of users and were only charged fees based on the data consumed. However, following the move to vendors offering enterprise pricing only, firms are now effectively charged significantly more on a per physical user basis because the number of employees accessing the data has approximately remained constant while the cost of the data licenses has increased.

Over the previous five years, the data received from exchanges and data vendors has generally remained consistent, although there has been no improvement in the quality or informational content of the data.

Due to technological developments, the unit cost of producing a standardized product (such as exchange data) normally decreases over time, and those cost savings are often passed on to the relevant market participants. Also the cost of the telecommunication channels needed to pass the data to users are also on a downward trend during the same period. Given that fact that exchange data has not really changed over the past five years, but technology has enabled data to be stored and transmitted far



more easily than ever before, we strongly question how exchanges and data vendors can justify such large annual fee increases as observed since 2017 in Europe especially.

In this respect, the following concerns exists:

- the pricing of access to and use of market data
- the conditions for using market data (market data policies, including license administration),
- the various definitions and interpretations, causing license fragmentation and thereby increasing costs
- Lack of transparency
- Strong audit obligations

Audits on contracts have become so aggressive and time consuming that our members have put extensive and seemingly excessive measures in place to ensure compliance and avoid any audits. Audit by trading venues is perceived by our members as a third revenue generation source besides pricing and license policies. Fund management companies have introduced a number of measures in an effort to ensure they adhere to contractual obligations. These can take the form of dedicated market data management software, supplier framework programs, introducing rolling “spot checks” on data usage and annual training & awareness programs, which all staff must complete. Whilst these measures do not preclude the possibility of being audited, continuous engagement with exchanges/data vendors and raising awareness of our framework does reduce the likelihood.

Our members consider that they are expending an inappropriate level of resource to demonstrate compliance - to the letter - for a relatively simple supplier contract. The threat of such audits is used to prop up significant increases in prices. Monitoring data within our members is challenging, but it is made more difficult by the exchanges’ ability to retroactively audit data usage over the past three to five years, with the exact time period dependent on the specific exchange. At the same time audit rights are not reciprocal and e.g. overpaid fees paid by the Buy Side firm may usually only clawed back for a very short time, e.g. 90 days.

Our members do not know exactly which characteristics of usage may be requested during any future data audits. Therefore, our members are required to keep very detailed logs across all applications which use trading data so they can ensure compliance with the terms of the agreement. Some of the items monitored include how many users are accessing the data, how many individual securities and attributes are being requested each day, and whether the data is being accessed on a delayed or real-time basis. While our members have principally teams and processes in place to monitor data usage and work with data vendors, keeping logs and tracking users is complex, time-consuming, and technologically challenging.

Such excessive monitoring requirements, driven by exchanges and market data vendors, is not in the Interests of the market data users (e.g. fund management companies). We strongly encourage IOSCO to question, whether it is a valuable or appropriate use of resources to so minutely monitor the use of trading data.

In addition to the complexity of monitoring data usage, over the past five years we have also observed an increase in the frequency of data audits requested by the exchanges and data vendors. This means our continued usage of market data incurs not only the direct cost of market data fees increasing each year, but also the indirect costs of continually assigning more resources for data monitoring purposes.



The Buy Side is engaged in a dialogue with some exchanges to institute a more permanent dialogue, between the firms and the data source to insure early on detection of areas of under or over-licensing (business review) and thereby reduce the need for formal audits. However, usually exchanges include contractual requirements in their license policies which require the user to indicate all market data use cases in so-called data usage declarations (DuD) or statements of use (SoU) prior to receiving an offer. Such DuD or SoU is very extensive in terms of requested information and a number of questions, e.g. on ETF, index, MTF or SI activities, and corresponding revenues of the user, are clearly aimed at getting information on the competition of the market data provider. Such questions would not be answered in an arms-length provider situation, and clearly show the monopolistic power of primary listing exchanges.

Being part of the contract DuD/SoU are anti-competitive tools to the generation of audit revenues, especially from those Buy Side users which do not understand in full the price and license policies of the exchanges.

In respect to the topic of delayed data, IOSCO made the following comment on p.5, footnote 14:

“In the EU and in the UK, real-time information must be made available free of charge 15 minutes after a trading venue or APA has published it.”

Many of our members have highlighted to us that the regulatory requirement to provide delayed data for free after 15 minutes is very often not being met by data sources and suppliers. Where data is provided it is often not in a machine-readable format and is therefore of little or no use. Exchanges usually charge for delayed data in the form of either end-of-day (EoD) or historical data licenses after a certain period has passed. EoD license may apply e.g. at 23:59h of the trading day. Most recently historical data licenses are also used in areas, such as derivatives, where the historical data used to be for free. The US CME introduced such historical data licenses only recently which met violent opposition in the market.⁸

In this respect, we are aware that exchange groups in Europe license for instance the redistribution of supposedly “free” delayed data for index/benchmark production. Furthermore, a great number of APAs and OTFs do not want to offer a “free of charge after 15 minutes” license policy. NCAs in the past did not focus on the enforcement *stricto sensu* of this EU law requirement.

Interchangeability

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

Market Data is unique per trading venue. It is not possible to use data from trading venue A to trade on trading venue B. There is no interchangeability between venues. There is no competition in market data and the incumbent exchanges hold a dominant market position. As the market data from each

⁸<https://mondovisione.com/media-and-resources/news/edi-challenges-new-cme-fees-as-anti-competitive-and-illegal?disablemobileredirect=true>

<https://www.forbes.com/sites/tomgroenfeldt/2020/12/18/regulators-continue-reviews-of-market-datapricing-little-action/?sh=3403630e3e7b>



exchange is indispensable for the data users, the exchange groups can set the prices and conditions for using the market data as they see fit.

Fees Associated with Market Data

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?

Please see our answer to Q5. It is of utmost importance that the fees should not be based on demand or perceived ability of “value” generation but rather on the cost of production and distributing to the market.

Connected Services

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

Please see our answer to Q9. Exchange group try to generate new business opportunities from the pre-contractual DUD/SoU activities as well as audit obligations for the end users (e.g. fund management companies).

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.

No comment.

6. Data Consolidation

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?

The competitive environment, and the emergence of new trading venues facilitated by EU MiFID, has greatly increased the competition for execution services. This choice has increased the complexity of seeing, understanding and accessing the single market in any share trading. Each trading venue typically operates its own standards for delivery protocol, message format, content and meaning (Please see our answer to Q1). Some common standards have emerged, notably technical standards for data delivery, but there remains significant variation between venues, MTFs and SIs in Europe alone. The quality of OTC data is also compromised by the lack of a monitoring and publication regime and, in some scenarios, a lack of clarity over reporting responsibility. During the past, data consolidators have attempted to construct a single market view - which requires subjective interpretation of source data of variable quality and completeness.

Despite the best efforts by industry participants, the results remain inconsistent, non-definitive and do not meet the needs of investors (e.g. fund management companies) as fully as the legislature behind MiFID rightly could have hoped. Real-time surveillance for market integrity across the single market is also challenging.



The lack of a definitive single market view presents significant challenges, for investors and investment firms trying to assess where the market and activity in any security may be; in undertaking transaction cost analysis; and, in assessing whether best execution has been achieved. This often leads to an increase in direct and indirect costs of market data for the end investor (e.g. fund management company).

In order to clarify the mentioned discrepancy, we are strongly supportive of a Consolidated Tape for equities and bonds provided it is properly constructed and governed. A too timid implementation (e.g. no regulation to prevent latency) or insufficient regulatory support of the conceptual model, on the other hand, could have negative effects. **If the users Consolidated Tape Provider (CTP) governance and operations requirements are not met, it might actually worsen the market data problems considerably, as data consumers will have to use inadequate CTP data and thereby may be forced to continue to use the other market data sources as well.** A CTP as such will solely not solve the market data market failure – as is obvious when looking at the current problems in the area of market data feeds as seen in the USA.

In this respect, we strongly support the initiative started by the EU Commission to create an effective and comprehensive post-trade consolidated tape for equity and bond financial instruments.⁹ The ECTP should at least include the following requirements:

- All listed instruments and all venues, APAs and SIs should be mandatorily included in the CTP and all trading venues, APAs and SIs should be obliged to send data to the CT in agreed formats;
- Both pre-trade and post-trade data should be included;
- There must be no preferential treatment of trading venues' proprietary information;
- There should be strict requirements regarding “low latency” and “periods of delay”; and
- The market data collected by the CTP should be enough to ensure the capacity to meet best execution requirements across all financial instruments and across legislations reporting requirements.

Furthermore, a successful CTP should:

- Be low-cost;
- Be comprehensive in coverage.
- Provide as much real-time data as legally possible, recognising the need to preserve waivers in some circumstances that could otherwise unduly impact markets or valuation of companies;
- Automatically receive all trading venues, APAs and SIs free of charge or a contractually agreed basis, as otherwise the commercial model is unattractive.

Alternatively, the most suitable CTP would be a publicly mandated not-for-profit (utility) CTP which is selected via a tender, meaning that revenue should be channelled back to the contributors (since a CTP would also be subject to a cost-based approach in their pricing policy). A new tender should be launched every five years in order to ensure viability of the CTP; competition and incentives to develop and maintain systems reflect accurately market changes.

⁹https://eur-lex.europa.eu/resource.html?uri=cellar:61042990-fe46-11ea-b44f-01aa75ed71a1.0001.02/DOC_1&format=PDF, Action 14,

And <https://www.icmagroup.org/assets/documents/Regulatory/MiFID-Review/EU-Consolidated-Tape-for-Bond-Markets-Final-report-for-the-European-Commission-290420.pdf>



Independently of the nature of CTP, the data provided through the tape should be clear, unambiguous and consistent to offer the possibility to be included in any internal post trade analysis and any EU regulatory reporting requirements.

Another aspect of the consolidated tape is that it should be considered is that it would empower retail investors to access all relevant data to make informed investments in capital markets. Specifically, a consolidated tape strengthens the toolkit to achieve best execution and enables all investors to have the information about and access to liquidity buy at the best price. Please also see the above mentioned ECTP study for further details on the benefits of a consolidated tape.

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?

As mentioned in Q14, a CT will not solve the problems with high and increasing market data costs and it might also not be fit for solving best execution/fiduciary requirements either. Please see our answer to Q5.

7. Conclusion

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

A case at point is the licensing of the use of foundational identification codes, namely the ISIN (ISO 6166 Standard) as well as important national securities identifiers such as CUSIP in the US and SEDOL in UK which are essential to enable processing of securities in all stages and aspects of the value chain of asset management (in particular for trading, clearing, indexing, client and regulatory reporting) and can be considered as “public goods”. Requesting fees and license contracts on foundational standards data inhibits automation based on standardization within the industry and limits innovation and use of new financial technology offerings. Market-accepted identifier codes such as the ISIN are an essential facility for all financial services as they allow to link data of all sorts to one security. The importance of identifiers increases every day as the financial services industry moves rapidly from human interaction (screen-based transactions – “on display licenses”) to fully-automated transactions where computers interact on both sides of the trade. Automated transactions are impossible without proper data linkage by market-accepted identifiers. The fee-free and license-free use of foundational identifiers is one of the most critical requirements to enable a full digitalized financial services industry. Specifically, the European Competition Commission issued a commitment decision concerning S&P’s ISIN practices on 15 November 2011 (Case COMP/39.592) which made the use of the USISIN fee free and questioned the existence of IP rights on simple data such as prices, values or for that matter identifier codes.

We hope that IOSCO will address in this consultation also this question of data monopolization based on unfounded copyright claims. IOSCO needs to address too the requirement for users to fill in so-called “statements of use” (SoU), thereby allowing exchanges and RDPs to collect data on competing data vendor products and services to its competitive advantage and foreclose competition on financial data markets by impeding the development of competing analytical data products. Our members are also very concerned about other data license practices such as far reaching audit rights exposing firms retroactively to huge liabilities as well as the practice to early termination of data contracts in order to



force firms to conclude new, often more expensive and onerous data licenses. We support and do not repeat here the detailed descriptions in the IPUG reply to this consultation on new data license requirements (Q5b), lack of public benchmark data price lists (Q6, Q11), statement of use and data usage declaration policies (Q6a, Q16b), derived data licenses (Q6b1), retention of information, databasing and historization licenses (Q6b3), user display licenses (Q9a, Q9b), delayed data licenses (Q9b), and per of user fees (Q10). Such exchange and RDP's practices harm consumers and foreclose competition in various financial data markets.

The problem is exacerbated because of data sources and data vendors making a living today by not only charging fees for the use of identifiers but more importantly for the use of any kind of data, including non-creative data such as prices, numerical specifications, or index levels which are not protectable by IP rights. The situation can only get worse from the user perspective as there are data industry initiatives to develop fully automated "contractual rights management solutions" to prevent any unlicensed data use by inserting specific codes into all data sets which can only be activated for use by the respective data vendor. As a result, no data-dependent product can be developed going forward without data sources and data vendors knowing and consenting to the data use – or preventing it by claiming license requirements. However, claiming rights to data independently of the existence of IP rights is anti-competitive. Such data licensing practices hinder data access and digital innovation and are in conflict with the EU's and other global economies digital economy objectives.¹⁰

These practices are also a precedent for data vendors have a paramount market position in their respective field of activity. The issue will reach a new quality following the announced merger between a major data source for market prices and index data, the LSE, and the second largest Market Data Distributor ("MDD") in the world, Refinitiv. This merger leads to a vertical integration of regulated market and index data sources and MDDs. These and many other data sources and data vendors apply practices similar to those of S&P in the USISIN case with the result that simple market data are not freely available and that data users have to sign a multitude of confusing contracts and pay fees to numerous different companies, often even with overlapping content.

On top, many data sources and MDDs profit since the global financial crisis from regulatory demand creation for data and take advantage of their dominant positions that they have created to dictate their price and conditions. Backed by supervisory laws and regulations, these monopolies and dominant players (for instance, regulated markets ("exchanges"), benchmark (index) administrators, credit rating agencies) jeopardize the functioning of the financial services industry by adding layer upon layer of data licenses on users required by law to use ISINs and other regulated data fields, which take on a dimension of "public goods", in EMIR, MIFIR, SFTR, transaction or AIFMD, UCITS and CRR/Solvency2 reporting in Europe, as well as e.g. in the USA (cf. Section 13f large shareholdings reports based on the S&P CUSIP identifier).

Increasing market data costs have forced many data users (e.g. fund management companies) principally to scale back their data purchase to a minimum, and sometimes economically sub-optimal, level, deselecting certain types of securities or markets – especially smaller companies and smaller, foreign markets. Both in the EU and globally, this results in reduced transparency, decreased levels of cross-border competition, lower market integration, less informed markets, higher costs for investors and potential higher cost of capital. In short, the high market data costs distort the development of efficient capital markets, which harms companies and investors and ultimately the real economy. We therefore

¹⁰ Please see EDI paper <https://www.marketdata.guru/wp-content/uploads/2017/06/EDI-Closing-Prices-Ownership-2016-01-29.pdf>



strongly encourage IOSCO to tackle the dominant market position of Exchange Groups in cooperation with other securities regulators and the Competition Authorities.