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Following the March 1 meeting, the SEC staff asked FISD to prepare a memo to help Advisory Committee members better understand the broad array of complex issues related to market data management -- particularly the strong interrelationship between fees, market data policies, contracts, billing/reporting requirements and administration. We have attempted to summarize the FISD perspective on the core issues as succinctly as possible. We are more than happy to provide additional detail on any of the issues outlined and to answer any questions you have.

The majority of FISD's administrative efforts are designed to identify and simplify the market data management processes associated with business models as they currently exist. It's certainly possible that wholesale changes to business requirements could serve to mitigate some of the complexity of market data management in the U.S. and elsewhere. My expectation is that this will be part of the discussion during the April 12 meeting. Our objective with this paper is to explain the current issues associated with market data management -- without undo commentary, prejudice or justification. Below are my general assumptions:

Many of the problems being articulated by the market data industry are neither about the fee setting process or the SEC regulatory oversight process. The issues are more associated with global differences in business models, variations in the definition of units of count, approaches to tracking and reporting usage, criteria for user classification, business requirements associated with redistribution, ownership of derived works and conflicts over the rights to use data. These are all legitimate business issues that need to be negotiated among data originators, distributors and users of market data.

There are over 85 fee-liable exchanges around the world. Exchange data, combined with all the other data sources (*i.e. news, commentary, analytics, and corporate events*) can collectively be viewed as the market data inventory of information vendors and user firms. Part of the value-added service offering of vendors and redistributors is the ability to manage the business and administrative requirements of the exchanges.

Over the past decade, the market data distribution environment has changed dramatically. We've experienced at least three distribution revolutions -- stand-alone terminals, data feed delivery, and Internet/Intranet distribution. Wireless communication will add a whole new dimension to the business challenges of market data management. Market data business policies have not always kept pace with the changes in technology. However,

it's important to keep in mind that some of these challenges are process-related while others are business policy-related. In today's business environment, business model flexibility as well as the ability to innovate and react to new industry developments are essential for all segments of the industry.

The global market data industry is aware of the complexities associated with market data management. Exchanges, vendors and user firms are working cooperatively to simplify, rationalize and automate market data business processes. All sides of the industry are participating in this process and significant progress toward resolution of these issues has already been made. FISD members will continue to work on identifying mutually beneficial approaches that will reduce paper, to standardize and simplify contract administration, to adopt new technology in their administrative systems and lessen barriers to product innovation.

We believe that market data management is a global business issue and needs to be managed as such. The industry's ability to manage market data is compounded by both the complexities of administrative requirements and the lack of consistency among the multitude of exchanges and information providers around the world. However, FISD members still believe that the "preferred choice of consensus" is the appropriate way to resolve market data management issues. Any direct Commission (or other regulatory) involvement in the area of market data administration or redistribution should be assessed, in advance, on its ability to help the industry manage these business challenges. You should be aware that some of our members have suggested that Commission action may be necessary where consensus is impossible or where parties unnecessarily delay implementation of changes.

Market Data Policy Database

As discussed during the March 1 meeting, FISD members are in the process of building a comprehensive market data policy database to define, clarify and publish all obligations and requirements covered by exchange/SRO contracts. The objective of this project is to ensure that all vendors, redistributors and end-users understand and have consistent interpretations of the policy and contractual requirements of exchanges on a global basis.

The market data policy database currently contains market data policy statements from 33 exchanges (*including AMEX, CBOT, CME, KCBOT, Nasdaq, NYMEX, NYSE, NYBOT and OPRA*). Ten more exchange policy statements have been drafted and are awaiting exchange clearance. The database also contains agreed fee schedules from 28 exchanges with another 50 awaiting exchange clearance. Our goal is to make the database globally comprehensive and keep it up-to-date.

The market data policy database is currently in initial beta testing. Access to the test database is password protected and limited to FISD members only. However, the FISD Executive Committee has authorized us to provide members of the Advisory Committee and the SEC with access to the database. The statements of policy have been drafted by FISD based on published contracts/policy documentation and approved by the exchange as a "fair and reasonable representation of the exchange's current policies and practice." Please understand this database is not only complex, but is still in development, incomplete, untested and not a substitute for market data contracts.

For access to the Market Data Policy Database, please contact Jill Farr, the MDPP test coordinator at (e) jill.farr@rightsmgt.com (p) +44-207-628-2040. Please identify yourself as a member of the Market Data Advisory Committee or SEC staff in your communication and we'll set you up with a login ID and password. FISD stands ready to assist you with using the database at whatever level of support is needed.

What are the Contractual Issues?

The market data contract is the principal document governing what vendors, redistributors and subscribers can and cannot do with the data. Everything starts with the contract, and once it's signed, parties are obligated to comply with the terms. FISD members have done a significant amount of work on market data contractual issues.

We have developed, published and continue to evolve an Exchange Contract Guide (ECG) to help support contract negotiations among exchanges, vendors and client firms. The overall goals of the ECG are to review market data contract issues by reference to the underlying business considerations, with illustrations from a representative sample of U.S. and overseas market data agreements.

FISD members have also agreed to a number of best practice recommendations including recommendations on lead-time notification cycles, datafeed questionnaires, units of count, audits, and fee change notification procedures. Exchanges and other data providers looking to create or update their market data contracts are currently referencing the ECG and the best practice recommendations.

FISD has organized the core market data management issues covered by contracts into twelve categories. Each category has multiple policies. We've built our market data policy database around 220 individual policy-related questions within those twelve categories. They are:

Definition of Market Data: determination of what data is covered by the contract and therefore subject to the policies and procedures of the exchange.

Market Data Content and Supply: the technical specifications of the exchange.

Policies on Contracts: the types of agreements required by the exchange and definition of who is responsible for execution of the agreement.

Rights to Use Market Data (Vendor): the rights and restrictions of the vendor/subvendor on data usage.

Rights to Use Market Data (Subscriber): the rights and restrictions of the subscriber on data usage.

System Descriptions: the requirement and use of diagrams and technical descriptions designed to help the exchange understand how the data is being used.

Exchange Fees: the fixed and variable charges levied by the exchanges.

Device/User Query Based Fees: definition of the unit of count in various environments.

Billing and Payment Requirements: the requirements for billing and payment.

Reporting Requirements: what and how to report data usage to the exchange.

Audit Requirements: the audit rights of the exchange.

Other Market Data Policies: for example, some exchanges have Internet-specific policies and restrictions that need to be articulated and understood.

What's the Problem?

As stated, the rules related to the use of market data are governed by contracts that are by nature subject to interpretation. Understanding and translating the complex policies of multiple exchanges is not a simple process. In particular:

Practical Implications: Contracts are legal documents and do not often spell out how the rules are to be implemented or how to address the wide variety of real-life situations encountered by vendors and client firms.

Old Contracts/New Situations: Contracts are complex documents that are difficult to negotiate. As such, they have a multi-year life span and do not always address evolving technologies, special situations, or creative new application environments.

Conflicts of Interpretation: Contractual rights and obligations are subject to interpretation and result in occasional conflicts -- particularly as they relate to new technological environments or application situations.

Complex Communication Chain: Compliance with the rules often involve multiple organizations and numerous people within those organizations -- contracts, entitlement systems, billing and reporting, IT/development, and sales -- who all need to understand the practical side of market data rules. The lack of knowledge, breakdowns in internal communication, and priority conflicts can all contribute to compliance errors or unintentional mistakes, which can result in significant financial liability.

Global Lack of Uniformity: The underlying contracts often vary significantly around the world. Understanding the myriad of rules and their application, particularly as it relates to redistribution of data, in various real-world scenarios can be a daunting and error-prone task given the complex lattice work of downstream communication.

FISD members support the concept of market data policy transparency and are working to document all the obligations and requirements covered by exchange contracts and to ensure vendors and their clients have consistent, complete and uniform interpretations of administrative requirements on a global basis. Our members view our market data policy activities as tools to help ensure that all parties understand, and can comply with, contractual obligations. They are also being used for policy comparison, adjustment and new policy development to help members ensure that market data policies can be efficiently and economically applied in the real world.

Exchange Business Practices

We use the term "market data business practices" to refer to the whole spectrum of issues associated with market data policy, contracts, billing/reporting and administration. The two core questions before the Advisory Committee are (1) who should determine the business practices of the exchange and (2) to what degree should there be regulatory oversight over those business practices?

Some of the more important business considerations below may help the Advisory Committee better evaluate these questions:

Prior-Approval versus Vendor-Discretion: In a very broad sense there are two types of business models being used by global exchanges. The first (vendor discretion) gives a license to the vendor to redistribute data without pre-approval but subject to the terms of the exchange contract. This is a model used by most exchanges around the world. The second (prior-approval) starts with the premise that no one is allowed to do anything with the data until it is approved in advance by the exchange. This is a model used primarily by the North American equity exchanges. Both business models are subject to audit as the means of verification. Some vendors have argued that the North American equity exchange approach is administratively cumbersome. The exchanges contend that it is necessary for them to effectively manage their business.

User Classification: North American exchanges use various classification systems to determine the rights to use market data and fees. For example, there is a distinction between "professional" and "non-professional" subscribers for fee determination. In addition, there are distinctions between "vendors", "sub-vendors" and "subscribers" as well as distinctions between "internal redistribution", "external redistribution" and "no redistribution". These classifications are used to determine contractual obligations, liability, fees and administrative requirements. For each class of user, fees may vary based on how the user applies the data.

Unit of Count: This refers to how market data is counted and priced as well as to how the unit is to be applied in vendor and exchange contracts. There is an ongoing debate within the industry on who and what gets counted. Units of count can be device-based, user-based, location-based or identification-based. There are units of count policies for single users, common areas, shared terminals, and users with multiple terminals. The unit of count is not consistent within the industry. Implementation is dependent on billing approach (direct versus indirect) and exchange business policy. Inconsistent units of count definitions complicate billing reconciliation.

Subscriber Agreements: Subscriber agreements are the method by which exchanges and vendors seek to control the use and distribution of information and determine responsibility for compliance with exchange requirements. Subscriber agreements are used to determine liability, recognize rights to use data and to identify restrictions on data usage. U.S. exchanges have tended historically to specify their own Subscriber Agreements. Many overseas exchanges require vendors to ensure that the vendor-subscriber agreement protects the essential interests of the exchanges with regard to their market data. The debate is about the need for these agreements as well as the form and content of the agreement. This includes the creation and use of a common form agreement and the use of click-on agreements for both professionals and non-professionals.

Billing and Reporting Requirements: Current mechanisms for billing and reporting are cumbersome, costly and inefficient for everyone in the industry. For user firms

this is about invoice reconciliation and managing their market data inventory. For exchanges this is about getting compensated for market data. Vendors are in the middle, frequently acting as the licensee of the exchange as well as the reconciliation agent for the user. Billing and reporting is multiple-system and very manually intensive. There is broad global agreement on the objectives of simplifying and automating the billing process, but it is a huge task complicated by inconsistencies in reporting requirements and billing approaches (direct versus indirect).

Non-Real Time Data: This refers to the market data policies governing delayed data. There is general concern to ensure that delayed data is not passed off as real-time. However, the contractual status of delayed data varies substantially between exchanges and the practical problems of both determining intellectual property rights and applying rules and policies to data are considerable.

Derived Data: Most market data agreements include general or specific rights for vendors and subscribers to process data. Very few contracts are entirely clear on the extent to which vendors and subscribers are licensed to create or derive their own intellectual property from exchange market data (i.e. indices, graphs or historical analyses) and on the extent to which data derived in this way is subject to market data fees and reporting requirements.

The administrative burdens related to the management and use of market data are substantial and costly to all participants in the market data industry. As a general rule, FISD members believe that the provision of market data should be easy to administer and flexible enough to accommodate new technologies and electronic commerce initiatives.

The good news is that all segments of the industry – exchanges, vendors and user firms alike – agree with this objective and are working together to simplify, standardize and automate business processes. However, there are at least two significant obstacles that must be addressed to make this objective a reality. The first is agreement on the adjustments to business requirements. The second is simplification and automation of business processes to promote efficiency. Let us offer a few examples to illustrate the issues:

In terms of business requirements, the issues associated with direct versus indirect billing and unit of count are good illustrations of the complexities of the factors at work and areas where there is an honest difference of opinion among industry participants.

Direct vs. Indirect Billing

NYSE, OPRA, and Nasdaq (for data feeds) have a direct contractual and billing relationship with their subscribers. They have a prior-approval requirement through the Exhibit A/Schedule A process. Some vendors have argued that this is unnecessary and administratively cumbersome. They would like to see the exchanges adopt market data contracts that authorize the use of data according to the rules specified by the exchange. In fact, this is the business model in use by most of the exchanges around the world.

The North American equity exchanges, on the other hand, have adopted this convention because they say it is needed to support their direct contractual business model as well as their billing requirements. The debate centers on whether the exchanges are willing

to migrate to vendor billing. The benefits and drawbacks of vendor billing is a subject of great debate within the industry. The exchanges, and many of the large user firms that report direct to the exchange, do not advocate vendor billing because of concerns about the accuracy of invoices and because of the difficulties of reconciliation associated with indirect billing and reporting processes.

Unit of Count

Standardization of the unit of count is another area of great debate. Do you count units, passwords, or locations? If two data feeds are supporting one user, is that one unit or two? What happens if there are two terminals on one desk -- one for analysis and the other for trading -- is that one unit or two? What about for shared terminals, is the unit of count the terminal, unique ID, or the total number of users? For an enterprise license, do you base the unit of count on accesses, terminals, the number of registered representatives, trading turnover or some other metric?

Obtaining consensus on business requirements is not a simple task. FISD facilitates improving the overall business climate by providing a forum for open dialogue on the implication of these business issues to occur. We believe that the work our members are doing in this arena indicates a genuine attempt by all sides of the industry to converge on business requirements that can be applied and enforced efficiently and practically on a worldwide basis. Ideally, these business concerns would be managed as legitimate business concerns that need to be managed based on the business realities of the involved parties. However, some of our members feel that the Commission might have to exercise oversight on business policy in areas where the policy requirements could be viewed as an "impediment to commerce" or where resolution of these issues proves intractable.

Business Process Automation

The simplification and automation of business processes to promote electronic commerce and operational efficiency is an area where there are significant opportunities for reductions in the cost of market data management and administration. This is also an area where progress is occurring. FISD's role in business process automation is to facilitate and build consensus via industry working groups and to identify, analyze and promote advances introduced by industry leaders. Industry reference tools such as the Exchange Contract Guide and the Market Data Policy Database are being used as resources in this area.

Industry cooperation has already resulted in a consolidated Exhibit A/Schedule A. NYSE is presently testing an automated data feed request process that will significantly reduce the turnaround time for authorization. This is a significant development and one that will allow for faster response time to marketplace needs.

User firms within FISD have proposed a standard unit of count definition for industry-wide consideration. NYSE among other exchanges around the world have adopted this definition and implemented policies and automated billing and reporting systems that allow users to pay only once if they access the same data from multiple sources.

FISD members and working groups will continue to explore the possibilities for reducing inefficiency where possible using current business models. These may include, for

example, the adoption of new technology in administrative systems, the use of common industry billing and customer identification codes to facilitate billing automation, extending the use of "click-on" agreements and using automated online administration procedures to replace hard copy documents.

Definition of Core Data

So far, this paper has highlighted the complexity of global market data administration and identified issues where there may be little benefit, in terms of industry efficiency or investor protection, from direct involvement by national regulators. The discussion concerning the level of information required for market transparency currently taking place among the members of the Advisory Committee are areas where leadership by the Commission, in consultation with the industry, could have significant national and global benefits.

And while this paper is about market data business practices, we recognize the concepts of information competition, the role of exchanges as value-added information providers, the notion of mandates on the factors of production and the potential for changes to the display rule make these issues particularly relevant.

I'd like to emphasize that while FISD is not taking an organizational position on these core issues, we do recognize that there are important market data business practice implications of the following:

- **What is the definition of core data?** Points raised by information vendors such as Bloomberg (see attached paper) suggest that the definition of core data should include all market data that cannot be derived by reverse engineering. According to Bloomberg, core data would likely consist of the National Best Bid/Offer (NBBO), last-sale and other information required by information vendors to build the informational displays and analytical tools needed by the investment community.

For example, if an exchange sells a derived product, such as a depth-of-book indicator, should it have to make available to vendors and investors all the constituent data elements that were not otherwise available and were used to create the derived product – such as the depth-of-book data that was used to create the indicator? The underlying issues is whether the exchange should retain rights of access to unpublished data that can be used to create a unique competitive advantage in the market of derived data?

- **Should depth-of-book data be mandated?** The general perspective within the market data industry is that with the advent of decimalization, market participants need to see complete depth-of-book exposure. To preserve the standards of transparency, some members are suggesting that core data should include access to the depth-of-book (i.e. the highest level of transparency offered by an exchange).
- **Should exchanges compete in the provision of value-added information?** To reinforce the March 1 Advisory Committee discussions, we have found no objections to the right of exchanges to compete in the value-added information business. The primary issue of concern raised by the vendors relates to the method of ensuring that there is a

level playing field on access to core data. In other words, they are suggesting that the discussion examine methods of ensuring that there is no cross-subsidization so that exchanges bear the same costs as independent entities for core data used to create value-added functionality and analytics. Some members have suggested that the use of Exhibit and Attachment A's and the requirement for pre-authorization puts the exchange in a privileged position of knowing what applications are being proposed. They are concerned that this gives the exchange an advantage to the extent they become competitors of information vendors and users.

Conclusion

In the short time available to produce this report, there has been limited opportunity for individual FISD members to provide considered and detailed input. A large number of FISD members, inside and outside the United States, have welcomed the Commission's interest in market data and preparedness to consult the industry on the best way forward. FISD members appreciate the opportunity to help the Commission and the members of the Advisory Committee on Market Information more fully understand the issues associated with market data management. In summary, we believe there are three core issues to be considered:

1. Market data management is complex. Decisions on fees need to be understood in context of the business policies and procedures of the data originators. To further enable the SEC and market participants to understand and monitor the prices and terms offered to data vendors, FISD believes that transparency of fees, contractual terms and conditions, business requirements and administrative procedures related to the provision and use of market data are essential.
2. There is a distinction that can be made between the issues related to market data business processes and those related to market data business policies. And while there is honest disagreement on some of the business policy issues, the entire industry accepts that the system for disseminating market data should be at the leading edge of technology and able to embrace the efficiencies of electronic commerce. Customers should be able to subscribe to, report usage on and pay for market data products electronically in digital form.

The North American equity exchanges point out that good faith efforts to reduce administrative burdens through cooperation and standardization of contracts, policies and procedures could be viewed as anti-competitive. In order to promote standardization, they suggest that the Commission may want to consider providing them with limited exemptions to both encourage and allow them to cooperate and standardize their approaches to market data administration for the benefit of investors and the securities industry.

3. FISD's experience suggests that business model flexibility is essential to enable exchanges react to new industry developments. As such, we are unclear how direct Commission involvement in market data business policy and administration would help the industry better manage the business challenges associated with a rapidly evolving industry environment.

That being said, we are fully aware that with the emergence of information competition, exchanges will likely become competitors in the value-added information business. Given the uncertainties of this new environment, it is possible that unregulated business practices may have the unintentional consequence of impeding commerce. As such, we understand and support the critical importance continuing Commission involvement and oversight over the fees, policies and administrative procedures regarding the provision and use of both core and value-added market data.

Once again, on behalf of the members of FISD, thank you for your consideration of the issues outlined in this memo. We will make a brief presentation on market data management issues during the April 12 meeting. In the meantime, please feel free to contact me with questions or points needing further clarification.