Bloomberg

July 12, 2001

Mr. Joel Seligman
Dean and Ethan A. H. Shipley University Professor
Washington University School of Law
1 Brookings Drive
Campus Box 1120
St. Louis, MO 63130

Re: SEC Regulation of Access to and Fees for Core Market Data

Dear Dean Seligman:

Bloomberg L.P. ("Bloomberg")[1] has followed closely the work of the SEC Advisory Committee on Market Information (the "Advisory Committee") and has read with interest the transcripts of proceedings and other documents filed with the Advisory Committee, including the memorandum of June 14, 2001 Mr. Richard G. Ketchum of The Nasdaq Stock Market, Inc. ("Nasdaq") submitted to you (the "Nasdaq Memorandum") and the letter of July 6, 2001 (the "NYSE Letter") to you from Mr. Robert G. Britz of the New York Stock Exchange, Inc. (the "NYSE"). The Nasdaq Memorandum and the NYSE Letter particularly call attention to three questions that are at the heart of the Advisory Committee's work:

- What market data are essential to price discovery, best execution and a fair opportunity for competition among for-profit market-data providers (referred to below as the "Core Market Data")?

- How should Core Market Data be fairly priced and distributed to promote competition?

---

1 Bloomberg is engaged in the business of providing its customers with financial market information, news and analytics via its worldwide electronic network (the "BLOOMBERG PROFESSIONAL™ service"). Bloomberg also serves its broker-dealer and institutional customers' communications needs and facilitates their transaction of business by offering various additional services, including electronic messaging, non-anonymous offerings, bids wanted and equity order-routing and indications of interest, and linkages to certain exchanges within and outside the United States. Approximately two million text messages and transaction messages involving billions of dollars of securities are sent and received by Bloomberg customers across the BLOOMBERG PROFESSIONAL service every business day.

- How and to what extent should the Securities and Exchange Commission (the "SEC") regulate access to and fees for Core Market Data?

Answers to these questions are of vital importance to the national market system. As the Advisory Committee prepares its final report, Bloomberg wishes to take this opportunity to offer its views.

I. How should Core Market Data be defined?

We believe the Advisory Committee's conclusions and recommendations should promote the basic principles and objectives of the Securities Acts Amendments of 1975 (the "1975 Amendments"), specifically the consolidated quotation and display rules that ensure the transparency of the markets. We think it is necessary for the SEC to take affirmative steps to continue to promote market transparency and to promote a fair opportunity for competition among for-profit entities that provide market-data services. The SEC should do so by adopting a definition of Core Market Data that will invigorate, not limit, competition among data providers. Those steps are made all the more necessary in light of the technological changes that have occurred in the markets over the quarter century since the 1975 Amendments were enacted and with the advent of decimalization and the increasing prospect of the privatization of securities exchanges.[2]

A principal objective of the Advisory Committee's report should be to emphasize the need for transparency with respect to market information and competition in the distribution of market information. Competition is often a better regulator than the government, particularly in cases where considerations such as quality of service and efficiency of operation are significant. To work appropriately, however, competition must be among market entrants that enjoy an equal opportunity to compete in an environment where no individual competitor enjoys special governmentally granted privileges that are not available to the other competitors.

Exchanges should not be able to exploit market data to which they alone have privileged access without sharing the data on an equal basis with other business entities that would compete with them in providing data analytics, market models, order-management systems and data-delivery systems. That is the single most important point the Advisory Committee should embrace in its report.

A. Bloomberg's proposed definition of Core Market Data

In light of this fundamental issue, Bloomberg believes that the concept of Core Market Data should encompass the data the exchanges must disseminate on a fair and equal basis and at a reasonable cost. Core Market Data should be defined in a fashion that

---

[2] In using the term "exchange", we mean to include Nasdaq, which has filed an application with the SEC for registration as a national securities exchange.

would promote the principles of transparency and fair competition that underlie the national market system provisions of the Securities Exchange Act of 1934 (the "Exchange Act") that were added by the 1975 Amendments.[3] As so defined, Core Market Data must not be determined solely on the basis of marketing choices made by the exchanges but should include as an irreducible minimum all depth-of-market data possessed by the exchange as well as such other information, as the SEC should specify in rules, that market participants need to evaluate the state of the market. With the advent of decimalization, market participants need much greater depth-of-book exposure than is today afforded. Decisions will need to be made as to how much of that information should be made available. That information should be treated as Core Market Data and should be made available to all on non-discriminatory terms.

Core Market Data should of course include not only the NBBO and last-sale data but also other market data about unexecuted orders that are at or near the NBBO as well as any value-added products developed by an exchange or a related vendor whose constituent data elements were not previously made available on a non-discriminatory basis to competitive vendors or otherwise disclosed as Core Market Data. The public release of the value-added product or its constituent elements should be preceded by disclosure of the impending release along with pertinent technical information to competing entities at the same time as the exchange discloses the information to its own product-development unit, to give the competitors a fair opportunity to distribute the Core Market Data and/or to make their own value-added products. If an exchange releases publicly a value-added product without previously having released the constituent data elements, the exchange should have to treat that value-added product as Core Market Data and price and distribute it on the same basis as other Core Market Data.

As noted below, an exchange engaging in the development and marketing of Core Market Data or of value-added products that depend on Core Market Data should have to conduct the marketing through a separate subsidiary or other legal entity that purchases the constituent data or value-added product from the exchange at the same price and on the same terms as all vendor competitors.

The definition of Core Market Data, moreover, should be sufficiently broad and inclusive to promote both market transparency and full and fair competition in the distribution and display of the data themselves and value-added products constructed from or nourished by the data. As the Advisory Committee knows, the securities exchanges in the United States currently enjoy special privileges not available to others that would compete in the distribution of data. Chief among those privileges is the unique access exchanges have, without charge, to market data generated by their members through use of their exchange facilities. The exchanges' special access to those data is reinforced by the

---

[3] *See* Section 11A(a)(1)(C)(i) through (v) of the Exchange Act.

SEC's own Rule 11Aa3-1(c)(2),[4] which prohibits both exchanges and exchange members from distributing data concerning trades outside the context of an approved data plan. The resulting monopoly enjoyed by the exchanges, and particularly the NYSE, the Amex and Nasdaq, gives those bodies a unique, government-protected position, one they are unwilling to relinquish or share with others.

In view of their unique and privileged position, the exchanges should not have any exclusive proprietary right that would permit them a unique opportunity to develop value-added products on the basis of market data that is otherwise undisclosed and then to charge what the traffic will bear for the products. Others should have a fair opportunity to develop their own value-added products with the same data as the exchange used for its product and should not have to pay a royalty to the exchange for use of those data in such products beyond the prices charged for the data themselves as Core Market Data. If an exchange sells a value-added product (such as a market indicator), it should have to make available on a timely basis in advance to all vendors at a minimum, for the same price and on equal terms as Core Market Data, all the constituent data elements that were not otherwise available and that were used to create or nourish the value-added product, such as the data used to create or nourish the indicator or else, by definition, the value-added product should be treated as Core Market Data. As discussed below, an exchange should not be able to compete in the creation and distribution of value-added products except through a separate legal entity that acquires the constituent data elements on the same terms and at the same prices as other vendors. In other words, an exchange should not be able to use its monopoly access to unpublished market data to obtain a unique competitive advantage in the competitive market in value-added products, such as data analytics.

Now that at least Nasdaq and perhaps soon the NYSE will be public, for-profit companies, they enjoy a private treasure trove of the raw materials that are necessary to the construction of data analytics, order-management systems, and other value-added functionalities that use Core Market Data for the benefit of market participants or others. If the Advisory Committee is to do its job, it must address that inherent disparity and recommend a solution that will put other potential data distributors on an equal footing. If all distributors of market data do not have equal access to Core Market Data on the same terms, there will not be effective competition and the public will suffer. Exchanges should of course be compensated for their necessary costs of collecting and providing the Core Market Data, together with a reasonable rate of return on capital allocated to the support of those functions.

Market forces will not adequately solve the problem of unequal access to depth-of-market data and other data that fall outside what the primary markets wish to call core data. Market forces are no substitute for fair access, at an equal price, in an

---

[4] 17 CFR 240.11Aa3-1(c)(2).

environment characterized by governmental protection of the primary markets. It is hardly inflexible or inappropriate to suggest that equal access to data is a fundamental prerequisite to fair and vigorous competition.

B. The Nasdaq and NYSE proposed definitions of Core Market Data

Not surprisingly, some exchanges favor approaches that give them competitive advantages over others. In the Nasdaq Memorandum, for example, Mr. Ketchum suggests that Core Market Data be defined quite narrowly as the consolidated best bid, best offer and last-sale data, which he calls "mandatory minimum data". Mr. Ketchum observes that, as trading in decimals expands, market quotation information below a market's BBO becomes increasingly important to investors and others. That premise does not, however, lead Mr. Ketchum to conclude that the added information should be made fairly and openly available to his competitors. Instead, he proposes that Nasdaq's fees for data other than the mandatory minimum, in his words "enhanced data", and "commercial products and services", receive minimal or no SEC regulation. To be sure, limiting the definition of Core Market Data to "mandatory minimum data" would benefit Nasdaq and the other exchanges, but it would do so at the expense of investors since other market-data service providers would not have equivalent access to the market data needed to build competitive products.

The Nasdaq definition falls short of what is needed to protect the national market system and to promote competition. Effectively, limiting Core Market Data to Nasdaq's "mandatory minimum data" would unduly burden competition. It would allow the exchanges to leverage their position as government-sponsored monopolies to obtain unfair advantages in data distribution, data analytics and other value-added services over enterprises that do not enjoy the special governmental subsidies available to the exchanges. If Nasdaq and the other exchanges can keep to themselves depth-of-market data, limit-order data and other indicators of buying and selling interest, they will obtain an unfair competitive advantage not only in the distribution of the data themselves but also in the development and sale of ancillary services in which the otherwise non-public data are embedded.

The NYSE's proposed definition of Core Market Data is better than Nasdaq's, but not by much. It is broader than the Nasdaq definition and recognizes that Core Market Data can consist of data other than the "mandatory minimum data". The NYSE further recognizes that an exchange must provide access to data for which it is the "exclusive source". That concept is an encouraging step toward a definition promoting fair competition, but in defining "exclusive source" the NYSE's proposed distinction between "input" and "output" data takes away much of the benefit.

In its letter, the NYSE argues that an exchange must provide data for which it is the sole source and the exclusive producer but need not provide data concerning unexecuted limit orders, on the theory that the NYSE is not the sole source of those data. The NYSE concludes that data concerning unexecuted limit orders should be free of SEC fee oversight, that the NYSE should be able to treat such data as proprietary and non-public and that it should be able to sell the data for whatever the market will bear. It then contends

that limit-order data become "output" data and Core Market Data only if the limit order is executed because it is only then that the exchange becomes the exclusive source of the resulting trade data.

In support of its position concerning unexecuted limit orders, the NYSE argues that its competitors can go to the same sources as the NYSE uses. Nowhere does the NYSE acknowledge that, unlike its competitors, the NYSE gets its limit-order data for free from members, who are required to provide it.

The NYSE's position is unsupportable in light of the purposes of the 1975 Amendments. Limit-order information is central to price discovery and price transparency regardless of whether the limit order results in an executed trade. For all practical purposes, as long as the NYSE's competitors do not have direct connectivity to the NYSE members providing the limit-order data, the NYSE is, in effect, the sole source of those data. Since this information is essential to price discovery and is not available to the NYSE's competitors on equivalent terms, limit-order data ought to be included in Core Market Data. Accordingly, the NYSE's definition of Core Market Data is inadequate.

II. How should Core Market Data be fairly priced and distributed to promote competition?

A. The single-consolidator public-utility model

Bloomberg favors a single consolidator of market data and pricing for Core Market Data, including consolidated market data, based upon a public-utility model. To be sure, a single consolidator would be a monopolist, but the scope of the monopoly can effectively be limited to the consolidating function itself and not other functions, such as advertising, market regulation and member firm regulation. The operations of the monopoly consolidator can be effectively controlled by competitive bidding to select the consolidator, periodic review of its costs and operations, and effective SEC control over its fee structures and aggregate revenues. If assembled by a single consolidator, the Core Market Data should be sold to all distributors at the same, cost-based prices.

By cost-based, we do not mean that the exchanges and others involved in data consolidation should not realize a return on their investment in the facilities dedicated to the data collection, consolidation and dissemination functions. Rather, we urge a cost-based approach to setting fees for Core Market Data that is based solely upon the reasonable and necessary costs of collecting, consolidating and disseminating market data, which should be reimbursed to those who bear the costs, and not any other costs. The applicable standard should be the one that is customarily applied in ratemaking proceedings by state public utility commissions, where they evaluate whether the rates monopoly utilities charge are fair and reasonable (or "just and reasonable", as some state statutes prescribe). Like public-utility rates, the rates that the exchanges would be permitted to charge would not be limited to cost recovery, but would include a reasonable rate of return, determined by the SEC pursuant to the Exchange Act, on the capital allocable to gathering, consolidating and disseminating market data.

The single-consolidator model is best suited to supporting the Display Rule, Rule 11Ac1-2 under the Exchange Act,[5] which requires the consolidation of data from all exchanges. As long as the Display Rule requires the inclusion of all data, regardless of cost, a single-consolidator model will still serve as the best solution for keeping market-data costs low. Indeed, the most likely result of a system of multiple consolidators would be higher, not lower, market-data costs.

B. Equal access and non-discriminatory pricing

At least as important as the imposition of a cost-based standard for fees for Core Market Data would be the SEC's enforcing equal access to Core Market Data for the same price and on the same terms. To effectively foster competition, we urge the SEC to enforce price parity. There must not be price discrimination in providing Core Market Data. To enable the SEC and market participants to monitor the prices and terms being offered to data vendors for Core Market Data, we suggest the exchanges be required to publish contracts with the data vendors governing the provision of Core Market Data, fees and rates charged by the exchanges for Core Market Data and policies and administrative procedures regarding the provision and use of Core Market Data.

In the NYSE Letter, the NYSE argues that the Congress determined in the 1975 Amendments to "place the SEC in a 'just in case' role as to exchange fees for prices and quotes by giving the SEC abrogation authority rather than responsibility for pre-approval." NYSE Letter at n.2. The NYSE further argues, citing Section 6(b)(3) of the Exchange Act, that the protections are provided by the requirement that exchange rules must "assure fair representation of its members in the selection of its directors and administration of its affairs" and must "provide for the equitable allocation of reasonable . . . fees . . . among its members and issuers and other persons using its facilities." NYSE Letter at n.3. That line of argumentation does not take into account, however, that (i) the representation of exchange members on exchange boards does not necessarily protect investors to whom data fees are passed on, and (ii) the representation of exchange members on the exchange boards, while substantial in the period leading up to the enactment of the 1975 Amendments, has been substantially diluted since then, primarily because of pressure exerted by the SEC for the exchanges to have a majority of "public" members on their boards. Thus, whatever protection the Congress thought was being provided by having knowledgeable industry members control exchange boards has been largely vitiated in the ensuing years. The "public" members of exchange boards, as the Advisory Committee knows, consist largely of representatives of listed companies, who may have only passing knowledge of exchange markets and related issues. The exchange boards are likely to be even less effective as guardians of the reasonableness of fees as the exchanges become private, for-profit entities and their boards owe single-minded fiduciary obligations to their shareholders rather than to investors or the public at large.

---

5 17 C.F.R. 240.11Ac1-2.

C. Systemic Risks of Multiple Consolidators

Both the Nasdaq Memorandum and the NYSE Letter support the move to a system of multiple consolidators. We suggest, however, that the best means of fulfilling the goals of the 1975 Amendments in the equity markets would be for the SEC to mandate the availability of the NBBO, last-sale information and other essential market data via a single consolidator of this information. Particularly given the complexities of the equity markets and the inherent difficulty of administering a system of multiple consolidators of trading data, the introduction of such a system would pose significant risks. We note in that regard that the SEC favored a single, government-sponsored monopoly consolidator of data for the debt markets, embodied in the NASD's TRACE system, in part because of a fear that multiple consolidators would lead to confusion, if not chaos. While we did not endorse that approach for the debt markets, we think the equity markets present a fundamentally different and far more compelling case for a single consolidator. In the debt markets, many fewer transactions occur on a daily basis than occur in the equity markets and the prices tend to move in relation to established benchmark securities such as U.S. Treasury securities. In the equity markets, trading is much faster, and pricing is more volatile and the timeliness of order and trade data is far more crucial to the efficiency of the markets. Accordingly, one would have thought the equity markets are an *a fortiori* case for a single consolidator.

Under a system of multiple consolidators, there would be significant concerns about the consistency and reliability of the Core Market Data. At present, a circuit delay in a single market has no deleterious impact on the search for best price. Since there is, at present, a single consolidator, all market participants are equally disadvantaged. By contrast, under a multiple-consolidator system for Core Market Data, the same circuit delay in a single market or with a single consolidator—a delay that at present has relatively little real-world impact—would instead frustrate the discovery of best price, the very heart of the national market system. The market can discipline those consolidating information beyond the Core Market Data. The market cannot effectively discipline multiple consolidators of the Core Market Data.

Current technology does not provide a clear solution to, for example, the problems of data verification, capacity metering, the proper sequencing of the NBBO, last-sale information and Core Market Data accurately and reliably across multiple markets by multiple providers. In addition, if the source of Core Market Data competes with other enterprises in the provision of services that rely on Core Market Data, fair competition will not be possible unless each has equal access to the Core Market Data, on the same terms and for the same prices.

The problems that would arise from multiple consolidators are real and intractable in the absence of a coordinated approach to data consolidation. Given the current state of technology, there is no basis for believing that either the markets or the SEC could readily resolve those problems. In fact the real question is whether the multiple-consolidator proposal offers a sound alternative to the current system. No one has built a prototype of a multiple-consolidator system or proposed how to build one, but everyone agrees the problems are real. The strongest argument in favor of undertaking such an experiment is that the current system is

flawed and that, perhaps, the markets can do no worse. We doubt the validity of that conclusion. If indeed the multiple-consolidator system were to fail, the result might be to leave the major market centers as the unregulated, sole-source providers of market data. Such a result would hardly be in the public interest.

In our view, competition should apply to the distribution of Core Market Data, as we would define that concept, and to the creation of value-added services that use Core Market Data. Competitive innovation should begin at the point of receiving reliable, properly sequenced market data. If investor confidence in the fairness and transparency of the markets is to be maintained, there should not be competing data streams of uncertain quality and reliability.

III. How and to what extent should the SEC regulate access to and fees for Core Market Data?

In the Nasdaq Memorandum, Nasdaq contends that market-data policy should create incentives for markets operated by self-regulatory organizations ("SROs") to create and offer new kinds of "enhanced data products". Both Nasdaq and the NYSE are concerned that current market-data policies, in particular the review by the SEC of changes in fees charged for market data pursuant to Section 19(b) of the Exchange Act, place an unfair burden on SRO-operated markets and create disincentives to innovation and competition. Nasdaq argues that competitive forces should be permitted to operate freely so that exchanges and Nasdaq will be able to compete on a fair and level playing field "without being unduly encumbered by regulatory oversight and scrutiny by competitors through the public comment process." Nasdaq Memorandum at p. 3. Both Nasdaq and the NYSE propose to reduce SEC oversight of market-data fees charged by SROs, reduce or eliminate SEC review of market-data products and services and increase the unilateral discretion of the SROs "to determine how to make enhanced information available to the appropriate constituency." Nasdaq Memorandum at p. 1.

Both the Nasdaq Memorandum and the NYSE Letter cite to the exemption granted by the SEC to Nasdaq from Section 19(b)'s requirement for SEC review of rule and fee changes as to the activities of Nasdaq's proposed software development subsidiary, Financial Systemware, Inc. (the "FSI Exemption").[6] We agree with Nasdaq and the NYSE that the FSI Exemption is important. In granting the FSI Exemption, the SEC pointed to the risks that are posed by a for-profit exchange acquiring a subsidiary that provides order management software. The SEC set four conditions on granting the exemption: (i) the continued presence of a high level of effective competition in providing order-management system ("OMS") services and software to market makers; (ii) use of the software marketed by the Nasdaq subsidiary is not and will not in the future be necessary to access Nasdaq or any other NASD market-related facility; (iii) full public access to Nasdaq must be available through the Application Programming Interface and the NASD and Nasdaq must maintain fair and equitable access to the Nasdaq system and encourage the development of software

---

[6] Securities Exchange Act Release No. 44201 (April 18, 2001).

by NASD members and competing software vendors; and (iv) the NASD and Nasdaq agree not to provide their subsidiary with an informational advantage concerning Nasdaq market-data facilities. In addition, the SEC required that FSI not share employees with the NASD, Nasdaq or any other NASD affiliate, that FSI be housed in office space that is separate from that of the NASD or Nasdaq and that FSI be treated like any other third-party vendor with respect to the provision of information regarding planned or actual changes to Nasdaq.

Implicit in the FSI Exemption is the distinction between data and functionality, between raw material and a finished product. The OMS software produced by FSI is a functionality. The data that it manages are part of the raw material essential to creating the functionality. To the extent that OMS software produced by FSI is a delivery system for Core Market Data, it is important that FSI be organized as a separate legal entity to foster competition from other software providers. The SEC clearly understood the anti-competitive potential of Nasdaq's software subsidiary and took steps to separate it from its parent. We would suggest that the SEC continue the work it has begun in the FSI Exemption by requiring that whenever a subsidiary of an exchange proposes to produce a functionality, for example, OMS software, to use raw material that includes Core Market Data, that the exchange that provided the Core Market Data provide that same raw material at the same time to the subsidiary's competitors on the same terms and for the same price and according to the same delivery schedules as contemplated for exchange use. The delivery should be in accordance with the same software protocols, specifications and parameters as the exchange provides to its vendor subsidiary.

The NYSE Letter endorses the fundamental concept that, if data are essential and an exchange is the sole source of those data, then the exchange must provide those data. Exchanges are the sole sources of Core Market Data, the raw material for building the functionalities that facilitate the ways in which investors interact with the markets. The FSI Exemption stands for the proposition that, when the exchanges compete in the market for functionalities that are delivery systems for or based upon Core Market Data, they must do so through wholly separate legal entities that gain access to the Core Market Data at the same time, for the same price and on the same terms as the Core Market Data are offered to their competitors.

At present, one consolidator, Nasdaq—which also is a regulator—is on the way toward completing privatization and becoming a for-profit competitor. The other major consolidator, the NYSE, also has considered becoming a for-profit competitor. In the absence of governmental action, these government-sponsored monopolies will be full-fledged competitors of information vendors without having to yield any of their monopoly powers. The markets may well be presented with possible anti-competitive behavior by sole-source monopolies. Particularly given the policies the SEC enunciated in the FSI Exemption, we believe the solution is to require that central consolidators spin off their for-profit entities that will provide data, analytics and other data-based functions beyond the Core Market Data so that they will compete as separate and distinct legal entities without the advantages of monopoly cross subsidies. These entities should bear the same costs to acquire Core Market Data as independent entities bear, should receive the data on the same basis and not any faster than the other entities do, should not

receive information about future enhancements any sooner than the other entities do and should have to demonstrate through filings with the SEC that these conditions are being met. Access to Core Market Data should be on equal and identical terms for all competitors. For-profit exchanges should not be in a position to establish captive systems for the delivery of Core Market Data without protections for other providers of market data. With such protections, the result would be a fair opportunity to compete and innovate at a level beyond the Core Market Data.

IV. How should the above principles apply to Options?

We think the same principles as apply to the equity markets should apply with equal force to market data in the options markets. The need for market transparency there is as great as in the equity markets, in our view, and the need for effective competition is paramount there as well.

V. Conclusion

If all parties are to compete fairly in providing innovative products based upon Core Market Data, all parties must have equal access to Core Market Data for the same price and on the same terms as their competitors. Failing to protect equal access to Core Market Data would stifle both innovation and competition and drive up the cost of market data to the investing public. If the exchanges are allowed to control access to Core Market Data or if Core Market Data is narrowly defined, competition in providing essential data and innovative functionalities to investors will be diminished. The issue goes to the heart of the soundness and integrity of the national market system. The market is strongest and investors are best served where innovation and competition are fostered. Regulation of market data that does not mandate ready and equal access to Core Market Data to all market-data providers would benefit exchanges at the expense of investors.

Sincerely yours,

Lou Eccleston by RDB

Lou Eccleston

cc: Annette Nazareth
David Shillman
Anitra Cassas
Members of the SEC Advisory Committee on Market Information