To: Members of the Advisory Committee on Market Information
From: Donald C. Langevoort
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The Subcommittee on "alternative models" for market data consolidation was formed shortly after the full Advisory Committee's March 1, 2001 meeting. At the request of Dean Seligman, I agreed to chair the Subcommittee. Representatives of the following organizations volunteered to join the Subcommittee and participated in its activities: Archipelago, American Stock Exchange, Charles Schwab, Chicago Stock Exchange, Datek, Fidelity, Nasdaq, New York Stock Exchange, and Reuters.[1] Representatives of the SEC staff also participated in the Subcommittee's work, which consisted of two full-day meetings held on March 26 and April 16 at the SEC. These meetings were not public, and no transcript was made of the proceedings. Minutes were taken and circulated to all Advisory Committee members after each of the meetings.

The Subcommittee did not work from a clean slate. During the fall, alternative models for data consolidation were submitted to the full Advisory Committee by five organizations (Archipelago, Datek, Nasdaq, New York Stock Exchange and Reuters). Schwab also offered suggestions for reform, though not in terms of a specific model. (Subsequently, Schwab submitted a summary of a competing consolidators model to the subcommittee). The various proposals were discussed at some length at the Committee's December meeting, and this discussion became our point of departure. During the course of the Subcommittee's deliberations, some proponents submitted revised or additional descriptions of their models or plans.

The work of the Subcommittee can be broken down into two distinct parts. First, we considered the technological challenge: what technological risks would be posed by moving to an environment of competing consolidators, and what regulatory response, if any, is appropriate to control these risks? As discussed more fully below, a fairly optimistic consensus (though not complete unanimity) emerged here. While there would be some new forms of risk, they are not of a completely different character than the risks faced as multiple competing vendors take the consolidated feeds today and repackage them for their customers. They can probably be faced without the need for extensive regulatory involvement. Put another way, most members of the Subcommittee concluded that if a move to competing consolidators is appropriate on economic policy grounds, the technological risks are manageable enough that they should not stand in the way of any such move.

The second basic issue addressed by the Subcommittee was that policy choice. What economic benefits, costs and risks would flow from a move to competing consolidators, and would it be a good idea to move in this direction? On this, our discussion subdivided into two parts. First, what would be the mix of costs and benefits if the move to competing consolidators is accompanied by a retention of the display rule (11Ac1-2) in such a way that each consolidator would still have to make available the

[1] Simon Johnson of MIT volunteered to serve on the Subcommittee but was unable to attend the meetings.

NBBO and last sale data currently required by that rule? Second, as vigorously urged by some members of the Subcommittee, what mix of costs and benefits would result from a move to competing consolidators accompanied by a repeal of the display rule, so that consolidators would be free to offer to their customers whatever package of market data they wished? Although we had a very productive discussion of all these issues, the Subcommittee did not reach any consensus on the ultimate policy question.

Technology Issues

The Subcommittee began its first meeting with a presentation by a SIAC representative on the technological challenges in moving from a single consolidator to multiple consolidators. We have no way of knowing how many consolidators there eventually would be. This would depend on, among other things, the marketplace opportunities presented (including whether the display rule remained in effect). There were predictions by Subcommittee members that the number probably would be small. We were told that the process of consolidation for Tapes A and B currently costs SIAC around $7 million annually. By itself, consolidation might not present a large market opportunity, although more information would be necessary to make any such assessment.

With multiple consolidators, each market center would provide best bid, best offer and last sale price, time and volume information through a direct data feed to any number of securities information processors or vendors. The move to multiple consolidators, then, would require that standards be established so that these feeds could be consolidated in an efficient and consistent fashion. Subcommittee members identified certain risks that might flow from potential hardware/software differences, different validation tolerances, capacity variations, and different sequencing rules. Most members of the Subcommittee were persuaded that there would be a strong marketplace pressure to provide a reliable consolidated product without the need for significant SEC intervention. Market centers want high quality data dissemination, and will insist on demonstrations of capacity and performance. Trade groups can assist in the coordination process in much the same way that they do today at the vendor level.

An approach proposed by Nasdaq that gained support from other Subcommittee members would have each market center (acting individually or through a narrowly tailored joint industry plan) file with the SEC its plan establishing protocols and other technical specifications, as well as capacity requirements and performance standards. These filings would occur after vetting the issues with consolidators and other interested parties, perhaps via an advisory committee. The filing procedure would provide some assurance that the protocols and performance standards were not being set in a way that would be unfair or anti-competitive. Some Subcommittee members suggested that consolidators that failed to meet the specifications and standards could be denied access, with an appeal right to the SEC (on an expedited basis). In the meantime, observed deficiencies at the consolidator level might be tagged with some sort of "red flag" pending resolution.

While this approach was deemed better than one with more active SEC involvement in standard-setting and supervision, a number of Subcommittee members argued that the suggested process was overly formalized in a way that could result in a lock-in of outdated specifications and decreased flexibility. These members believe that informal industry plans and mechanisms would suffice to manage the above-described risks. Only if informal processes prove inadequate should a program of formal specifications be implemented.

In sum, most Subcommittee members expressed the belief that the market's interest in the quality of data dissemination -- and competing consolidators' market-driven need to satisfy their own customers -- should result in successful delivery of data with limited risks of failure. To this proponents add that multiple consolidators mean the elimination of a single point of failure at the consolidator level, so that (unlike today) any failure that did occur would not necessarily have system-wide consequences.

We asked Michael Atkin to survey the vendor community as to whether they agreed with this assessment. His response is being distributed separately to the Advisory Committee.

Policy Issues

The harder question is whether a competing consolidator model is worth pursuing on broader policy grounds. As noted above, one method to assess the economic benefits, costs and risks is to consider two different scenarios. The first is a simple move to competing consolidators without any other significant regulatory change. The second involves that move coupled with a second step: repeal of the display rule. Because no consensus developed on the overall policy question, I will simply summarize the principal issues and the competing arguments made by Subcommittee members during our two meetings.

A. *Multiple Consolidators With the Display Rule*

In prior meetings of the full Advisory Committee, there was substantial support expressed for retaining the display rule. Thus, without necessarily endorsing that position one way or the other, we first considered the policy impact of a move to competing consolidators in an environment in which that rule remained in place. In so doing, we are assuming that market centers and market participants (e.g., broker-dealers) should be free to sell data beyond that mandated by the rule without any more regulatory restriction than currently exists.

BENEFITS. Subcommittee members identified two primary benefits that would come from a move to competing consolidators. The first is a greater ability to innovate. Both the force of competition and the dismantling of the consortium governance structure make it more likely that modifications of the system will occur quickly to take advantage of new technologies and market opportunities.

Secondly, there are ancillary gains from dismantling the consortia. Today, competitors act in concert with respect to an important data dissemination activity. In dismantling the consortia, the administrative burdens associated with joint administration are removed, along with potential antitrust exposure. (The administrative functions would be shifted to the individual market level, potentially adding administrative complexity at that level). More importantly to some markets, the consortia's subsidization of the regional exchanges, to the extent that their income from market data exceeds the economic value of that data, would be eliminated. One Subcommittee member framed the question by saying that were the issue of a monopoly consortium considered for the first time today, it would be impossible to make a convincing case in favor of it in light of the current technological and marketplace environment.

COSTS AND RISKS. One cost associated with multiple consolidators is a direct one: duplication with respect to the hardware, software and personnel needed to perform the consolidation function. In other words, the system-wide costs associated with consolidation might increase above those that the plan processors currently incur, though there was no agreement that this would necessarily occur or be a substantial increase. In addition, there will be an increase in the transaction costs associated with each exchange negotiating and administering its own data dissemination vis-à-vis multiple consolidators.

The lengthiest discussion in the Subcommittee regarding the risks of competing consolidators related to market center pricing. The display rule in effect compels consolidators to buy data from each market center, giving both primary and secondary markets considerable power to seek monopoly rents for their data. The feared result is a substantial increase in the total revenue flowing from data users to market centers.

In response, proponents made three kinds of arguments:

(1) Market centers are constrained by their own constituents. Members of the exchanges are users of data, and would oppose excessive pricing because they have to absorb it. Public board members would have a similar influence on behalf of investors generally. And issuers over whom the exchanges compete for listings would oppose any pricing that unnecessarily reduces the general public availability of data about their trading.

(2) Alternative sources of data would also make it harder for market centers to price aggressively. Some of the data (e.g., quotes) could be purchased from other sources such as the originating broker-dealers.

(3) The existing regulatory structure (Section 11A(c)(1)'s standards of "fair and reasonable charges" by exclusive securities information processors and "no unreasonable discrimination" with respect to data availability to users) would still be in place to control abusive pricing. The potential for SEC intervention alone would deter the market centers from being overly aggressive.

While these points were forcefully presented, other Subcommittee members expressed concern that pricing inefficiencies would persist, especially if exchanges move to for-profit status. Alternative sources of data might not be readily available, especially with respect to last sale data and quotations from the primary market centers. While the existing legal restraints on pricing are significant, it was thought by some members that the SEC could be drawn into a far larger number of potential disputes as the number of contracts between consolidators and individual exchanges increased.

The question then posed to the Subcommittee was whether, in light of these market power concerns, the SEC should consider some refinement to the existing regulatory constraints on market center pricing. For example, should there be more clearly articulated standards regarding impermissible discrimination or "most favored nation" status among users? A few members of the Subcommittee favored such a step, with one arguing strongly that the law should reallocate the rights to profit from market data from the exchanges to a broader base of those who generate market data, and prohibit discrimination based on the end-use of the data by the purchaser. Most members, however, did not advocate any new or different system of pricing regulation.

B. *Abandoning the Display Rule*

From the beginning, some Subcommittee members expressed the view that the greatest benefits of a competing consolidator marketplace would come if the consolidators were free to respond to market forces in determining what data to deliver to their customers, rather than be forced to comply with the display rule.

Much of the concern here was directed at the display rule as currently constructed, and posed issues well beyond the competing consolidator issue. Whether the NBBO as currently defined still makes sense in a decimal environment, for example, or whether ECNs should have their quotes included in the NBBO were viewed as important questions. Also discussed by the Subcommittee was whether the display rule might be revised so that the mandatory display requirement applied only at the time of the customer's decision whether or not to effect a transaction. While all these (and others) might be worth further consideration by the SEC and its staff, we sought to limit our discussion to focus only on the display rule as it related directly to the competing consolidator model.

BENEFITS. There are two immediately obvious potential benefits from moving to competing consolidators without the display rule (in addition to those already specified in Part A). The first is that market forces would determine the kind of information that investors want: if they wished to purchase less data for less money, they could be accommodated. More different kinds of data products would emerge, fueled by technology and innovation.

Second, potentially monopolistic pricing power of the secondary market centers could be diminished. Because consolidators would not be required to purchase data from markets whose data has relatively little or no value, the non-primary markets would have pricing power more commensurate with the value of their data. They would thus have to compete on price or by enhancing the quality of their data (i.e., offering better quotes) in order to maintain this revenue, which could have a beneficial effect on inter-market competition.

COSTS AND RISKS. While the abandonment of the display rule would plainly take away any artificial market power of the non-primary markets, it is by no means clear that it would be a significant restraint on the pricing power of the primary exchanges. To the extent that market participants needed the data generated by the New York Stock Exchange or Nasdaq to do business, they would still be forced to buy it. (Some members believe that related proposals, such as most favored nation pricing based on enterprise fees without limitations on derivative uses, would address this.) Not all Subcommittee members were convinced that alternative sources of data would suffice to recreate NYSE data, for instance, at least without possibly violating prevailing legal rules. Hence, the question returns to that addressed in Part A: would other constraints (e.g., constituent pressure and internal governance) deter the dominant exchanges from exercising their market power? If not, would some additional regulatory intervention be necessary?

The second major risk is to the principle of best execution. If the display rule is eliminated, will market forces deliver to investors and securities professionals the products needed to find best execution? In particular, would brokers give investors the full price information needed to enter orders intelligently? There was a vigorous debate within the Subcommittee on this issue. To be sure, there is a highly competitive market for high quality data products, especially for the sophisticated investor. While many Subcommittee members were convinced that the market would deliver efficient "market search" products to the full range of investors absent the display rule, not everyone was so confident. Although the SEC could step in by more aggressively enforcing the best execution rule and challenging products that mislead investors into thinking they are getting best execution, this would require an increased commitment of scarce SEC resources.