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Goldman Sachs

June 25, 2010

Ms. Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: Release No. 34–61358, File No. S7–02–10, Concept Release on Equity Market Structure; Release No. 34-62115. File No. 4-602, Market Structure Roundtable

Dear Ms. Murphy:

Goldman, Sachs & Co. and Goldman Sachs Clearing & Execution, L.P., (collectively "Goldman Sachs") welcome the opportunity to provide the Securities and Exchange Commission (the "Commission") with comments, as requested, on its Concept Release on Equity Market Structure (the "Concept Release") and its June 2, 2010 Market Structure Roundtable. We appreciate and welcome the Commission's efforts, in light of the dramatic transformation of equity trading in recent years, to conduct a broad review of current market structure.

The financial crisis that began in 2007 has posed significant challenges for U.S. equity markets. The United States and other economies around the world have experienced numerous unexpected and extreme stresses, which have led to unprecedented governmental efforts to assure the stability and liquidity of key financial institutions and markets. Leading financial markets have suffered pronounced declines and enjoyed sharp rebounds, as well as exceptionally high trading volumes. Notably, existing U.S. equity market structure has, with very few exceptions, generally performed quite well throughout this turbulent period—permitting buyers and sellers to complete their trades in an orderly and reliable manner, with execution costs remaining low and liquidity remaining widely available. At the same time, the severe intra-day volatility of May 6 confirms the pressing importance of the Commission's structural review of the markets as outlined in the Concept Release and in recent testimony before Congress.

We strongly support the Commission's efforts to update and adapt the regulatory framework to assure strong and consistent standards for market integrity, fairness and efficiency.

We consider it critical for the Commission, in developing and implementing new standards, to assure investors of the benefits that arise from a competitive diversity of trading tools, trading venues and market participants. In particular, we urge the Commission to focus on measures that can provide investors with the information and choices necessary to exercise effectively their trading judgment in achieving high quality transaction execution, suited to their individual investment objectives and horizons.

In our view, as described in more detail below, investors and markets would obtain the greatest benefits from Commission actions designed to achieve following objectives: ensuring the provision of liquidity across our markets by enhancing cross-market trading standards, resiliency of market data, exchange performance standards and market maker obligations; empowering investors with more robust information to enhance their ability to make informed choices about execution; and preserving investor choice in our markets by avoiding rules that unnecessarily restrict the viability of different types of trading venues and strategies.

I. Summary of Goldman Sachs's Positions

- **Market Integrity**

⇒ ***Circuit Breakers and Related Measures.*** We support the efforts of the Commission and the exchanges in developing market-wide, single-stock circuit breakers and encourage the development of further measures to ensure that the markets operate under uniform rules in this area.

⇒ ***Market Orders and Erroneous Trades.*** We suggest that the Commission strongly consider requiring exchanges to collar market orders and adopt a limit down model similar to the model in the futures markets, which would prevent erroneous transactions before they occur.

⇒ ***Exchange Performance Standards.*** Given the high speed of trading and the reliance of many trading strategies on processing of data by exchanges, we suggest that the Commission consider how to improve the quality and resiliency of exchange data feeds and the transparency regarding exchanges' uptime, latency, erroneous quotes/prints and instances of self-help declarations.

⇒ ***Trading Obligations.*** To enhance market quality, we suggest that exchanges enhance the obligations applicable to market makers and perhaps expand the classes of firms to which those obligations apply, subject to minimum standards for resiliency and accessibility of market data disseminated by exchanges.

⇒ ***Consolidated Audit Trail.*** The Commission should prioritize implementation of a consolidated audit trail. If the Commission implements a large trader reporting system first, it should ensure that work done for such a system can be leveraged toward implementation of a consolidated audit trail.

- **Market Fairness and Efficiency**

⇒ ***Enhanced Disclosure by Trading Venues.*** We suggest that the Commission require exchanges and alternative trading systems ("ATSs") to disclose additional information about the specialized functionalities that they provide to selected market participants. Specifically, exchanges and ATSs should disclose descriptions of the types of functionalities that they provide (*e.g.*, flash orders), the basis upon which members/subscribers access the functionality (*e.g.*, whether a fee or rebate is involved), how commonly the functionality is used (*e.g.*, as a percentage of orders) and enhanced market quality statistics (*e.g.*, quote-per-execution ratios). The Commission also should publicly disclose Form ATSs and require ATSs to provide public notice of material business changes, such as new order types.

⇒ ***Rules 605 and 606.*** The Commission should expand Rule 605 to apply to brokers handling immediately executable orders (also known as routing brokers). Rule 605 statistics should also take into account all fees and rebates that apply on a per-share basis. Additionally, we suggest that the Commission expand Rule 606 to require disclosure of order routing information for orders that do not receive execution.

⇒ ***Market Data.*** We suggest that the Commission require exchanges and ATSs to disclose publicly the additional data elements that they offer on their private feeds and the relevant fees involved, which would help to ensure a level playing field without decreasing the amount or speed of information available to investors and other market participants. Additionally, in order to promote competition for the consolidated data feed and decrease reliance on private data feeds, the Commission should permit each securities information processor ("SIP") (NASDAQ and SIAC) to consolidate market data for all U.S. equities and consider allowing independent, non-exchange-affiliated, competing consolidators of market data into the marketplace.

⇒ ***"Trade-At" Rule.*** We do not support adoption of a trade-at rule, which we view as incorrectly focusing on price as the only determinant of best execution. A trade-at rule also likely would increase execution costs because of increased information leakage about trading interest, missed opportunities to access liquidity, additional latencies and increased access fees. If the Commission were to adopt a trade-at rule, we suggest that trade-at protection for a quotation should be conditioned on there being no access fee or should apply only after access fees have been taken into account.

⇒ ***Fees and Rebates.*** We suggest that the Commission improve transparency by requiring brokers to pass through all fees or rebates that apply on a per-share basis (i.e., the true, net price) to the ultimate beneficial owner.

⇒ ***Sub-Penny Quoting.*** We do not support adoption of sub-penny quoting, which we view as likely to pose practical difficulties due to increased message traffic, and to exacerbate the potential for fees and rebates to distort incentives and disadvantage displayed liquidity.

⇒ ***Pre- and Post-Trade Transparency.*** We support improving pre-trade transparency by treating actionable indications of interest ("IOIs") as quotes and lowering the Regulation ATS display threshold to 1% of trading volume. We also support improving post-trade transparency by requiring "dark" ATSs to report a market venue identifier on a delayed or aggregated basis.

⇒ ***ATS Fair Access Threshold.*** We do not support reducing the Regulation ATS fair access threshold, since investors and other market participants benefit from the ability of smaller ATSs to screen out potentially problematic subscribers who do not match the investment objectives of the principal subscribers.

II. Market Structure Performance

Even while under enormous stress, U.S. equity market structure functioned remarkably well during the 2007-2009 financial crisis. Despite a period of extreme spikes in volatility and volume, with the Dow Jones Industrial Average falling 53.7% from a high of 14,164.53 on October 9, 2007 to a low of 6,557.05 on March 9, 2009, execution costs remained low and liquidity was widely available. Indeed, according to an analysis prepared by Goldman Sachs that measured the efficiency of the U.S. equity markets by adjusting for volatility using the CBOE Volatility Index (VIX), the VIX-normalized, depth-adjusted bid-ask spread was more than 30% lower at the height of the crisis in September 2008 than in January 2003.[1] This is part of a broader trend by which the U.S. equity markets have steadily become more efficient since 2003, with the VIX-normalized, depth-adjusted bid-ask spread at the markets' low in March 2009 standing more than 55% lower than the January 2003 measure. In our view, this positive trend is tied directly to an increase in innovation supported by Regulation ATS and Regulation NMS.

Despite this generally strong performance, however, the severe, intra-day volatility of May 6, 2010 shows that the markets can still be vulnerable to sudden disruptions. Although the precise causes of the events of May 6 are not yet clear, we agree with Chairman Schapiro that "severe market disruptions in the form of precipitous price declines are not exclusively associated with automated trading," and that such disruptions are "caused by a glut of sellers willing to trade at any price, combined with the near or total absence of buyers at a particular instant in time."[2] We also agree with the staff of the Commission that this mismatch in liquidity seems to have been exacerbated by disparate trading conventions across various exchanges, as

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[1] Goldman Sachs prepared this analysis by constructing an index that corresponds to market inefficiency across the Russell 3000 universe of stocks using two factors: quoted depth and bid-ask spreads. In order to separate the contribution of the VIX versus those of other factors, Goldman Sachs analyzed the correlation between changes in the market inefficiency index and changes in the VIX. Goldman Sachs then adjusted the index to normalize for the VIX, so that the index measures the depth-adjusted bid-ask spread with volatility held constant.

[2] U.S. House Committee on Financial Services, Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises; Testimony Concerning the Severe Market Disruption of May 6, 2010 by The Honorable Mary L. Schapiro, Chairman, the Commission, May 11, 2010.

well as potentially the withdrawal of liquidity by electronic market makers and the use of market orders.[3]

In addition to demonstrating the vital importance of ensuring that the U.S. equity markets remain deep and liquid, the events of May 6 also show that markets depend critically on a strong, reliable operational infrastructure. In the national market system, other trading venues and market participants generally rely on the processing and dissemination of market data by exchanges and other key market facilities to discharge their regulatory obligations and to make trading decisions. Regulation NMS recognizes this in part through the self-help exception from the trade-through rule contained in Rule 611(b)(1), which allows exchanges, ATSs and order routers to bypass the protected quotations of an automated exchange or ATS that is experiencing systems problems. During the events on May 6, observed latency, self-help declarations and other evidence suggests that various exchanges experienced difficulties in processing market data, which likely contributed to market volatility. This underscores that exchanges and other key market facilities must perform in a reliable fashion in order for investors and other market participants to have confidence in the integrity of the markets.

III. Market Integrity

As a result of Regulation ATS and Regulation NMS, the U.S. equity markets are generally more diverse and competitive than they ever have been, and this diversity and competition have generally benefited investors by increasing the markets' efficiency. As the market events of May 6, 2010 show us, however, certain discrete aspects of market structure—particularly diverging standards across trading venues—may leave the markets vulnerable. In our view, this vulnerability could be addressed largely through targeted improvements such as coordination of circuit breakers and related measures, preventing erroneous trades, improving the standards for and increasing transparency into the performance of exchanges, enhancing trading obligations for liquidity providers and implementing a consolidated audit trail. These improvements would give investors confidence that there are baseline measures in place to assure that events like those that took place on May 6 should not recur.

A. Circuit Breakers and Related Measures

Although the impact on May 6 of the triggering of slow trading modes in some exchanges but not others is not yet completely understood, it seems clear that the absence of coordination between exchanges and other trading venues should be addressed. Accordingly, we support the efforts of the Commission and the exchanges in coordinating the standards for applying circuit breakers and related measures, and encourage the Commission to work further with market participants and other regulators in fine-tuning those standards. In particular, we urge the Commission to evaluate the performance of circuit breakers against other possible alternatives, such as the limit down trading pauses discussed in part III.B below. We also urge the Commission to take into account the degree to which trading in certain instruments, such as

[3] *See* Preliminary Findings Regarding the Market Events of May 6, 2010, Report of the Staff of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, May 18, 2010, at 2-3.

futures, is linked to trading in individual stocks, and how circuit breakers and other measures should account for those linkages.[4] More generally, we note that continued coordination between the Commission and the securities exchanges and the Commodity Futures Trading Commission and the futures exchanges will remain important, and that divergent practices between the securities and futures markets in this area should be avoided.

B. Market Orders and Erroneous Trades

We agree with the Commission that certain order types, such as highly marketable orders and stop-loss orders, may have exacerbated the mismatch in liquidity that occurred on May 6. More generally, the potential for the occurrence of erroneous trades, whether arising from these order types or otherwise, escalates uncertainty as to risk exposures and positions, which has the consequence of diminishing liquidity and tighter markets. Preventing erroneous trades before they occur with solutions such as price collars and short pauses to attract liquidity before a price decline escalates (i.e., a limit down model) would help to mitigate these concerns.

C. Exchange Performance Standards

Another area where diverging standards between trading venues likely affected events on May 6 is the accessibility of market data. Accordingly, we urge the Commission to consider whether the standards that govern dissemination of market data by exchanges are appropriate in light of the evolution of trading in recent years. Given the high speed of trading and the reliance of many trading strategies on detailed market data, it may be necessary for the Commission to increase its oversight of the quality and resiliency of exchange data feeds. This is particularly the case to the extent that, as discussed below, exchanges enhance trading obligations for liquidity providers, since liquidity providers of course cannot be expected to uphold their obligations unless they have timely, accurate and accessible market data.

More generally, we are concerned that there is insufficient transparency into the performance of exchanges. Investors and other market participants would benefit from easier access to statistics and other information regarding exchanges' uptime, latency, erroneous quotes/prints and instances of self-help declarations. In particular, in our view this information should be presented in a uniform fashion across exchanges, and any serious performance issues (and the details of the resolutions of those issues) should be disclosed publicly so that investors and other market participants can better evaluate relative performance as between different exchanges. Enhanced disclosure of this sort will thereby provide increased incentives for exchanges to improve their infrastructures.

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[4] In the case of exchange-traded funds ("ETFs"), in our view it is appropriate to apply circuit breakers to ETFs separately from their components. When trading is halted in an ETF component, market makers take that into account in their quotes for the ETF. Automatic application of a trading halt to the ETF in such a case would reduce market efficiency by disrupting this natural pricing dynamic.

D. Trading Obligations

We share concerns with the Commission that the diminished role of specialists and registered market makers as the primary liquidity providers in some markets could negatively affect market integrity. As changes in the business models of many exchanges and advancements in technology have eliminated or reduced the value of the special time and place privileges traditionally enjoyed by specialists and registered market makers, the express obligations placed on these firms often puts them at a competitive disadvantage against unregistered firms, such as hedge funds, which can elect to withdraw from the market at any time. At the same time, the events of May 6, 2010 underscore that the presence of registered market participants obligated to provide liquidity at all times—even when a market is under stress—remains critical to the efficient and orderly functioning of the markets. Additionally, given the critical role of liquidity providers, it seems sensible that firms performing that function should be subject to regulatory audits and other oversight.

We therefore suggest that exchanges, as part of their responsibility for ensuring that their markets perform at a high level, enhance the obligations applicable to market makers.[5] Exchanges should also consider expanding the classes of firms to which those obligations apply, such as to firms that choose to utilize "step-up" order types or significant bandwidth. Some of the obligations that we believe are necessary include quote obligations and systematic monitoring of order cancellation-to-execution and liquidity posting-to-taking ratios. In connection with these obligations, exchanges must provide their market makers a reasonable process when unexpected systemic or connectivity events necessitate their temporary withdrawal of quotes. Obligations to continuously provide quotes without a protocol for these and similar unforeseen circumstances place unreasonable burdens on firms and could precipitate either infinite market risk or market disruption. In this regard, however, we do not believe that stub quotes are a satisfactory solution. We suggest that exchanges adopt more comprehensive auto-quote programs, such as tiered quotes that would be automatically triggered and replenished in accordance with pre-established parameters adopted by the market maker and the exchange exclusively for the purpose of bridging these temporary disparities in liquidity.

Exchanges should monitor compliance with trading obligations and impose remedies for failures to comply. Since a firm would have to "opt-in" to these obligations by choosing to register as a market maker or utilize a particular service, the potential for negative effects on innovation and competition would, in our view, be reduced. Moreover, investors would benefit from a well-regulated, stable source of liquidity, which likely would serve to dampen the increased costs of execution associated with periods of elevated volatility.

On the other hand, the Commission should avoid regulatory measures that would artificially slow down the pace of trading during normal market operations, such as an across-

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[5] As noted above, however, market makers and other liquidity providers cannot be expected to uphold their trading obligations unless they have prompt access to accurate market data. Therefore, we recommend that the trading obligations applicable to liquidity providers be conditioned on exchanges satisfying clear standards for dissemination of accurate, timely and accessible market data.

the-board minimum duration for orders. Investors are not likely to benefit from prohibitions on their ability to trade on the basis of the best and latest information and analysis. Additionally, such prohibitions might well weaken the integrity of the market by causing an increase in fragmentation as pricing inconsistencies develop between trading venues. Moreover, regulations that would limit the ability to utilize new technology would tend to stifle innovation.

E. Consolidated Audit Trail

In order to promote increased transparency and increase investor confidence in the Commission's oversight of the markets, we support the Commission's efforts to develop a single set of rules and a central repository of audit trail information (i.e., a consolidated audit trail). Regulators may benefit from increased ease of access to information and greater efficiency resulting from the development of common "upstairs" trading rules and improved market surveillance. A consolidated audit trail would also lower industry costs by reducing duplication. Moreover, a single set of rules across trading venues would remove opportunities for regulatory arbitrage and would stimulate business process innovation by providing one clear framework. In our view, implementation of a consolidated audit trail should be given priority by the Commission, as it would provide better information on which to base decisions regarding further market structure changes and decrease the cost of implementing many of those changes.[6]

We also support the general direction of the Commission's recent proposal for a large trader reporting system, although we urge the Commission to consider whether reporting mechanisms other than one based on Section 13(h) of the Securities Exchange Act of 1934 (the "Exchange Act") might provide it with similar information at a lower cost to market participants. Additionally, we urge the Commission to prioritize implementation of a consolidated audit trail. If the Commission implements a large trader reporting system first, it should ensure that work done for such a system can be leveraged toward implementation of a consolidated audit trail. Likewise, the Commission should avoid solutions, such as re-engineering the blue sheet reporting system to support real-time trade detail for large traders, that would require large investments by market participants and delay development of the infrastructure needed to support a consolidated audit trail. Rather, we suggest that the use of blue sheets for large trader reporting be limited to aggregate trade detail.

IV. Market Fairness and Efficiency

Once baseline measures are in place to help assure investors of market integrity, in our view the Commission should focus on providing investors of all types with the information and flexibility necessary to achieve best execution through the exercise of their own judgment. Investors, whether directly or through market intermediaries, operate with different time horizons, risk tolerances and trading tactics. These differences are critical in at least two respects: first by ensuring the existence of the contra-side liquidity necessary for the market's very existence, and second by incorporating a wider range of information into equity prices. In

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[6] We anticipate addressing any further comments on the Commission's consolidated audit trail proposal through participation in subsequent comment letters.

other words, the market needs all types of investors—including both those with longer-term and those with shorter-term investing horizons—in order to work most effectively. Moreover, in many cases any given investor may employ multiple strategies, and so would not neatly qualify as either a long-term investor or short-term trader. And even among those market participants engaged primarily in short-term trading strategies, there are many who are trading on behalf of long-term investors.

In particular, it is notable that investors of all types, whether directly or through intermediaries, increasingly benefit from advanced communication and computing technologies that are often associated with high frequency trading ("HFT"). Specifically, a broad range of investors and other market participants trade in ways that depend on faster communication (i.e., lower latency), faster matching engines (i.e., more throughput), more sophisticated order types (e.g., hidden and floating orders) and significant increases in volumes of market data (e.g., depth of book, trade reports). These technologies have affected the market in a variety of complex ways, including by having the beneficial effect of promoting faster execution, increased efficiency and, for the most part, greater liquidity. In particular, advances in technology have expanded access to market data, analytical tools and high-speed connections to markets. Consequently, a broad range of investors and other market participants are now able to process and trade on new market developments in a matter of sub-seconds. This increases efficiency by facilitating the incorporation of newly available information into prices on a nearly instantaneous basis. It also generally increases liquidity because investors and other market participants can adjust their strategy more quickly as events take place, which reduces the risk of displaying liquidity.

Some of the tools and strategies employed by HFT firms have, however, raised concerns regarding the fairness and efficiency of the equity markets. Similar concerns have been raised about the proliferation of non-exchange trading venues. In our view, the type of regulatory initiative that would best assure investors that the equity markets operate on a level playing field is an initiative that promotes transparency. Providing investors with more complete information about the types of functionalities, relative execution quality and prices available at different trading venues—combined with the ability to employ the trading strategies and choose the trading venues most likely to enable investors to achieve what they consider best execution—likely would increase investor confidence in the fairness and efficiency of the markets. On the other hand, investors likely would not benefit from measures that would limit their flexibility during normal market operations, and indeed many such measures might give rise to fragmentation by mandating or encouraging investors to direct order flow to trading venues that investors otherwise would bypass.

A. Enhanced Disclosures by Trading Venues

We believe that investors would benefit from requirements for exchanges and ATSs to disclose more information about the types of specialized functionalities that they provide. For instance, disclosure to the marketplace regarding which types of members post/access flash or pinging orders on an exchange, what rebates/fees the exchange pays/charges them for doing so, and how prevalently those members use flash or pinging orders, would provide valuable information that investors and other market participants could take into account in their trading decisions. If execution quality was worse at an exchange that more aggressively encouraged the use of flash or pinging orders, or where flash or pinging orders were more prevalent, then investors and other market participants could, subject to trade-through protection and best execution obligations, "vote with their feet" by sending their orders to other exchanges and ATSs viewed as making more appropriate use of their bandwidth. This would facilitate a natural dynamic against emergence of a two-tiered market while also promoting a race to the top for exchanges and ATSs to offer new services and functionalities perceived as beneficial.

This disclosure regime would essentially have four components. First, exchanges and ATSs would provide descriptions of the types of functionalities that they provide, such as types of orders (e.g., flash/pinging orders, conditional orders), services (e.g., co-location, special priority), and data (e.g., depth-of-book quotations, per order information). Second, they would disclose the basis upon which members/subscribers access the type of order, service or data, such as the fees/rebates involved, whether only a certain class of market participants has access (e.g., supplemental liquidity providers on the NYSE) and whether market participants with access have any special obligations. Third, exchanges and ATSs would disclose how commonly the functionality is used, i.e., as a percentage of orders/executions (for order types) or percentage of members/subscribers (for services and data). Finally, exchanges and ATSs would disclose more market quality statistics, such as quote-per-execution ratios, duration of quotes and number of times orders are routed out without getting filled, so that investors and other market participants could better gauge execution quality.

We also suggest that the Commission provide increased transparency regarding ATSs by disclosing Form ATSs publicly.[7] Such disclosure would provide investors with useful information regarding the business practices of ATSs. Further, we would support a requirement for ATSs to provide public notice of material changes to their business practices, such as introduction of new order types. The Commission should also consider expanding the types of rule changes that exchanges and other self-regulatory organizations can propose on an immediately effective basis under Rule 19b-4 under the Exchange Act. These changes would help to level the playing field between exchanges and ATSs while still preserving the viability of ATSs as a distinct registration category more suitable to new entrants.

Additionally, certain improvements could render the statistics disseminated under Rules 605 and 606 of Regulation NMS much more useful. Specifically, we suggest the following: (a) requiring Rule 605 reports on a quarterly, rather than monthly, basis, which would be consistent with Rule 606 and allow for the more detailed work necessary to produce more comprehensive statistics; (b) creating new order type categories under Rule 605 such as "immediate or cancel" and intermarket sweep orders ("ISOs")/DoNotRoute orders; (c) creating new pricing buckets under Rule 605 to account for "floating" or "pegging" undisplayed and displayed orders in addition to limit and marketable limit orders; (d) expanding Rule 605 to

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[7] We note, however, that any requirement that ATSs disclose information about their matching algorithms or the nature of their subscribers could result in information leakage that would detrimentally impact liquidity, so we would not suggest extending the disclosure requirement to this type of information.

apply to routing/executing broker-dealers;[8] (e) requiring Rule 605 statistics to take into account fully per-share fees and rebates; and (f) expanding Rule 606 to require disclosure of order routing information for orders that do not receive execution.

B. Market Data

We share the Commission's concerns about the fairness of differences in latency between private data feeds offered by exchanges and ATSs and the consolidated data feed. The Concept Release describes a strategy whereby a firm that obtains faster delivery of market data through co-location arrangements and private data feeds might profit by identifying market participants who are offering executions at stale prices. In addition to these "latency arbitrage" strategies, we are concerned about the fairness of order-specific information disseminated by some exchanges and ATSs. For instance, the private data feeds of some exchanges go beyond dissemination of aggregate interest at a price to include order-by-order price, size and execution information from the exchange's matching engine. Firms accessing this information can then more easily detect other market participants' order placement strategies, including strategies that involve use of hidden orders.

The best way to address these issues, in our view, would be to increase transparency and promote competition with respect to market data. As discussed in more detail in Part IV.A above, we suggest requiring exchanges and ATSs to disclose additional information about the private data feeds and other specialized functionalities that they provide to selected market participants. Requiring exchanges and ATSs to disclose publicly the special data types that they offer and the relevant fees involved would help to ensure a level playing field without decreasing the amount or speed of information available to investors and other market participants.

Additionally, we urge the Commission to decrease reliance on private data feeds through measures designed to improve the quality of consolidated market data, such as the national best bid or offer ("NBBO"). Currently, there is no competition between NASDAQ and SIAC, who are the providers of this data, and so there is no incentive for them to provide the data in a more efficient or less costly manner. The Commission should introduce competition by permitting each of NASDAQ and SIAC to consolidate market data for all U.S. equities, and eliminate the Tape A, B and C segregation that currently exists. Also, the Commission could consider allowing independent competing consolidators of market data into the marketplace, which would allow for new operators with different business models to enter the market for consolidated data. This might address concerns that the current structure does not provide adequate incentives to improve the price and latency for consolidated data feeds because the consolidated feeds compete to some degree with private data feeds offered by SIP operators.

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[8] Currently, Rule 605 applies only to a "trading center" (as defined in Rule 600). However, a trading center often sees only certain types of orders that are not comparable across venues.

C. Trade-At Rule

We are concerned that a trade-at rule would harm investors by elevating displayed price over all of the other factors integral to execution quality. Most notably, one must consider the potential for size improvement, the possibility of missed opportunities to access liquidity, information leakage, speed of execution and access fees. Given their varying investment objectives, different investors naturally prioritize different aspects of execution and employ different trading strategies. For instance, an investor who prioritizes certainty of execution might choose to provide displayed liquidity, so as to attract better contra-side trading interest. Recent regulatory and market structure changes have added further advantages to providing displayed liquidity, including trade-through protection and quote credits/rebates. On the other hand, an investor who prioritizes reduced market impact and potential for price improvement might choose to provide undisplayed liquidity. In the case of internalization arrangements, investors receive the benefits of targeted liquidity provisioning, including less information leakage, price improvement, and lower cost executions, even for smaller size orders.[9] Investors and other market participants have long exercised their judgment in balancing these different advantages, shifting their level of interaction with the market from more passive (undisplayed) to aggressive (displayed) and vice versa as market conditions change.

A trade-at rule would disrupt this dynamic by restricting the ability for investors who prioritize reduced market impact, size improvement and other non-price elements of execution to choose trading venues where they can safely provide undisplayed liquidity. For example, currently an investor who prioritizes the potential for reduced market impact and size improvement often sends its order to a dark pool that executes at the NBBO. Under a trade-at rule, however, the dark pool would not be able to execute the order without first routing an ISO to the full displayed size of available NBBO quotations. This would bypass the additional liquidity available to the dark pool, as well as any undisplayed liquidity, such as reserve orders, at exchanges receiving the ISO. Only after routing the ISO could the dark pool execute the rest of the order—and, by that time, the NBBO may have changed, thereby exposing the investor to significant fill uncertainty. Moreover, since routing the investor's order will result in information leakage about the investor's trading interest, it will likely increase the investor's cost of execution. In this way, a trade-at rule likely would have disproportionate impact on investors and other market participants that trade in size—including institutional investors who invest on behalf of retail and other long-term investors.

In addition, a trade-at rule would reduce incentives for trading venues to compete on speed of execution. For instance, an investor who prioritizes speed of execution generally seeks out trading venues with lower latencies. However, under a trade-at rule, the investor's order would first have to go to the trading venue with the same displayed price. Not only would routing the investor's order introduce additional latency, but the trading venue with the same

[9] Of course, broker-dealers executing orders through internalization arrangements should naturally disclose those arrangements properly to their customers and regularly and rigorously monitor for best execution.

displayed price might itself be slower, since a trading venue would never lose order flow to a trading venue offering lower latency.

Perhaps most importantly, a trade-at rule would pose a serious competitive problem in connection with access fees. During the Regulation NMS rulemaking process, the Commission recognized that "a competitive problem could arise if a least preferred market was allowed to charge exorbitant fees to access its protected quotations, and then pass most of the fee on as rebates to liquidity providers to offset adverse selection costs."[10] Because a trade-at rule would extend even more protection to displayed, top-of-book quotations than the trade-through rule currently does, the potential for access fees to pose a competitive problem is even greater in connection with a trade-at rule. Accordingly, if the Commission were to impose a trade-at rule—which we strongly urge against—in order to avoid further degradation of price transparency, trade-at protection for a quotation should be conditioned on there being no access fee or should apply only after access fees have been taken into account.

In these and other ways, a trade-at rule would raise, over time, many of the potential concerns associated with a central limit order book ("CLOB"). The CLOB model has received criticism over the years because it would stifle innovation and competition, forcing all investors and other market participants to execute at the same venue. Although a trade-at rule would not explicitly require everyone to execute at the same venue—and so would not likely give rise to the benefits of centralization to which advocates of the CLOB model have pointed in the past[11]—it stands likely to have the same detrimental effects on competition because it would essentially impose across-the-board price-time priority only for top-of-book quotations. There would be little incentive for trading venues to invest in the development of new and innovative tools and technology because, in the end, only the top-of-book price that they displayed would matter. This would stand in stark contrast to the positive developments of the last several years, when the emergence of ATSs and other non-exchange execution platforms has provided competition to established exchanges and spurned technological advancement, more diverse order types and increased dissemination of market data.

If the Commission determines that additional incentives for displayed liquidity are necessary, we suggest that the Commission consider depth-of-book protection for accessible quotations. As we noted in our comment letter on Regulation NMS, depth-of-book protection would achieve the benefits of a linked market while allowing for robust market competition.[12] Like a trade-at rule, depth-of-book protection would encourage market participants to display

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[10] Regulation NMS Adopting Release, Release No. 34-51808, 70 Fed. Reg. 37496 (June 9, 2005) at footnote 243.

[11] A trade-at rule may, in fact, increase rather than decrease fragmentation. This is because a trade-at rule would make it possible for a shallow liquidity pool to attract order flow through slight improvements to its displayed price, safe in the knowledge that investors and other trading venues would be required to route orders to it regardless of the depth of liquidity it offered. This would be particularly problematic during a market disruption, since the single trading venue offering the best quote likely would find its liquidity exhausted very quickly and the resulting gaps in liquidity might causes prices to experience even greater volatility.

[12] Letter from Gary Cohn, Managing Director, Goldman, Sachs & Co., to Jonathan G. Katz, Secretary, the Commission, dated July 19, 2004.

more limit orders and quote price more aggressively. Also, because it would apply below top-of-book, it would encourage market participants to quote size more aggressively. Moreover, unlike a trade-at rule, depth-of-book protection would not require that all market participants adhere to strict price-time priority. Consequently, like today, trading venues would have incentives to distinguish their business models by providing more value-added services, such as specialized order types or innovative order handling and execution technology.

D. Fees and Rebates

We are also generally concerned that the lack of transparency regarding per-share fees and rebates undermines the integrity of displayed quotations. Currently, neither the Regulation NMS-protected bid or offer nor the reported price paid or received by a customer at execution take into account per-share fees or rebates. Additionally, under a "maker-taker" pricing model (i.e., where an exchange charges members a fee for removing liquidity and pays members a relatively lower rebate for adding liquidity), fees and rebates are not consistently applied to the buyer and the seller. The result is that the beneficial owner of a buy order is not transacting at the same price as the beneficial owner of the sell order.

For example, an exchange may charge a fee of $0.0030 per-share for removing liquidity and offer a rebate of $0.0021 per-share for adding liquidity. However, when the exchange publishes the best offer for a stock—say, $5.00 per-share for 300 shares—that offer will not take into account the fee or the rebate. And if a buyer crosses the market and buys those 300 shares, the price reported on the consolidated tape will be $1,500.00, even though the buyer actually paid $1,500.90 and the seller received $1,500.63 (and the exchange received $0.27).

These discrepancies distort the incentives for the broker-dealers intermediating customer orders on exchanges and ATSs and for the exchanges and ATSs themselves. This distortion leads to situations, for instance, where the market locks because the economic price of the bid(offer) is really the bid(offer) minus(plus) the applicable access fee. Additionally, maker-taker pricing models have increased fragmentation by causing a proliferation of different markets with slightly different pricing models. Furthermore, variation in pricing models, to the extent not transparent to buyers and sellers, detrimentally affects price discovery because the prices that are displayed and reported do not accurately reflect the net, true economic cost for accessing a quotation or executing a trade.[13] We therefore suggest that the Commission address the issues raised by the lack of transparency concerning fees and rebates by requiring brokers to pass through all fees or rebates that apply on a per-share basis (i.e., the true, net price) to the ultimate beneficial owners after execution.[14] Not only would this provide investors with better

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[13] *See* Regulation NMS Adopting Release at 37544 (noting that, "the wider the disparity in the level of access fees among different market centers, the less useful and accurate are the prices of quotations displayed for NMS stocks.").

[14] We do not recommend that fees and rebates be reflected in displayed quotations because, as discussed in Part IV.E below, we are concerned that sub-penny quoting increments would have detrimental effects on market integrity and efficiency.

information about execution quality, but it would also ensure that brokers take fees and rebates into account when performing their best execution analysis.

E. Sub-Penny Quoting

We are concerned that modifying Rule 612 of Regulation NMS to allow sub-penny quoting would have significant detrimental effects on market integrity and efficiency, even in the case of low-priced stocks. First, just as with decimalization, sub-penny quoting would significantly increase the volume of orders. Not only would this pose practical issues as a result of increased message traffic, but it also would place further burdens on the SIPs and increase reliance on fragmented private data feeds. In the aftermath of May 6, these types of concerns are particularly acute. Second, absent lower caps on access fees, sub-penny quoting would exacerbate the potential for fees and rebates to distort the incentives for broker-dealers, exchanges and ATSs. Third, and perhaps most importantly, sub-penny quoting would likely decrease the incentives for displayed liquidity substantially by lowering the economic cost for stepping ahead of displayed orders.

F. Regulation of ATSs

In addition to supporting increased transparency with respect to the fees applicable to displayed liquidity, we also support increased pre- and post-trade transparency with respect to undisplayed liquidity.[15] Specifically, we support the Commission's proposal to modify the definition of "bid or offer" to clarify display obligations for actionable IOIs, with an exception for large size orders. We also support lowering the threshold for ATSs' display obligations to 1%, consistent with the threshold applicable to exchanges and OTC market makers. Finally, we suggest that the Commission enhance post-trade transparency in two ways. For an ATS that displays subscriber orders, the Commission should require real-time disclosure of the ATS' identity on a trade-by-trade basis. For an ATS that does not display, the Commission should require disclosure on a delayed basis (i.e., T+3) per security or, alternatively, on a near real-time (e.g., 5 minutes) basis aggregated across all symbols. This would provide reliable statistics about trading volume while also minimizing the potential negative impact of disclosure on liquidity and execution costs.[16] In addition, no exception from these post-trade requirements would be necessary for large size trades, and hence venues would be able to report their true total volume on the day.

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[15] *See* Letter from Greg Tusar, Managing Director, Goldman Sachs Execution & Clearing, L.P., and Matthew Lavicka, Managing Director, Goldman Sachs & Co., to Elizabeth M. Murphy, Secretary, the Commission, dated February 17, 2010.

[16] Requiring real-time disclosure for non-displaying ATSs would, on the other hand, expose block orders to opportunistic trading and undermine the value of anonymity afforded in non-displaying ATSs. The reason is that the distinctive features of ATSs increase their vulnerability to opportunistic trading. For example, the order matching logic of many ATSs is keyed off of the NBBO, i.e., midpoint crosses. This general knowledge, combined with information that identifies individual ATSs on trade reports in the public data stream, would significantly increase the likelihood that block orders could be detected.

On the other hand, we are concerned that reducing the threshold for triggering the fair access requirements under Regulation ATS would decrease the choices available to investors and other market participants. Investors and other market participants seek out smaller ATSs that operate below Regulation ATS's 5% trading volume threshold because they are concerned about information leakage and vulnerability to short term opportunistic trading counterparties. Smaller ATSs protect their subscribers by accepting new subscribers only very selectively. In contrast, an ATS subject to fair access requirements cannot perform this role because it would not be permitted to deny access based on a potential subscriber's trading strategy.[17] Therefore, lowering the fair access threshold would deny investors and other market participants this option. Elimination of smaller ATSs limits investor choice and one of the potential criteria that investors may factor into their own customized view of best execution.

Lowering the fair access threshold also seems likely to lead to fragmentation. Broker-dealers, in fulfilling their best execution obligations, generally seek to interact with each venue to which they have access. If all or most ATSs were required to open up access widely, then this would increase the number of venues to which broker-dealers would feel compelled to direct customer orders, leading to dispersal of liquidity across nearly every exchange and ATS. Moreover, not only would liquidity be dispersed, but the depth of liquidity available at any given ATS would decrease because market participants would be less willing to provide liquidity in circumstances where they believe they are vulnerable to short term opportunistic trading counterparties.

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[17] *See* Regulation ATS Adopting Release, Release No. 34-40760 (Dec. 8, 1998), 63 Fed. Reg. 70844 (Dec. 22, 1998) at 70874.

We again would like to express our support for the Commission's efforts to update and adapt the regulatory framework to assure strong and consistent standards for market integrity, fairness and efficiency. As we have described above, in our view, investors and markets would obtain the greatest benefits from Commission actions designed to ensure the provision of liquidity across our markets, empower investors with more robust information and preserve investor choice by avoiding rules that unnecessarily restrict the viability of different types of trading venues and strategies.

Goldman Sachs appreciates the opportunity to comment on the Concept Release and Market Structure Roundtable and looks forward to working with the Commission on the issues they raise. We would be pleased to discuss any of the comments or suggestions in this letter with the Commission staff in more detail. Please feel free to contact the undersigned with any questions.

Sincerely,

Greg Tusar
Managing Director
Goldman Sachs Execution & Clearing, L.P.

Matthew Lavicka
Managing Director
Goldman Sachs & Co.

cc: Mary L. Schapiro, Chairman
Katheleen L. Casey, Commissioner
Elisse B. Walter, Commissioner
Luis A. Aguilar, Commissioner
Troy A. Paredes, Commissioner

Robert W. Cook, Director
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