Securities Industry Association
120 Broadway • New York, NY 10271-0080 • (212) 608-1500 • Fax (212) 968-0703
1425 K Street, NW • Washington, DC 20005-3500 • (202) 216-2000 • Fax (202) 216-2119
info@sia.com; http://www.sia.com

October 19, 2006

Mr. Erik R. Sirri
Director, Division of Market Regulation
United States Securities and Exchange Commission
Station Place
100 F Street, NE
Washington, DC 20549

Re: Pilot Program for Quoting of Options in Penny Increments

Dear Mr. Sirri:

The Securities Industry Association ("SIA") Options Committee has been closely following the Commission's initiative on penny quoting in options, which raises issues of tremendous importance to our members. We hope that the comments included in this letter will prove useful to the Commission in connection with the proposed pilot program for the quoting of options in penny increments scheduled to begin in the first quarter of 2007. SIA strongly supports the call of the Commission for such a program. However, SIA believes that the following, each of which is discussed in more detail below, are important points to be considered in connection with the adoption of a pilot program:

- ***Differing Effects of Penny Quoting.*** While penny quoting will, for many of the most liquid options classes, benefit investors by enhancing competition and reducing bid-ask spreads, it is likely to result in less aggressive quoting and lower-quality executions for investors in other, less liquid classes. In SIA's view there is an optimum minimum tick that is different for different classes of options. A well designed pilot would be useful in testing that hypothesis.

- ***Importance of True Pilot Program***. As a result of the strong likelihood that penny quoting will prove detrimental for some classes of options, SIA believes that it is important that the initiation of trading for certain classes be conducted as part of a true pilot, rather than the beginning of a phase-in for penny quoting in all classes.

- ***Consideration of Related Issues such as Quote Mitigation.*** SIA strongly believes that there are other issues so closely related to penny quoting that they must also be addressed in the pilot program. For example, the benefits of penny quoting in some classes of options will be outweighed by the costs of increased quotation traffic unless a standard quotation mitigation plan is adopted by the options exchanges before widespread penny quoting is implemented.

- ***Problems with Options Linkage Plan.*** SIA believes that the penny quoting pilot program presents an opportunity to address significant problems with the options linkage plan which will be magnified by penny quoting.

- ***Additional Strike Prices.*** If investor interests are to be truly served, the implementation of a pilot program for penny quoting and a quote mitigation plan should also include permission to add additional strike prices in certain options classes, which will further increase competition and benefit investors. Narrower spreads and better executions are important to options investors, but investors' interests are not well served if these objectives take precedence over investor choice and the availability of products that are most useful to a particular option strategy.

Penny Quoting Will Prove Beneficial For Some Option Classes, but Harmful for Others

The options markets currently provide a remarkable degree of liquidity and efficiency. The depth and quality of the options markets is especially remarkable when one considers the fundamental differences between the options markets and the stock markets. While there is typically only one equity security associated with a particular issuer, there are typically numerous series of options associated with a particular option class, with different strike prices and expiration dates. As of December 31, 2005, there were 6,787 equity securities listed on national securities exchanges,[1] as compared with 161,771 series of equity options.[2] Moreover, the increase in equity options volume over the previous year was 25.2%, 30.8% and 16.2% in 2005, 2004, 2003, respectively, as compared with increases of 3.6% and 5.5% in equities volume for 2005 and 2004, respectively, and a decline of 3.3% for 2003.[3] A key factor in the growth in options volume has been the considerable transparency in the options markets. In evaluating significant changes in the options markets, such as penny quoting, SIA believes that it is important to ensure that this advantage of the options markets is preserved.

Penny quoting is almost certain to have dramatically different effects on the options markets than it did in the stock markets because of the significant distinctions between these markets. One important distinction is that in the options markets all orders must be exposed on an exchange. In stock markets, so long as they match the best current bid or ask in the market, broker-dealers can trade with orders of their customers, *i.e.*, "internalize" the orders, rather than sending them to an exchange or other market where they would interact with other quotes and

[1] Securities Industry Association, Securities Industry Fact Book 2005 (based on data provided by exchanges). Includes equity securities listed on The New York Stock Exchange, The American Stock Exchange and The Nasdaq Stock Market ("Nasdaq"). Nasdaq became registered with the Commission as a national securities exchange on January 13, 2006. *See* Sec. Exch. Act. Rel. No. 53128 (Jan. 13, 2006).
[2] Source: The Options Clearing Corporation.
[3] Source: The Options Clearing Corporation.

orders. A second difference between the options markets and stock markets is the inability of investors in options to view the "depth of book," *i.e.*, the quotations and orders below the best bid and ask for a particular options class. In all equity markets, depth of book information can be purchased by investors.[4] In options markets, however, it is simply unavailable. To the extent depth of book information becomes available, it is almost certain to come at a significant cost that will likely be passed on to investors. Moreover, in a penny quoting environment, because of the reduced depth at the top of the book, investors will have no alternative but to pay for depth of book information.

The potential benefit of penny quoting in options is the reduction of trading costs for investors through the narrowing of bid-ask spreads. However, penny quoting will reduce spreads only in some classes of options. In general, if the average spread for an options class is at or near the minimum price variation for the class, there is a strong inference that the minimum price variation is causing an unnecessarily wide spread. If, however, the spread is significantly in excess of the minimum price variation, it seems more likely that the width of the spread is a function of a lack of liquidity in the option, rather than the minimum price variation.

SIA is not alone in observing that smaller minimum quote increments do not result in improved execution quality in all cases. The Commission itself noted in connection with its consideration of subpenny pricing that, if the minimum price variation "were to decrease beyond a certain level, the potential costs to investors and the markets could at some point surpass any potential benefits."[5] There is no magic in penny increments to support a prediction that a penny is the optimum increment for all circumstances, and SIA believes that this is certainly not the case for many classes of options. A key cost associated with penny quoting is the reduced incentive market makers will have to quote aggressively, particularly in less liquid options. This occurs as a result of increased instances of other traders' "stepping ahead," *i.e.*, improving quotations by a small amount to gain execution priority over a competing quote or order. Where there are a relatively small number of transactions in a particular class of options, a market maker's trading opportunities could be materially reduced as a result of stepping ahead activity. Accordingly, market makers would likely decline to quote in some of these series based on a belief that they would not earn a reasonable return on their capital for these series in a penny quoting environment. Moreover, protecting the priority of an order in a penny quoting environment will require aggressive, interactive and lightning quick quotation updates, which requires resources that only professional traders possess. Retail investors may therefore suffer from an inability to protect the priority of their orders in addition to the loss of liquidity.

For less liquid options, a minimum price variation of greater than one cent enhances liquidity by making it worthwhile for market makers to provide quotations. The existence of minimum price variations of five and ten cents is a an important reason that the options markets are so liquid, despite the large number of series. The ability to rapidly buy or sell options in even the classes with relatively low trading volume is an obvious benefit to investors and maintains confidence in the options markets. In the equity markets, the potential reduction in liquidity for some stocks resulting from decimalization was offset by broker-dealers' internalizing orders at the best bid or offer. However, because internalization does not exist in the options markets, this

[4] For example, stock exchanges sell data feeds that offer real-time access to depth of market information.
[5] Regulation NMS, Sec. Exch. Act Rel. No. 49325 (Feb. 26, 2004), 69 FR 11165.

additional offsetting liquidity would not be present, and liquidity would instead, for most options classes, simply be reduced.

A natural consequence of a reduction in the minimum price variation below the optimum level for a particular options class is a reduction in depth, or the number of contracts offered to be purchased and sold, at the so-called "top of the market," *i.e.*, the best bid and ask for an option contract. This reduced depth stems from the existence of more price points near, but away from, the top of the market, at which quotes can be entered. For example, currently, the prices at which market participants are willing to buy and sell a particular option contract may be as follows:

BUY ORDERS		**SELL ORDERS**	
Contracts	Price	Contracts	Price
500	$4.30	500	$4.50
200	$4.20	150	$4.60
100	$4.10	150	$4.70

In the above example, the top of the market is $4.30 bid, $4.50 offer, with a depth of 500 contracts on each side of the market. A market participant seeking to quote away from the top of the market would have to quote at a price of $4.20 – a significant variation from the $4.30 best bid. In a penny quoting environment, with more price levels at which to quote, many market participants would quote at price levels near, but away from, the top of the market, and the buying and selling interest market currently at the top of the market might be represented as follows:

BUY ORDERS		**SELL ORDERS**	
Contracts	Price	Contracts	Price
200	$4.33	200	$4.47
100	$4.32	100	$4.48
75	$4.31	75	$4.49
75	$4.30	75	$4.50
25	$4.29	25	$4.51
25	$4.28	25	$4.52

In the penny quoting example, the total depth on each side of the market, at the top, is 200 contracts rather than 500 contracts. It is important to note that in each example only the top of the market, *i.e.*, the shaded orders, are visible to investors.

Experience with the move to decimalization provides some insight into the reduction in depth at the top of the market that would accompany penny quoting in the options markets. However, because of key differences between the options markets and the stock markets, it is likely that the magnitude and adverse effects of the reduction of depth will be more severe in the options markets. The quoted depth at the top of the market fell by about two-thirds on both Nasdaq and the New York Stock Exchange when decimal trading was implemented on those two markets.[6] For stocks, decimalization involved a reduction of the minimum price variation from 1/16, or $0.0625, to one cent; the move to penny quoting would, for some options, result in a comparable reduction from five cents to one cent, and for others an even greater reduction from ten cents to one cent. In the case of the options markets, the reduction in depth at the top of the market would likely be even more significant in light of the large number of options series for a single listed stock. Another consequence would be a magnification of the effects of inconsistencies in the quoting across markets resulting from differences in the exchanges' rules regarding quoting. Moreover, the consequences of a reduction in depth at the top of the market would be even more dramatic and far-reaching because options investors, unlike stock investors, do not have the alternative of purchasing depth of book information. Without the ability to view and quickly access the depth of the book, the benefits of penny quoting would be severely reduced.

In addition to the reduced depth at the top of the market, for classes in which penny quoting is implemented market participants will be less likely to display large quotes or orders because of concerns about other participants' stepping ahead of these orders. This reluctance to display large orders will result in reduced transparency. This lack of transparency would make it more difficult for investors to gauge the true state of the market. Penny quoting in options classes with insufficient liquidity will also likely result in "flickering quotations," *i.e.*, rapid changes in prices making it difficult for broker-dealers to satisfy best execution obligations.

In a study released in May 2005 concerning decimal pricing, the GAO did a thorough analysis of the costs and benefits of penny quoting for options and concluded as follows:

> SEC's proposal to further reduce tick sizes in the options markets has been met with widespread opposition from industry participants, and many of the concerns market participants raised, including the potential for significant increases in quote traffic and less displayed liquidity, appear to have merit. The magnitude of these potential impacts appears larger than those that accompanied the implementation of penny ticks for stocks. As a result, it is not clear that additional benefits of the narrower spreads that could accompany mandated tick size reductions would be greater than the

[6] The Nasdaq Stock Market, Inc., The Impact of Decimalization on the Nasdaq Stock Market; Final Report to the Commission Prepared By Nasdaq Economic Research (June 11, 2001) at 2, 33-37 ("Nasdaq Decimalization Report"); Decimalization of Trading on the New York Stock Exchange: A Report to the Securities and Exchange Commission, (Sept. 7, 2001), at 2, 9 ("NYSE Decimalization Report").

> potentially negative impacts and increased costs arising from greatly increased quote processing traffic.[7]

SIA believes that the GAO's conclusions regarding penny quoting in options would hold true for the vast majority of options classes. For all but the most liquid classes the costs in the form of reduced liquidity, depth and transparency, and flickering quotations would almost certainly outweigh the benefits. However, for many more liquid classes, such as options on the Nasdaq-100 Index Tracking Stock, or "QQQQ," penny quoting is highly likely to result in benefits in the form of reduced spreads and more opportunities for price improvement. A pilot program will be the best means of determining the precise effect of penny quoting on the options markets.

A Meaningful Penny Quoting Pilot Must be a True Pilot, be of Sufficient Duration, and Include a Representative Sample of Options Classes

The precise effect of penny quoting on options trading cannot be predicted with certainty in advance. Accordingly, a pilot program involving a limited number of options represents a reasoned approach to addressing this issue. Lessons can be learned from the adoption of decimalization, which involved a phase-in period but no pilot program. While decimalization involved numerous benefits, it also imposed costs in the form of reduced depth and transparency, and the problem of subpenny quoting, which, among other things, eroded limit order protections. Rather than being confined to a limited universe of securities, these costs affected transactions in all equity securities until the Commission banned subpenny pricing in 2005 as part of Regulation NMS. Given the high likelihood that penny quoting will in fact be detrimental for many options classes, a true pilot program, coupled with a careful evaluation of the results of the program, would help avoid the potentially enormous costs, both to investors and market participants, associated with a wholesale adoption of penny quoting followed by a partial reversal for classes of options for which the costs outweighed the benefits.

SIA believes that the pilot program should run for a sufficient length of time to allow careful study of the effects of penny quoting on options of differing liquidities. A pilot of sufficient duration, which in SIA's view is a minimum of eighteen months, will also allow penny quoting to be tested under various market conditions. Similarly, the effect of penny quoting on quotation traffic will need to be thoroughly considered, so that the Options Pricing Reporting Authority ("OPRA") and the exchanges have a clear understanding of the magnitude of the anticipated increase and therefore the enhancements to system capacity that will be needed. SIA suggests that the pilot program be structured so that an evaluation process begins at the mid-point of the program, so that by the end of the program a decision can be made on whether the pilot should proceed, and, if so, whether any modifications are necessary or desirable. Moreover, dialogue with market participants will be a critical component of an effective evaluation process. Particular types of data that will provide insight into the success of the pilot would include changes in quote sizes and widths, speed of execution, the number of trade-throughs, and instances of locked and crossed markets.

---

7 United States Government Accountability Office, Securities Markets/Decimal Pricing has Contributed to Lower Trading Costs and a More Challenging Trading Environment (May 2005), available at http://www.gao.gov/new.items/d05535.pdf.

Because SIA believes that the optimum minimum price variation for each class of option is related to the liquidity of the option, it is critical that the pilot program include options across the spectrum of liquidity. When faced with the analogous task of selecting securities for the pilot program under Regulation SHO, the Commission wisely selected securities with varying levels of liquidity. Specifically, the Commission first excluded securities in the Russell 3000 index that were neither listed on an exchange nor Nasdaq national market securities, placing the remaining securities into separate Amex, Nasdaq national market and NYSE groups, ranked the securities in each group by average daily dollar volume over the previous year, from highest to lowest, and then selected every third stock from this list.[8]

We understand that the Commission has tentatively identified a list of thirteen classes of options to be included in the penny quoting pilot. However, it appears that the Commission currently intends, for all but one of the selected classes, to implement penny quoting by price, so that options with prices of under $3.00 will be quoted in penny increments but options of the same class with prices of $3.00 or more will be quoted in nickel increments. SIA believes that the pilot would be much more effective if penny quoting were implemented for all options, regardless of price, in the selected classes. Implementing penny quoting for the entire selected classes will allow an evaluation of the effects of penny quoting on high-priced and low-priced series, as well as series with near and long-term expirations.

In SIA's view the Commission correctly chose to include options of different types such as options on indexes and exchange-traded funds as well as common stocks on the list of classes of options to be included in the penny quoting pilot. However, the list appears to be weighted fairly heavily with more liquid options. While SIA appreciates the numerous factors that must be considered in developing such a list, we are concerned that the selection of a sample from only the most liquid options could lead to an erroneous conclusion that penny quoting is appropriate for all options, just as if the pilot only included less liquid options it could improperly suggest that penny quoting is uniformly detrimental to investors. The inclusion of options classes across a wider range of liquidities will allow for a meaningful evaluation of the costs and benefits of penny quoting. SIA also suggests that classes likely to present special trading issues, such as options on dividend-paying stocks or companies in reorganization, and options with both quarterly and weekly expirations, be included in the pilot program. The final choice of the options to be included for the pilot should be made by the Commission in consultation with third parties such as The Options Clearing Corporation rather than by the options exchanges. The exchanges are likely to be influenced by strategic, competitive considerations, which could impair the usefulness of the pilot program. SIA, through its members, has significant practical knowledge regarding the likely effects of penny quoting on particular options classes and would be happy to continue to consult with the Commission in connection with the selection process.

[8] Order Suspending the Operation Of Short Sale Price Provisions for Designated Securities and Time Periods, Sec. Exch. Act Rel. No. 50104 (July 28, 2004).

Standard Quotation Mitigation Plans are Critical to the Success of Penny Quoting

The Commission has recognized that substantial increases in quotations traffic and tremendous strains on system capacity could be associated with penny quoting.[9] Implementation of penny quoting across a large number of options classes could create large-scale market disruptions if OPRA cannot process the volume of quotations.[10] Indeed, concerns have been raised about quotation traffic even without regard to penny quoting. SIA understands that the options exchanges are independently developing quote mitigation strategies designed to alleviate the quotation traffic problem. A central objective of these strategies will be to eliminate quotations with less value, such as quotations in series with little or no open interest. There are numerous different means of attempting to accomplish this goal. However, a lack of uniformity among these plans is likely to place an excessive burden on OPRA and result in processing errors. Moreover, it is critical that quotation mitigation plans be understood by all market participants, including investors, and understanding will be impaired by multiple competing plans. Competing plans would also subject broker-dealers and ultimately investors to the potentially excessive costs of systems modifications needed in connection with as many as six different plans. Accordingly, SIA believes that in connection with the penny quoting pilot program a uniform quotation mitigation plan should be developed jointly by the six options exchanges in consultation with the Commission and OPRA. SIA urges the Commission to permit exchanges to open their discussions of alternative quote mitigation plans to industry participation in order to obtain the obvious benefit of a broader range of market knowledge and experience.

Problems with the Options Linkage Plan will Need to Be Addressed Early at the Start of the Pilot Program

In July 2000, the Commission approved the an options intermarket linkage plan (the "Options Linkage Plan") proposed by the American Stock Exchange, the Chicago Board Options Exchange, and the International Securities Exchange. The Pacific Exchange and the Philadelphia Stock Exchange became participants in the Options Linkage Plan in November 2000, and the Boston Options Exchange became a participant in February 2004. The options exchanges began sending orders to one another pursuant to the Options Linkage Plan in early 2003. The Options Linkage Plan was developed at the direction of the Commission, and is intended to achieve the laudable goal of ensuring that investors receive the best possible price for options orders. However, the Options Linkage Plan has unfortunately not worked as well in practice as in theory. The effectiveness of the plan has been greatly hampered by disagreements between the exchanges regarding the rules governing the plan and, more importantly, by significant delays in the processing of orders through the linkage system. Where an order is routed by one options exchange to what appears to be a superior quote on another exchange, delays of 30 seconds – an interminable delay in today's fast-moving options markets – are unfortunately quite common. Orders sent through the linkage system are frequently not filled, and then are returned to the original market to find an inferior quote than existed at the time an order was originally placed. Moreover, because linkage orders are not automatically executed,

[9] Remarks by Commissioner Annette L. Nazareth before the Securities Industry Association Market Structure Conference, May 24, 2006.

[10] As noted above, penny quoting will make depth of book information more critical, and while this information may be available for purchase, it would likely overwhelm OPRA if large-scale penny quoting were mandated.

broker-dealers seeking execution of large orders face a dilemma because they have no way of knowing if they are routing an order to an exchange with a superior price at the top of the market but inferior depth, which could result in an reduced execution quality for the order as a whole.

For options classes in which penny quoting is introduced, because of the additional price points at which quotations can be entered and the increased quoting behavior discussed above, markets will move even faster than is currently the case. As a result, for these classes problems resulting from delays in the linkage system and the inability to view depth at the top of the market will be exacerbated. SIA strongly suggests that in conjunction with the pilot program the Commission collect data from exchanges and specialist firms to assess the extent of linkage problems, both generally and for options that are part of the pilot. This data collection would focus attention on problems with the linkage system which, if not addressed, could result in severe unintended consequences if penny quoting were expanded beyond stocks in the pilot program.

Additional Strike Prices for Options Will Further Increase Market Competition

One of the primary benefits of penny quoting in appropriate options classes will be enhanced competition in the options markets. However, that benefit should not be offset by inappropriate constraints on the strike prices that can be made available for options trading. The commencement of the pilot program would be an appropriate time to increase the number of strike prices for certain classes of options. Currently, strike prices are in most cases established in increments of no less than $2.50. For many options, they are established in increments of $5.00. In many cases, particularly for options with greater investor interest, the limitation on strike prices limits alternatives available to investors or imposes additional costs on investors. For example, in July 2006 an investor who wanted to purchase July call options on the stock of Google Inc. would have had choices of strike prices of $400, $410, $420 and $430. Investors frequently want to purchase options as close to the money as possible. At a time when Google stock was trading at $416, an investor who wanted to purchase an in-the-money option as close to the money as possible would have had to purchase a call option with a strike price of $410, which would involve the payment of an extremely high premium, primarily due to the large difference between the exercise price of the option and the market price of Google. Were a Google option available at a strike price of $415, the same investor could achieve his or her investment objective at a far lower cost. Moreover, an option with a strike price significantly greater or less than the market price of the underlying security may not currently be traded unless all intervening series are "filled in." SIA believes this is an unnecessary restriction. In many cases investors desire to purchase and sell options with strike prices significantly above or below the market price of the underlying security at the time of issuance.

In SIA's view, exchanges should have the ability to list options with strike prices at increments smaller than $2.50, such as $1.00, and there should generally not be a limitation on the issuance of options with strike prices away from the market price of the stock. One exception would be for options so deep in the money that their issuance would be considered a sale of the shares covered by the option. An expansion of the number of strike prices would of course result in increased quotation activity. However, the issues raised by quotation traffic and the need for a quote mitigation plan must be addressed in any event in connection with penny quoting. These issues are inter-related. Addressing them in an appropriate way should allow sufficient capacity for penny quoting where appropriate as well as for increased strike prices.

* * * * * * * * * * * *

The adoption of a penny quoting in the options markets involves both costs and benefits. For many classes of more liquid options, it is likely that the benefits, in the form of reduced spreads and increased competition, will outweigh the costs. A pilot program that includes options of varying liquidities will allow the industry to more accurately assess the effect of penny quoting on these various classes of options. A pilot should extend for a sufficient length of time to allow this assessment and to allow technological issues to be addressed. A standard quotation mitigation strategy common to all options exchanges is a necessary prerequisite to the adoption of penny quoting. As part of or in conjunction with the penny quoting pilot, constraints on additional strike prices should be reduced or eliminated in order to further enhance competition in the options markets and provide greater investor choice.

If you would like to discuss the above issues in further detail or have any question about the comments presented in this letter, please do not hesitate to contact me at (402) 970-5656, or Melissa MacGregor, SIA staff advisor to the Options Committee, at (202) 216-2034.

Very truly yours,

Christopher Nagy
Chair, SIA Options Committee

cc: Chairman Christopher Cox
Commissioner Paul S. Atkins
Commissioner Roel C. Campos
Commissioner Kathleen L. Casey
Commissioner Annette L. Nazareth
Brian Cartwright, General Counsel
Elizabeth K. King, Associate Director, SEC Division of Market Regulation
Deborah L. Flynn, Assistant Director, SEC Division of Market Regulation
Donald E. Kittell, Executive Vice President, SIA
Ira D. Hammerman, Senior Vice President & General Counsel, SIA
Melissa MacGregor, Assistant Vice President & Assistant General Counsel, SIA