CITADEL

November 2, 2007

Nancy Morris
Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: Notice of Filing of Proposed Rule Change Relating to $1 Strikes for VXD and VXN Options and $1 Strikes for RVX, VIX, VXD and VXN LEAPS; the Chicago Board Options Exchange Incorporated, Release 34-56449; SR-CBOE-2007-52

Dear Ms. Morris:

Citadel Investment Group, L.L.C. ("**Citadel**") submits this letter in support of the above captioned proposal (the "**Proposal**"). The Chicago Board Options Exchange, Incorporated ("**CBOE**") proposes to list and trade CBOE Dow Jones Industrial Average Volatility Index ("**VXD**") options and Nasdaq-100 Volatility Index ("**VXN**") options, as well as LEAPs on certain other volatility index options, in $1 strike price intervals.[1]

As a general matter, Citadel supports the expansion of $1 strike intervals. Giving exchanges and traders more products to trade is fundamentally pro-competitive.[2] Moreover, $1 strike intervals allow traders and investors to customize the risk profiles of their trading positions more precisely, and thus reduce the cost of trading.

The availability of $1 strike options, and the customization of risk and reward that they provide, are particularly important for retail investors.[3] For example, retail investors often seek to trade in option classes that are at or near the money, in order to avoid paying for the intrinsic value of in-the-money options.[4] Thus, $1 strike intervals allow investors to select the strike price

[1] Citadel and its affiliates operate one of the world's largest alternative investment firms. On an average day, Citadel accounts for over one fifth of U.S. listed options market volume.

[2] *See, e.g.*, Release No. 34-48013 (June 11, 2003), 68 Federal Register 35, 933 (June 17, 2003) (Order approving SR-Phlx-2002-55), at 35,934.

[3] Although Citadel and its affiliates are active in many capacities in the listed options market, Citadel is especially well placed to observe the preferences of retail investors. Citadel's affiliate, Citadel Derivatives Group LLC routes options orders to all 6 options exchanges on behalf of 20 retail brokerage firms. In the 12 months ending in August 2007, Citadel Derivatives Group routed over 12% of OCC total volume and over 25% of OCC customer volume. Thus, Citadel handles an enormous volume of retail-sized options orders, which, in many cases, reflect the trading interest of retail investors.

[4] *See* Securities Industry News (September 24, 2007) at p. 19.

131 S. Dearborn Street
Chicago, Illinois 60603
john.nagel@citadelgroup.com

312-395-3115 Telephone
312-267-7602 Facsimile

that best suits their trading and cost objectives. Retail investors also find $1 strike options important tools in relation to particular trading strategies.[5]

Because of their inherent appeal, $1 strikes have been a success story since the Commission first permitted CBOE (and, subsequently, other exchanges) to list and trade a limited number of options with $1 strike intervals on a "pilot" basis in 2003.[6] The pilot program reports that CBOE has submitted to the SEC upon each annual renewal of its $1 strike pilot have revealed strong and sustained increases in options trading volume since the introduction of $1 strikes.[7] The favorable performance of $1 strike options has been borne out at other exchanges, as well.[8]

In considering proposals to expand $1 strikes, the Commission has properly concerned itself with the impact on industry message traffic capacity. The experience of CBOE and the other options exchanges in trading options with $1 strike intervals appears to be that the exchanges and OPRA are able to manage the burden of the increased quote traffic.[9] Moreover, in these proposals (including the Proposal), the exchanges have generally undertaken to place fairly strict limits on introducing new $1 strikes.[10]

We recognize that the message traffic capacity of OPRA and the exchanges is finite, and that, in evaluating $1 strike expansion proposals, the Commission must take into account other

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[5] One example of the potential value of narrow-strike intervals generally to investors is in achieving certain tax objectives. There are circumstances in which an investor may not write a "qualified covered call" option on an individual stock that can avoid certain adverse tax consequences where options in the relevant stock are quoted at $2.50 or $5.00 intervals, because of tax requirements limiting the relationship between the strike price and the price of the underlying stock. However, where there are $1 strike intervals available in the option, there may be one or more options that will satisfy the requirements for addressing these consequences. *See*, Options Clearing Corporation, "Taxes and Investing: A Guide for the Individual Investor" (February 2005), at pp. 23-24.

[6] Release No. 34-47991 (June 5, 2003); 68 Federal Register 35,243 (June 12, 2003) (Order approving SR-CBOE 2001-60).

[7] *See, e.g.*, Release No. 34-55673 (April 26, 2007); 72 Federal Register 24,646 (May 3, 2007) (Notice of filing and immediate effectiveness of SR-CBOE-2007-38), at footnotes 10 and 11, and accompanying text.

[8] *See, e.g.*, SR-Phlx-2007-29, Exhibit 3 (Philadelphia Stock Exchange $1 Pilot Program Report) (April 16, 2007), at p.18 of 39; Release No. 34-55715 (May 7, 2007), at 3; 72 Federal Register 26,854 (May 11, 2007) (Order granting accelerated approval of SR-ISE-2007-26) (ISE reports $1 strike option classes generally maintained high level of liquidity until maturity).

[9] *See, e.g.*, SR-CBOE-2007-38, Exhibit 3 (CBOE Pilot Program Report) (April 24, 2007), at page 20 of 24 ("The overall impact of $1 strikes on system capacity has again been minimal."). *See, e.g.*, SR-NYSEArca-2007-42, Exhibit 3 (Pilot Program Report), at page 13 of 16; Release No. 34-55684 (April 30, 2007), at 3; 72 Federal Register 26,188 (May 8, 2007) (Order approving SR-BSE-2007-17); SR-Amex-2007-43, Exhibit 3 (One Point Strike Price Pilot Program), at page 16 of 18 ("The Exchange has encountered a few issues during the time the pilot program was in operation, however, the Exchange feels that such capacity issues encountered would have occurred whether or not the pilot program was in place.").

[10] *See* Proposal, at pp. 6-7 (proposing to not list options series within $0.50 of another series, and limiting the range of $1 strikes to five series above and below the implied forward level of the index).

variables, including the impact of penny quoting, on message capacity. Some commentators have contrasted the increase in trading volume for $1 strike options with the decline in trading volume and liquidity for many options included in the initial "Penny Pilot" for options quoting, perhaps indicating that investors prefer $1 strike intervals to penny quoting.[11] Citadel concurs with this view and believes that, from a policy perspective, capacity is better spent on expanding $1 strikes rather than on a broad expansion of the Penny Pilot program.

There are principal reasons for this view. First, the main benefit of penny quoting is narrower bid-ask spreads.[12] Although, this is a laudable goal for the Commission, the cost to investors of buying an option with a much higher or lower strike price than desired dwarfs the impact of penny quoting. For example, even assuming that an investor could potentially save as much as 4 cents per contract due to penny quoting, trading at a strike that is $1.50 higher or lower than desired ***could easily cost an investor more than 50 cents per contract***.

Second, we note that the various Penny Pilot program studies indicated that penny quoting resulted in decreases in relative trading volume and liquidity for many options, particularly on single stocks.[13] However, the exchanges' pilot studies on the effects of $1 strikes have not indicated that narrower strike intervals result in decreased liquidity.[14]

In sum, we believe that the Commission should generally promote the expansion of $1 strike programs even if doing so requires curtailing or slowing further expansion of penny quoting.

Turning to the Proposal, Citadel believes that permitting CBOE to list and trade the options that are the subject of the Proposal in $1 strike intervals would benefit the public, including retail investors, for many of the same reasons that other $1 strike options do, and also for reasons that are specific to the nature of volatility options. Index-volatility measured by VXD and VXN is mean-reverting, which tends to confine those indexes to a relatively limited range of levels.[15] The mean-reverting characteristic of volatility indexes favors narrower strike intervals. Specifically, such indexes tend to have a higher concentration of probable outcomes, because a move downward makes it more likely that the next move will be upward (and vice versa); stock prices do not exhibit this characteristic. Investors that want to use volatility index options as a hedge will naturally want options that confine exposure to a particular range of outcomes. Dollar strike intervals will aid investors in this regard. Moreover, since a higher

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[11] *See* Securities Industry News (September 24, 2007), at p. 19.

[12] *See* Elizabeth King, Associate Director of the Division of Market Regulation of the SEC, Remarks Before the 2007 Options Industry Conference (April 27, 2007).

[13] See generally the discussion in Letter to Nancy Morris, Secretary, Securities Exchange Commission, from John C. Nagel, Director and Associate General Counsel, Citadel (September 12, 2007), available at http://www.sec.gov/comments/sr-bse-2007-40/bse200740-1.pdf ("Penny Pilot Letter").

[14] *See* note 8, *supra*.

[15] *See* Proposal, at pp. 3-4 (discussing the band in which the underlying indexes usually stay).

concentration of probable outcomes may correspond to a larger difference in option premium for a given difference in strike price, the absence of $1 strike intervals may force investors to pay greater premiums than they would pay if they could purchase an option with the specific strike price they want, rather than the next closest $5 or $10 strike price. Therefore, having wider intervals is less appropriate where the underlying reference price for the option has a high concentration of probable outcomes.[16] These are the precise reasons for which the Commission has previously permitted CBOE to list and trade VIX and RVX volatility options in $1 strike intervals on a limited basis.[17]

We note that the Proposal also seeks authority to list and trade LEAPs on VXD, VXN, and certain other volatility index options with $1 strike intervals. Although the Commission has approved $1 strike intervals for short-dated options on VIX and RVX, and $2.50 strike intervals for LEAPs on certain equities[18] and RVX,[19] this aspect of the Proposal does represent a slight step beyond the current situation. Although Citadel supports the expansion of $1 strike intervals for LEAPs generally, we believe that the case for narrow strike-intervals for LEAPs on volatility indexes is even stronger than the case for narrow-interval LEAPs on single stocks. Specifically, since volatility indexes are mean-reverting, present changes in the index level do not generally have much effect on the index's implied forward level far into the future.[20] This would tend to imply that there should not be a vast proliferation of new strikes in LEAPs on volatility options nor a dispersion of liquidity.

In summary, Citadel believes that even in the case of ordinary equity and equity index options, there are very strong pro-competition, pro-investor reasons to expand $1 strikes. In the case of the Proposal, we believe that the case CBOE makes for permitting $1 strikes in VXD and VXN options and the LEAPs mentioned in the Proposal is compelling, and well grounded in precedent. Thus, we believe that the Commission should approve the Proposal.

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[16] *See* Release No. 34-55673 (April 26, 2007); 72 Federal Register 24,646 (May 3, 2007) (Order granting SR-CBOE-2007-38).

[17] Release No. 34-54192 (July 21, 2006), at 6; 71 Federal Register 43,251 (July 31, 2006) (Order granting accelerated approval of SR-CBOE-2006-27) (VIX Options); Release No. 34-55425 (March 8, 2007); 72 Federal Register 12,238 (March 15, 2007) (Order granting accelerated approval of SR-CBOE-2006-73) (RVX options). LEAPs on RVX trade with strike intervals of not less than $2.50.

[18] *See, e.g.*, Release No. 34-55338 (February 23, 2007); 72 Federal Register 9,371 (March 1, 2007) (Order granting accelerated approval of SR-Phlx-2007-04).

[19] Release No. 34-55425 (March 8, 2007), at 7; 72 Federal Register 12,238 (March 15, 2007) (Order granting accelerated approval of SR-CBOE-2006-73).

[20] *See* Release No. 34-54192 (July 21, 2006), at 6; 71 Federal Register 43,251 (July 31, 2006) (Order granting accelerated approval of SR-CBOE-2006-27) (chart).

If you have any questions concerning these comments or would like to discuss these matters further, please feel free to contact me at 312-395-3115.

Sincerely,

/s/

John C. Nagel
Director & Associate General Counsel