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Elizabeth M. Murphy  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549-0609

RE: CBOE Comments on File No. S7-21-09 (Flash Orders)

Dear Ms. Murphy:

The Chicago Board Options Exchange, Incorporated (“CBOE”) submits this comment letter in response to the captioned proposal (the “Proposal”) issued by the Securities and Exchange Commission (“Commission” or “SEC”). The Proposal seeks to amend Rule 602 of Regulation NMS under the Exchange Act to eliminate an exception for the use of flash orders by equity and options exchanges. As discussed in detail below, CBOE strongly opposes the elimination of flash trading for options. Moreover, it is our experience that flash trading, as utilized by CBOE, greatly benefits long-term retail investors. A ban would limit trading venue choice and have an adverse impact on investors, particularly in the listed options market.

### Summary

- *Banning Flash Trading in Options Would Harm Investors.* The proposed ban would inflate costs for those the ban seeks to protect – retail investors.
- *The Options Marketplace is Different.* While all equities exchanges employ a “maker-taker” fee structure and therefore have very similar fees, the options marketplace features two different and competing fee models: maker-taker and the traditional model which provides free executions and routing for retail investors. Over 80 percent of options trading takes place on traditional exchanges. In addition, the options market is quote-driven. Almost all displayed quotations in the options market are for the account of professional liquidity providers, not long-term retail investors.
- *Flash is a Useful Tool for Investors.* With the hundreds of thousands of options series quotations constantly changing, flashing an options order enables traditional exchanges to match or improve prices on competing exchanges and to add liquidity beyond the displayed market. Only marketable options orders that are received at a point in time when CBOE is not the NBBO are actually flashed.

The flash lasts for 150 milliseconds. When step-up is achieved via a flash the customer gets an NBBO or better execution without incurring transaction fees. When step-up is not achieved, CBOE routes the order to the NBBO exchange for free and absorbs the transaction fees charged by the NBBO exchange. This service provides formidable cost savings to retail investors.

- *Options Customers Have Choice of Venue.* Options customers are free to opt out of any flash process or to route orders directly to exchanges that do not flash. Nevertheless, firms executing retail business, preferring free executions for their customers, consistently route customer orders to exchanges that offer flash. A ban on flash orders would force market participants to pay exorbitant taker fees when the NBBO is at a maker taker exchange. Perhaps more troubling, a ban on flash orders, by inhibiting the customer's choice to route orders to destinations with different fee structures and market models, would extinguish a highly competitive dynamic that improves market quality and directly benefits the public customer.

## **Background**

To date, there are dozens of comments regarding the Proposal posted on the SEC website. They are almost all from individuals expressing anger at the industry over perceived unfairness in the markets. We recognize that the troubled economy has elevated fears and we appreciate the frustrations voiced by individual investors. However, we would like to set the record straight regarding flash trading. Unfortunately, flash trading has been mischaracterized as an unfair practice that benefits high frequency traders. This has confused investors and many industry professionals. In the next few paragraphs, we will explain why CBOE employs a flash as well as the mechanics of how flash trading works.

For years, exchanges have been required to honor prices that are available on competing exchanges. Thus, when a brokerage firm routes an order to buy 10 contracts of XYZ to Exchange A which is offering 20 contracts of XYZ at \$2.20, Exchange A cannot execute that buy order at \$2.20 if Exchange B happens to be offering 1 contract of XYZ at \$2.19. Translated to other areas of commerce, that is like a gas station having to honor a marginally cheaper rate offered by a competing gas station across the street. Nevertheless, that is the national market system we operate under for securities trading. In fostering a national market system, the Commission has always been clear that honoring better prices on other markets can be accomplished by matching those better prices.<sup>1</sup> Exchanges have never been prohibited from matching (or bettering) the best price. A flash process merely allows an exchange to electronically match a better price posted by another exchange. It serves as a back-stop before having to send business away to a competitor.

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<sup>1</sup> For example, in adopting the Order Protection Rule (Rule 611) under Regulation NMS in 2005, the Commission stated: "The Order Protection Rule generally requires that trading centers match the best quoted prices, cancel orders without an execution, or route orders to the trading centers quoting the best prices." Securities Exchange Act Release No. 51808, 70 FR 37496, 37525 (June 9, 2005).

CBOE is posting the national best bid or offer 90% of the time. However, in an environment with fast moving electronically generated quotations and seven competing options exchanges, it is impossible for one exchange to constitute the NBBO 100% of the time. That should not mean, however, that CBOE should have to route business to a competing exchange when we receive an order at a moment in time when we are not the NBBO. The ability to match is particularly attractive to retail brokerage firms because it allows them to get NBBO executions on CBOE without incurring significant execution fees imposed by maker-taker exchanges. A maker-taker fee structure means that any order taking liquidity is charged a fee (e.g. \$0.45 per contract) while a rebate is provided (e.g. \$0.30 per contract) to the other side of the trade (i.e. to the order making liquidity).

As part of our comprehensive customer service offering, when CBOE receives an order that is *marketable*<sup>2</sup> at a moment in time when CBOE is not the NBBO, we flash the order for a fraction of one second to CBOE users in hopes that one or more of those users will “step-up” and match the NBBO (i.e. honor the NBBO price) so CBOE can avoid routing the order to a competing exchange. If step-up is achieved, the customer gets an NBBO (or better) execution.<sup>3</sup> Sometimes, more contracts are executed at the NBBO price via the flash process than the number of contracts even available at that price at the competing exchange(s). If step-up is not achieved, we route the order to the NBBO exchange for execution. For public customer orders, executions on CBOE via step-up or otherwise are virtually always free of exchange fees. When CBOE must route to a competing exchange on behalf of a public customer order, CBOE provides the routing service for free and absorbs the transaction charge levied by the competing exchange. That is a win-win for the customer. Importantly, customers are always able to opt out of the flash process if they so choose.

We want to be clear, despite the continuous misconceptions regarding how flash trading operates, we only flash orders that are marketable *and* when CBOE is not the NBBO. We do not flash marketable orders when we are the NBBO and we do not flash non-marketable orders. Thus, if the CBOE quote for XYZ is 1.00 bid – 1.06 offer, with the 1.06 offer equaling the NBBO, we will automatically execute any marketable buy orders we receive against our 1.06 offer. There is no flash. If we receive an order to buy at 1.04 (or any buy order that is not marketable on CBOE or anywhere else), we will immediately book (i.e. disseminate) that order as our new best bid for the world to see and trade against. There is no flash. However, if we receive a limit order to sell at 1.00 while we are a 1.00 bid and another exchange is a 1.01 bid, we are precluded from trading the order at our price so we try to execute it at 1.01 on CBOE via a brief flash before we are compelled to route it to the competing exchange with the 1.01 bid. Similarly, if we receive a limit order to sell at 1.01 while we are a 1.00 bid and another exchange is a 1.01 bid, we are forbidden, by SEC rule, from booking and disseminating

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<sup>2</sup> A “marketable order” is an order that is either priced “at the market” meaning it should be executed at the prevailing market price, or an order that has a limit price that is immediately executable based on prevailing market conditions (e.g. an order to sell at 10.03 is marketable if the best bid in the marketplace is 10.03 or higher).

<sup>3</sup> As part of a recent enhancement to our flash process, we allow flash responders to respond at prices better than the NBBO.

the 1.01 sell order we received because it would “lock” the 1.01 bid at the competing exchange. Therefore, we flash in an attempt to execute it at CBOE before we are compelled to route it to our competitor. That is how the flash works, plain and simple. It has nothing to do with high frequency trading or two-tiered markets. We are trying to give customers good service and keep their business at CBOE whenever possible. A flash ban would eliminate that service offering.

If exchanges are no longer allowed to match competing prices, then brokerage firms will be compelled to route orders based only on disseminated prices and without consideration of numerous other factors including execution costs, system reliability, and quality of service. Choice will be eliminated, and the ultimate loser in that scenario is the long term retail investor (since orders from retail investors are more likely to be flashed for price improvement than orders from any other market participant). To complete our gas station comparison, the gas station of choice would not be able to match the price of the gas station across the street. Instead, the customer would have to cross the street for the marginally cheaper gas whether that customer wanted to or not and regardless of the fact that the displayed price of the marginally cheaper gas did not reflect additional charges.

### **Analysis of the Flash’s Impact on Market Participants**

In the Proposal, the Commission wisely stated that in evaluating the flash trading ban, it will consider the interests of long-term investors and the extent to which they are helped or harmed by flash trading rather than the interests of professional short-term traders. We are certain that our flash process greatly benefits long-term retail investors.

Today, investors and brokerage firms seeking to meet best execution obligations have a choice with respect to where orders are routed. They are currently free to route their orders directly to markets that are posting the best price and they are free to route their orders to markets not posting the best price but which may offer other benefits that meet the SEC’s best execution standards. The Proposal would eliminate that choice. If orders are forced to the market with the best disseminated price, then our markets will have in large part migrated to the central limit order book (CLOB) model that was outright rejected by the Commission and market participants during the adoption of Regulation NMS in 2005.

In the Proposal, the Commission offers a useful paradigm for analyzing the impact of flash trading on market participants. The Proposal notes that there are three parties to a flash. First, there is the user who submitted the order that is being flashed (“Submitter”). Second, there is the user who is responding to the flash message (“Responder”). Third, there is the user whose order is posted at the NBBO on another market (“Maker”). The Proposal notes that, generally, the Submitter and the Responder benefit from the flash process, but that the Maker may be disenfranchised.

In our experience, long-term retail investors overwhelmingly fall into the Submitter category, and the Responder is overwhelmingly a professional market making

entity. It is also our belief that the Maker, particularly in listed options, is typically a professional market making entity.

It is important to note that all three have a choice regarding where to trade. The Submitter could have attempted to access the NBBO directly. Instead he/she chose to route to an exchange that offers best execution via a flash mechanism. This normally reflects a preference for an opportunity for price improvement at the flashing venue while avoiding a “taker” transaction fee at the NBBO venue. Likewise, the Maker has a choice of where to display liquidity. The Maker might be more incented to display on an exchange that structures its transaction fees based on rebating money to the maker of liquidity. Often, the Maker wants the benefit of the rebate.<sup>4</sup> However, if the Maker felt that displaying on an exchange that flashes orders would result in a quicker fill because flashing exchanges receive more marketable orders, the Maker could have displayed on such an exchange. In our experience, oftentimes the Maker and the Responder can be the same entity. Importantly, today’s market structure offers them all a choice. The Proposal would eliminate that choice.

Here is a typical example highlighting how each of these participants are affected. The national best offer is 2.05 (for 30 contracts on Exchange Z). CBOE’s offer is 2.06 for 100 contracts. A public customer order is sent to CBOE to buy 20 contracts at 2.06. CBOE flashes the order for 150 milliseconds. If step-up is achieved, the customer gets filled at the NBBO price and incurs zero exchange transaction costs. When step-up is not achieved via the flash and CBOE routes a linkage order to Exchange Z to buy 20 contracts at 2.05, CBOE routes for free and absorbs the taker fee levied by Exchange Z. Clearly, in that example the Submitter benefits.<sup>5</sup> Presumably, the Responder benefits by having the ability to step-up to 2.05. As for the Maker, when step-up is not achieved (which is frequent) a linkage order is routed to trade against the Maker’s quote and the Maker gets filled. In those cases, the Maker is certainly not disenfranchised. Keeping in mind that the long-term investor in this equation is typically the Submitter and not the Maker or Responder, we fail to see the inequity in this process.

We believe that concerns over the Maker’s plight in this process are overblown. For listed options, it is relatively rare that long term retail investors constitute the NBBO. The vast majority of series quotes reflect only interest from professional market makers. Further, as a practical matter, a user that turns the market on an exchange is usually joined by additional trading interest on that same exchange and is also joined at that price by other exchanges. Despite being first, thousands of contracts could trade at that price while the market turner remains unfilled regardless of whether a flash ban is instituted or not.

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<sup>4</sup> A growing business for sophisticated trading firms is to capitalize on maker rebates by buying and selling with resting limit orders. While this adds liquidity to the market, such users are hardly the long-term investors the Commission is concerned about in evaluating a flash order ban.

<sup>5</sup> It is our understanding that in the rare instances where linkage orders “miss” the NBBO market, retail brokerage firms typically honor the NBBO for their customers.

Thus, the benefits that might accrue to the Maker if a flash ban is approved are marginal at best and certainly hard to quantify. On the other hand, the benefits to the Submitter (who is most likely to be the long-term investor in this equation) are very real and were, in fact, quantified by the Commission in the Proposal release. The savings for Submitters were estimated by the Commission as \$13,309,429 per year in the options market.<sup>6</sup> These are meaningful dollars that would be pulled off the table for investors if a ban on flashes is instituted (after all, why would CBOE or any other exchange continue to provide free routing to orders if we are precluded from the opportunity to trade those orders on our market before routing?). Customers would end up with higher execution costs.

Flash trading allows long term investors to save considerably on execution costs while at the same time allowing exchange market makers to match rapidly changing prices on competing exchanges. The objectives of long-term investors and short term traders are not always in conflict. A typical flash process proves that.

### **Responses to Specific Questions raised by the Proposal**

This section of our letter attempts to respond to the specific questions raised by the Commission in the proposal. The questions are provided in italics and the CBOE response to each question follows the question.

*Comment and data are requested on the effect of flash orders on the fairness and efficiency of the markets for listed securities and on the interests of long term investors in those securities.*

Exchanges have always had the ability to match the price displayed by a better-priced exchange. This has not had an adverse effect on the fairness and efficiency of the markets. Flash trading changes nothing in this regard. Indeed, based on the Commission's analysis in the Proposal, flash volume accounts for less than 2% of listed option volume. Further, as we mentioned above, additional liquidity and price improvement are available via flash trading. For example, in August 2009 CBOE executed 2.2 million contracts through flash trading while only 842,000 contracts were actually disseminated by other exchanges in connection with those flashes.

*If adopted, would the proposal promote investor confidence by addressing the potential for a two-tiered market with respect to access to information about the best prices for listed securities?*

We disagree with the characterization that flash messages create a two tiered market. As we have stated above, only marketable orders that are received when we are not the NBBO are flashed (and CBOE is on the NBBO over 90% of the time). Thus, the question implies that if the national best offer is another exchange at 2.20 and CBOE

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<sup>6</sup> Based on routing costs incurred by CBOE, we actually believe this figure is higher. The majority of orders routed after a flash incur a higher execution fee than the average utilized by the Commission.

receives an order to buy for 2.20, that by flashing that order internally at 2.20 in an effort to get it filled before routing the order to our competitor, we are creating a two tiered market. If locked and crossed markets were not prohibited, we would gladly immediately display the order at 2.20. While a locked market would result, that market would offer buyers and sellers the chance to trade at 2.20 without a spread. That is a fantastic market for retail investors. But since Regulation NMS precludes us from displaying the 2.20 bid and it is marketable, we try to get it filled by exposing it for 150 milliseconds before routing. That is hardly a two tiered market. Further, if we were forced to route the order immediately upon receipt, it would trade against the 2.20 offer on the competing exchange. The result is no different to the rest of the marketplace in terms of access to information than if we had executed the order in the flash. Investors are not provided greater “access to information about best prices” when we auto-generate a linkage order to trade on a competing exchange. The only thing that would offer investors greater access to best price information would be if the locked/cross ban were lifted and we were allowed to post the 2.20 bid. We likely wouldn’t need to flash marketable limit orders anymore if we were allowed to post all such orders upon receipt regardless of prices on other exchanges. This is an alternative the Commission should strongly consider.<sup>7</sup>

*Would the Proposal help to promote the display of quotations in public markets by eliminating one type of trading in which “dark” liquidity is provided that matches the prices of previously displayed public quotations?*

It might help nominally, at best. Quoters can calculate how much of an inbound order they will execute against when they are publicly quoting in an exchange’s disseminated market. They cannot calculate with any certainty the extent to which they will participate on a trade if they rely on stepping-up in a flash process to conduct a trading business. A responder does not know if another responder will hit the flashed order first. Thus, we believe that quoters generally rely on the flash process as a back-stop tool which allows them to trade when their quote is off the NBBO, not because of some reliance on flash as a joining mechanism, but because automated markets move incredibly fast and it is impossible to be on the NBBO 100% of the time even if that were a market making firm’s objective.

*Would the proposal reduce the potential for information leakage that could detract from the execution quality of marketable orders? Conversely, would the proposal deprive investors of a trading tool that, if used beneficially, can lead to improved quality of execution for marketable orders?*

Our experience is that orders deemed to have any sort of “market impact” are not submitted by users into a flash process. The median flashed order size on CBOE is 8

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<sup>7</sup> In addition, we would like to express our disagreement with the characterization that permeates the Proposal that flashed orders are somehow “locking” away markets and that the locked/crossed restrictions of Rule 610 are not applied to flashed orders. To the contrary, we flash these orders only because we cannot display them. We specifically do NOT display flashed orders and lock markets *because of* Rule 610 (and the corresponding provisions in the options Linkage Plan). Submitting a flash message to users in hopes of achieving step-up is not “displaying” the order and is not causing a locked market.

contracts. If a retail brokerage firm sends a 2 contract order to an exchange that employs a flash process, that firm is not concerned about information leakage and is confident that the order will get an NBBO fill (or better) along with the other advantages offered by the executing venue such as reduced costs.

As far as how the proposal, if adopted, would deprive investors of quality executions, we will not repeat all of what we have already stated above, but we feel that investors would certainly be deprived of a strong customer service offering. One point we would reiterate is that we have found that executions in our flash have on many occasions provided greater liquidity at the NBBO price than all displayed interest at that price on other exchanges. By way of example, if the national best offer is 1.20 for 30 contracts and CBOE is not at 1.20, we could step up to 1.20 for an entire 50 contract marketable buy order that is flashed. Again, this is a great benefit to the Submitter, as the Responder is providing more liquidity than the Maker is offering. Needless to say, without the flash, this could not occur.

*What are some of the trading strategies that employ flash orders? Is the use of flash orders in the best interests of these traders and how would the inability to use flash orders affect these traders?*

We have discussed above how retail brokerage firms can use flash orders to ensure best execution and reduce costs to benefit their customers. We have also mentioned how flash orders help market makers step-up to NBBO prices in markets that are constantly changing. We would also like to highlight that flash processes can ameliorate latency concerns (including geographic disparities that exist between market participants attempting to access the same venue).

Frequently, because of the derivative nature of options, price changes by market makers across all of the options exchanges are initiated at the same time. For example, a price change in the underlying stock will prompt quote changes to the related options series. Due to computer and system speeds, these changes are not necessarily reflected in the consolidated quote stream at the exact same time. Thus, one market may establish the NBBO a fraction of a second sooner than other exchanges (even when they all intended to move to the exact same price). This fact alone should not compel order routers to direct trading interest only to the first perceived mover. A typical market making firm is continuously streaming hundreds of thousands of quotations. It is impossible to drive NBBO-only quotes 100% of the time.

Also, as many industry observers know, speed of execution is increasingly important for short term traders. As the focus on order speeds get more granular, factors like geography become significant for short term traders (including option market makers seeking to hedge option trades). An order generated in Chicago at the exact same time as an order generated in New York (both trying to hit the same posted market on a New York based platform) will generally not arrive first. A flash process gives users the option to seek an NBBO execution without engaging in a race where geography and other latency concerns are magnified. Our comments in this regard do not mean that we

advocate harnessing computer speeds, but they do mean that creative solutions such as flash trading can be valuable to those at a disadvantage in terms of speed.

*Which market centers are likely to benefit from any changes in order routing practices? How would the proposal affect transaction costs incurred by various market participants? How would overall transaction costs change?*

The market centers advocating a flash order ban would benefit. Certainly brokerage firms representing retail customers have not called for a ban. If flashing exchanges are precluded from flashing orders, then costs will go up for routing those orders. Further, a flash order ban would cause exchanges with traditional pricing models to consider adopting maker-taker pricing models. Why regulators should favor a maker taker pricing model over others is hard to understand.

Over 80% of all trading in listed options occurs on exchanges that do not employ a maker taker fee structure. Despite a lack of complaints regarding flash trading from the options investor community, the Proposal would force a dramatic change to that landscape. Typically, more than one options exchange is on the NBBO. Sometimes when just one exchange "turns the market" to an improved price, it is a maker taker exchange. That reflects the rebate that a user receives for resting orders on those markets (of course that rebate is paid in full by the liquidity taker). It is a profitable feature for users seeking to turn the market and certainly an innovative pricing structure. However, users that generally take liquidity (like long term option investors) do not appreciate the exorbitant taker fees charged by these venues (sometimes close to \$0.50 per contract). This is evidenced by the healthy trading that occurs on non-maker taker exchanges like CBOE every day.

The Commission has historically recognized that the options market has significant differences from the equities market. **We urge the Commission to not impose a flash order ban in listed options.** Doing so would force CBOE to take measures that would be to the detriment of the many users who regularly get free executions and routing on our exchange.

*Should the Commission adopt a different approach for flash orders in listed options than for flash orders in listed equities?*

We believe it is unnecessary to ban flash orders for any product line. However, as we noted in response to the previous question, a ban in the options market would be particularly harmful. The ability to match a competing exchange's price (which is done through a flash process) allows CBOE and other options exchanges to offer alternative pricing models that greatly benefit retail investors. That difference alone should influence the Commission's thinking on a flash order ban in the options markets. Yet, there are other significant distinctions worth discussing.

The options markets are considered "quote-driven". As we indicate earlier, most quotes on options exchanges are populated only by professional market makers -- not long term investors. Employing a flash mechanism that results in responses that match a market maker quote on another exchange is not harmful to long-term investors and does not result in a disincentive to quote.

Also, because options are derivatively priced, orders submitted through a flash process are even less likely to have a "market impact" than stock orders submitted through a flash process. Option pricing is formulaic and tied to the price of the underlying stock which diminishes the ability of an order to "impact" option markets. As we stated earlier, the median order size submitted through our flash process is 8 contracts. Thus, concerns over users adjusting quotes on other exchanges or trying to access NBBO prices ahead of a flashed order are unnecessary.

Lastly, we note that CBOE does not provide rebates to flashed orders. We understand that in the equities markets professional firms were submitting marketable orders into a flash process in order to receive a rebate. No such rebate exists in the options market.

*The Commission requests comment on whether the elimination of the flash order exemption for both automated trading systems and manual trading floors would seriously detract from the viability of trading floors in the modern, mostly electronic, trading environment.*

As an initial matter we believe it is important to highlight that electronic flash trading typically involves small sized orders. Orders represented on trading floors today (unlike when the Quote Rule was adopted) are almost exclusively large institutional straight and complex orders. An SEC rule making fashioned to address flash trading should not inadvertently damage the operation of trading floors which handle an entirely different type of business. As the Commission states in the Proposal, floor brokers representing large discretionary orders must be able to discuss terms of a prospective trade and making those terms public would interfere with the effective representation of the orders. The Commission also notes that requiring publication of trading crowd responses to broker queries could significantly impair floor brokers' ability to represent large orders effectively. We agree.

Flash trading, by necessity, identifies the series, side, and size of the flashed order. Floor brokers, on the other hand, engage in liquidity and price discovery discussions that do not necessarily involve divulging the material terms of the orders they represent. Eventually those terms are made known in connection with consummating a trade, but the orders are not "flashed" in the same sense as flash trading.

Of course, the application of Rule 602 to trading floors is no easier to figure out than the application of Rule 602 to orders awaiting a linkage fill from an away exchange, market orders, contingency orders and a host of other orders that are not expressly

