U.S. COMMODITY FUTURES TRADING COMMISSION
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Office of Proceedings

JIAN KE, Complainant,	*	
v.	*	CFTC Docket No. 11-R034
INTERACTIVE BROKERS LLC, Respondent.	*	

INITIAL DECISION

This dispute arises from Interactive Brokers determination, near the close on the expiration date, to liquidate seven short, deep <u>in</u> the money, September 2011 S&P 500 E-mini put options on futures. Had these short puts not been liquidated and rather been assigned, Jian Ke's account would have received seven long September S&P 500 E-mini futures contracts at the strike price of $1,275. Jian Ke asserts that the liquidation was improper and seeks $40,162.50 in damages.

In reply, Interactive Brokers Interactive Brokers admits that the liquidation was erroneous, but argues that Ke's calculation of damages is speculative and mathematically erroneous, and that the award for damages should be capped between $1,750 and $3,150.[1] As explained below, after carefully reviewing the evidentiary record, I have concluded that Ke is entitled to an award of $40,162.50.[2]

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[1] *See* pp. 8-14, Interactive Brokers' Closing Statement.
[2] The evidentiary record includes: Ke's Complaint, Reply to Respondents' Request for Documents and Information, and Response to Judge's December 13, 2012 E-mail Request; Interactive Brokers' Answer, Closing Statement, and Responses to December 13, 2012 Information Request; an audio recording of an August 23, 2011 phone call

Factual Findings

The parties

1. Jian Ke, a resident of White Plains, New York, is a sophisticated derivatives speculator. Ke is employed as a senior software engineer at Bloomberg, L.P., specializing in order and trade management. Prior to his employment at Bloomberg, Ke was employed at Citadel Investment Group as a fixed income software developer. Ke earned degrees in Physics and Computer Science from the University of China and Cornell University, respectively. Ke has authored several publications relating to computer science and programming.

Ke stated on his account application that he had annual income between $150,000 and $250,000, that he had between six to ten years' experience trading stocks, options and commodities, and that his knowledge of stocks, options and commodities was "extensive."

2. Interactive Brokers, LLC, a discount, online broker headquartered in Greenwich, Connecticut, is a registered futures commission merchant. All trades executed by Interactive Brokers are entered by the customer on the customer's personal computer and transmitted over the internet to Interactive Brokers for execution.

3. The Interactive Brokers Customer Agreement stated that Ke was solely responsible for monitoring his account so that at all times the account maintained sufficient equity to meet margin requirements. In this connection, at all relevant times, Ke did in fact diligently monitor the status of his account.

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between Ke and an agent for Interactive Brokers (produced by Interactive Brokers); web-ticket messages between Ke and Interactive Brokers, from August 19, to September 29, 2011 (collectively produced by Ke and Interactive Brokers); Ke's resume and account application (Exhibits 1 and 2 to Interactive Brokers' Closing Statement); screen shots (Figures 1-5, attached to Complaint); Ke's compilation of CME price data (Table 1, attached to Complaint); the August 19, 2011 Liquidation Notice, attached to Complaint); and August 18, 19 and 31, 2011 Activity Statements and August 2011 Monthly Activity Statement (collectively produced by Ke and Interactive Brokers). In addition, official notice has been taken of CME price data for the September 2011 S&P e-mini future contract from August 19, to September 9, 2011, provided by the CFTC Office of the Chief Economist.

The Erroneous Liquidation

4. In August 2011, Ke had been actively trading S&P 500 E-mini puts and calls on futures at various strike prices. In this connection, on August 18, 2011, Ke held ten short August S&P 500 E-mini puts, with a strike price of $1,275. Seven of these puts would be the erroneously liquidated by Interactive Brokers.[3]

In August 2011, weekly equity index trading on the CME Globex began at 3:30 p.m. CDT, on Sundays, and open outcry trading for equity index futures and options began at 8:30 a.m. CDT, on Mondays. Weekly trading in CME equity futures and options ended at 3:15 p.m. CDT,[4] on Fridays. The expiration date for Ke's August puts was Friday, August 19, 2011.

At the close on Thursday, August 18, 2011, Ke's August puts were deep in the money, and thus were on track for assignment, which would have resulted in ten long September S&P 500 E-mini futures contracts being placed in Le's account, at $1,275 per contract, prior to the open of the next trading day after the expiration date. Both sides agree that Ke's account had more than adequate equity to meet additional margin requirement associated with the potential assignment of Ke's 10 long S&P 500 E-mini September futures.

5. Prior to the close on Friday, August 19, 2011, Interactive Brokers conducted a routine forward-looking review of the effect an assignment of Ke's ten short August puts would have on the margin requirements for his account. According to Interactive Brokers, during this review Interactive Brokers "inadvertently miscalculated that [Ke] would have insufficient equity in his account to meet the additional margin requirement associated with being assigned a long position

[3] On July 12, 2011, Ke had sold five puts at $20, and collected $5,000 in premiums. On July 15, 2011, Ke had sold two puts at $19.50, and collected $1,950 in premiums.

[4] The erroneously liquidated options were traded on the Chicago Mercantile Exchange, which reports trades in Central Time using 12-hour clock notation. In contrast, Ke's and Interactive Brokers' electronic communications were recorded in Eastern Time using 24-hour clock notation. In order to accord with the parties' documentary submissions, time references in this decision to trading hours and trade executions on the CME are in Central Time and 12-hour clock notation, and references to communications between Ke and Interactive Brokers are in Eastern Time and 24-hour clock notation.

in all 10 [S&P 500 E-mini] September futures in this account."[5] Interactive Brokers has not offered any explanation for the cause of its error.[6]

As a result of its error, about fifteen minutes before the close, at 2:59 p.m. CDT, Interactive Brokers liquidated, *i.e.*, bought, seven, out of the ten, short September S&P 500 e-mini puts, at $160, in order to prevent Ke's account from falling into a margin deficiency mistakenly anticipated by Introducing Brokers. Interactive Brokers liquidated the seven puts at $160, and debited Ke's account $56,000 for the total premiums paid.[7] At 3:15 p.m. CDT, the Friday trading session closed.

At 17:05 (4:05 p.m. CDT), Interactive Brokers electronically delivered the liquidation notice.

At 17:42, Ke entered a web ticket message asserting that his account was more than adequately margined.[8] At 18:37 and 18:51, Ke followed up with two more messages explaining and documenting in detail his calculations supporting his assertion that his account had been adequately margined to support the assignment.

Interactive Brokers did not respond to any of Ke's August 19th messages.

6. On Sunday, August 21, 2011, Ke sent a message to Interactive Brokers in which he set out more detailed calculations substantiating his assertion that his account had been adequately margined to support the assignment, and demanded that Interactive Brokers reimburse him for the loss caused by the wrongful liquidation:

> I got the liquidation notice email which claims "Interactive Brokers has liquidated certain option positions in your account U----- as the current level of equity is insufficient to support the

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[5] ¶ 2, page 7 of Interactive Brokers' Closing Statement.

[6] In his August 21, 2011, 12:02 (EDT) web ticket message, Ke asserted that that his account was adequately margined, and set out a plausible and detailed explanation for what he asserted was Interactive Broker's apparent error. *See* finding 4, below.

[7] $160 (trade price) x 50 (contract size) x 7 (number of contracts) = $56,000.

[8] With the exception of the August 23rd phone conversation discussed below, communications between Ke and Interactive Brokers were exclusively electronic via web ticket messages.

projected margin requirement were these expiring options to be exercised/assigned." This projected margin requirement IS INCORRECT. Prior to the liquidation, I had -10 ES August 1275P and -6 ES August 1300P and -12 underlying ES [*i.e.*, twelve short futures]. The projected ES- position should be 4 ES, a net of 16 assigned ES and -12 existing ES contracts. The correct projected position should just have 4 more ES comparing to my current position (see attached an updated post-expiration position in post_exp_positi_on and margin.jpg). You can see the margin from that picture as well, there is plenty left for 4 ES. This can be confirmed by using IB's "Check Margin" to see the impact of adding 4 ES (see attached post_exp_ad_4E S_margin.jpg), In fact, my margin can allow 18 ES contracts when I "check margin" with 28 ES (see attached post_exp_add 28 ES margin.jpg). So I believe IB projection software have mistakenly used 28 ES contracts (16 + 12) instead of using 16 -12 = 4 as post-expiration position and hence liquidated -7 ES Aug 1275P, which is close to 28-18=6, quite possible given a possible small net-liq-value change in my account. Hence I demand IB to reimburse my account for loss suffered due to this wrong liquidation.

[Capitalization in original.] Interactive Brokers did not respond to Ke's August 21st message.

7. On Wednesday, August 23, 2011, Ke called Interactive Brokers and spoke to customer service representative James McGovern, who effectively advised Ke to defer taking any action. Set out below is a transcription of a recording of the conversation:

JM: Interactive Brokers. This is Jim. May I have your account number, please?

Ke: Hi this is Jian Ke, and my account is U-----.

JM: U-----?

Ke: Yes.

JM: OK, hold on one second. [27-second pause.] OK. And who am I speaking with today?

Ke: Jian Ke.

JM: How can I help you Mr. Ke?

Ke: Hi. I [undecipherable] with the web ticket to -- uh -- options liquidated and the serial number 9-----.

JM: I'm sorry. Could you repeat the ticket number please?

Ke: 9-----.

JM: OK.

Ke: That's it.

JM: And what's your question?

Ke: This involves some positions that liquidated -- [interrupted by JM].

JM: You want to know if there's been any response so far. Is that your question?

Ke: Basically yes. I just want know if anyone, someone is looking of this, or -- [interrupted by JM].

JM: OK, let me take a look. OK, hold on one second. I'm going to put you on hold for one second Mr. Ke, and I'll take a look at what was going on. OK?

Ke: OK.

JM: Hold on one second [29-second pause]. Mr. Ke?

Ke: Yes.

JM: OK. Your request has been sent to the trade problems, to a trade desk. There's no resolution to it yet. So it's still pending.

Ke: OK

JM: OK. So it <u>sometimes takes some time</u> to do this now. But the fact that, you know, I do see it, I do see that it's been submitted. There just hasn't been any, they haven't been any decision on you know what are their going to do with this yet. And <u>sometimes it takes a little bit of time</u> for them to address these situations. But it has been received. So <u>it will be addressed at some point</u>.

Ke: <u>So, I just wait to see how you guys want to offset those puts?</u>

JM: <u>Right.</u>

Ke: OK.

JM: OK?

Ke: And, OK.

JM: OK Mr. Ke, have a good day.

Ke: You too. Bye bye.

[Underlining added for emphasis.]

8. On Wednesday, August 24, Interactive Brokers acknowledged receipt of Ke's complaint, stated that it was "reviewing the facts and circumstances surrounding the matter," stated that Ke should allow Interactive Brokers three to five business days for the investigation, and offered the following advice:

> If there is a question about a trade or order that impacts your market exposure, IB requests that you manage all orders, trades and positions in your account in order to ensure that your account is not subjected to unnecessary risk or fluctuations during the investigation period.

[Underlining added for emphasis.] As can be seen, the message appeared geared toward managing the risk associated with open positions, rather than mitigating lost opportunity associated with closed positions.

In this connection, about an hour later, Ke sought clarification:

> Should I manage my risk assuming the questioned trade [*i.e.*, the liquidation] will be undone or the trade will NOT be undone? Otherwise, it is not possible to manage the risk of the questioned trade.

Interactive Brokers would not respond to this question. In the meantime, Ke chose not to open a new long September S&P 500 E-mini futures position.

9. A week later, on Wednesday, August 31, Ke asked Interactive Brokers: "Hello, more than ten [calendar] days have passed, any updates on this?" Interactive Brokers replied succinctly: "Risk management is still in the process of reviewing this."

10. Finally, thirteen days after the erroneous liquidation, on September 1, Interactive Brokers informed Ke that it would settle the matter by crediting his account $1,750:

> In response to the issues you have raised regarding the liquidations posted to your account on trade date August 19, 2011, Interactive Brokers hereby offers to credit your account in the amount of $1,750. This represents the extra premium paid ($5) vs. the intrinsic value on the 7 ES Aug 1275 puts. Please note that the proposed credit must be approved by IB Management and therefore the credit is not a guarantee.

> Please be aware that under the IB customer agreement, IB is not liable for system or technical errors, or for the unavailability of the IB system or for temporary inability to transmit orders to market centers. Thus, this credit to your account is not an admission of liability under the IB customer agreement, nor does it indicate that we would necessarily credit your account for similar instances in the future.
>
> Nonetheless, because you are a valued customer, in this instance we thought a credit was appropriate in the interest of customer service.
>
> If this is an acceptable resolution of your complaint, please respond to this ticket and type "I AGREE" and we will escalate the request to Senior Management to process the credit of $1,750.00. By accepting the credit, you agree not to seek further compensation arising from the orders/trades described above.

Later that day, Ke replied:

> How about as a good customer service, IB absorbs this incorrect liquidation by removing the trade from my account and adds 7 ES underlying as these 7 put-option shorts would have been assigned post August expiration? I had always trusted IB up till this liquidation. It's unacceptable to rush out this important change of liquidating customer positions without testing a very basic scenario of selling covered put, without informing customers of the change.

The next day, September 2, Interactive Brokers replied that it would not increase its offer:

> The Interactive Brokers Risk Management team reviewed this issue and made the offering in good faith. IB believes this is a fair settlement for this issue and as such, this is the only offer IB will extend to you.

11. The next communication between Ke and Interactive Brokers was on September 12, when Interactive Brokers reiterated that it would not increase its offer:

> The Interactive Brokers Risk Management team reviewed this issue and made the offering in good faith. IB believes this is a fair settlement for this issue and as such, this is the only offer IB will extend to you.
>
> Please respond to the offer made you regarding this issue. As previously stated to you, IB will offer to credit your account $1,750.00 upon an agreement from you.

Later that day, Ke rejected the offer:

> No. $1,750 is NOT a fair offer at all. Without this offer, IB liquidated my position at a discount price. With this offer, IB liquidated my position at a fair market price at the time of liquidation. But IB offered nothing for liquidating my position at one of the lowest point of trading. Since IB is not willing to offer a fair settlement, I'm forced to take this matter to the CFTC for consumer protection today.

[Capitalization in original.]

The following day, September 13, Interactive Brokers withdrew its offer:

> Again IB has reviewed the offer made to you regarding the events posted to your account on trade date August 19, 2011, and feel that it is a fair settlement to you. At this time, IB is withdrawing its offer to you and is closing this issue. Please feel free to contact the regulatory body of your choice, should you wish to escalate this issue.

12. Set out below is the price data for the September 2011 S&P 500 e-mini future contract from the date of the erroneous options liquidation to the expiration date for the September S&P 500 e-mini futures contract:[9]

Date	*Low Price*	*High Price*
19-Aug-11	1117.50	1153.30
22-Aug-11	1111.25	1146.50
23-Aug-11	1118.50	1160.80
24-Aug-11	1142.50	1176.80
25-Aug-11	1153.00	1188.50
26-Aug-11	1132.75	1179.80
29-Aug-11	1172.25	1208.80
30-Aug-11	1193.50	1218.80
31-Aug-11	1201.25	1229.80
01-Sep-11	1200.75	1228.50
02-Sep-11	1168.50	1203.30
06-Sep-11	1136.00	1166.80
07-Sep-11	1163.75	1199.80
08-Sep-11	1182.00	1203.80
09-Sep-11	1146.75	1194.00

As can be seen, from August 22, to September 9, 2011, the September S&P 500 e-mini future contract traded between $1,111.25 and $1,229.80, that is, below the $1,275 strike price of Ke's

[9] The CME price data has been provided by the CFTC Office of the Chief Economist.

erroneously liquidated puts. Therefore, had Interactive Brokers not erroneously liquidated the seven short puts near the close on August 19, and had the seven long futures thus been placed in Ke's account, Ke would have realized a loss on the futures trade, with the smallest loss being $15,837.50, based on the difference between an assignment (buy) price of $1,275 and a liquidation (sell) price of $1,229.80, based on the interim high price on August 31, 2011.

Conclusions

In alleging an unauthorized or erroneous liquidation, a customer may rely on the general rule that, under the Commodity Exchange Act, a futures commission merchant has a duty to follow a customer's instructions regarding his money and property. *Slone v. Dean Witter Reynolds, Inc.*, Comm. Fut. L. Rep. ¶26,283 at 42,433 (CFTC 1994). Here, Interactive Brokers has conceded that its liquidation of Ke's seven put options was erroneous and wrongful, without offering any detailed explanation beyond a general reference to an inadvertent calculation error. Interactive Brokers' unauthorized liquidation may have been inadvertent, but was at best a presumably reckless breach, in violation of Commission rule 166.2, Section 4d(a) of the Act, and Commission rule 33.10(a) and Section 4c(b) of the Act.

Consistent with the proposition that the proper measure of damages is to return a customer to as good a position as he would have been had the violation not occurred, the proper measure of damages for a wrongful liquidation is: either (1) the value of the position at the time of liquidation, or (2) its highest intermediate value between notice of the liquidation and a reasonable time thereafter during which the position could have been replaced had that been desired, whichever is higher. *See Ahlstedt v. Capital Commodity Services, Inc., et al.,* Comm. Fut. L. Rep. ¶27,131 (CFTC Jan. 4, 1997), and citations therein. Under the *Ahlstedt* rule, while a customer is under no duty to re-institute the improperly liquidated position, the possibility of the customer's re-entry into the market "establish[es] the outer limit of a reasonable period during which the highest intermediate value of the lost [position] could be ascertained." *Id.* The "reasonable period" represents the time during which the trader -- having learned that his or her position has been involuntarily liquidated -- might reasonably be expected to enter the market at the broker's expense. The determination of a reasonable time period varies from case to case and is based on the facts and circumstances of the particular case; and the time needed to re-enter the market depends on several factors including the trader's experience, capabilities and resources, the conduct of the broker, and the nature of the market involved. *Id.*

Given the particular circumstances of Interactive Brokers' wrongful liquidation of Ke's seven put options – one, Interactive Brokers improperly liquidating Ke's put options near the close on the expiration date, two, Ke promptly protesting the liquidation and clearly showing that his account had been adequately margined to support assignment of the puts, three, Interactive Brokers not responding to Ke's multiple communications until the fourth trading day after the liquidation, four, Interactive Brokers then advising Ke to wait an indefinite period, five, Interactive Brokers next not responding to Ke's request to explain how he was supposed to "manage the risk" of a closed-out position, as Interactive Brokers had advised him in what appeared to be a form response, and six, Interactive Brokers not acknowledging its error and making a settlement offer until thirteen days after the liquidation, on September 1, 2011-- it is reasonable to select August 31, 2011 as the outer limit of a reasonable period during which the highest intermediate value of Ke's lost futures position could be ascertained. The fact that Ke did not buy any September S&P futures from August 22 to 31, 2011 is irrelevant to this conclusion, since his decision not to buy September S&P futures during that time was presumably influenced by Interactive Brokers' wrongful liquidation on August 19, 2011, by

Interactive Brokers' delays in responding to his multiple queries, and by Interactive Brokers' advice to him to defer action.

Had Interactive Brokers not erroneously liquidated the seven short puts on August 19, 2011, Ke's account would not have been debited $56,000 in premiums, and seven long futures would have been assigned to Ke's account. However, the best that Ke could have done after such assignment would have been a loss of $15,837.50, based on the difference between the assignment (buy) price, $1,275, and the interim high (sell) price on August 31, 2011, $1,229.80. Thus, the proper measure of damages is the difference between $56,000 and $15,837.50: $40,162.50.

ORDER

Jian Ke has established by a preponderance of the evidence that Interactive Brokers recklessly liquidated seven options on futures on August 19, 2011, in violation of Commission rule 166.2, Section 4d(a) of the Act, and Commission rule 33.10(a) and Section 4c(b) of the Act, and that this violation proximately caused damages totaling $40,162.50. Accordingly, Interactive Brokers is ordered to pay to Jian Ke reparations of $40,162.50, plus prejudgment and post-judgment interest on that amount at 0.15% compounded annually from August 19, 2011, to the date of payment, plus $250 in costs for the filing fee.

Dated March 22, 2013.

Philip V. McGuire

Philip V. McGuire,
Judgment Officer