

MIAX Options Appendix A

Obvious and Catastrophic Errors During Limit and Straddle States

For the month of February 2018, the MIAX Options Exchange collected the following dataset containing the data for each Straddle and Limit State in optionable stocks.

Stock Symbol	Option Symbol	Trade Date	LULD Start Time	Straddle Limit Indicator	Executed Volume	TW Avg MBBO Spread	TW Avg Quote Bid Size	TW Avg Quote Ask Size	High Execution Price	Low Execution Price	Trades Reviewed for Error	Price Change GT 30 PCT in LULD	Price Change GT 30 PCT After LULD
VXX	VXX-2018-03-02-P-40.00	02/05/18	3:07:27 PM	LIMIT	1	2.67	1.39	0.98	4.3	4.3	N/A	0	0
JPM	JPM-2018-02-09-P-106.00	02/05/18	3:10:09 PM	STRADDLE	2	3.5	4.97	4.97	2	2	N/A	0	0
NVDA	NVDA-2019-01-18-P-105.00	02/05/18	3:10:22 PM	STRADDLE	5	6.38	0	3.8	5	5	N/A	0	0
VLO	VLO-2018-02-09-P-90.50	02/05/18	3:10:40 PM	LIMIT	10	5	9.65	9.65	7.45	7.45	N/A	0	0
CAT	CAT-2018-02-09-P-157.50	02/05/18	3:10:45 PM	STRADDLE	7	5	1.54	1.54	14.5	14.5	N/A	1	0
CAT	CAT-2018-02-23-P-185.00	02/05/18	3:10:45 PM	STRADDLE	10	0	0	0	42	42	N/A	0	0
JNJ	JNJ-2018-02-16-P-142.00	02/05/18	3:10:45 PM	STRADDLE	10	5	0.2	0.2	19.5	19.5	N/A	0	0
JNJ	JNJ-2018-02-23-P-139.00	02/05/18	3:10:45 PM	STRADDLE	10	5	0.2	0.2	16.5	16.5	N/A	0	0
AMZN	AMZN-2018-02-16-C-1340.00	02/05/18	3:10:47 PM	STRADDLE	1	13.55	0.51	0.57	31.6	31.6	N/A	1	0
AMZN	AMZN-2018-02-16-C-1447.50	02/05/18	3:10:47 PM	STRADDLE	1	10	0.49	0.52	13.65	13.65	N/A	1	0
AMZN	AMZN-2018-07-20-C-1300.00	02/05/18	3:10:49 PM	STRADDLE	1	33.16	0.05	0.21	150	150	N/A	0	0
SVXY	SVXY-2018-03-16-P-80.00	02/05/18	3:20:59 PM	STRADDLE	10	4.99	9.94	9.94	7.6	7.6	N/A	0	0
UVXY	UVXY-2018-02-09-P-17.00	02/06/18	9:49:54 AM	STRADDLE	10	2.74	3.09	8.51	3.2	3.2	N/A	0	0
UVXY	UVXY-2018-02-09-P-12.00	02/06/18	9:49:54 AM	STRADDLE	1	4.33	0	0	0.73	0.73	N/A	0	0
UVXY	UVXY-2018-02-16-C-14.00	02/06/18	9:50:32 AM	STRADDLE	3	4.95	7.48	7.48	7.95	7.95	N/A	0	0
UVXY	UVXY-2018-02-09-P-16.50	02/06/18	9:51:11 AM	STRADDLE	13	2.91	5.18	10	3	3	N/A	0	0
UVXY	UVXY-2018-02-09-P-15.00	02/06/18	9:51:22 AM	STRADDLE	6	1.99	10	10	2.1	2.1	N/A	0	0

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UVXY	UVXY-2018-02-16-P-15.00	02/06/18	9:51:25 AM	STRADDLE	4	3.24	2.35	2.35	3.5	3.5	N/A	0	0
VXX	VXX-2018-04-20-P-45.00	02/06/18	9:57:20 AM	STRADDLE	1	4.89	0.34	0.34	10	10	N/A	0	0
VXX	VXX-2018-02-16-P-28.00	02/06/18	10:46:01 AM	STRADDLE	20	2.61	40.09	7.79	0.2	0.2	N/A	0	0
VXX	VXX-2018-02-09-C-54.00	02/06/18	10:46:53 AM	STRADDLE	80	1.7	10	10	4.05	4.05	N/A	1	0
CSII	CSII-2018-03-16-P-25.00	02/08/18	12:54:14 PM	STRADDLE	28	4.99	0	0.7	2.05	2.05	N/A	0	0
CSII	CSII-2018-09-21-P-35.00	02/08/18	12:54:14 PM	STRADDLE	22	5.36	0.21	0.7	11.7	11.7	N/A	0	0
ABC	ABC-2018-03-02-P-93.00	02/27/18	11:45:45 AM	STRADDLE	10	3.5	1.44	10	0.6	0.6	N/A	0	0