

LULD Annual Report Summary

CBOE conducted a study of option trades executed on CBOE when the security underlying the option series was in “limit” or “straddle” state (“LULD trade”). This study covers trading activity observed from December 2015 through October 2016. During this 11-month period, CBOE observed a total of 99 LULD trades accounting for 1323 contracts in options overlying 52 securities. 96 LULD trades occurred when the security was in a straddle state and 3 LULD trades occurred when the security was in a limit state. CBOE observed 14 transactions for which the option trade price during a limit or straddle state was more than 30% away from the last transaction prior to the security entering that state and 14 transactions for which option trade prices within 5 minutes of a security leaving a straddle or limit state were more than 30% away from trades occurring during that state.

The tables below summarize the information contained in the periodic LULD reports submitted to Commission on a monthly basis. As shown below, the maximum number of LULD trades were observed for QLGC (7) and MKL (7), which accounted for 22 and 8 total contracts respectively.

Month	LULD Trades
Dec-15	5
Jan-16	8
Feb-16	7
Mar-16	11
Apr-16	16
May-16	1
Jun-16	3
Jul-16	8
Aug-16	15
Sep-16	10
Oct-16	15

Stock Symbol	Total LULD Volume	Total LULD Trades	Avg. Trade Size
NYMX	197	3	66
HOG	192	6	32
CCUR	122	1	122
LPLA	91	3	30
AKRX	81	2	41
BRCD	68	3	23
NHTC	52	2	26
GEO	33	3	11

Stock Symbol	Total LULD Volume	Total LULD Trades	Avg. Trade Size
GLNG	30	2	15
TEX	30	1	30
CUR	25	1	25
LULU	25	1	25
QLGC	22	7	3
WMB	22	2	11
PTM	20	2	10
SCLN	20	2	10
CHUBK	20	1	20
EXAS	20	1	20
MNTA	20	1	20
CHK	15	2	8
NRP	14	2	7
SRPT	13	2	7
TRXC	12	3	4
ADHD	10	1	10
AGYS	10	1	10
AVXL	10	1	10
AZUR	10	1	10
EARS	10	1	10
HSC	10	1	10
PRKR	10	1	10
RLYP	10	1	10
SDRL	10	1	10
CXW	9	5	2
TWX	9	1	9
MKL	8	7	1
CTL	7	2	4
WLL	7	1	7
PANW	6	4	2
REED	6	2	3
SCTY	5	2	3
PRGO	5	1	5
TERP	5	1	5
CLVS	4	1	4
SRCL	4	1	4

Stock Symbol	Total LULD Volume	Total LULD Trades	Avg. Trade Size
CSTM	3	2	2
DATA	3	1	3
AVHI	2	1	2
GWPH	2	1	2
LDOS	1	1	1
SIG	1	1	1
TSL	1	1	1
WR	1	1	1

Analysis

Evaluation of the statistical and economic impact of limit and straddle states on liquidity and market quality in the options markets.

CBOE believes that there is insufficient data to make a reliable statistical and economic impact evaluation of market quality in the options markets during limit and straddle states.

Assessment of whether the lack of obvious error rules in effect during the straddle and limit states are problematic.

CBOE believes that there is insufficient data to make a reliable assessment of whether the lack of obvious error rules in effect during straddle and limit states are problematic.