

## QUARTERLY MARKET IMPACT / TRADING PATTERN REPORT – Q4 2021

### PM-SETTLED S&P 500 INDEX OPTIONS

On September 2, 2011, the C2 Options Exchange, Incorporated (“C2”) received approval of a proposed rule change to list and trade PM-Settled S&P 500 Index Options that expire on the third Friday of the month on a 14-month pilot basis. Cboe Exchange, Inc. (formerly Chicago Board Options Exchange, Incorporated) (“Cboe Options”) became the sole market for PM-Settled S&P 500 Index Options on February 19, 2013. The Exchange has extended the pilot every six months since then.

As part of this pilot program, on a periodic basis Cboe Options will submit reports analyzing volume and open interest for Expiration Friday, PM-Settled S&P 500 Index Option Series (“SPXpm”). Pursuant to the terms of the pilot program, Cboe Options is submitting this interim report to the SEC.

#### ***Monthly Analysis of Volume & Open Interest:***

This interim pilot report data reflects trading activity in SPXpm options during Q4 2021.

#### ***1. Monthly volume aggregated for all SPXpm trades***

<u>Month</u>	<u>Index</u>	<u>Volume</u>
2021-10	SPXW	4,715,624
2021-11	SPXW	5,525,912
2021-12	SPXW	5,683,106

**2. Monthly volume for SPXpm trades aggregated by expiration date**

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>Volume</u>
2021-10	SPXW	2021-10-15	3,203,062
2021-10	SPXW	2021-11-19	827,754
2021-10	SPXW	2021-12-17	408,652
2021-10	SPXW	2022-01-21	155,244
2021-10	SPXW	2022-02-18	101,662
2021-10	SPXW	2022-03-18	19,250
2021-11	SPXW	2021-11-19	3,738,444
2021-11	SPXW	2021-12-17	1,022,414
2021-11	SPXW	2022-01-21	398,414
2021-11	SPXW	2022-02-18	170,972
2021-11	SPXW	2022-03-18	195,668
2021-12	SPXW	2021-12-17	4,118,456
2021-12	SPXW	2022-01-21	1,029,644
2021-12	SPXW	2022-02-18	247,652
2021-12	SPXW	2022-03-18	278,194
2021-12	SPXW	2022-05-20	9,160

**3. Monthly volume for individual SPXpm series**

*See Attached Spreadsheet Tab “SPXpm Monthly Volume by Series”*

**4. Month-end open interest aggregated for all SPXpm series**

<u>Month</u>	<u>Index</u>	<u>OI</u>
2021-10	SPXW	2,108,536
2021-11	SPXW	2,283,476
2021-12	SPXW	1,829,412

**5. Month-end open interest for SPXpm series aggregated by expiration date**

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>OI</u>
2021-10	SPXW	2021-11-19	1,092,936
2021-10	SPXW	2021-12-17	618,260
2021-10	SPXW	2022-01-21	205,776
2021-10	SPXW	2022-02-18	158,324
2021-10	SPXW	2022-03-18	33,240
2021-11	SPXW	2021-12-17	1,241,372
2021-11	SPXW	2022-01-21	607,972
2021-11	SPXW	2022-02-18	253,844
2021-11	SPXW	2022-03-18	180,288
2021-12	SPXW	2022-01-21	1,047,012
2021-12	SPXW	2022-02-18	421,936
2021-12	SPXW	2022-03-18	345,180
2021-12	SPXW	2022-05-20	15,284

**6. *Month-end open interest for individual SPXpm series***

*See Attached Spreadsheet Tab “SPXpm Month-end OI by Series”*

***Monthly Analysis of XSP PM Volume & Open Interest:***

***7. Monthly volume aggregated for all XSP PM trades***

<b>CBOE</b>		
<u>Month</u>	<u>Index</u>	<u>Volume</u>
2021-10	XSP	232,504
2021-11	XSP	277,318
2021-12	XSP	256,590
<b>BZO</b>		
<u>Month</u>	<u>Index</u>	<u>Volume</u>
2021-10	XSP	9,656
2021-11	XSP	12,552
2021-12	XSP	58,038

***8. Monthly volume for XSP PM trades aggregated by expiration date***

*See Attached Spreadsheet Tabs “XSP PM Aggreg by Expiration”*

**9. Monthly volume for individual XSP PM series**

*See Attached Spreadsheet Tabs “Cboe & BZX XSP Monthly Volume by Series”*

**10. Month-end open interest aggregated for all XSP PM series**

<u>Month</u>	<u>Index</u>	<u>OI</u>
2021-10	XSP	570,004
2021-11	XSP	659,840
2021-12	XSP	596,992

***11. Month-end open interest for XSP PM series aggregated by expiration date***

*See Attached Spreadsheet Tabs “XSP PM Aggreg by Expiration”*

***12. Month-end open interest for individual XSP PM series***

*See Attached Spreadsheet Tab “XSPpm Month-end OI by Series”*

***Monthly Analysis of MRUT PM Volume & Open Interest:***

***13. Monthly volume aggregated for all MRUT PM trades***

<u>Month</u>	<u>Index</u>	<u>Volume</u>
2021-10	MRUT	2,626
2021-11	MRUT	2,616
2021-12	MRUT	4,006

***14. Monthly volume for MRUT PM trades aggregated by expiration date***

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>Volume</u>
2021-10	MRUT	2021-10-15	1,404
2021-10	MRUT	2021-11-19	742
2021-10	MRUT	2021-12-17	430
2021-10	MRUT	2022-01-21	18
2021-10	MRUT	2022-09-16	24
2021-10	MRUT	2022-12-16	8
2021-11	MRUT	2021-11-19	1,044
2021-11	MRUT	2021-12-17	726
2021-11	MRUT	2022-01-21	632
2021-11	MRUT	2022-02-18	136
2021-11	MRUT	2022-09-16	36
2021-11	MRUT	2022-12-16	42
2021-12	MRUT	2021-12-17	1,614
2021-12	MRUT	2022-01-21	1,202
2021-12	MRUT	2022-02-18	1,018
2021-12	MRUT	2022-09-16	156
2021-12	MRUT	2022-12-16	16



***15. Monthly volume for individual MRUT PM series***

*See Attached Spreadsheet Tabs “Cboe Monthly Volume by Series”*

***16. Month-end open interest aggregated for all MRUT PM series***

<u>Month</u>	<u>Index</u>	<u>OI</u>
2021-10	MRUT	4,796
2021-11	MRUT	4,556
2021-12	MRUT	4,916

***17. Month-end open interest for MRUT PM series aggregated by expiration date***

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>OI</u>
2021-10	MRUT	2021-11-19	2,220
2021-10	MRUT	2021-12-17	2,160
2021-10	MRUT	2022-01-21	36
2021-10	MRUT	2022-09-16	104
2021-10	MRUT	2022-12-16	276
2021-11	MRUT	2021-12-17	2,768
2021-11	MRUT	2022-01-21	1,056
2021-11	MRUT	2022-02-18	256
2021-11	MRUT	2022-09-16	160
2021-11	MRUT	2022-12-16	316
2021-12	MRUT	2022-01-21	2,212
2021-12	MRUT	2022-02-18	1,948
2021-12	MRUT	2022-09-16	440
2021-12	MRUT	2022-12-16	316

***18. Month-end open interest for individual MRUT PM series***

*See Attached Spreadsheet Tab “MRUT Month-end OI by Series”*