

## QUARTERLY MARKET IMPACT / TRADING PATTERN REPORT – Q3 2021

### PM-SETTLED S&P 500 INDEX, MINI-S&P 500 INDEX AND MINI-RUSSELL 2000 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” or the “Exchange”) became the sole market for Expiration Friday, PM-Settled S&P 500 Index Options (“SPXpm”) on February 19, 2013.<sup>1</sup> On November 5, 2013, the Exchange began listing options on Expiration Friday, PM-settled Mini-S&P 500 Index Options (“XSP PM”) under the pilot program.<sup>2</sup> On March 1, 2021, the Exchange began listing options on Expiration Friday, PM-settled Mini-Russell 2000 Index Options (“MRUT PM”) under the pilot program.<sup>3</sup> The pilot program expires on November 1, 2021, unless otherwise extended.

As part of this pilot program, on a periodic basis Cboe Options will submit reports analyzing volume and open interest for SPXpm options, XSP PM options and MRUT PM options. 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, XSP PM options and MRUT PM options during Q3 2021 (July 1, 2021 through September 30, 2021).

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

Month	SPXpm Volume
Jul-21	4,350,460
Aug-21	4,474,466
Sep-21	5,342,806

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<sup>1</sup> See Securities Exchange Act Release No. 68888 (February 8, 2013), 78 FR 10668 (February 14, 2013) (SR-CBOE-2012-120) (the “SPXpm Approval Order”).

<sup>2</sup> See Securities Exchange Act Release No. 70087 (July 31, 2013), 78 FR 47809 (August 6, 2013) (SR-CBOE-2013-055) (the “XSP PM Approval Order”).

<sup>3</sup> See Securities Exchange Act Release No. 91067 (February 5, 2021), 86 FR 9108 (SR-2020-CBOE-116) (the “MRUT PM Approval Order”).

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

Month	Expiration Date	SPXpm Volume
Jul-21	7/16/2021	3,141,638
Jul-21	8/20/2021	666,762
Jul-21	9/17/2021	289,736
Jul-21	10/15/2021	190,282
Jul-21	11/19/2021	43,292
Jul-21	12/17/2021	18,750
Aug-21	8/20/2021	3,232,792
Aug-21	9/17/2021	759,918
Aug-21	10/15/2021	282,598
Aug-21	11/19/2021	132,122
Aug-21	12/17/2021	62,488
Aug-21	1/21/2022	4,548
Sep-21	9/17/2021	3,781,712
Sep-21	10/15/2021	865,872
Sep-21	11/19/2021	345,086
Sep-21	12/17/2021	288,256
Sep-21	1/21/2022	55,188
Sep-21	2/18/2022	6,692

**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**

Month	SPXpm Open Interest
Jul-21	1,871,264
Aug-21	2,004,272
Sep-21	2,087,756

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

Month	Expiration Date	SPXpm Open Interest
Jul-21	8/20/2021	991,296
Jul-21	9/17/2021	514,768
Jul-21	10/15/2021	270,572
Jul-21	11/19/2021	63,432
Jul-21	12/17/2021	31,196
Aug-21	9/17/2021	1,136,244
Aug-21	10/15/2021	516,236
Aug-21	11/19/2021	215,096
Aug-21	12/17/2021	125,404
Aug-21	1/21/2022	11,292
Sep-21	10/15/2021	1,122,124
Sep-21	11/19/2021	590,764
Sep-21	12/17/2021	298,252
Sep-21	1/21/2022	63,612
Sep-21	2/18/2022	13,004

**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***

Month	XSP Volume	
	CBOE	BZX
Jul-21	289,312	28,078
Aug-21	253,992	27,900
Sep-21	227,384	14,032

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

Month	Expiration Date	XSP Volume	
		CBOE	BZX
Jul-21	7/16/2021	101,928	3,080
Jul-21	8/20/2021	43,820	9,440
Jul-21	9/17/2021	74,386	12,680
Jul-21	10/15/2021	37,746	1,140
Jul-21	11/19/2021	26,036	120
Jul-21	12/17/2021	3,382	970
Aug-21	8/20/2021	95,812	2,724
Aug-21	9/17/2021	56,204	5,140
Aug-21	10/15/2021	77,574	18,872
Aug-21	11/19/2021	16,304	426
Aug-21	12/17/2021	6,486	586
Aug-21	3/18/2022	372	70
Sep-21	9/17/2021	73,218	3,244
Sep-21	10/15/2021	58,012	7,126
Sep-21	11/19/2021	45,620	1,900
Sep-21	12/17/2021	47,440	1,386
Sep-21	1/21/2022	172	18
Sep-21	3/18/2022	772	220

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

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

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

Month	XSP Open Interest
Jul-21	575,796
Aug-21	571,036
Sep-21	551,792

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

Month	Expiration Date	XSP Open Interest
Jul-21	8/20/2021	206,748
Jul-21	9/17/2021	206,832
Jul-21	10/15/2021	90,148
Jul-21	11/19/2021	592
Jul-21	12/17/2021	52,580
Jul-21	3/18/2022	6,268
Aug-21	9/17/2021	205,872
Aug-21	10/15/2021	196,560
Aug-21	11/19/2021	84,592
Aug-21	12/17/2021	63,688
Aug-21	3/18/2022	6,508
Sep-21	10/15/2021	204,920
Sep-21	11/19/2021	166,876
Sep-21	12/17/2021	155,116
Sep-21	1/21/2022	300
Sep-21	3/18/2022	7,328
Sep-21	6/17/2022	4,748

***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***

Month	MRUT Volume
Jul-21	2,226
Aug-21	4,290
Sep-21	3,064

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

Month	Expiration Date	MRUT Volume
Jul-21	7/16/2021	1,170
Jul-21	8/20/2021	624
Jul-21	9/17/2021	382
Jul-21	10/15/2021	24
Jul-21	11/19/2021	-
Jul-21	12/17/2021	26
Aug-21	8/20/2021	1,842
Aug-21	9/17/2021	1,810
Aug-21	10/15/2021	552
Aug-21	11/19/2021	26
Aug-21	12/17/2021	60
Aug-21	1/21/2022	-
Sep-21	9/17/2021	766
Sep-21	10/15/2021	996
Sep-21	11/19/2021	1,156
Sep-21	12/17/2021	146
Sep-21	1/21/2022	-
Sep-21	2/18/2021	-



***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***

Month	MRUT Open Interest
Jul-21	4,820
Aug-21	5,500
Sep-21	5,020

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

Month	Expiration Date	MRUT Open Interest
Jul-21	8/20/2021	1,560
Jul-21	9/17/2021	1,864
Jul-21	10/15/2021	8
Jul-21	12/17/2021	1,380
Jul-21	12/16/2022	8
Aug-21	9/17/2021	3,132
Aug-21	10/15/2021	656
Aug-21	11/19/2021	52
Aug-21	12/17/2021	1,452
Aug-21	12/16/2022	208
Sep-21	10/15/2021	1,180
Sep-21	11/19/2021	1,984
Sep-21	12/17/2021	1,484
Sep-21	9/16/2022	112
Sep-21	12/16/2022	260

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

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