ANNUAL MARKET IMPACT / TRADING PATTERN REPORT

PM-SETTLED S&P 500 INDEX OPTIONS

On February 8, 2013, the Chicago Board Options Exchange, Incorporated ("CBOE" or "Exchange") received approval of a rule change that established a Pilot Program that allows the Exchange to list options on the S&P 500 Index whose exercise settlement value is derived from closing prices on the last trading day prior to expiration ("SPXPM"). On July 31, 2013, the Exchange received approval of a rule change that amended the Pilot Program to allow the Exchange to list options on the Mini-SPX Index ("XSP") whose exercise settlement value is derived from closing prices on the last trading day prior to expiration ("P.M.-settled") (together, SPXPM and P.M.-settled XSP to be referred to herein as the "Pilot Products"). The Exchange has extended the pilot every six months since then.

As part of the pilot programs, on a periodic basis, CBOE submits reports analyzing volume and open interest for the pilot products. Pursuant to the terms of the pilot program, CBOE 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 August 1, 2020 through July 31, 2021.

1. Monthly volume aggregated for all SPXpm trades

Month	Index	Volume
2020-8	SPXW	2,576,106
2020-9	SPXW	3,237,280
2020-10	SPXW	2,728,418
2020-11	SPXW	2,740,320
2020-12	SPXW	3,644,738
2021-1	SPXW	3,104,946
2021-2	SPXW	3,142,664
2021-3	SPXW	3,575,870
2021-4	SPXW	3,119,564
2021-5	SPXW	4,142,324
2021-6	SPXW	4,569,646
2021-7	SPXW	4,350,460

2. Monthly volume for SPXpm trades aggregated by expiration date

Attached Spreadsheet Tab "SPXpm Aggreg by Expiration Date"

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>	Index	<u>OI</u>
2020-8	SPXW	1,591,288
2020-9	SPXW	1,512,832
2020-10	SPXW	346,458
2020-11	SPXW	394,340
2020-12	SPXW	347,534
2021-1	SPXW	338,130
2021-2	SPXW	321,809
2021-3	SPXW	321,382
2021-4	SPXW	1,585,132
2021-5	SPXW	1,769,644
2021-6	SPXW	1,726,420
2021-7	SPXW	1,871,264

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

See Attached Spreadsheet Tab "SPXpm Aggreg by Expiration Date"

6. Month-end open interest for individual SPXpm series

See Attached Spreadsheet Tab "SPXpm Month-end OI by Series"

Monthly Analysis of Volume & Open Interest:

This interim pilot report data reflects trading activity in SPX AM options during August 1, 2020 through July 31, 2021.

7. Monthly volume aggregated for all SPX AM trades

<u>Month</u>	<u>Index</u>	<u>Volume</u>
August-20	SPX	6,656,126
September-20	SPX	8,400,986
October-20	SPX	7,239,749
November-20	SPX	7,590,564
December-20	SPX	7,554,969
January-21	SPX	7,928,622
February-21	SPX	7,723,156
March-21	SPX	8,986,546
April-21	SPX	7,653,423
May-21	SPX	7,171,608
June-21	SPX	7,811,973
July-21	SPX	7,075,148

8. Monthly volume for SPX AM trades aggregated by expiration date

See Attached Spreadsheet Tab "SPX Aggreg by Expiration Date"

9. Monthly volume for individual SPX AM series

See Attached Spreadsheet Tab "SPX AM Monthly Volume by Series"

10. Month-end open interest aggregated for all SPX AM series

<u>Month</u>	<u>Index</u>	Open Interest
August-23	SPX	10,936,123
September-20	SPX	9,624,549
October-20	SPX	10,056,330
November-20	SPX	10,529,901
December-20	SPX	7,763,108
January-21	SPX	8,215,121
February-21	SPX	9,195,432
March-21	SPX	8,244,357
April-21	SPX	9,247,214
May-21	SPX	9,731,586
June-21	SPX	8,525,791
July-21	SPX	9,452,374

11. Month-end open interest for SPX AM series aggregated by expiration date

See Attached Spreadsheet Tab "SPX Aggreg by Expiration Date"

12. Month-end open interest for individual SPX AM series

See Attached Spreadsheet Tab "Month-end OI by Series"

Monthly Analysis of Volume & Open Interest:

This interim pilot report data reflects trading activity in XSP PM options during August 1, 2020 through July 31, 2021.

13. Monthly volume aggregated for all XSP PM trades

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Month	Index	<u>Volume</u>	Exchange
2020-11	XSP	21,350	Bzx
2020-12	XSP	37,114	Bzx
2021-1	XSP	24,534	Bzx
2021-2	XSP	14,732	Bzx
2021-3	XSP	46,226	Bzx
2021-4	XSP	48,226	Bzx
2021-5	XSP	19,542	Bzx
2021-6	XSP	51,918	Bzx
2021-7	XSP	28,078	Bzx
2020-10	XSP	447,364	Cboe
2020-11	XSP	375,306	Cboe
2020-12	XSP	184,962	Cboe
2020-8	XSP	366,654	Cboe
2020-9	XSP	285,062	Cboe
2021-1	XSP	242,576	Cboe
2021-2	XSP	211,632	Cboe
2021-3	XSP	237,342	Cboe
2021-4	XSP	343,332	Cboe
2021-5	XSP	168,818	Cboe
2021-6	XSP	258,464	Cboe
2021-7	XSP	289,312	Cboe
2020-10	XSP	15,040	Edgx
2020-8	XSP	12,634	Edgx
2020-9	XSP	16,328	Edgx

14. Monthly volume for XSP PM trades aggregated by expiration date

See Attached Spreadsheet Tab "XSP PM Aggreg by Expiration Date"

15. Monthly volume for individual XSP PM series

See Attached Spreadsheet Tab "XSP Monthly Volume by Series"

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

<u>Month</u>	<u>Index</u>	<u>OI</u>
2020-8	XSP	984,500
2020-9	XSP	852,992
2020-10	XSP	219,162
2020-11	XSP	231,034
2020-12	XSP	162,276
2021-1	XSP	140,723
2021-2	XSP	126,683
2021-3	XSP	134,024
2021-4	XSP	690,252
2021-5	XSP	701,528
2021-6	XSP	613,144
2021-7	XSP	575,796

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

See Attached Spreadsheet Tab "XSP PM Aggreg by Expiration Date"

18. Month-end open interest for individual XSP PM series

See Attached Spreadsheet Tab "Month-end OI by Series"

Monthly Analysis of Volume & Open Interest:

This interim pilot report data reflects trading activity in MRUT options during March, 2021 through July 31, 2021.

1. Monthly volume aggregated for all MRUT trades

<u>Month</u>	Index	<u>Volume</u>
2021-3	MRUT	12,939
2021-4	MRUT	1,706
2021-5	MRUT	1,604
2021-6	MRUT	4,194
2021-7	MRUT	2,226

2. Monthly volume for MRUT trades aggregated by expiration date

See Attached Spreadsheet Tab "MRUT Aggreg by Expiration Date"

3. Monthly volume for individual MRUT series

See Attached Spreadsheet Tab "MRUT Monthly Volume by Series"

4. Month-end open interest aggregated for all MRUT series

<u>Month</u>	<u>Index</u>	<u>OI</u>
2021-3	MRUT	5,279
2021-4	MRUT	2,672
2021-5	MRUT	3,232
2021-6	MRUT	7,612
2021-7	MRUT	4,820

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

See Attached Spreadsheet Tab "MRUT Aggreg by Expiration Date"

6. Month-end open interest for individual MRUT series

See Attached Spreadsheet Tab "Month-end OI by Series"