

## 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, 2021 through July 31, 2022.

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

| <u>Month</u> | <u>Index</u> | <u>Volume</u> |
|--------------|--------------|---------------|
| 2021-8       | SPXW         | 4,474,466     |
| 2021-9       | SPXW         | 5,342,806     |
| 2021-10      | SPXW         | 4,715,624     |
| 2021-11      | SPXW         | 5,525,912     |
| 2021-12      | SPXW         | 5,683,106     |
| 22-Jan       | SPXW         | 5,761,738     |
| 22-Feb       | SPXW         | 5,485,726     |
| 22-Mar       | SPXW         | 5,454,658     |
| 22-Apr       | SPXW         | 4,901,684     |
| 22-May       | SPXW         | 6,327,626     |
| 22-Jun       | SPXW         | 6,875,206     |
| 22-Jul       | SPXW         | 5,382,506     |

**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> | <u>Index</u> | <u>OI</u> |
|--------------|--------------|-----------|
| 2021-8       | SPXW         | 2,004,272 |
| 2021-9       | SPXW         | 2,087,756 |
| 2021-10      | SPXW         | 2,108,536 |
| 2021-11      | SPXW         | 2,283,476 |
| 2021-12      | SPXW         | 1,829,412 |
| Jan-23       | SPXW         | 549,634   |
| Feb-23       | SPXW         | 540,862   |
| Mar-23       | SPXW         | 523,949   |
| Apr-23       | SPXW         | 566,975   |
| May-23       | SPXW         | 639,622   |
| Jun-23       | SPXW         | 611,680   |
| Jul-23       | SPXW         | 603,376   |

**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, 2021 through July 31, 2022.

**7. Monthly volume aggregated for all SPX AM trades**

| <u>Month</u> | <u>Index</u> | <u>Volume</u> |
|--------------|--------------|---------------|
| Aug-21 Total | SPX          | 7,082,055     |
| Sep-21 Total | SPX          | 8,962,016     |
| Oct-21 Total | SPX          | 8,139,565     |
| Nov-21 Total | SPX          | 8,312,961     |
| Dec-21 Total | SPX          | 9,184,866     |
| Jan-22 Total | SPX          | 10,730,201    |
| Feb-22 Total | SPX          | 9,220,354     |
| Mar-22 Total | SPX          | 11,264,785    |
| Apr-22 Total | SPX          | 8,554,233     |
| May-22 Total | SPX          | 12,161,080    |
| Jun-22 Total | SPX          | 11,541,663    |
| Jul-22 Total | SPX          | 8,433,672     |

**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> | <u>Open Interest</u> |
|--------------|--------------|----------------------|
| 21-Aug       | SPX          | 10,388,166           |
| 21-Sep       | SPX          | 9,685,391            |
| 21-Oct       | SPX          | 10,457,855           |
| 21-Nov       | SPX          | 11,317,598           |
| 21-Dec       | SPX          | 8,767,132            |
| 22-Jan       | SPX          | 9,224,336            |
| 22-Feb       | SPX          | 9,926,624            |
| 22-Mar       | SPX          | 8,968,991            |
| 22-Apr       | SPX          | 9,916,159            |
| 22-May       | SPX          | 11,299,943           |
| 22-Jun       | SPX          | 9,876,460            |
| 22-Jul       | SPX          | 10,140,188           |

**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, 2021 through July 31, 2022.

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

| <u>Month</u> | <u>Index</u> | <u>Volume</u> |
|--------------|--------------|---------------|
| Aug-21       | XSP          | 253,992       |
| Sep-21       | XSP          | 227,384       |
| Oct-21       | XSP          | 232,504       |
| Nov-21       | XSP          | 277,318       |
| Dec-21       | XSP          | 256,590       |
| Jan-22       | XSP          | 101,603       |
| Feb-22       | XSP          | 117,628       |
| Mar-22       | XSP          | 122,597       |
| Apr-22       | XSP          | 96,038        |
| May-22       | XSP          | 215,639       |
| Jun-22       | XSP          | 230,259       |
| Jul-22       | XSP          | 198,617       |

**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> |
|--------------|--------------|-----------|
| Aug-21       | XSP          | 571,036   |
| Sep-21       | XSP          | 551,792   |
| Oct-21       | XSP          | 570,004   |
| Nov-21       | XSP          | 659,840   |
| Dec-21       | XSP          | 596,992   |
| Jan-22       | XSP          | 139,651   |
| Feb-22       | XSP          | 146,591   |
| Mar-22       | XSP          | 137,614   |
| Apr-22       | XSP          | 130,830   |
| May-22       | XSP          | 168,024   |
| Jun-22       | XSP          | 239,624   |
| Jul-22       | XSP          | 246,611   |

***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 August, 2021 through July 31, 2022

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***1. Monthly volume aggregated for all MRUT trades***

| <u>Month</u> | <u>Index</u> | <u>Volume</u> |
|--------------|--------------|---------------|
| Aug-21       | MRUT         | 4,290         |
| Sep-21       | MRUT         | 3,064         |
| Oct-21       | MRUT         | 2,626         |
| Nov-21       | MRUT         | 2,616         |
| Dec-21       | MRUT         | 4,006         |
| Jan-22       | MRUT         | 1,031         |
| Feb-22       | MRUT         | 773           |
| Mar-22       | MRUT         | 1,122         |
| Apr-22       | MRUT         | 1,780         |
| May-22       | MRUT         | 1,847         |
| Jun-22       | MRUT         | 1,502         |
| Jul-22       | MRUT         | 1,952         |

**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> |
|--------------|--------------|-----------|
| Aug-21       | MRUT         | 5,500     |
| Sep-21       | MRUT         | 5,020     |
| Oct-21       | MRUT         | 4,796     |
| Nov-21       | MRUT         | 4,556     |
| Dec-21       | MRUT         | 4,916     |
| Jan-22       | MRUT         | 1,031     |
| Feb-22       | MRUT         | 773       |
| Mar-22       | MRUT         | 1,122     |
| Apr-22       | MRUT         | 1,270     |
| May-22       | MRUT         | 1,335     |
| Jun-22       | MRUT         | 1,353     |
| Jul-22       | MRUT         | 1,032     |

**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”*