

# QUARTERLY MARKET IMPACT / TRADING PATTERN REPORT – Q1 2014

EXPIRATION FRIDAY, PM-SETTLED FLEX OPTIONS ON BROAD-BASED INDEXES

APRIL 15, 2014

On January 28, 2010, the Chicago Board Options Exchange, Incorporated (“CBOE”) received approval of a proposed rule change to, among other things, modify exercise settlement values for Flexible Exchange Options (“FLEX Options”) on a pilot basis. Unless otherwise extended, the pilot program is currently set to expire on the earlier of November 2, 2014 or the date on which the pilot program is approved on a permanent basis.<sup>1</sup>

As part of this pilot program, on a quarterly basis CBOE will submit reports analyzing volume and open interest for each broad-based FLEX Index Option class overlying an Expiration Friday, PM-Settled FLEX Index Option Series (“EF/PM Index FLEX”). Pursuant to the terms of the pilot program, CBOE is submitting the Q1 2014 quarterly report to the SEC.

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

As of March 31, 2014, CBOE listed Non-FLEX Options on the following broad-based indexes that are eligible for EF/PM Index FLEX trading<sup>2</sup>:

DJX – Dow Jones Industrial Average  
MNX® – CBOE Mini-NDX Index  
NDX – Nasdaq-100® Index  
OEX® – S&P 100® Index  
XEO® – European-style S&P 100® Index  
RUT – Russell 2000® Index  
SPX – S&P 500® Index  
XSP – Mini-SPX Index  
VIX – CBOE Volatility Index® (VIX®)  
RVX – CBOE Russell 2000 Volatility Index (RVX)

### ***1. Monthly volume aggregated for all EF/PM Index FLEX trades***

Industry	EF-PM FLEX Volume									
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14							46			
Feb-14							92			
Mar-14							2,288			

<sup>1</sup> See Securities Exchange Act Release Nos. 61439 (January 28, 2010), 75 FR 5831 (February 4, 2010) (SR-CBOE-2009-087) (Approval Order); 61676 (March 9, 2010), 75 FR 13191 (March 18, 2010) (SR-CBOE-2010-026) (technical rule change to include original pilot’s conclusion date of March 28, 2011 in the rule text); 64110 (March 24, 2011), 76 FR 17463 (March 29, 2011) (SR-CBOE-2011-024) (extending the pilot through March 30, 2012); 66701 (March 30, 2012), 77 FR 20673 (April 5, 2012) (SR-CBOE-2012-027) (extending the pilot through the earlier of November 2, 2012 or the date on which the pilot program is approved on a permanent basis); 68145 (November 2, 2012), 77 FR 67044 (November 18, 2012) (SR-CBOE-2012-102) (extending the pilot through the earlier of November 2, 2013 or the date on which the pilot program is approved on a permanent basis); and 70752 (October 24, 2013), 78 FR 65023 (October 30, 2013) (SR-CBOE-2013-099) (extending the pilot program through the earlier of November 3, 2014 or the date on which the pilot program is approved on a permanent basis).

<sup>2</sup> On February 19, 2013, Non-FLEX Options on the PM-settled S&P 500 Index (SPXpm) began trading on CBOE on a pilot basis. There were no SPXpm FLEX Options traded during Q1 2014. Volume and open interest analysis for SPXpm options is included in a separate pilot report.

**2. Monthly volume for EF/PM Index FLEX trades aggregated by expiration date**

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>Volume</u>
Jan-14	SPX	January 17, 2015	46
Feb-14	SPX	February 20, 2015	92
Mar-14	SPX	April 19, 2014	2,150
Mar-14	SPX	March 20, 2015	138

**3. Monthly volume for individual EF/PM Index FLEX series**

<u>Month</u>	<u>Exchange</u>	<u>Index</u>	<u>C/P</u>	<u>Exp. Date</u>	<u>Strike</u>	<u>Trades</u>	<u>Volume</u>
Jan-14	CBOE	SPX	C	January 17, 2015	1838.70	1	23
Jan-14	CBOE	SPX	C	January 17, 2015	1898.09	1	23
Feb-14	CBOE	SPX	C	February 20, 2015	1836.25	1	46
Feb-14	CBOE	SPX	C	February 20, 2015	1905.66	1	46
Mar-14	CBOE	SPX	P	April 19, 2014	1830.01	1	400
Mar-14	CBOE	SPX	P	April 19, 2014	1840.01	1	900
Mar-14	CBOE	SPX	C	April 19, 2014	1900.01	1	400
Mar-14	CBOE	SPX	C	April 19, 2014	1915.01	1	450
Mar-14	CBOE	SPX	C	March 20, 2015	1866.52	1	69
Mar-14	CBOE	SPX	C	March 20, 2015	1940.25	1	46
Mar-14	CBOE	SPX	C	March 20, 2015	1972.54	1	23

**4. Month-end open interest aggregated for all EF/PM Index FLEX series**

Industry EF-PM FLEX Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14							2,303			
Feb-14							2,277			
Mar-14							4,407			

**5. Month-end open interest for EF/PM Index FLEX series aggregated by expiration date**

<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>OI</u>
Jan-14	SPX	February 22, 2014	118
Jan-14	SPX	March 22, 2014	158
Jan-14	SPX	April 19, 2014	110
Jan-14	SPX	May 17, 2014	56
Jan-14	SPX	June 21, 2014	88
Jan-14	SPX	July 19, 2014	81
Jan-14	SPX	August 16, 2014	56
Jan-14	SPX	September 20, 2014	52
Jan-14	SPX	October 18, 2014	96
Jan-14	SPX	December 20, 2014	314
Jan-14	SPX	January 17, 2015	1,126
Jan-14	SPX	September 18, 2015	48
Feb-14	SPX	March 22, 2014	158
Feb-14	SPX	April 19, 2014	110
Feb-14	SPX	May 17, 2014	56
Feb-14	SPX	June 21, 2014	88
Feb-14	SPX	July 19, 2014	81
Feb-14	SPX	August 16, 2014	56
Feb-14	SPX	September 20, 2014	52
Feb-14	SPX	October 18, 2014	96
Feb-14	SPX	December 20, 2014	314
Feb-14	SPX	January 17, 2015	1,126
<u>Month</u>	<u>Index</u>	<u>Expiration</u>	<u>OI</u>
Feb-14	SPX	February 20, 2015	92
Feb-14	SPX	September 18, 2015	48
Mar-14	SPX	April 19, 2014	2,260
Mar-14	SPX	May 17, 2014	56
Mar-14	SPX	June 21, 2014	88
Mar-14	SPX	July 19, 2014	81
Mar-14	SPX	August 16, 2014	56
Mar-14	SPX	September 20, 2014	52
Mar-14	SPX	October 18, 2014	96
Mar-14	SPX	December 20, 2014	314
Mar-14	SPX	January 17, 2015	1,126
Mar-14	SPX	February 20, 2015	92
Mar-14	SPX	March 20, 2015	138
Mar-14	SPX	September 18, 2015	48

**6. Month-end open interest for individual EF/PM Index FLEX series**

<u>Month</u>	<u>Index</u>	<u>C/P</u>	<u>Exp. Date</u>	<u>Strike</u>	<u>OI</u>
Jan-14	SPX	C	February 22, 2014	1515.60	59
Jan-14	SPX	C	February 22, 2014	1585.01	59
Jan-14	SPX	C	March 22, 2014	1556.89	79
Jan-14	SPX	C	March 22, 2014	1626.96	55
Jan-14	SPX	C	March 22, 2014	1654.82	24
Jan-14	SPX	C	April 19, 2014	1552.01	30
Jan-14	SPX	C	April 19, 2014	1555.25	25
Jan-14	SPX	C	April 19, 2014	1616.42	30
Jan-14	SPX	C	April 19, 2014	1625.55	25
Jan-14	SPX	C	May 17, 2014	1667.47	28
Jan-14	SPX	C	May 17, 2014	1737.00	28
Jan-14	SPX	C	June 21, 2014	1592.43	44
Jan-14	SPX	C	June 21, 2014	1665.52	44
Jan-14	SPX	C	July 19, 2014	1689.37	15
Jan-14	SPX	C	July 19, 2014	1692.09	33
Jan-14	SPX	C	July 19, 2014	1758.25	33
Jan-14	SPX	C	August 16, 2014	1655.83	28
Jan-14	SPX	C	August 16, 2014	1718.75	28
Jan-14	SPX	C	September 20, 2014	1709.91	26
Jan-14	SPX	C	September 20, 2014	1771.98	26
Jan-14	SPX	C	October 18, 2014	1744.50	48
Jan-14	SPX	C	October 18, 2014	1784.97	48
Jan-14	SPX	C	December 20, 2014	1272.10	157
Jan-14	SPX	C	December 20, 2014	1653.73	157
Jan-14	SPX	P	January 17, 2015	1730.00	1,080
Jan-14	SPX	C	January 17, 2015	1838.70	23
Jan-14	SPX	C	January 17, 2015	1898.09	23
Jan-14	SPX	P	September 18, 2015	1553.40	12
Jan-14	SPX	C	September 18, 2015	1726.00	12
Jan-14	SPX	P	September 18, 2015	1726.00	12
Jan-14	SPX	C	September 18, 2015	2157.50	12

**6. Month-end open interest for individual EF/PM Index FLEX series (cont.)**

<u>Month</u>	<u>Index</u>	<u>C/P</u>	<u>Exp. Date</u>	<u>Strike</u>	<u>OI</u>
Feb-14	SPX	C	March 22, 2014	1556.89	79
Feb-14	SPX	C	March 22, 2014	1626.96	55
Feb-14	SPX	C	March 22, 2014	1654.82	24
Feb-14	SPX	C	April 19, 2014	1552.01	30
Feb-14	SPX	C	April 19, 2014	1555.25	25
Feb-14	SPX	C	April 19, 2014	1616.42	30
Feb-14	SPX	C	April 19, 2014	1625.55	25
Feb-14	SPX	C	May 17, 2014	1667.47	28
Feb-14	SPX	C	May 17, 2014	1737.00	28
Feb-14	SPX	C	June 21, 2014	1592.43	44
Feb-14	SPX	C	June 21, 2014	1665.52	44
Feb-14	SPX	C	July 19, 2014	1689.37	15
Feb-14	SPX	C	July 19, 2014	1692.09	33
Feb-14	SPX	C	July 19, 2014	1758.25	33
Feb-14	SPX	C	August 16, 2014	1655.83	28
Feb-14	SPX	C	August 16, 2014	1718.75	28
Feb-14	SPX	C	September 20, 2014	1709.91	26
Feb-14	SPX	C	September 20, 2014	1771.98	26
Feb-14	SPX	C	October 18, 2014	1744.50	48
Feb-14	SPX	C	October 18, 2014	1784.97	48
Feb-14	SPX	C	December 20, 2014	1272.10	157
Feb-14	SPX	C	December 20, 2014	1653.73	157
Feb-14	SPX	P	January 17, 2015	1730.00	1,080
Feb-14	SPX	C	January 17, 2015	1838.70	23
Feb-14	SPX	C	January 17, 2015	1898.09	23
Feb-14	SPX	C	February 20, 2015	1836.25	46
Feb-14	SPX	C	February 20, 2015	1905.66	46
Feb-14	SPX	P	September 18, 2015	1553.40	12
Feb-14	SPX	C	September 18, 2015	1726.00	12
Feb-14	SPX	P	September 18, 2015	1726.00	12
Feb-14	SPX	C	September 18, 2015	2157.50	12
Mar-14	SPX	C	April 19, 2014	1552.01	30
Mar-14	SPX	C	April 19, 2014	1555.25	25
Mar-14	SPX	C	April 19, 2014	1616.42	30
Mar-14	SPX	C	April 19, 2014	1625.55	25
Mar-14	SPX	P	April 19, 2014	1830.01	400
Mar-14	SPX	P	April 19, 2014	1840.01	900
Mar-14	SPX	C	April 19, 2014	1900.01	400
Mar-14	SPX	C	April 19, 2014	1915.01	450
Mar-14	SPX	C	May 17, 2014	1667.47	28
Mar-14	SPX	C	May 17, 2014	1737.00	28
Mar-14	SPX	C	June 21, 2014	1592.43	44
Mar-14	SPX	C	June 21, 2014	1665.52	44
Mar-14	SPX	C	July 19, 2014	1689.37	15
Mar-14	SPX	C	July 19, 2014	1692.09	33
Mar-14	SPX	C	July 19, 2014	1758.25	33
Mar-14	SPX	C	August 16, 2014	1655.83	28
Mar-14	SPX	C	August 16, 2014	1718.75	28

**6. Month-end open interest for individual EF/PM Index FLEX series (cont.)**

Month	Index	C/P	Exp. Date	Strike	OI
Mar-14	SPX	C	September 20, 2014	1709.91	26
Mar-14	SPX	C	September 20, 2014	1771.98	26
Mar-14	SPX	C	October 18, 2014	1744.50	48
Mar-14	SPX	C	October 18, 2014	1784.97	48
Mar-14	SPX	C	December 20, 2014	1272.10	157
Mar-14	SPX	C	December 20, 2014	1653.73	157
Mar-14	SPX	P	January 17, 2015	1730.00	1,080
Mar-14	SPX	C	January 17, 2015	1838.70	23
Mar-14	SPX	C	January 17, 2015	1898.09	23
Mar-14	SPX	C	February 20, 2015	1836.25	46
Mar-14	SPX	C	February 20, 2015	1905.66	46
Mar-14	SPX	C	March 20, 2015	1866.52	69
Mar-14	SPX	C	March 20, 2015	1940.25	46
Mar-14	SPX	C	March 20, 2015	1972.54	23
Mar-14	SPX	P	September 18, 2015	1553.40	12
Mar-14	SPX	C	September 18, 2015	1726.00	12
Mar-14	SPX	P	September 18, 2015	1726.00	12
Mar-14	SPX	C	September 18, 2015	2157.50	12

**7. Ratios of monthly aggregate volume for EF/PM Index FLEX and all series of that class, including EF/PM Index FLEX trades**

Industry Volume										
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14	97,630	5,696	929,954	138,970	46,526	1,640,275	18,403,125	68,474	16,631,532	2,249
Feb-14	82,961	3,324	755,825	148,817	36,017	1,981,082	18,148,203	74,145	16,289,856	1,446
Mar-14	64,249	1,937	473,383	124,193	36,975	1,729,895	16,979,853	79,567	14,278,639	300
Industry FLEX Volume										
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14			850			24,452	48,046	9,528		
Feb-14			732			25,810	37,570	19,002		
Mar-14			1,994			37,003	66,384	27,066		
Industry EF-PM FLEX Volume										
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14							46			
Feb-14							92			
Mar-14							2,288			
Ratio of EF-PM FLEX to All FLEX										
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14							0.1%			
Feb-14							0.2%			
Mar-14							3.4%			
Ratio of EF-PM FLEX to Industry Volume										
	DJX	MNX	NDX	OEX	XEO	RUT	SPX	XSP	VIX	RVX
Jan-14							0.000%			
Feb-14							0.0005%			
Mar-14							0.013%			

**8. Ratios of monthly month-end open interest for EF/PM Index FLEX and all series of that class, including EF/PM Index FLEX trades**

Industry Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14	196,508	26,108	347,749	39,681	11,641	751,955	11,676,379	87,418	10,293,430	2,957
Feb-14	195,173	25,098	275,510	36,126	10,911	715,378	12,403,536	113,593	8,869,793	958
Mar-14	173,432	19,850	224,391	36,599	10,240	716,059	10,435,997	140,054	8,369,967	680
Industry FLEX Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14			900			50,382	117,916	18,373		
Feb-14			1,632			50,331	112,257	36,325		
Mar-14			2,920			48,702	132,561	60,433		
Industry EF-PM FLEX Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14							2,303			
Feb-14							2,277			
Mar-14							4,407			
Ratio of EF-PM FLEX to All FLEX Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14							2.0%			
Feb-14							2.0%			
Mar-14							3.3%			
Ratio of EF-PM FLEX to Industry Open Interest										
	<u>DJX</u>	<u>MNX</u>	<u>NDX</u>	<u>OEX</u>	<u>XEO</u>	<u>RUT</u>	<u>SPX</u>	<u>XSP</u>	<u>VIX</u>	<u>RVX</u>
Jan-14							0.02%			
Feb-14							0.02%			
Mar-14							0.04%			