

CME Group Exchange ADV Report - Monthly

May 2019

Page 1 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
FX Futures								
AD/CD CROSS RATES	1	0.59	138.5%	0.9	55.7%	1	0	161.5%
AD/JY CROSS RATES	197	137.09	43.5%	135.95	44.7%	155	183	-15.2%
AD/NE CROSS RATES	6	2.32	168.6%	5.19	20.0%	4	4	-2.1%
AUSTRALIAN DOLLAR	99,673	117,536.95	-15.2%	93,625.9	6.5%	102,363	117,210	-12.7%
BP/JY CROSS RATES	144	122	17.8%	94.43	52.2%	109	175	-37.5%
BP/SF CROSS RATES	27	23.77	12.4%	13.48	98.3%	19	16	19.8%
BRAZIL REAL	8,511	7,907.45	7.6%	7,116.57	19.6%	6,740	6,495	3.8%
BRITISH POUND	106,398	129,041.86	-17.5%	91,029.19	16.9%	116,933	132,552	-11.8%
CANADIAN DOLLAR	78,867	89,289.18	-11.7%	73,253.57	7.7%	76,177	86,046	-11.5%
CD/JY CROSS RATES	2	9.27	-73.5%	2.24	9.7%	1	9	-87.7%
CHINESE RENMINBI (CNH)	1,440	106.59	1250.5%	794.71	81.1%	1,220	114	970.4%
CZECK KORUNA (EC)	0	0	-	0	-	0	0	-
CZECK KORUNA (US)	0	0	-	0	-	0	0	-
EC/AD CROSS RATES	154	36.68	318.5%	119.86	28.1%	206	73	184.4%
EC/CD CROSS RATES	101	93.23	8.8%	81.9	23.9%	123	175	-30.2%
EC/NOK CROSS RATES	33	14.09	135.5%	18.19	82.4%	23	15	56.3%
EC/SEK CROSS RATES	17	8.27	104.4%	8.33	102.9%	31	31	-1.0%
EFX/BP CROSS RATES	3,451	2,546.95	35.5%	2,632.19	31.1%	4,252	3,723	14.2%
EFX/JY CROSS RATES	2,115	4,637.32	-54.4%	1,472.48	43.6%	2,917	4,092	-28.7%
EFX/SF CROSS RATES	1,409	1,575.09	-10.5%	1,419.48	-0.7%	1,489	1,391	7.1%
E-MICRO AUD/USD	4,958	4,898.82	1.2%	5,852.67	-15.3%	5,874	4,878	20.4%
E-MICRO CAD/USD	884	713.5	23.9%	718.14	23.1%	787	873	-9.9%
E-MICRO CHF/USD	81	65.36	24.3%	52.33	55.2%	86	64	35.6%
E-MICRO EUR/USD	10,367	21,774.23	-52.4%	12,535.19	-17.3%	12,075	19,656	-38.6%
E-MICRO GBP/USD	1,382	1,630.64	-15.3%	1,762.71	-21.6%	2,163	2,597	-16.7%
E-MICRO INR/USD	172	259.36	-33.5%	219.71	-21.5%	232	180	29.3%
E-MICRO JPY/USD	1,461	1,411.95	3.4%	928.52	57.3%	1,349	1,643	-17.9%
E-MINI EURO FX	4,124	5,559.68	-25.8%	4,147.57	-0.6%	4,405	4,986	-11.7%
E-MINI JAPANESE YEN	390	529.5	-26.3%	349.1	11.8%	512	608	-15.8%
EURO FX	176,339	332,369.45	-46.9%	186,448.95	-5.4%	199,819	280,513	-28.8%
HUNGARIAN FORINT (EC)	0	0	-	0	-	0	0	-100.0%
HUNGARIAN FORINT (US)	0	0	-	0.1	-4.5%	0	0	-
INDIAN RUPEE	2,308	4,747.14	-51.4%	2,778	-16.9%	3,393	4,373	-22.4%
JAPANESE YEN	146,500	147,643.45	-0.8%	101,264.38	44.7%	124,387	157,313	-20.9%
KOREAN WON	38	5.18	632.5%	9.95	281.4%	29	13	131.6%
MEXICAN PESO	62,798	75,790	-17.1%	47,082.38	33.4%	62,278	66,516	-6.4%
NEW ZEALND DOLLAR	25,074	35,817.27	-30.0%	25,034.1	0.2%	27,546	32,997	-16.5%
NKR/USD CROSS RATE	200	206.95	-3.3%	174.48	14.8%	192	199	-3.8%
POLISH ZLOTY (EC)	0	0.73	-50.0%	7.57	-95.2%	4	1	587.5%
POLISH ZLOTY (US)	3	3.68	-25.9%	3.38	-19.3%	5	5	-1.1%
RMB USD	0	0.05	199.8%	0.05	186.6%	0	0	-68.7%
RUSSIAN RUBLE	2,036	2,072.18	-1.7%	1,639.33	24.2%	3,090	3,219	-4.0%
S.AFRICAN RAND	1,737	2,336.14	-25.7%	958.43	81.2%	1,927	2,131	-9.6%
SF/JY CROSS RATES	0	0	-	0	-	0	2	-96.4%
SHEKEL	0	1.82	-100.0%	0	-	0	17	-100.0%
SKR/USD CROSS RATES	103	182.23	-43.5%	105.86	-2.8%	141	195	-27.8%
SWISS FRANC	23,921	28,469.95	-16.0%	24,490.62	-2.3%	24,425	29,006	-15.8%
TURKISH LIRA	5	87.86	-93.8%	16.71	-67.4%	40	198	-79.6%
USDZAR	0	0	-	0	-	0	0	299.8%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 2 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
FX Options								
AUD/USD PQO 2pm Fix	6,141	5,545.45	10.7%	5,016.52	22.4%	5,122	6,552	-21.8%
BRAZIL REAL	2	0	-	0	-	1	0	-
BRITISH POUND (EU)	0	5.05	-100.0%	0	-	0	2	-100.0%
CAD/USD PQO 2pm Fix	4,929	8,151.36	-39.5%	5,643.81	-12.7%	5,173	8,438	-38.7%
CANADIAN DOLLAR (EU)	0	0	-	0	-	0	1	-100.0%
CHF/USD PQO 2pm Fix	99	220.32	-55.0%	185.33	-46.5%	128	127	0.8%
EFX/BP CROSS RATES	0	0	-	0	-	1	0	-
EFX/JY CROSS RATES	0	0	-	0	-	0	28	-100.0%
EURO FX (EU)	0	0.32	-100.0%	0	-	0	0	-100.0%
EUR/USD PQO 2pm Fix	24,128	46,000.59	-47.5%	27,573.19	-12.5%	25,987	41,062	-36.7%
GBP/USD PQO 2pm Fix	7,000	10,649.59	-34.3%	8,470.38	-17.4%	9,352	12,122	-22.9%
JAPANESE YEN (EU)	0	0	-	0	-	0	0	-
JPY/USD PQO 2pm Fix	12,532	11,811.27	6.1%	11,305.62	10.9%	10,283	13,362	-23.0%
MEXICAN PESO	69	94.59	-26.7%	48.52	42.9%	74	102	-27.7%
NEW ZEALND DOLLAR	5	0	-	8.9	-38.7%	24	0	-

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 3 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Equity Index Futures								
BITCOIN FUTURES	13,604	3,930.64	246.1%	9,907.43	37.3%	7,441	2,675	178.2%
DJ US REAL ESTATE	875	1,151.09	-24.0%	1,395.43	-37.3%	1,738	1,860	-6.5%
E-mini (\$5) Dow	267,708	200,256.86	33.7%	159,686.95	67.6%	218,497	260,002	-16.0%
E-MINI COM SERVICES SELECT SEC	207	0	-	83.76	147.3%	249	0	-
E-mini FTSE 100 (USD)	0	63.59	-100.0%	0	-	3	86	-96.3%
E-mini FTSE China 50	0	42.95	-99.8%	0.14	-36.4%	7	63	-89.4%
E-MINI MIDCAP	13,980	13,395.36	4.4%	10,798.24	29.5%	15,620	18,899	-17.3%
E-MINI NASDAQ 100	582,405	349,673.36	66.6%	388,432.76	49.9%	483,881	452,574	6.9%
E-MINI RUSSELL 1000	338	270.14	25.2%	159.95	111.4%	360	604	-40.5%
E-MINI RUSSELL 1000 GROWTH	229	262.82	-13.0%	113.19	102.0%	244	527	-53.8%
E-MINI RUSSELL 1000 VALUE	399	454.95	-12.2%	475.95	-16.1%	767	687	11.7%
E-MINI RUSSELL 2000	146,332	100,975.14	44.9%	106,771.76	37.1%	139,301	130,479	6.8%
E-MINI S&P500	1,905,201	1,314,296.14	45.0%	1,137,815.05	67.4%	1,575,941	1,770,753	-11.0%
E-MINI S&P REAL ESTATE SELECT S	158	121.05	30.8%	192.57	-17.8%	186	343	-45.8%
FT-SE 100	0	38.41	-100.0%	0	-	4	69	-94.8%
FTSE Emerging	110	5	2100.0%	117.95	-6.7%	112	6	1779.9%
IBOVESPA INDEX	10	23.82	-60.1%	30.81	-69.2%	31	58	-46.7%
MICRO E-MINI NASDAQ 100	136,107	0	-	0	-	28,792	0	-
MICRO E-MINI RUSSELL 2000	24,694	0	-	0	-	5,224	0	-
MICRO E-MINI S&P500	219,019	0	-	0	-	46,331	0	-
MICRO MINI \$5 DOW	42,867	0	-	0	-	9,068	0	-
NASDAQ BIOTECH	30	6	391.7%	19.67	50.0%	13	31	-56.9%
NIFTY 50	0	0	-	0	-	0	524	-100.0%
NIKKEI 225 (\$) STOCK	11,691	9,244.18	26.5%	7,106.57	64.5%	10,348	17,929	-42.3%
NIKKEI 225 (YEN) STOCK	44,590	32,057.05	39.1%	26,789.76	66.4%	35,739	47,570	-24.9%
S&P 500	2,972	4,937.77	-39.8%	3,776.71	-21.3%	4,878	7,195	-32.2%
S&P 500 ANNUAL DIVIDEND INDEX F	1,011	464.86	117.6%	1,159.52	-12.8%	1,139	658	73.0%
S&P 500/GI	0	0	-	0	-	0	0	-23.1%
S&P 500 QUARLY DIVIDEND INDEX F	1	12.73	-92.9%	7.62	-88.1%	5	4	17.9%
S&P 600 SMALLCAP EMINI	0	0	-	0	-	0	0	-
S&P CONSUMER DSCRTNRY SECTC	330	496.18	-33.5%	186.76	76.6%	457	862	-47.0%
S&P CONSUMER STAPLES SECTOR	468	666.41	-29.8%	365.71	27.9%	889	1,160	-23.4%
S&P ENERGY SECTOR	495	1,811.27	-72.7%	449.71	10.1%	910	1,358	-32.9%
S&P FINANCIAL SECTOR	1,073	949.5	13.0%	1,317.43	-18.6%	1,465	2,125	-31.1%
S&P HEALTH CARE SECTOR	400	607.82	-34.2%	605.1	-33.9%	858	706	21.6%
S&P INDUSTRIAL SECTOR	311	506.68	-38.6%	456.81	-31.9%	683	667	2.4%
S&P MATERIALS SECTOR	435	223.64	94.3%	711.71	-38.9%	566	473	19.8%
S&P TECHNOLOGY SECTOR	540	962.82	-43.9%	295	83.1%	758	1,182	-35.8%
S&P UTILITIES SECTOR	1,142	987.5	15.6%	1,129.71	1.1%	1,472	1,598	-7.9%
S&P VALUE INDEX FUTURES	0	0	-	0	-	0	0	-14.3%
YEN DENOMINATED TOPIX	1,441	17	8377.5%	894.86	61.1%	797	14	5689.2%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 4 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Equity Index Options								
E-mini (\$5) Dow	164	405.5	-59.4%	124.57	32.0%	226	547	-58.7%
E-MINI NASDAQ 100	11,291	7,913.27	42.7%	8,090.95	39.6%	9,925	12,501	-20.6%
E-MINI RUSSELL 2000	845	506.95	66.6%	448.71	88.2%	578	721	-19.9%
E-MINI S&P500	328,399	234,082.73	40.3%	157,635.14	108.3%	230,890	314,452	-26.6%
EOM E-MINI RUSSELL 2000 END OF	643	168.73	280.9%	301.62	113.1%	392	308	27.4%
EOM EMINI S&P	129,966	70,826.32	83.5%	58,271.14	123.0%	89,995	134,516	-33.1%
EOM S&P 500	6,376	3,396.82	87.7%	5,833.1	9.3%	6,171	10,293	-40.0%
EOW1 E-MINI RUSSELL 2000 WEEKL	95	72.45	31.2%	102.95	-7.6%	72	121	-40.6%
EOW1 E-MINI RUSSELL 2000 WEEKL	88	173.77	-49.1%	101	-12.4%	70	173	-59.7%
EOW1 EMINI S&P 500	56,496	49,446.77	14.3%	38,747.14	45.8%	42,029	58,166	-27.7%
EOW1 S&P 500	1,039	4,310.95	-75.9%	3,323.38	-68.7%	2,724	3,564	-23.6%
EOW2 E-MINI RUSSELL 2000 WEEKL	337	285.45	17.9%	154.95	117.2%	170	284	-40.2%
EOW2 EMINI S&P 500	74,900	45,261	65.5%	29,172.52	156.7%	48,563	72,560	-33.1%
EOW2 S&P 500	6,446	5,589	15.3%	4,852.05	32.8%	6,502	7,366	-11.7%
EOW3 E-MINI RUSSELL 2000 WEEKL	695	741.09	-6.3%	718.9	-3.4%	516	1,223	-57.8%
EOW3 EMINI S&P 500	125,472	100,945.73	24.3%	100,593.67	24.7%	115,670	204,630	-43.5%
EOW3 S&P 500	5,362	8,966.95	-40.2%	6,385.9	-16.0%	6,584	18,324	-64.1%
EOW4 E-MINI RUSSELL 2000 WEEKL	242	155.32	55.6%	157.95	53.0%	166	352	-52.8%
EOW4 EMINI S&P 500	50,432	35,878.18	40.6%	32,027.38	57.5%	46,174	64,196	-28.1%
S&P 500	9,026	10,482.18	-13.9%	8,186.43	10.3%	10,866	15,574	-30.2%
Interest Rate Futures								
10-YR NOTE	2,587,246	2,412,505	7.2%	1,298,185.24	99.3%	1,846,742	1,912,094	-3.4%
10-YR SWAP RATE	1,260	1,015.14	24.1%	1,291.05	-2.4%	2,441	2,169	12.5%
15-YR SWAP RATE	0	0	-	0	-	53	0	-
1-MONTH EURODOLLAR	1	364.73	-99.6%	0.24	491.8%	1	217	-99.3%
20-YR SWAP RATE	0	0	-	0	-	0	0	-
2-YR NOTE	1,169,082	815,402.86	43.4%	445,595.71	162.4%	731,920	602,006	21.6%
2-YR SWAP RATE	1,838	0	-	1,441.24	27.5%	1,919	0	-
30-YR BOND	442,179	455,688.95	-3.0%	227,804.62	94.1%	347,281	376,391	-7.7%
30-YR SWAP RATE	29	1.27	2171.5%	48.1	-39.9%	34	9	279.8%
3-YR SWAP RATE	408	0	-	354.19	15.3%	460	0	-
4-YR SWAP RATE	1,290	0	-	915.24	40.9%	582	0	-
5-YR NOTE	1,780,552	1,657,021.23	7.5%	762,802.1	133.4%	1,234,851	1,214,694	1.7%
5-YR SWAP RATE	3,327	453.59	633.4%	2,057.57	61.7%	3,364	1,218	176.2%
7-YR SWAP RATE	336	0	-	76.43	339.6%	212	0	-
EURODOLLARS	3,348,422	3,128,820.27	7.0%	2,392,626.52	39.9%	2,890,696	3,563,415	-18.9%
FED FUND	430,594	332,070.73	29.7%	287,444.29	49.8%	310,035	280,250	10.6%
SOFR	32,039	1,528.68	1995.9%	22,658.38	41.4%	28,548	323	8728.1%
SONIA	8,615	0	-	9,055.76	-4.9%	8,082	0	-
Ultra 10-Year Note	327,207	258,077.27	26.8%	155,002.62	111.1%	219,849	200,749	9.5%
ULTRA T-BOND	313,040	267,224.05	17.1%	117,312.71	166.8%	201,940	190,344	6.1%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 5 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Interest Rate Options								
10-YR NOTE	756,565	706,187.36	7.1%	557,002	35.8%	643,621	664,021	-3.1%
2-YR NOTE	34,114	33,625.5	1.5%	22,759.24	49.9%	24,529	25,610	-4.2%
30-YR BOND	164,052	125,932	30.3%	113,118.19	45.0%	134,355	133,306	0.8%
5-YR NOTE	289,599	174,636.45	65.8%	210,258.38	37.7%	219,896	169,700	29.6%
EURODOLLARS	1,192,476	555,904.55	114.5%	821,394.43	45.2%	1,011,127	821,209	23.1%
EURO MIDCURVE	941,024	676,877.32	39.0%	604,711.43	55.6%	737,038	852,128	-13.5%
FED FUND	0	331.82	-100.0%	0	-	4	164	-97.3%
Ultra 10-Year Note	197	0	-	81.9	140.4%	150	0	55677.8%
ULTRA T-BOND	1,210	657.36	84.0%	215.43	461.6%	718	374	92.1%
Energy Futures								
3.5% FUEL OIL CID MED SWA	3	2.5	14.5%	0.24	1102.7%	1	4	-83.9%
3.5% FUEL OIL CIF BALMO S	0	0.23	-100.0%	0	-	0	1	-78.9%
AEP-DAYTON HUB DAILY	0	0	-	0	-	0	0	-
AEP-DAYTON HUB MTHLY	0	0	-	0	-	0	0	-
AEP-DAYTON HUB OFF-PEAK M	0	0	-	0	-	0	0	-
ALGONQUIN CITYGATES BASIS	0	0	-	0	-	0	0	-
ANR OKLAHOMA	0	0	-	0	-	0	0	-
ARGUS LLS VS. WTI (ARG) T	208	1,170.77	-82.3%	583.38	-64.4%	619	1,300	-52.4%
ARGUS PROPAN FAR EST INDE	257	223.09	15.3%	320.86	-19.8%	306	316	-3.2%
ARGUS PROPAN(SAUDI ARAMCO	130	101.73	28.2%	167.43	-22.1%	148	133	11.6%
AUSTRIALIAN COKE COAL	0	0.91	-100.0%	0	-	0	0	-100.0%
BRENT BALMO SWAP	0	0	-	17.38	-100.0%	7	0	1325.9%
BRENT CALENDAR SWAP	520	593	-12.4%	101.81	410.3%	229	198	15.7%
BRENT CFD SWAP	0	0	-	0	-	0	3	-100.0%
BRENT FINANCIAL FUTURES	1	25.27	-96.0%	166.67	-99.4%	68	108	-36.8%
BRENT OIL LAST DAY	143,536	97,835.86	46.7%	114,065.43	25.8%	102,014	86,607	17.8%
CANADIAN LIGHT SWEET OIL	0	0	-	0	-	0	0	-
CENTERPOINT BASIS SWAP	0	0	-	0	-	0	0	-100.0%
CHICAGO ETHANOL SWAP	5,526	4,800.86	15.1%	5,245.19	5.3%	5,350	5,217	2.6%
CHICAGO ULSD PL VS HO SPR	50	7.73	544.7%	11.9	318.5%	31	13	140.3%
CHICAGO UNL GAS PL VS RBO	0	0	-	7.62	-100.0%	6	5	28.6%
CIG BASIS	0	0	-	0	-	0	2	-100.0%
CINERGY HUB OFF-PEAK MONT	0	0	-	0	-	0	0	-
CINERGY HUB PEAK MONTH	0	0	-	0	-	0	0	-
CIN HUB 5MW D AH O PK	0	0	-	0	-	0	0	-
CIN HUB 5MW D AH PK	24	62.36	-61.8%	0	-	26	57	-54.1%
CIN HUB 5MW REAL TIME O P	0	0	-	0	-	38	0	-
CIN HUB 5MW REAL TIME PK	0	0	-	0	-	3	0	-
COAL SWAP	0	5.23	-100.0%	0	-	0	3	-100.0%
COLUMB GULF MAINLINE NG B	0	0	-	17.33	-100.0%	4	0	-
CONWAY NATURAL GASOLINE (OPI	6	26.14	-78.4%	6.67	-15.5%	11	11	-1.3%
CONWAY NORMAL BUTANE (OPIS) S	29	11.14	159.2%	14.76	95.5%	14	6	149.2%
CONWAY PROPANE 5 DECIMALS S	776	826.45	-6.1%	686.71	13.0%	710	777	-8.5%
CRUDE OIL	136	402.27	-66.1%	205.43	-33.6%	308	314	-1.9%
CRUDE OIL OUTRIGHTS	3,346	4,168.91	-19.7%	3,552.19	-5.8%	3,315	3,293	0.7%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 6 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
CRUDE OIL PHY	1,297,729	1,406,851.68	-7.8%	1,316,723.19	-1.4%	1,238,062	1,338,643	-7.5%
CRUDE OIL SPRDS	1,379	2,511.95	-45.1%	1,292.24	6.7%	1,098	2,671	-58.9%
CRUDE OIL TRADE AT MARKER SIN	0	0	-	0	-	0	0	-
DAILY PJM	0	0	-	0	-	0	0	-
DATED TO FRONTLINE BRENT	5	0	-	14.29	-68.2%	10	26	-62.4%
DIESEL 10P BRG FOB RDM VS	0	0	-	0	-	0	0	-100.0%
DOMINION TRAN INC - APP I	0	0	-	0	-	0	0	-
DOMINION TRANSMISSION INC	0	5.73	-100.0%	0	-	0	1	-100.0%
DUBAI CRUDE OIL BALMO	0	0	-	0	-	0	1	-100.0%
DUBAI CRUDE OIL CALENDAR	5	124.41	-96.2%	22.38	-78.7%	153	112	35.9%
DUTCH TTF NATURAL GAS CAL MO	293	98.91	196.1%	185.14	58.2%	362	54	573.0%
EASTERN RAIL DELIVERY CSX	0	1.59	-100.0%	0	-	0	2	-100.0%
EAST/WEST FUEL OIL SPREAD	0	0	-	0	-	0	2	-100.0%
EIA FLAT TAX ONHWAY DIESE	23	9.59	137.0%	1.86	1123.8%	15	8	78.7%
ELEC ERCOT DLY OFF PK	0	0	-	0	-	0	0	-
ELEC ERCOT DLY PEAK	0	0	-	0	-	0	0	-
ELEC ERCOT OFF PEAK	0	0	-	0	-	0	188	-100.0%
ELEC FINSETTLED	0	0	-	0	-	0	0	-
ELEC MISO PEAK	0	0	-	0	-	0	0	-
ELEC NYISO OFF-PEAK	0	0	-	0	-	0	0	-
ELECTRICITY OFF PEAK	0	0	-	0	-	0	0	-
ERCOT HOUSTON Z MCPE 5MW PEA	0	0	-	0	-	0	15	-100.0%
ERCOT NORTH ZMCPE 5MW OFFPE	0	0	-	0	-	0	0	-
ERCOT NORTH ZMCPE 5MW OFFPE	0	0	-	0	-	0	188	-100.0%
ERCOT NORTH ZMCPE 5MW PEAK	0	0	-	0	-	0	44	-100.0%
ETHANOL	433	430.73	0.5%	395.19	9.6%	474	453	4.7%
ETHANOL SWAP	7	0.45	1450.2%	7.38	-4.5%	5	0	1200.1%
ETHANOL T2 FOB ROTT INCL DUTY	129	143.32	-10.3%	149	-13.7%	186	151	23.6%
EURO 1% FUEL OIL NEW BALM	0	0.68	-80.0%	0	-	0	0	-85.0%
EURO 3.5% FUEL OIL RDAM B	2	40.23	-95.5%	1.33	36.4%	2	32	-93.6%
EURO 3.5% FUEL OIL SPREAD	2	3.64	-56.3%	1.9	-16.5%	1	5	-78.6%
EURO-DENOMINATED PETRO PROD	0	0	-	0	-	0	0	-
EURO GASOIL 10PPM VS ICE	0	0.45	-100.0%	0	-	0	4	-100.0%
EUROPE 1% FUEL OIL NWE CA	16	0.68	2173.4%	0.43	3516.4%	4	3	39.6%
EUROPE 1% FUEL OIL RDAM C	0	0.14	-100.0%	0	-	0	0	-100.0%
EUROPE 3.5% FUEL OIL MED	3	2.77	1.6%	0.62	355.3%	3	6	-48.1%
EUROPE 3.5% FUEL OIL RDAM	35	659.41	-94.8%	57.05	-39.5%	60	454	-86.7%
EUROPEAN GASOIL (ICE)	2	35.73	-93.9%	0	-	5	24	-80.6%
EUROPEAN NAPHTHA BALMO	5	9.73	-48.6%	6.1	-18.0%	10	13	-24.2%
EUROPEAN NAPHTHA CRACK SPR	177	405.59	-56.4%	228.9	-22.8%	248	445	-44.2%
EUROPE DATED BRENT SWAP	12	0	-	2.38	396.4%	10	0	-
EUROPE JET KERO NWE CALSW	0	0	-	0.24	-100.0%	0	0	-66.6%
EUROPE NAPHTHA CALSWAP	97	114.64	-15.3%	121.33	-20.0%	115	156	-26.1%
EURO PROPANE CIF ARA SWA	77	70.59	8.6%	105.1	-27.0%	98	96	2.7%
FREIGHT MARKETS	42	32.91	26.7%	22.38	86.2%	40	26	57.1%
FUEL OIL CRACK VS ICE	135	236.82	-42.9%	92.86	45.6%	85	228	-62.7%
FUEL OIL NWE CRACK VS ICE	0	0	-	0	-	0	2	-91.2%
FUEL OIL (PLATS) CAR CM	0	0	-	0	-	0	1	-100.0%
FUEL OIL (PLATS) CAR CN	0	0	-	0	-	0	1	-100.0%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 7 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
FUELOIL SWAP:CARGOES VS.B	17	8.91	94.9%	4.05	329.0%	12	14	-15.8%
GAS EURO-BOB OXY NWE BARGES	215	475.55	-54.9%	334.19	-35.8%	341	382	-10.7%
GAS EURO-BOB OXY NWE BARGES	398	779.95	-49.0%	504.86	-21.1%	485	1,060	-54.3%
GASOIL 0.1CIF MED VS ICE	0	0	-	0	-	0	0	-100.0%
GASOIL 0.1 CIF NWE VS ISE	0	0	-	0.24	-4.5%	0	0	-
GASOIL 0.1 RDAM BRGS VS I	0	0	-	0	-	0	0	199.8%
GASOIL 0.1 ROTTERDAM BARG	1	27.73	-95.1%	2.33	-41.6%	1	9	-89.4%
GASOIL 10PPM VS ICE SWAP	1	0	-	0	-	0	0	225.0%
GASOIL CALENDAR SWAP	1	1.09	-50.0%	0	-	1	0	83.3%
GASOIL CRACK SPREAD CALEN	14	188.45	-92.8%	0	-	7	271	-97.3%
GASOIL MINI CALENDAR SWAP	8	5.95	26.0%	11.81	-36.5%	10	6	50.7%
GERMAN POWER BASELOAD CAL M	136	0	-	119.14	13.9%	110	20	450.3%
GROUP THREE ULSD (PLATTS)	0	1.82	-100.0%	0	-	0	1	-100.0%
GROUP THREE UNLEAD GAS (P	0	19.32	-100.0%	0	-	0	4	-100.0%
GRP THREE ULSD(PLT)VS HEA	322	129.32	149.2%	81.67	294.7%	168	184	-8.8%
GRP THREE UNL GS (PLT) VS	112	78.36	43.2%	181.38	-38.1%	163	103	58.6%
GULF COAST 3% FUEL OIL BA	18	98.82	-82.3%	32.62	-46.4%	36	74	-51.2%
GULF COAST JET FUEL CLNDR	0	2.18	-100.0%	0	-	3	7	-60.8%
GULF COAST JET VS NYM 2 H	1,466	1,288.14	13.8%	949.76	54.3%	1,039	2,081	-50.1%
GULF COAST NO.6 FUEL OIL	1,087	3,506.23	-69.0%	1,163.1	-6.6%	1,243	3,141	-60.4%
GULF COAST ULSD CALENDAR	24	10.86	124.3%	7.81	212.0%	17	10	82.6%
GULF COAST ULSD CRACK SPR	0	0	-	0	-	0	12	-100.0%
HEATING OIL BALMO CLNDR S	0	0	-	1.67	-100.0%	0	1	-19.6%
HEATING OIL CRCK SPRD BAL	1	0	-	0	-	0	0	-
HEATING OIL PHY	182,356	197,027	-7.4%	142,807.57	27.7%	162,158	196,977	-17.7%
HENRY HUB BASIS SWAP	218	0	-	218.48	-0.1%	90	60	51.6%
HENRY HUB FINANCIAL LAST	0	202.09	-100.0%	0	-	0	100	-100.0%
HENRY HUB INDEX SWAP FUTU	218	0	-	218.48	-0.1%	90	60	51.6%
HENRY HUB SWAP	5,036	9,680.41	-48.0%	5,567.81	-9.5%	5,837	8,264	-29.4%
HOUSTON SHIP CHANNEL BASI	0	0	-	35.05	-100.0%	7	0	-
HTG OIL	0	0	-	2.29	-100.0%	0	0	0.0%
ICE BRENT DUBAI SWAP	296	696.41	-57.5%	205.95	43.6%	250	561	-55.5%
IN DELIVERY MONTH EUA	0	0	-	0	-	0	0	-
INDIANA MISO	0	0	-	0	-	0	0	-
INDONESIAN COAL ICI4	17	7.95	111.4%	8.19	105.3%	19	4	381.7%
ISO NEW ENGLAND OFF-PEAK	0	0	-	0	-	0	0	-
ISO NEW ENGLAND PK LMP	0	0	-	0	-	0	0	-
JAPAN C&F NAPHTHA CRACK S	0	3.68	-100.0%	8.05	-100.0%	2	16	-90.0%
JAPAN C&F NAPHTHA SWAP	51	123.23	-58.4%	77.19	-33.6%	68	102	-33.2%
JAPAN NAPHTHA BALMO SWAP	0	2.41	-100.0%	0.24	-100.0%	3	2	43.0%
JET AV FUEL (P) CAR FM ICE GAS S	0	0	-	0	-	0	0	-100.0%
JET CIF NWE VS ICE	0	0.82	-100.0%	0	-	1	5	-85.8%
JET FUEL UP-DOWN BALMO CL	312	174.09	79.0%	230	35.5%	205	328	-37.4%
JKM LNG Futures	131	23.86	448.6%	37.71	247.1%	86	38	126.1%
LA CARB DIESEL (OPIS) SWA	0	20.45	-97.8%	0	-	3	14	-79.7%
LA CARBOB GASOLINE(OPIS)S	15	29.55	-50.0%	4.76	210.2%	19	38	-49.0%
LA JET (OPIS) SWAP	40	106.59	-62.7%	81.9	-51.4%	61	114	-46.4%
LLS (ARGUS) CALENDAR SWAP	0	0	-	0	-	0	0	-
LLS (ARGUS) VS WTI SWAP	38	785.14	-95.2%	222.9	-83.1%	141	351	-59.7%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 8 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
LOS ANGELES CARB GASOLINE	0	0	-	0	-	0	0	-
LTD NAT GAS	12,744	15,137.23	-15.8%	13,835.19	-7.9%	15,232	17,598	-13.4%
MARS (ARGUS) VS WTI SWAP	82	113.64	-28.0%	26.67	206.8%	94	164	-42.7%
MARS (ARGUS) VS WTI TRD M	659	1,253.41	-47.4%	1,037.71	-36.5%	968	1,367	-29.2%
MARS BLEND CRUDE OIL	0	27.27	-100.0%	0	-	0	20	-100.0%
MCCLOSKEY ARA ARGS COAL	1,296	984.18	31.7%	1,240.24	4.5%	1,343	1,235	8.8%
MCCLOSKEY RCH BAY COAL	68	155.18	-56.0%	110.81	-38.3%	118	168	-29.6%
MGF FUT	0	0	-	0	-	0	1	-100.0%
MGN1 SWAP FUT	3	3.64	-25.0%	0	-	2	4	-50.3%
MICHIGAN BASIS	0	0	-	0	-	0	0	-
MICHIGAN MISO	0	0	-	0	-	0	0	-
MINI GAS EUROBOB OXY NWE ARG	14	14.27	-3.2%	3.19	333.1%	10	16	-40.9%
MINI RBOB V. EBOBARG NWE BRGS	8	14.09	-45.2%	55.9	-86.2%	28	13	115.7%
MINI RBOB V. EBOB(ARGUS) NWE B	185	72.64	154.5%	128.71	43.6%	120	75	59.4%
MINY HTG OIL	0	0.09	50.1%	0.19	-28.4%	0	0	13.4%
MINY NATURAL GAS	1,102	724.91	52.0%	988.62	11.4%	1,253	1,432	-12.5%
MINY RBOB GAS	0	0.14	99.9%	0.14	90.8%	0	0	100.1%
MINY WTI CRUDE OIL	23,291	18,580.55	25.4%	14,263.57	63.3%	19,880	15,346	29.5%
MJC FUT	2	5.45	-66.7%	0	-	1	10	-86.2%
MNC FUT	188	197.09	-4.6%	195.67	-3.9%	207	181	14.2%
MONT BELVIEU ETHANE 5 DECIMAL	459	783.95	-41.4%	712.57	-35.5%	634	756	-16.2%
MONT BELVIEU ETHANE OPIS BALM	4	5.68	-24.0%	7.1	-39.1%	8	8	7.6%
MONT BELVIEU LDH PROPANE 5 DE	6,317	5,801.32	8.9%	8,225.67	-23.2%	6,725	6,393	5.2%
MONT BELVIEU LDH PROPANE OPIS	182	93.5	94.4%	53.62	238.9%	162	155	5.0%
MONT BELVIEU NATURAL GASOLIN	375	379.95	-1.4%	391.76	-4.3%	393	452	-13.1%
MONT BELVIEU NATURAL GASOLIN	18	16.18	13.8%	14.76	24.7%	28	20	37.3%
MONT BELVIEU NORMAL BUTANE 5	2,624	1,651	58.9%	2,123	23.6%	1,995	1,479	34.9%
MONT BELVIEU NORMAL BUTANE B	84	30.95	170.0%	59.38	40.8%	73	43	69.3%
NAT GAS BASIS SWAP	0	0	-	0	-	0	0	-
NATURAL GAS	4,846	4,424.18	9.5%	5,052.9	-4.1%	5,281	6,618	-20.2%
NATURAL GAS PEN SWP	1,682	2,359.95	-28.7%	1,477.38	13.8%	1,422	2,054	-30.8%
NATURAL GAS PHY	320,446	374,614.05	-14.5%	330,666.71	-3.1%	351,611	447,894	-21.5%
NEPOOL CNCTCT 5MW D AH O	0	0	-	0	-	0	0	-
NEPOOL CONECTIC 5MW D AH	0	0	-	0	-	0	0	-
NEPOOL INTR HUB 5MW D AH	0	395.59	-100.0%	0	-	159	712	-77.6%
NEPOOL NE MASS 5MW D AH O	0	0	-	0	-	0	0	-
NEPOOL NE MASS 5MW D AH P	0	0	-	0	-	0	0	-
NEPOOL RHD ISLD 5MW D AH	0	0	-	0	-	0	0	-
NEPOOL RHODE IL 5MW D AH	0	0	-	0	-	0	0	-
NEPOOL W CNT MASS 5MW D A	0	0	-	0	-	0	0	-
NEPOOL W CNTR M 5MW D AH	0	0	-	0	-	0	0	-
NEW ENGLAND HUB PEAK DAIL	0	0	-	0	-	0	0	-
NEW YORK ETHANOL SWAP	39	55.45	-29.9%	14.52	167.6%	33	83	-60.3%
NEW YORK HUB ZONE G PEAK	0	0	-	0	-	0	0	-
NEW YORK HUB ZONE J PEAK	0	0	-	0	-	0	0	-
NGPL MID-CONTINENT	0	0	-	0	-	12	4	210.0%
NGPL TEX/OK	0	0	-	122.67	-100.0%	25	220	-88.7%
N ILLINOIS HUB DAILY	0	0	-	0	-	0	0	-
N ILLINOIS HUB MTHLY	0	0	-	0	-	0	0	-

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 9 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
NO 2 UP-DOWN SPREAD CALEN	5	17.41	-73.9%	0	-	6	18	-64.8%
NORTHERN NATURAL GAS DEMAR	0	0	-	0	-	0	0	-
NORTHERN NATURAL GAS VENTU	0	0	-	0	-	0	1	-100.0%
NORTHWEST ROCKIES BASIS S	0	0	-	0	-	30	0	-
N ROCKIES PIPE SWAP	0	0	-	0	-	0	0	-
NY1% VS GC SPREAD SWAP	32	21.59	49.5%	7.14	351.8%	24	73	-67.3%
NY 3.0% FUEL OIL (PLATTS	11	1.14	900.0%	3.57	218.2%	7	10	-22.5%
NY HARBOR 1% FUEL OIL BAL	0	0	-	0	-	0	0	-
NY HARBOR HEAT OIL SWP	293	73.23	300.1%	23.33	1155.7%	121	73	67.1%
NY HARBOR LOW SULPUR GAS 100C	0	7.95	-100.0%	3.57	-100.0%	4	25	-85.3%
NY HARBOR RESIDUAL FUEL 1	27	76.68	-64.6%	51.57	-47.4%	44	60	-26.8%
NY HARBOR RESIDUAL FUEL C	0	0	-	0	-	0	0	-
NYH NO 2 CRACK SPREAD CAL	12	52.5	-77.5%	22.86	-48.3%	15	61	-74.7%
NYISO CAPACITY	0	9.55	-100.0%	0	-	3	7	-60.9%
NYISO J	0	0	-	0	-	0	0	-
NYISO J OFF-PEAK	0	0	-	0	-	0	0	-
NYISO ZONE A 5MW D AH O P	0	0	-	0	-	0	0	-
NYISO ZONE A 5MW D AH PK	0	0	-	0	-	0	0	-
NYISO ZONE G 5MW D AH O P	1,487	7,226.55	-79.4%	388.57	282.6%	446	5,301	-91.6%
NYISO ZONE G 5MW D AH PK	82	512	-84.0%	0	-	17	161	-89.3%
NYISO ZONE J 5MW D AH O P	0	0	-	0	-	0	0	-
NYISO ZONE J 5MW D AH PK	0	0	-	0	-	0	0	-
NYMEX ALUMINUM FUTURES	0	0	-	0	-	0	0	-
NYMEX ULSD VS NYMEX HO	0	0	-	0	-	14	0	-
NY ULSD (ARGUS) VS HEATING OIL	3	6.09	-44.8%	35.71	-90.6%	12	1	826.1%
ONEOK OKLAHOMA NG BASIS	0	0	-	0	-	0	0	-
ONTARIO POWER SWAPS	5	0	-	0	-	1	0	899.5%
PANHANDLE BASIS SWAP FUTU	0	0	-	0	-	0	3	-100.0%
PANHANDLE PIPE SWAP	0	0	-	0	-	0	0	-
PERMIAN BASIS SWAP	0	0	-	0	-	0	0	-
PETROCHEMICALS	152	268.55	-43.4%	161.48	-5.8%	159	261	-39.0%
PETRO CRCKS & SPRDS ASIA	3	0	-	4.86	-47.6%	2	5	-63.5%
PETRO CRCKS & SPRDS NA	1,665	2,687.23	-38.1%	2,273.81	-26.8%	2,028	2,209	-8.2%
PETRO CRK&SPRD EURO	105	493.27	-78.8%	194.29	-46.2%	188	472	-60.2%
PETROLEUM PRODUCTS	160	124.36	28.3%	162.62	-1.9%	163	246	-33.5%
PETROLEUM PRODUCTS ASIA	88	81.09	7.9%	66.29	32.0%	82	112	-26.7%
PETRO OUTRIGHT EURO	214	241.45	-11.3%	179.43	19.3%	195	261	-25.3%
PETRO OUTRIGHT NA	378	323.95	16.6%	275.38	37.1%	309	349	-11.5%
PJM AD HUB 5MW REAL TIME	1,120	0	-	0	-	923	342	170.2%
PJM ATSI ELEC	0	0	-	0	-	0	0	-
PJM BGE DA OFF-PEAK	0	0	-	0	-	0	0	-
PJM BGE DA PEAK	0	0	-	0	-	0	0	-
PJM COMED 5MW D AH O PK	0	0	-	0	-	0	0	-
PJM COMED 5MW D AH PK	0	0	-	0	-	0	0	-
PJM DAILY	0	0	-	0	-	0	0	-
PJM DAYTON DA OFF-PEAK	0	0	-	0	-	0	0	-
PJM DAYTON DA PEAK	0	0	-	0	-	0	0	-
PJM MONTHLY	0	0	-	0	-	0	0	-
PJM NI HUB 5MW REAL TIME	1,120	0	-	0	-	237	49	383.2%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 10 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
PJM NILL DA OFF-PEAK	0	0	-	0	-	0	0	-
PJM NILL DA PEAK	0	0	-	0	-	0	0	-100.0%
PJM OFF-PEAK LMP SWAP FUT	0	0	-	0	-	0	0	-
PJM PECO ZONE5MW PEAK CAL MO	0	0	-	0	-	0	0	-
PJM PSEG DA OFF-PEAK	0	0	-	0	-	0	0	-
PJM PSEG DA PEAK	0	0	-	0	-	0	0	-
PJM WESTH DA OFF-PEAK	0	0	-	0	-	0	754	-100.0%
PJM WESTHDA PEAK	0	0	-	0	-	0	41	-100.0%
PJM WESTH RT OFF-PEAK	0	4,441.82	-100.0%	0	-	225	2,604	-91.4%
PJM WESTH RT PEAK	906	77.95	1062.7%	204.57	343.1%	384	348	10.4%
PLASTICS	35	18.64	85.4%	21.9	57.7%	40	19	113.5%
PREMIUM UNLD 10P FOB MED	2	5.09	-55.4%	5.62	-59.6%	7	14	-50.6%
PREMIUM UNLEAD 10PPM FOB	0	3.82	-100.0%	0	-	0	2	-92.8%
PREM UNL GAS 10PPM RDAM FOB B	0	0	-	0	-	0	1	-75.0%
PREM UNL GAS 10PPM RDAM FOB S	0	2.45	-100.0%	0	-	0	1	-53.1%
PROPANE NON-LDH MB (OPIS) BAL	3	18.41	-81.5%	53.52	-93.6%	79	26	210.6%
PROPANE NON-LDH MT. BEL (OPIS)	724	829.64	-12.8%	857.19	-15.6%	850	586	45.1%
RBOB CALENDAR SWAP	450	216.68	107.7%	428.29	5.1%	331	214	54.7%
RBOB CRACK SPREAD	95	123.18	-22.5%	95.95	-0.5%	64	69	-7.4%
RBOB CRACK SPREAD BALMO S	1	0	-	0	-	0	0	-
RBOB GAS	0	45.91	-100.0%	2.86	-100.0%	1	138	-99.6%
RBOB GASOLINE BALMO CLNDR	37	69.36	-47.2%	76.1	-51.9%	49	65	-24.8%
RBOB PHY	219,704	207,685.41	5.8%	249,707.81	-12.0%	218,412	199,374	9.5%
RBOB SPREAD (PLATTS) SWAP	0	0	-	0	-	0	0	-
RBOB VS HEATING OIL SWAP	0	0	-	0	-	1	11	-93.5%
SAN JUAN BASIS SWAP	0	0	-	0	-	0	0	-100.0%
SAN JUAN PIPE SWAP	0	0	-	0	-	0	3	-100.0%
SINGAPORE 180CST BALMO	0	5.14	-91.2%	1.24	-63.3%	1	3	-75.3%
SINGAPORE 380CST BALMO	1	26.32	-95.5%	3.95	-70.1%	2	10	-77.3%
SINGAPORE 380CST FUEL OIL	165	581.5	-71.7%	122.95	33.8%	153	388	-60.4%
SINGAPORE FUEL 180CST CAL	9	81.73	-88.5%	23.14	-59.5%	15	50	-70.4%
SINGAPORE FUEL OIL SPREAD	1	34.45	-96.3%	0.71	78.2%	3	47	-94.4%
SINGAPORE GASOIL	233	206.27	12.8%	230.76	0.8%	259	283	-8.4%
SINGAPORE GASOIL CALENDAR	8	8.18	-3.3%	0.9	774.1%	8	47	-82.5%
SINGAPORE GASOIL SWAP	25	59.82	-57.6%	65.9	-61.5%	53	216	-75.6%
SINGAPORE GASOIL VS ICE	0	576.14	-100.0%	0	-	42	834	-95.0%
SINGAPORE JET KERO BALMO	0	0	-	0	-	0	2	-100.0%
SINGAPORE JET KERO GASOIL	0	146.59	-100.0%	0	-	1	217	-99.6%
SINGAPORE JET KEROSENE SW	18	25	-27.3%	44.76	-59.4%	29	52	-44.7%
SINGAPORE JET KERO VS. GASOIL	0	0	-	0	-	0	0	-100.0%
SINGAPORE MOGAS 92 UNLEADED	0	29.55	-100.0%	21.43	-100.0%	13	22	-40.6%
SINGAPORE MOGAS 92 UNLEADED	206	390	-47.2%	662.95	-68.9%	682	695	-1.9%
SINGAPORE NAPHTHA SWAP	0	0	-	0	-	0	2	-100.0%
SING FUEL	0	0.45	-100.0%	0	-	0	1	-100.0%
SOUTH STAR TEX OKLHM KNS	0	0	-	0	-	0	0	-
Sumas Basis Swap	0	0	-	0	-	0	1	-100.0%
TC2 ROTTERDAM TO USAC 37K	6	0	-	11.9	-50.4%	11	5	102.6%
TC5 RAS TANURA TO YOKOHAM	10	0	-	13.33	-23.3%	17	2	627.1%
TCO BASIS SWAP	0	0	-	0	-	0	0	-

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 11 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Futures								
TD3 MEG TO JAPAN 250K MT	317	42.95	638.1%	143.57	120.8%	211	28	654.7%
TENNESSEE ZONE 0 BASIS SW	0	0	-	0	-	0	0	-
Tetco STX Basis	0	0	-	0	-	0	0	-
TEXAS EASTERN ZONE M-3 BA	0	0	-	0	-	0	0	-
TEXAS GAS ZONE1 NG BASIS	0	0	-	0	-	0	0	-
Transco Zone 3 Basis	0	0	-	0	-	0	0	-
TRANSCO ZONE4 BASIS SWAP	0	0	-	0	-	0	0	-
TRANSCO ZONE 6 BASIS SWAP	0	0	-	0	-	0	0	-
UCM FUT	0	0	-	0	-	0	0	-60.0%
UK NBP NAT GAS CAL MTH FUT	1	402.95	-99.8%	16.9	-94.6%	30	229	-86.8%
ULSD 10PPM CIF MED VS ICE	0	0	-	0	-	0	0	-100.0%
ULSD UP-DOWN BALMO SWP	203	330.68	-38.5%	161.9	25.6%	269	260	3.3%
UP DOWN GC ULSD VS NMX HO	1,743	1,467.91	18.7%	967.14	80.2%	1,364	1,646	-17.1%
WAHA BASIS	7	12.55	-45.7%	3.57	90.9%	6	31	-79.7%
WESTERN RAIL DELIVERY PRB	0	0	-	0	-	0	0	-100.0%
WTI-BRENT BULLET SWAP	0	0	-	12.57	-100.0%	8	61	-86.3%
WTI-BRENT CALENDAR SWAP	1,856	1,773.77	4.6%	2,920.86	-36.5%	1,741	1,838	-5.3%
WTI CALENDAR	1,835	1,316.95	39.3%	3,280.95	-44.1%	2,234	1,755	27.3%
WTS (ARGUS) VS WTI SWAP	626	199.68	213.7%	87.86	612.9%	258	387	-33.4%
WTS (ARGUS) VS WTI TRD MT	35	4.09	766.7%	46	-22.9%	46	13	249.3%

Energy Options

BRENT 1 MONTH CAL	0	0	-	0	-	0	29	-100.0%
BRENT CALENDAR SWAP	95	18.18	425.0%	11.43	735.2%	23	15	51.9%
BRENT CRUDE OIL 12 M CSO	0	0	-	0	-	0	19	-100.0%
BRENT CRUDE OIL 1 M CSO	48	2,801.36	-98.3%	428.57	-88.9%	300	3,042	-90.2%
BRENT CRUDE OIL 6 M CSO	0	0	-	0	-	0	10	-100.0%
BRENT OIL LAST DAY	10,321	8,801.82	17.3%	7,316.1	41.1%	7,436	7,074	5.1%
COAL API2 INDEX	2	83.86	-97.3%	1.67	36.4%	6	56	-89.0%
COAL API4 INDEX	0	0	-	0	-	0	1	-100.0%
COAL SWAP	0	0	-	0	-	0	0	-
CRUDE OIL	0	0	-	0	-	1	0	-
CRUDE OIL 1MO	13,782	13,565.91	1.6%	15,150.33	-9.0%	12,593	10,093	24.8%
CRUDE OIL APO	1,263	3,022.5	-58.2%	3,865.71	-67.3%	2,513	2,840	-11.5%
CRUDE OIL CALNDR STRIP	0	0	-	0	-	2	2	17.6%
CRUDE OIL OUTRIGHTS	0	0	-	0	-	9	0	-
CRUDE OIL PHY	168,855	183,431.86	-7.9%	137,936.29	22.4%	128,731	184,964	-30.4%
ETHANOL	0	6.82	-100.0%	0	-	0	4	-100.0%
ETHANOL SWAP	528	471.59	11.9%	521.76	1.1%	419	422	-0.7%
HEATING OIL PHY	1,851	1,206.18	53.4%	967.86	91.2%	1,355	1,549	-12.5%
HENRY HUB FINANCIAL LAST	421	155.05	171.2%	568.14	-26.0%	377	172	119.6%
HO 1 MONTH CLNDR OPTIONS	0	0	-	54.76	-100.0%	21	0	-
LLS CRUDE OIL	0	0	-	0	-	0	1	-100.0%
MCCLOSKEY ARA ARGS COAL	0	6.14	-100.0%	0	-	1	2	-42.2%
MCCLOSKEY RCH BAY COAL	5	6.82	-33.3%	2.38	90.9%	4	18	-80.3%
NATURAL GAS 1 M CSO FIN	885	465.91	90.0%	571.43	54.9%	1,865	2,144	-13.0%
NATURAL GAS 2 M CSO FIN	3	0	-	59.52	-94.3%	18	0	-

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 12 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Energy Options								
NATURAL GAS 3 M CSO FIN	686	688.64	-0.3%	1,214.29	-43.5%	439	283	55.2%
NATURAL GAS 5 M CSO FIN	11	0	-	0	-	2	25	-90.2%
NATURAL GAS 6 M CSO FIN	186	90.91	105.0%	538.1	-65.4%	312	631	-50.5%
NATURAL GAS OPTION ON CALEND	27	40.91	-33.3%	19.05	43.2%	80	186	-57.0%
NATURAL GAS PHY	64,028	77,573.23	-17.5%	64,469.52	-0.7%	73,242	104,613	-30.0%
NATURAL GAS WINTER STRIP	59	0	-	0	-	13	0	-
N ROCKIES PIPE SWAP	25	33.45	-25.8%	48.86	-49.2%	15	7	113.6%
NY HARBOR HEAT OIL SWP	304	177.05	71.8%	18.86	1512.8%	111	150	-26.0%
NYISO ZONE G 5MW PEAK OPTIONS	0	0	-	0	-	0	0	-
PANHANDLE PIPE SWAP	0	0	-	0	-	0	0	-
PETROCHEMICALS	12	32.18	-63.3%	25.57	-53.8%	22	40	-46.0%
PETRO OUTRIGHT EURO	0	0	-	0	-	0	0	-
PETRO OUTRIGHT NA	0	0	-	0	-	0	0	-
PJM WES HUB PEAK CAL MTH	0	0	-	1.9	-100.0%	2	11	-85.8%
PJM WES HUB PEAK LMP 50MW	0	48.36	-100.0%	0	-	8	51	-84.3%
RBOB 1MO CAL SPD OPTIONS	0	0	-	0	-	1	5	-70.0%
RBOB CALENDAR SWAP	0	2.5	-100.0%	0	-	2	9	-75.4%
RBOB CRACK	0	0	-	0	-	0	0	-
RBOB PHY	876	627.5	39.6%	1,585.1	-44.7%	835	580	43.9%
ROTTERDAM 3.5%FUEL OIL CL	0	0	-	0	-	0	0	-
SAN JUAN PIPE SWAP	41	15.27	170.8%	0	-	9	12	-26.4%
SHORT TERM	1	50.82	-98.5%	1.24	-37.6%	18	48	-62.9%
SHORT TERM NATURAL GAS	27	195.55	-86.0%	1.19	2206.1%	45	115	-61.4%
SINGAPORE GASOIL CALENDAR	0	0	-	0	-	0	0	-
SINGAPORE JET FUEL CALEND	0	0	-	0	-	0	0	-
WTI-BRENT BULLET SWAP	2,280	4,363.23	-47.8%	2,203.57	3.4%	2,711	5,985	-54.7%
WTI CRUDE OIL 1 M CSO FI	2,201	3,759.09	-41.5%	5,283.33	-58.3%	2,978	3,882	-23.3%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 13 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Metals Futures								
ALUMINUM	514	637.27	-19.3%	507.33	1.4%	541	852	-36.5%
COMEX COPPER	94,647	116,497.18	-18.8%	106,833.24	-11.4%	101,263	133,906	-24.4%
COMEX E-Mini GOLD	672	316.36	112.5%	438.76	53.2%	419	341	22.6%
COMEX E-Mini SILVER	265	40.82	548.4%	189.05	40.0%	159	56	181.8%
COMEX GOLD	324,669	394,390.27	-17.7%	242,683.14	33.8%	280,836	371,232	-24.4%
COMEX MINY COPPER	20	16.5	19.8%	37.1	-46.7%	28	27	4.5%
COMEX SILVER	67,103	77,372.95	-13.3%	91,443.1	-26.6%	78,124	101,083	-22.7%
COPPER	91	2.27	3904.0%	56.95	59.8%	54	97	-44.2%
E-MICRO GOLD	7,914	6,759.95	17.1%	8,804.29	-10.1%	9,401	6,422	46.4%
FERROUS PRODUCTS	42	50.27	-16.5%	118.1	-64.5%	61	99	-38.3%
Gold Kilo	0	0	-	0	-	0	1	-100.0%
IRON ORE 62 CHINA PLATTS FUTUR	0	0	-	0	-	0	0	-
IRON ORE 62 CHINA TSI FUTURES	258	243.14	6.2%	211	22.3%	337	190	77.3%
LNDN ZINC	5	6.23	-21.2%	5.57	-11.9%	11	2	574.6%
NYMEX HOT ROLLED STEEL	1,292	431.23	199.5%	906.24	42.5%	938	488	92.4%
NYMEX PLATINUM	18,856	17,833	5.7%	18,967.24	-0.6%	21,088	20,859	1.1%
PALLADIUM	5,902	5,785.09	2.0%	4,603.67	28.2%	5,713	6,125	-6.7%
SILVER	651	252.09	158.3%	753.86	-13.6%	740	335	121.0%
URANIUM	53	4.55	1075.0%	47.62	12.2%	75	10	675.7%

Metals Options

COMEX COPPER	2,318	968.18	139.4%	3,322.9	-30.2%	2,953	995	196.7%
COMEX GOLD	45,551	44,210.18	3.0%	38,430.14	18.5%	45,646	46,301	-1.4%
COMEX SILVER	5,375	6,416.23	-16.2%	4,932.14	9.0%	5,905	7,042	-16.1%
COPPER	13	0.5	2518.2%	4.71	177.7%	5	0	4480.5%
GOLD	4,987	1,754.91	184.2%	4,245.43	17.5%	4,014	1,723	133.0%
HOT ROLLED COIL STEEL CALL OPT	0	0	-	0	-	6	0	-
IRON ORE 62 CHINA TSI CALL OPTIC	0	0	-	150	-100.0%	64	2	3230.0%
IRON ORE 62 CHINA TSI PUT OPTIO	0	0	-	85.71	-100.0%	35	10	233.3%
NYMEX PLATINUM	210	147.14	42.4%	201.62	3.9%	185	152	21.7%
PALLADIUM	53	100.55	-47.6%	72.76	-27.7%	64	159	-60.0%
SILVER	198	34.18	477.8%	210	-6.0%	179	29	525.1%

Foreign Exchange Futures

CHILEAN PESO	0	37.68	-98.8%	19.05	-97.6%	4	123	-96.8%
--------------	---	-------	--------	-------	--------	---	-----	--------

Foreign Exchange Options

AUD/USD PQO 2pm Fix	45	81.73	-45.4%	57.9	-22.9%	48	37	29.6%
---------------------	----	-------	--------	------	--------	----	----	-------

Ags Futures

FERTILIZER PRODUCS	68	56.36	21.0%	71.43	-4.5%	68	54	27.6%
--------------------	----	-------	-------	-------	-------	----	----	-------

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 14 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Ag Products Futures								
BUTTER CS	194	172.77	12.0%	179.62	7.8%	186	215	-13.5%
CASH-SETTLED CHEESE	414	396.91	4.4%	471	-12.1%	559	440	27.0%
CATTLE	80,035	76,382.09	4.8%	68,598.24	16.7%	74,783	68,931	8.5%
CAT WEATHER EUROPEAN	55	0	-	95.24	-42.7%	31	0	-
CDD SEASONAL STRIP	0	2.27	-100.0%	16.67	-100.0%	4	0	799.9%
CDD WEATHER	224	47.73	369.0%	4.76	4601.1%	68	21	226.7%
CHI WHEAT	130,890	155,296.09	-15.7%	145,839.95	-10.3%	133,549	157,368	-15.1%
CLASS IV MILK	96	20.68	365.3%	169.71	-43.3%	133	28	365.9%
COCOA TAS	0	0	-	0	-	0	0	-100.0%
CORN	616,354	371,103.41	66.1%	492,763	25.1%	462,812	427,520	8.3%
COTTON	0	0	-	0	-	0	0	350.5%
DJ_UBS ROLL SELECT INDEX FUTU	5	0	-	0	-	37	44	-15.4%
DOW-UBS COMMOD INDEX	2,037	2,339.41	-12.9%	916.38	122.3%	1,935	3,376	-42.7%
DRY WHEY	67	59.59	13.0%	59.43	13.4%	69	58	18.0%
FEEDER CATTLE	15,347	12,250.41	25.3%	17,480.43	-12.2%	15,380	14,343	7.2%
FERTILIZER PRODUCTS	108	142.05	-23.7%	109.52	-1.0%	99	108	-7.6%
GOLDMAN SACHS	1,280	1,530.59	-16.4%	1,307.9	-2.1%	1,400	1,523	-8.1%
GSCI EXCESS RETURN FUT	258	55.5	364.6%	187.81	37.3%	1,233	1,234	-0.1%
HDD SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD WEATHER	0	0	-	0	-	20	5	315.8%
HDD WEATHER EUROPEAN	0	0	-	0	-	29	0	-
HOGS	65,235	56,185.55	16.1%	64,443.05	1.2%	63,459	50,745	25.1%
HOUSING INDEX	0	0.32	-57.1%	0.9	-84.9%	1	0	86.6%
Intercommodity Spread	0	0	-	0	-	0	0	-
KC WHEAT	63,268	54,326.41	16.5%	73,809	-14.3%	64,625	69,221	-6.6%
LUMBER	615	1,009.59	-39.1%	831.29	-26.1%	684	933	-26.6%
MALAYSIAN PALM SWAP	239	126.36	89.2%	164.76	45.1%	141	166	-14.9%
MILK	1,121	973.86	15.1%	1,245.19	-9.9%	1,217	963	26.4%
MINI CORN	1,212	517.27	134.3%	445.1	172.3%	551	512	7.6%
MINI SOYBEAN	1,124	647.27	73.7%	659.52	70.4%	843	1,308	-35.6%
MINI WHEAT	322	332.18	-3.1%	215.76	49.3%	238	297	-19.9%
MLK MID OPTIONS	0	0	-	0	-	0	0	-
NFD MILK	322	190.86	68.5%	323.62	-0.6%	340	259	31.3%
OATS	636	499.77	27.3%	924.29	-31.2%	681	752	-9.3%
ROUGH RICE	862	745.41	15.7%	1,259.48	-31.5%	944	865	9.2%
SOYBEAN	231,645	208,762.23	11.0%	228,643.14	1.3%	203,722	263,120	-22.6%
SOYBEAN MEAL	121,263	103,428.91	17.2%	133,160.67	-8.9%	114,057	133,474	-14.5%
SOYBEAN OIL	109,345	95,330.32	14.7%	143,455.29	-23.8%	118,335	126,183	-6.2%
S&P GSCI ENHANCED ER SWAP	0	0	-	0	-	143	181	-20.9%
SUGAR 11	0	0	-	0	-	0	1	-100.0%
USD CRUDE PALM OIL	46	40	16.1%	31.24	48.7%	66	23	188.7%
WHEAT	551	594.09	-7.3%	512.48	7.4%	647	383	69.0%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 15 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
Ag Products Options								
BUTTER CS	237	234.18	1.0%	212.9	11.1%	211	177	19.0%
CASH-SETTLED CHEESE	439	357.64	22.8%	455.57	-3.6%	515	446	15.5%
CATTLE	11,946	13,928.09	-14.2%	11,315.86	5.6%	10,394	13,668	-24.0%
CAT WEATHER EUROPEAN	0	0	-	95.24	-100.0%	19	0	-
CDD SEASONAL STRIP	0	27.27	-100.0%	142.86	-100.0%	48	6	733.3%
CHI WHEAT	39,087	42,539.59	-8.1%	23,350.71	67.4%	35,026	39,580	-11.5%
CLASS IV MILK	138	42.27	225.3%	236	-41.7%	210	45	366.1%
CORN	261,581	120,768.09	116.6%	100,412.67	160.5%	131,326	101,374	29.5%
CORN NEARBY+2 CAL SPRD	316	10	3061.4%	5.95	5211.1%	150	67	124.5%
DEC-DEC CORN CAL SPRD	230	196.45	17.2%	103.52	122.5%	75	55	35.9%
DEC-JULY CORN CAL SPRD	347	68.18	408.7%	152.86	126.9%	140	14	869.3%
DEC-JULY WHEAT CAL SPRD	0	0	-	0	-	0	0	-
DRY WHEY	75	30.68	144.7%	61.43	22.2%	52	23	127.7%
FEEDER CATTLE	2,177	1,222.27	78.1%	1,653.76	31.7%	1,535	1,637	-6.2%
HDD EURO SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD WEATHER	0	0	-	0	-	0	0	-
HOGS	16,733	7,202.14	132.3%	20,408.48	-18.0%	17,597	8,882	98.1%
HOUSING INDEX	0	0	-	0	-	0	0	-
Intercommodity Spread	15	29.05	-49.9%	4.76	205.5%	10	77	-87.5%
JULY-DEC CORN CAL SPRD	23	9.09	150.0%	126.67	-82.1%	78	92	-14.4%
JULY-DEC SOYMEAL CAL SPRD	0	0	-	0	-	0	0	-
JULY-DEC WHEAT CAL SPRD	0	29.55	-100.0%	2.38	-100.0%	13	13	-1.5%
JULY-NOV SOYBEAN CAL SPRD	89	172.68	-48.3%	19.76	352.0%	59	480	-87.7%
KC WHEAT	5,962	3,978.86	49.8%	2,873.57	107.5%	4,468	4,647	-3.9%
LUMBER	70	114.95	-38.9%	117.67	-40.4%	94	97	-3.0%
LV CATL CSO	1	3.77	-75.9%	0.48	90.9%	4	1	326.2%
MAR-JULY CORN CAL SPRD	0	0	-	0	-	0	0	-
MAR-JULY WHEAT CAL SPRD	0	0	-	0	-	0	2	-85.0%
MILK	1,856	1,660.45	11.8%	2,037.52	-8.9%	1,832	1,365	34.2%
MLK MID OPTIONS	1	3.09	-64.7%	2.57	-57.6%	2	3	-33.8%
NFD MILK	204	165.18	23.5%	301.57	-32.4%	385	265	45.1%
NOV-JULY SOYBEAN CAL SPRD	100	0	-	35.71	180.0%	29	0	300380.2%
NOV-MAR SOYBEAN CSO	1	0	-	0	-	0	1	-71.4%
NOV-NOV SOYBEAN CAL SPRD	0	0.23	-100.0%	0	-	1	0	533.2%
OATS	14	14	0.3%	27.9	-49.7%	32	21	51.3%
ROUGH RICE	94	85.64	9.5%	70.76	32.5%	103	64	60.7%
SEP-DEC SOYBEAN MEAL CSO	0	36.36	-100.0%	0	-	0	8	-100.0%
SOYBEAN	93,163	89,323.32	4.3%	51,139.57	82.2%	58,402	85,022	-31.3%
SOYBEAN CRUSH	0	1.77	-100.0%	0.19	-100.0%	0	1	-96.7%
SOYBEAN MEAL	11,326	15,731.05	-28.0%	7,113.62	59.2%	7,860	16,440	-52.2%
SOYBEAN OIL	6,521	4,776.59	36.5%	4,950.9	31.7%	5,544	5,891	-5.9%
SOYBN NEARBY+2 CAL SPRD	250	0	-	0	-	53	0	-
SOYMEAL NEARBY+2 CAL SPRD	0	0	-	0.71	-100.0%	4	4	16.2%
WHEAT	448	9.09	4825.5%	343.76	30.3%	264	7	3497.4%
WHEAT-CORN ICSO	2	27.27	-93.3%	30.48	-94.0%	24	28	-14.1%
WHEAT NEARBY+2 CAL SPRD	0	18.41	-100.0%	45.71	-100.0%	22	70	-69.3%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.

CME Group Exchange ADV Report - Monthly

May 2019

Page 16 of 16

	ADV MAY 2019	ADV MAY 2018	% CHG	ADV APR 2019	% CHG	ADV Y.T.D 2019	ADV Y.T.D 2018	% CHG
TOTAL FUTURES GROUP								
Interest Rate Futures	10,447,465	9,330,173.77	12.0%	5,724,672	82.5%	7,829,010	8,343,878	-6.2%
Equity Index Futures	3,421,170	2,038,912.73	67.8%	1,861,254.62	83.8%	2,594,774	2,723,742	-4.7%
Metals Futures	522,952	620,639.18	-15.7%	476,606.24	9.7%	499,790	642,125	-22.2%
Energy Futures	2,260,638	2,398,944.36	-5.8%	2,242,685.71	0.8%	2,167,683	2,384,852	-9.1%
FX Futures	767,428	1,019,665.86	-24.7%	688,404.81	11.5%	787,522	964,485	-18.3%
Foreign Exchange Futures	0	37.68	-98.8%	19.05	-97.6%	4	123	-96.8%
Ags Futures	68	56.36	21.0%	71.43	-4.5%	68	54	27.6%
Ag Products Futures	1,445,171	1,143,509.91	26.4%	1,378,324.43	4.8%	1,263,020	1,324,598	-4.6%
TOTAL FUTURES	18,864,892	16,551,939.86	14.0%	12,372,038.29	52.5%	15,141,870.33	16,383,857.1	-7.6%
TOTAL OPTIONS GROUP								
Interest Rate Options	3,379,237	2,274,152.36	48.6%	2,329,541	45.1%	2,771,438	2,666,512	3.9%
Equity Index Options	808,313	579,609.18	39.5%	455,229.48	77.6%	618,284	919,872	-32.8%
Metals Options	58,704	53,631.86	9.5%	51,655.43	13.6%	59,055	56,414	4.7%
Energy Options	268,822	301,742.68	-10.9%	242,866.52	10.7%	236,519	329,091	-28.1%
FX Options	54,906	82,478.55	-33.4%	58,252.29	-5.7%	56,145	81,796	-31.4%
Ag Products Options	453,445	302,817.27	49.7%	227,854.1	99.0%	276,580	280,573	-1.4%
Foreign Exchange Options	45	81.73	-45.4%	57.9	-22.9%	48	37	29.6%
TOTAL OPTIONS	5,023,473	3,594,513.64	39.8%	3,365,456.71	49.3%	4,018,068.68	4,334,294.32	-7.3%
TOTAL COMBINED								
FX	822,334	1,102,144.41	-25.4%	746,657.1	10.1%	843,667	1,046,281	-19.4%
Equity Index	4,229,483	2,618,521.91	61.5%	2,316,484.1	82.6%	3,213,058	3,643,614	-11.8%
Interest Rate	13,826,702	11,604,326.14	19.2%	8,054,213	71.7%	10,600,448	11,010,390	-3.7%
Energy	2,529,460	2,700,687.05	-6.3%	2,485,552.24	1.8%	2,404,201	2,713,943	-11.4%
Metals	581,656	674,271.05	-13.7%	528,261.67	10.1%	558,845	698,539	-20.0%
Foreign Exchange	45	119.41	-62.2%	76.95	-41.4%	52	160	-67.4%
Ags	68	56.36	21.0%	71.43	-4.5%	68	54	27.6%
Ag Products	1,898,616	1,446,327.18	31.3%	1,606,178.52	18.2%	1,539,600	1,605,171	-4.1%
GRAND TOTAL	23,888,365	20,146,453.5	18.6%	15,737,495	51.8%	19,159,939.01	20,718,151.42	-7.5%

*** Note - KC HRW Wheat monthly and YTD volume comparatives to prior year is not using a complete year, since collection of 2013 volume data did not start until April 15, 2013.

The information herein is taken from source believed to be reliable. However, it is intended for the purposes of information and education only and is not guaranteed by the CME Group as to accuracy, completeness, nor trading results and does not constitute advice or continue a solicitation of the purchase or sale of any futures or options. The Rules and Regulations of the CME Group should be consulted as the authoritative source on all current contract specifications and regulations. The previous year Average Daily Volume (ADV) may slightly differ for CBOT legacy products based on the way CME Group defines the number of trading days. The open interest values are based on preliminary open interest values only.