

**CME Group Exchange ADV Report - Monthly**

April 2023

Page 1 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>FX Futures</b>								
AD/CD CROSS RATES	0	5.25	-98.0%	4.3	-97.6%	2	3	-30.5%
AD/JY CROSS RATES	68	317.7	-78.5%	171.26	-60.1%	96	282	-66.1%
AD/NE CROSS RATES	157	139.95	12.4%	184.35	-14.7%	138	118	16.4%
AUSTRALIAN DOLLAR	74,102	85,699.55	-13.5%	120,213.65	-38.4%	94,377	93,649	0.8%
BP/JY CROSS RATES	65	179.65	-63.6%	364.57	-82.1%	183	223	-18.1%
BP/SF CROSS RATES	177	111.7	58.4%	224.83	-21.3%	170	111	53.2%
BRAZIL REAL	12,692	17,674.1	-28.2%	12,705.78	-0.1%	14,051	16,878	-16.7%
BRITISH POUND	85,515	99,748.55	-14.3%	136,163.48	-37.2%	102,507	110,103	-6.9%
CANADIAN DOLLAR	71,136	73,274.65	-2.9%	113,151.26	-37.1%	85,059	80,903	5.1%
CD/JY CROSS RATES	0	0.1	-100.0%	0.04	-100.0%	0	7	-99.0%
CHILEAN PESO	0	0	-	0	-	0	0	-86.8%
CHINESE RENMINBI (CNH)	585	1,569.25	-62.7%	1,550.3	-62.3%	1,219	1,090	11.8%
CZECK KORUNA (EC)	0	1.2	-100.0%	0.09	-100.0%	0	0	-88.4%
CZECK KORUNA (US)	0	0.05	215.8%	0.48	-67.0%	3	0	1925.4%
EC/AD CROSS RATES	136	167.65	-18.9%	529.65	-74.3%	223	253	-11.9%
EC/CD CROSS RATES	189	257.45	-26.6%	731.87	-74.2%	316	399	-20.7%
EC/NOK CROSS RATES	20	55.65	-63.7%	260.17	-92.2%	112	66	71.2%
EC/SEK CROSS RATES	24	38.95	-38.7%	623.17	-96.2%	241	112	115.5%
EFX/BP CROSS RATES	1,454	2,885.8	-49.6%	5,627.74	-74.2%	2,735	4,542	-39.8%
EFX/JY CROSS RATES	1,277	1,700.95	-24.9%	4,531.04	-71.8%	2,280	3,325	-31.4%
EFX/SF CROSS RATES	515	1,040.4	-50.5%	2,790.65	-81.5%	1,199	2,148	-44.2%
E-MICRO USD/CAD	6	5.55	0.5%	8.7	-35.8%	9	16	-45.1%
E-MICRO USD/CHF	23	1.2	1786.0%	9.48	138.8%	12	3	258.5%
E-MICRO USD/JPY	253	710.3	-64.3%	69.04	267.0%	108	321	-66.4%
E-MINI EURO FX	5,446	5,077.05	7.3%	7,832.52	-30.5%	6,939	6,329	9.6%
E-MINI JAPANESE YEN	381	563.3	-32.4%	531.13	-28.3%	545	385	41.4%
EURO FX	179,107	179,127.6	0.0%	319,264.22	-43.9%	230,683	218,855	5.4%
HUNGARIAN FORINT (EC)	0	0.05	-100.0%	0.26	-100.0%	0	0	-57.6%
HUNGARIAN FORINT (US)	1	0.1	1110.5%	1.09	11.4%	1	0	140.9%
INDIAN RUPEE	1,042	1,123	-7.2%	1,201.3	-13.3%	1,588	992	60.1%
JAPANESE YEN	147,674	143,460.2	2.9%	202,024.13	-26.9%	161,364	129,342	24.8%
KOREAN WON	182	26.75	582.1%	69.13	164.0%	67	38	77.0%
MEXICAN PESO	47,926	41,286.65	16.1%	105,498.39	-54.6%	63,331	49,153	28.8%
MICRO AUD/USD	12,544	12,978.05	-3.3%	14,076.48	-10.9%	14,145	12,719	11.2%
MICRO CAD/USD	2,082	2,363.45	-11.9%	3,214.09	-35.2%	2,969	2,590	14.7%
MICRO CHF/USD	521	521.85	-0.1%	703.39	-25.9%	746	527	41.6%
MICRO EUR/USD	28,429	33,207.15	-14.4%	35,106.17	-19.0%	33,946	33,549	1.2%
MICRO GBP/USD	2,834	3,762.95	-24.7%	3,411.04	-16.9%	3,508	3,955	-11.3%
MICRO INR/USD	23	37.2	-39.2%	25.74	-12.1%	29	40	-29.2%
MICRO JPY/USD	0	0	-	0	-	0	1,240	-100.0%
MICRO USD/CNH	0	0	-	0	-	0	0	-100.0%
NEW ZEALND DOLLAR	28,204	26,479.2	6.5%	36,179.78	-22.0%	30,116	27,745	8.5%
NKR/USD CROSS RATE	190	122.85	54.4%	392.83	-51.7%	227	170	33.6%
POLISH ZLOTY (EC)	0	3.3	-95.2%	8.43	-98.1%	3	8	-60.2%
POLISH ZLOTY (US)	55	30.4	81.1%	87.57	-37.1%	56	79	-28.9%
RMB USD	0	0.05	-100.0%	0	-	0	0	1.1%
RUSSIAN RUBLE	0	51.15	-100.0%	0	-	0	7,136	-100.0%
S.AFRICAN RAND	1,895	3,680.8	-48.5%	5,162	-63.3%	3,337	4,392	-24.0%
SF/JY CROSS RATES	29	41.85	-29.8%	96	-69.4%	43	27	60.3%

\*\*\* 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**

April 2023

Page 2 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>FX Futures</b>								
SHEKEL	3	0.25	973.7%	7.48	-64.1%	4	1	601.7%
SKR/USD CROSS RATES	157	253.15	-38.1%	333.52	-53.0%	240	381	-37.0%
SWISS FRANC	20,744	19,077	8.7%	26,790.48	-22.6%	21,536	22,822	-5.6%
TURKISH LIRA	0	0	-	5.7	-100.0%	2	2	3.6%
USDZAR	0	0	-	2.48	-100.0%	1	0	263.7%
<b>FX Options</b>								
AUD/USD MONDAY OPTION WEEK1	3	4.25	-33.1%	13.17	-78.4%	5	18	-68.9%
AUD/USD MONDAY OPTION WEEK2	7	4.15	67.4%	58.74	-88.2%	25	28	-10.7%
AUD/USD MONDAY OPTION WEEK3	7	30.35	-76.2%	37.48	-80.8%	12	18	-31.9%
AUD/USD MONDAY OPTION WEEK4	7	41	-82.0%	6.43	14.5%	13	20	-32.1%
AUD/USD MONDAY OPTION WEEK5	0	0	-	0	-	4	10	-59.1%
AUD/USD MONTHLY OPTIONS	3,687	4,887.85	-24.6%	3,690.7	-0.1%	2,801	5,026	-44.3%
AUD/USD THURSDAY WKLY OPT WE	1	0	-	1.17	-46.2%	1	0	-
AUD/USD THURSDAY WKLY OPT WE	0	0	-	0.3	21.1%	1	0	-
AUD/USD THURSDAY WKLY OPT WE	3	0	-	19.26	-86.3%	14	0	-
AUD/USD THURSDAY WKLY OPT WE	4	0	-	6.61	-43.5%	5	0	-
AUD/USD THURSDAY WKLY OPT WE	0	0	-	0.48	-100.0%	0	0	-
AUD/USD TUESDAY WKLY OPT WEE	3	0	-	3.13	-15.9%	2	0	-
AUD/USD TUESDAY WKLY OPT WEE	4	0	-	15.43	-74.1%	13	0	-
AUD/USD TUESDAY WKLY OPT WEE	4	0	-	3.65	2.3%	4	0	-
AUD/USD TUESDAY WKLY OPT WEE	7	0	-	4.13	68.2%	4	0	-
AUD/USD TUESDAY WKLY OPT WEE	0	0	-	0	-	1	0	-
AUD/USD WKLY FRIDAY OPTIONS -	0	1	-100.0%	0	-	0	22	-100.0%
AUD/USD WKLY FRIDAY OPTIONS	60	54.9	10.2%	119.09	-49.2%	99	99	0.0%
AUD/USD WKLY FRIDAY OPTIONS -	71	81.45	-12.3%	87	-17.9%	95	131	-27.6%
AUD/USD WKLY FRIDAY OPTIONS -	165	63.85	157.8%	91.7	79.5%	106	93	14.4%
AUD/USD WKLY FRIDAY OPTIONS -	0	73.15	-100.0%	41.26	-100.0%	16	25	-37.2%
AUD/USD WKLY WED OPTIONS - WK	16	13.4	17.0%	5.3	195.7%	10	42	-76.3%
AUD/USD WKLY WED OPTIONS - WK	24	28.55	-16.7%	8.52	179.2%	12	32	-62.0%
AUD/USD WKLY WED OPTIONS - WK	13	7.45	78.0%	4.13	221.1%	14	36	-62.1%
AUD/USD WKLY WED OPTIONS - WK	21	30.75	-31.7%	8.65	142.7%	19	23	-18.0%
AUD/USD WKLY WED OPTIONS - WK	0	0	-	13.48	-100.0%	4	3	48.7%
BRL/USD MONTHLY OPTIONS	11	9.2	14.4%	0	-	3	22	-88.3%
CAD/USD MONDAY OPTIONS WEEK1	56	13.05	332.7%	77.7	-27.3%	45	11	326.5%
CAD/USD MONDAY OPTIONS WEEK2	41	66.95	-38.4%	108.17	-61.9%	75	71	4.9%
CAD/USD MONDAY OPTIONS WEEK3	6	144.25	-96.0%	151.87	-96.2%	45	42	5.6%
CAD/USD MONDAY OPTIONS WEEK4	58	73.85	-21.2%	46.26	25.7%	47	54	-12.4%
CAD/USD MONDAY OPTIONS WEEK5	0	0	-	0	-	3	15	-80.1%
CAD/USD MONTHLY OPTIONS	1,440	5,567.3	-74.1%	5,119.04	-71.9%	3,377	4,627	-27.0%
CAD/USD THURSDAY WKLY OPT WE	0	0	-	8.22	-100.0%	7	0	-
CAD/USD THURSDAY WKLY OPT WE	0	0	-	20.22	-99.0%	8	0	-
CAD/USD THURSDAY WKLY OPT WE	49	0	-	18.13	171.4%	17	0	-
CAD/USD THURSDAY WKLY OPT WE	1	0	-	37.39	-97.0%	17	0	-
CAD/USD THURSDAY WKLY OPT WE	0	0	-	68.96	-100.0%	20	0	-
CAD/USD TUESDAY WKLY OPT WEE	33	0	-	22.7	44.7%	15	0	-
CAD/USD TUESDAY WKLY OPT WEE	6	0	-	119.09	-95.1%	38	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**

April 2023

Page 3 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>FX Options</b>								
CAD/USD TUESDAY WKLY OPT WEE	24	0	-	21.48	11.7%	17	0	-
CAD/USD TUESDAY WKLY OPT WEE	1	0	-	0.48	98.1%	3	0	-
CAD/USD TUESDAY WKLY OPT WEE	0	0	-	0	-	1	0	-
CAD/USD WKLY FRIDAY OPTIONS -	0	8.25	-100.0%	0	-	0	75	-100.0%
CAD/USD WKLY FRIDAY OPTIONS -	87	38.35	127.5%	126.78	-31.2%	148	196	-24.5%
CAD/USD WKLY FRIDAY OPTIONS -	102	304.25	-66.4%	129.96	-21.2%	129	288	-55.2%
CAD/USD WKLY FRIDAY OPTIONS -	174	365.65	-52.5%	225.39	-22.9%	179	285	-37.0%
CAD/USD WKLY FRIDAY OPTIONS -	0	181.45	-100.0%	205.52	-100.0%	63	52	20.0%
CAD/USD WKLY WED OPTIONS - WK	72	72.4	-0.3%	41.3	74.8%	49	57	-13.7%
CAD/USD WKLY WED OPTIONS - WK	45	62.9	-28.6%	42.7	5.2%	37	64	-42.0%
CAD/USD WKLY WED OPTIONS - WK	12	144.35	-91.4%	45.78	-72.8%	56	83	-32.4%
CAD/USD WKLY WED OPTIONS - WK	52	52.25	-0.2%	120.09	-56.6%	78	93	-15.4%
CAD/USD WKLY WED OPTIONS - WK	0	0	-	38.65	-100.0%	11	36	-69.4%
CHF/USD MONTHLY OPTIONS	272	253.4	7.3%	346.13	-21.4%	287	295	-2.9%
CHF/USD WKLY FRIDAY OPTIONS -	0	0	-	0	-	0	6	-100.0%
CHF/USD WKLY FRIDAY OPTIONS -	38	4.45	751.6%	22	72.2%	19	9	115.7%
CHF/USD WKLY FRIDAY OPTIONS -	32	1.75	1746.6%	3.96	716.8%	13	5	174.5%
CHF/USD WKLY FRIDAY OPTIONS -	27	1.45	1747.6%	63.13	-57.6%	59	9	555.4%
CHF/USD WKLY FRIDAY OPTIONS -	0	0.7	-100.0%	14.61	-100.0%	4	0	2372.0%
EUR/GBP MONTHLY OPTIONS	0	0	-	0	-	0	24	-100.0%
EURODOLLARS	301	0	-	136.91	120.2%	204	0	-
EURO FX	2	0	-	0	-	0	0	-
EUR/USD MONDAY OPTION WEEK1	91	107.75	-15.9%	81.48	11.2%	107	111	-3.8%
EUR/USD MONDAY OPTION WEEK2	46	48.5	-6.0%	92.87	-50.9%	86	178	-51.7%
EUR/USD MONDAY OPTION WEEK3	38	81.4	-52.8%	146.48	-73.8%	68	53	28.8%
EUR/USD MONDAY OPTION WEEK4	37	563.3	-93.4%	104.26	-64.4%	90	243	-62.8%
EUR/USD MONDAY OPTION WEEK5	0	0	-	0	-	12	35	-66.1%
EUR/USD MONTHLY OPTIONS	10,445	14,717.3	-29.0%	18,849.09	-44.6%	13,808	12,356	11.7%
EUR/USD THURSDAY WKLY OPT WE	35	0	-	0.61	5615.4%	13	0	-
EUR/USD THURSDAY WKLY OPT WE	95	0	-	26.22	262.6%	46	0	-
EUR/USD THURSDAY WKLY OPT WE	5	0	-	8.74	-42.8%	5	0	-
EUR/USD THURSDAY WKLY OPT WE	36	0	-	144.17	-75.1%	66	0	-
EUR/USD THURSDAY WKLY OPT WE	0	0	-	0.52	-100.0%	0	0	-
EUR/USD TUESDAY WKLY OPT WEE	2	0	-	7.35	-79.2%	8	0	-
EUR/USD TUESDAY WKLY OPT WEE	1	0	-	12.74	-93.4%	7	0	-
EUR/USD TUESDAY WKLY OPT WEE	5	0	-	4.09	10.7%	26	0	-
EUR/USD TUESDAY WKLY OPT WEE	2	0	-	113.39	-98.6%	38	0	-
EUR/USD TUESDAY WKLY OPT WEE	0	0	-	0	-	2	0	-
EUR/USD WKLY FRIDAY OPTIONS -	0	90.75	-100.0%	0	-	0	328	-100.0%
EUR/USD WKLY FRIDAY OPTIONS -	897	241.5	271.6%	1,018.39	-11.9%	984	864	14.0%
EUR/USD WKLY FRIDAY OPTIONS -	405	859.3	-52.8%	987.39	-59.0%	1,071	852	25.7%
EUR/USD WKLY FRIDAY OPTIONS -	534	1,071.6	-50.2%	4,897.65	-89.1%	1,825	1,191	53.2%
EUR/USD WKLY FRIDAY OPTIONS -	0	915	-100.0%	348.87	-100.0%	102	251	-59.4%
EUR/USD WKLY WED OPTIONS - WK	380	335.2	13.2%	192.35	97.3%	224	346	-35.1%
EUR/USD WKLY WED OPTIONS - WK	269	207.9	29.2%	319.09	-15.8%	321	266	20.6%
EUR/USD WKLY WED OPTIONS - WK	224	240.4	-6.8%	200.35	11.8%	255	280	-8.8%
EUR/USD WKLY WED OPTIONS - WK	306	459.9	-33.4%	161.43	89.6%	232	337	-31.0%
EUR/USD WKLY WED OPTIONS - WK	0	0	-	289.91	-100.0%	82	78	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**

April 2023

Page 4 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>FX Options</b>								
GBP/USD MONDAY OPTION WEEK1	18	30.6	-40.5%	31.57	-42.3%	39	31	28.8%
GBP/USD MONDAY OPTION WEEK2	43	39.85	8.4%	19.13	125.9%	56	43	29.7%
GBP/USD MONDAY OPTION WEEK3	25	52.8	-52.5%	31.61	-20.6%	25	19	32.5%
GBP/USD MONDAY OPTION WEEK4	32	7.6	318.3%	9.83	223.5%	16	32	-50.8%
GBP/USD MONDAY OPTION WEEK5	0	0	-	0	-	5	4	12.2%
GBP/USD MONTHLY OPTIONS	2,584	4,731	-45.4%	2,813.04	-8.2%	3,002	3,546	-15.3%
GBP/USD THURSDAY WKLY OPT WE	21	0	-	5.22	303.5%	12	0	-
GBP/USD THURSDAY WKLY OPT WE	3	0	-	3.91	-18.0%	6	0	-
GBP/USD THURSDAY WKLY OPT WE	48	0	-	2.04	2248.9%	17	0	-
GBP/USD THURSDAY WKLY OPT WE	6	0	-	1.3	368.1%	6	0	-
GBP/USD THURSDAY WKLY OPT WE	0	0	-	2.65	-100.0%	1	0	-
GBP/USD TUESDAY WKLY OPT WEE	10	0	-	5.22	94.7%	10	0	-
GBP/USD TUESDAY WKLY OPT WEE	50	0	-	4.57	999.9%	19	0	-
GBP/USD TUESDAY WKLY OPT WEE	0	0	-	1.91	-94.5%	7	0	-
GBP/USD TUESDAY WKLY OPT WEE	6	0	-	7.83	-20.0%	10	0	-
GBP/USD TUESDAY WKLY OPT WEE	0	0	-	0	-	3	0	-
GBP/USD WKLY FRIDAY OPTIONS -	0	1.2	-100.0%	0	-	0	42	-100.0%
GBP/USD WKLY FRIDAY OPTIONS -	284	118.3	140.0%	126.7	124.1%	191	118	62.3%
GBP/USD WKLY FRIDAY OPTIONS -	463	159.95	189.7%	105.43	339.5%	214	204	5.0%
GBP/USD WKLY FRIDAY OPTIONS -	95	136.15	-30.2%	71	33.9%	87	171	-49.1%
GBP/USD WKLY FRIDAY OPTIONS -	0	184.6	-100.0%	99.43	-100.0%	36	63	-42.7%
GBP/USD WKLY WED OPTIONS - WK	98	88	11.5%	40.17	144.2%	43	85	-49.6%
GBP/USD WKLY WED OPTIONS - WK	17	15.7	8.3%	24.7	-31.2%	67	28	140.1%
GBP/USD WKLY WED OPTIONS - WK	17	40.4	-57.4%	96.83	-82.2%	51	68	-25.1%
GBP/USD WKLY WED OPTIONS - WK	9	49.65	-81.4%	46.26	-80.1%	26	72	-64.6%
GBP/USD WKLY WED OPTIONS - WK	0	0	-	4.04	-100.0%	1	4	-71.5%
JPY/USD MONDAY OPTION WEEK1	18	36.6	-52.0%	24	-26.8%	41	25	64.8%
JPY/USD MONDAY OPTION WEEK2	39	54.75	-28.8%	190.96	-79.6%	109	52	111.0%
JPY/USD MONDAY OPTION WEEK3	3	20.95	-86.4%	70.09	-95.9%	21	7	217.8%
JPY/USD MONDAY OPTION WEEK4	47	68	-31.6%	4.22	1003.2%	29	44	-32.5%
JPY/USD MONDAY OPTION WEEK5	0	0	-	0	-	13	1	1978.1%
JPY/USD MONTHLY OPTIONS	3,343	10,914.8	-69.4%	4,619.13	-27.6%	4,537	7,519	-39.7%
JPY/USD THURSDAY WKLY OPT WE	0	0	-	2.3	-93.1%	1	0	-
JPY/USD THURSDAY WKLY OPT WE	0	0	-	0.91	-65.4%	1	0	-
JPY/USD THURSDAY WKLY OPT WE	1	0	-	0.52	71.5%	2	0	-
JPY/USD THURSDAY WKLY OPT WE	1	0	-	0	-	0	0	-
JPY/USD THURSDAY WKLY OPT WE	0	0	-	6.83	-100.0%	2	0	-
JPY/USD TUESDAY WKLY OPT WEE	1	0	-	1.13	-6.9%	1	0	-
JPY/USD TUESDAY WKLY OPT WEE	1	0	-	22.43	-95.5%	17	0	-
JPY/USD TUESDAY WKLY OPT WEE	0	0	-	0.17	-39.5%	1	0	-
JPY/USD TUESDAY WKLY OPT WEE	5	0	-	0.43	1146.8%	11	0	-
JPY/USD TUESDAY WKLY OPT WEE	0	0	-	0	-	0	0	-
JPY/USD WKLY FRIDAY OPTIONS -	0	7.95	-100.0%	0	-	0	138	-100.0%
JPY/USD WKLY FRIDAY OPTIONS -	253	124.5	103.3%	414.74	-39.0%	358	432	-17.1%
JPY/USD WKLY FRIDAY OPTIONS -	378	532.45	-29.0%	376.7	0.3%	460	521	-11.8%
JPY/USD WKLY FRIDAY OPTIONS -	480	374.05	28.3%	273.43	75.5%	330	499	-33.9%
JPY/USD WKLY FRIDAY OPTIONS -	0	770.7	-100.0%	201.78	-100.0%	57	196	-70.8%
JPY/USD WKLY WED OPTIONS - WK	170	205.45	-17.0%	84.83	101.0%	149	162	-8.3%

\*\*\* 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**

April 2023

Page 5 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>FX Options</b>								
JPY/USD WKLY WED OPTIONS - WK	118	120.3	-2.1%	149.96	-21.5%	138	141	-2.1%
JPY/USD WKLY WED OPTIONS - WK	132	84.8	55.6%	197.13	-33.1%	191	108	76.3%
JPY/USD WKLY WED OPTIONS - WK	103	177.8	-42.1%	85.87	19.8%	140	132	6.5%
JPY/USD WKLY WED OPTIONS - WK	0	0	-	56.43	-100.0%	16	35	-54.0%
MXN/USD MONTHLY OPTIONS	18	174.8	-89.6%	17.87	1.3%	14	77	-81.7%
MXN/USD WKLY FRIDAY OPTIONS -	0	0.85	-100.0%	0	-	0	0	-100.0%
MXN/USD WKLY FRIDAY OPTIONS -	0	0	-	0	-	0	0	-
NZD/USD MONTHLY OPTIONS	27	21.05	29.8%	4.91	456.0%	915	6	15490.9%
NZD/USD WKLY FRIDAY OPTIONS -	0	0	-	0	-	0	0	-
PY/USD THURSDAY WKLY OPT WEE	0	0	-	1.09	-100.0%	1	0	-
PY/USD TUESDAY WKLY OPT WEEK	10	0	-	28.35	-63.4%	11	0	-
ZAR/USD MONTHLY OPTIONS	0	0	-	0	-	9	0	-
<b>Equity Index Futures</b>								
BITCOIN	9,713	7,589	28.0%	12,023.57	-19.2%	10,763	8,509	26.5%
DJ US REAL ESTATE SECTOR	1,842	2,281.65	-19.3%	5,522.87	-66.6%	3,063	3,181	-3.7%
E-mini (\$5) Dow	147,054	185,343.05	-20.7%	219,804.57	-33.1%	183,438	227,626	-19.4%
E-mini FTSE China 50	0	114.3	-100.0%	0	-	1	69	-99.2%
E-MINI MIDCAP	10,162	13,884.4	-26.8%	21,056.39	-51.7%	13,825	17,344	-20.3%
E-MINI NASDAQ 100	615,232	644,223.45	-4.5%	781,411.26	-21.3%	669,787	711,949	-5.9%
E-MINI RUSSELL 1000	94	887.5	-89.5%	907.43	-89.7%	455	634	-28.2%
E-MINI RUSSELL 1000 GROWTH	70	166.8	-57.9%	634.13	-88.9%	259	481	-46.0%
E-MINI RUSSELL 1000 VALUE	572	488.7	17.0%	1,444.48	-60.4%	735	1,167	-37.1%
E-MINI RUSSELL 2000	166,780	208,830.75	-20.1%	313,098.26	-46.7%	221,394	252,452	-12.3%
E-MINI S&P500	1,538,310	1,614,401.6	-4.7%	2,420,786.57	-36.5%	1,920,697	1,877,875	2.3%
E-MINI S&P500 ESG	725	416.4	74.1%	2,162.09	-66.5%	1,116	1,764	-36.7%
ETHER	0	0	-	0	-	0	0	-
ETHER FUTURES	5,580	4,178.4	33.6%	5,832.26	-4.3%	5,832	4,932	18.3%
FT-SE 100	2	0	-	0	-	2	11	-80.1%
IBOVESPA INDEX	1	7.6	-87.5%	0.52	81.6%	2	3	-53.3%
MICRO BITCOIN	12,753	15,084.15	-15.5%	11,797.09	8.1%	10,609	18,650	-43.1%
MICRO E-MINI NASDAQ 100	921,867	1,317,796.9	-30.0%	1,176,357.3	-21.6%	1,100,965	1,533,968	-28.2%
MICRO E-MINI RUSSELL 2000	69,318	107,163.15	-35.3%	98,427.74	-29.6%	83,792	159,798	-47.6%
MICRO E-MINI S&P500	913,370	1,178,301	-22.5%	1,321,088	-30.9%	1,201,738	1,320,590	-9.0%
MICRO ETHER	14,216	19,653.15	-27.7%	8,652.61	64.3%	10,983	19,218	-42.8%
MICRO MINI \$5 DOW	93,556	160,231.45	-41.6%	175,350.13	-46.6%	137,047	216,125	-36.6%
NASDAQ-100 VOLATILITY	1	99.95	-99.5%	0.78	-32.7%	40	173	-77.1%
NASDAQ BIOTECH SECTOR	12	8.25	50.6%	9.7	28.1%	13	7	80.7%
Nearby BTIC+	0	80	-100.0%	0	-	0	29	-100.0%
NIKKEI 225 (\$) STOCK	3,334	4,659.85	-28.4%	6,202.87	-46.2%	4,611	6,326	-27.1%
NIKKEI 225 (YEN) STOCK	20,571	30,265.65	-32.0%	33,807.65	-39.2%	27,039	41,676	-35.1%
PHLX SEMICONDUCTOR SECTOR	31	0	-	23.74	29.5%	19	0	-
S&P 500	2,378	1,407.55	68.9%	7,591.65	-68.7%	4,923	4,085	20.5%
S&P 500 ANNUAL DIVIDEND INDEX F	3,064	2,943.55	4.1%	5,261.87	-41.8%	3,747	4,348	-13.8%
S&P 500 QUARLY DIVIDEND INDEX F	893	30.05	2872.8%	1,184.13	-24.6%	926	204	354.2%
S&P BIOTECHNOLOGY SECTOR	153	0	-	91.61	67.5%	71	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**

April 2023

Page 6 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Equity Index Futures</b>								
S&P COMMUNICATION SERVICES S	228	144.85	57.7%	377.83	-39.5%	219	177	24.2%
S&P CONSUMER DISCRETIONARY S	389	310.85	25.3%	819.87	-52.5%	461	594	-22.5%
S&P CONSUMER STAPLES SECTOR	1,183	1,062.65	11.3%	2,265.57	-47.8%	1,569	1,247	25.9%
S&P ENERGY SECTOR	1,562	1,383.1	13.0%	4,266.39	-63.4%	2,138	3,172	-32.6%
S&P FINANCIAL SECTOR	1,502	969.45	55.0%	6,457.35	-76.7%	2,644	2,022	30.7%
S&P HEALTH CARE SECTOR	634	874.15	-27.4%	2,825	-77.6%	1,243	1,298	-4.2%
S&P INDUSTRIAL SECTOR	497	709.35	-29.9%	2,649.3	-81.2%	1,226	1,321	-7.2%
S&P MATERIALS SECTOR	208	403.55	-48.6%	1,018.13	-79.6%	508	798	-36.4%
S&P OIL & GAS EXPLORATION AND	7	0	-	24.43	-71.4%	12	0	-
S&P REAL ESTATE SECTOR	231	83.6	175.7%	893.35	-74.2%	577	394	46.3%
S&P REGIONAL BANKS SECTOR	95	0	-	83.57	13.8%	51	0	-
S&P RETAIL SECTOR	5	0	-	13.48	-66.4%	18	0	-
S&P TECHNOLOGY SECTOR	378	573.55	-34.1%	1,986.65	-81.0%	912	1,311	-30.5%
S&P UTILITIES SECTOR	865	1,121.05	-22.8%	4,663.26	-81.4%	2,209	1,761	25.5%
TOPIX (USD)	0	0	-	6.04	-100.0%	2	0	-
TOPIX (YEN)	4	137.8	-97.2%	22.13	-82.4%	12	185	-93.4%
WATER INDEX FUTURES	1	4.45	-83.4%	0.74	-0.3%	1	6	-82.3%

**Equity Index Options**

BITCOIN OPTIONS	400	72.55	450.8%	554.91	-28.0%	421	95	342.5%
DJIA	916	0	-	314.52	191.3%	424	0	-
E-mini (\$5) Dow	22	104.15	-78.9%	48.35	-54.6%	51	118	-56.9%
E-MINI NASDAQ 100	47,741	47,288.7	1.0%	59,633.26	-19.9%	51,831	41,558	24.7%
E-MINI RUSSELL 2000	8,837	7,106.35	24.4%	7,453.09	18.6%	6,744	7,851	-14.1%
E-MINI S&P500	1,006,472	1,042,921.9	-3.5%	1,385,629.17	-27.4%	1,202,675	1,111,870	8.2%
ETHER OPTIONS	79	0	-	46.96	68.7%	58	0	-
EVENT CONTRACT S&P 500	672	0	-	75.61	788.4%	179	0	-
MICRO BITCOIN	583	178.8	226.1%	496.26	17.5%	500	45	1011.0%
MICRO E-MINI NASDAQ 100	2,181	2,839.5	-23.2%	2,632.13	-17.1%	2,619	3,259	-19.6%
Micro E-mini S&P 500	9,055	8,299.7	9.1%	12,432.91	-27.2%	12,630	12,468	1.3%
MICRO ETHER	725	878.5	-17.4%	671.87	8.0%	548	459	19.2%

**Interest Rate Futures**

10-YR Eris LIBOR	4	488.1	-99.3%	811.43	-99.6%	315	827	-61.9%
10-YR Eris SOFR	455	0	-	1,144.83	-60.3%	437	51	752.9%
10-YR MAC LIBOR	244	438.35	-44.4%	1,635.13	-85.1%	634	2,255	-71.9%
10-YR MAC SOFR	0	0	-	0.39	-100.0%	0	0	-
10-YR NOTE	1,370,883	1,698,865.55	-19.3%	2,138,485.78	-35.9%	1,952,416	2,017,348	-3.2%
10Y YIELD	4,333	7,786.2	-44.4%	6,288.26	-31.1%	4,128	5,754	-28.3%
15-YR Eris LIBOR	0	0	-	0	-	0	18	-100.0%
1-MONTH EURO DOLLAR	53	226.65	-76.8%	0	-	12	768	-98.4%
1-YR Eris BSBY	0	15	-100.0%	0	-	0	4	-100.0%
1-YR Eris SOFR	157	1,091.65	-85.6%	740.43	-78.8%	290	1,668	-82.6%
20-YR BOND	16	196.65	-91.8%	34.09	-52.8%	33	204	-83.8%

\*\*\* 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**

April 2023

Page 7 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Interest Rate Futures</b>								
2-YR Eris LIBOR	0	1,469.45	-100.0%	2,215.3	-100.0%	1,178	3,514	-66.5%
2-YR Eris SOFR	255	889.3	-71.4%	2,960.61	-91.4%	983	745	31.9%
2-YR NOTE	535,774	644,247.3	-16.8%	861,787.74	-37.8%	745,098	693,369	7.5%
2Y YIELD	235	462.6	-49.2%	642	-63.4%	411	388	5.7%
30-Year UMBS TBA Futures - 2.5% Co	1	0	-	3.61	-75.2%	4	0	-
30-Year UMBS TBA Futures - 3.0% Co	6	0	-	12	-49.1%	10	0	-
30-Year UMBS TBA Futures - 3.5% Co	19	0	-	10.04	91.3%	11	0	-
30-Year UMBS TBA Futures - 4.0% Co	2	0	-	10.43	-85.4%	7	0	-
30-Year UMBS TBA Futures - 4.5% Co	21	0	-	22.09	-3.7%	14	0	-
30-Year UMBS TBA Futures - 5.0% Co	8	0	-	17.26	-51.5%	13	0	-
30-Year UMBS TBA Futures - 5.5% Co	4	0	-	7.65	-41.5%	9	0	-
30-Year UMBS TBA Futures - 6.0% Co	0	0	-	40.04	-100.0%	17	0	-
30-YR BOND	253,323	340,222.75	-25.5%	433,597	-41.6%	389,129	413,457	-5.9%
30-YR Eris LIBOR	0	0	-	0	-	0	8	-100.0%
30-YR MAC LIBOR	0	0	-	0	-	0	52	-100.0%
30Y YIELD	35	627.55	-94.4%	38.65	-8.6%	57	527	-89.1%
3-YR Eris BSBY	0	0.2	-100.0%	0	-	0	0	-100.0%
3-YR Eris LIBOR	0	772.15	-100.0%	397.74	-100.0%	207	1,520	-86.4%
3-YR Eris SOFR	51	134.55	-62.1%	606.26	-91.6%	349	208	67.5%
3-YR NOTE	4,948	14,829.65	-66.6%	6,530	-24.2%	5,810	16,881	-65.6%
4-YR Eris LIBOR	0	217.75	-100.0%	23.09	-100.0%	17	443	-96.1%
4-YR Eris SOFR	21	19.5	8.0%	103	-79.6%	64	67	-4.0%
5-YR Eris LIBOR	0	828.35	-100.0%	1,295.83	-100.0%	759	2,644	-71.3%
5-YR Eris SOFR	501	88.3	467.7%	3,389.7	-85.2%	1,130	116	871.8%
5-YR MAC LIBOR	0	1,194.7	-100.0%	509.43	-100.0%	562	1,581	-64.4%
5-YR MAC SOFR	0	0	-	1.91	-100.0%	1	0	-
5-YR NOTE	1,022,158	1,148,369.6	-11.0%	1,624,753.39	-37.1%	1,440,326	1,379,758	4.4%
5Y YIELD	0	124.85	-100.0%	2.13	-100.0%	11	129	-91.7%
7-YR Eris LIBOR	40	160.3	-74.8%	142.7	-71.7%	67	313	-78.6%
7-YR Eris SOFR	19	0	-	54.13	-65.7%	26	59	-55.5%
BSBY 3-MONTH FUTURES	221	3,302.45	-93.3%	397.43	-44.3%	298	4,429	-93.3%
ESTR Basis Spread Futures	5	0	-	63.39	-91.5%	58	0	-
ESTR Futures	1,626	0	-	1,378.87	17.9%	1,645	0	-
EURODOLLARS	69,933	1,750,167.85	-96.0%	436,757.74	-84.0%	340,409	2,489,292	-86.3%
FED FUND	407,593	264,262	54.2%	821,131.39	-50.4%	555,788	377,716	47.1%
FTIIE	19	3	524.6%	14.52	29.0%	14	6	126.5%
SOFR	2,560,245	1,407,402.95	81.9%	5,158,968.61	-50.4%	3,591,755	1,250,276	187.3%
SONIA	0	0.6	-100.0%	3.3	-100.0%	16	13	26.8%
Ultra 10-Year Note	271,692	334,289.25	-18.7%	481,625.52	-43.6%	432,502	419,924	3.0%
ULTRA T-BOND	157,405	166,619.6	-5.5%	257,319.26	-38.8%	253,945	233,432	8.8%

\*\*\* 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**

April 2023

Page 8 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Interest Rate Options</b>								
10-YR NOTE	561,405	536,241.25	4.7%	836,747.65	-32.9%	736,906	686,490	7.3%
2-YR NOTE	18,743	1,422.1	1218.0%	24,382.7	-23.1%	18,574	1,359	1266.8%
30-YR BOND	90,170	130,603.6	-31.0%	132,535.09	-32.0%	120,229	122,201	-1.6%
5-YR NOTE	313,525	277,682.45	12.9%	406,365	-22.8%	324,363	284,839	13.9%
EURODOLLARS	34,310	486,153.65	-92.9%	92,179.09	-62.8%	105,626	793,293	-86.7%
EURO MIDCURVE	1,733	325,919.75	-99.5%	3,269.26	-47.0%	7,380	530,633	-98.6%
FED FUND	0	0	-	0	-	0	1	-95.2%
SOFR	1,306,582	48,294.95	2605.4%	2,517,030.09	-48.1%	1,830,748	29,113	6188.4%
SOFR MIDCURVE	193,258	27,283.3	608.3%	426,391.57	-54.7%	380,049	18,805	1921.0%
SOFR MISCURVE	0	0	-	0	-	9	0	-
Ultra 10-Year Note	0	5.5	-97.1%	13.96	-98.9%	10	7	49.1%
ULTRA T-BOND	81	84.1	-3.2%	75.43	7.9%	60	167	-63.8%
<b>Energy Futures</b>								
AEP-DAYTON HUB DAILY	0	0	-	0	-	0	0	-
ARGUS LLS VS. WTI (ARG) T	206	531.5	-61.3%	409.13	-49.8%	231	209	10.2%
ARGUS PROPAN FAR EST INDE	363	250.1	45.3%	332.91	9.1%	406	268	51.4%
ARGUS PROPAN(SAUDI ARAMCO	90	101.75	-11.9%	158.43	-43.4%	161	110	46.0%
BRENT BALMO SWAP	0	0	-	0	-	0	18	-100.0%
BRENT CALENDAR SWAP	502	512.7	-2.1%	243.91	105.8%	476	888	-46.4%
BRENT FINANCIAL FUTURES	0	0	-	0	-	3	0	-
BRENT OIL LAST DAY	53,701	51,311.5	4.7%	62,685.78	-14.3%	56,670	84,604	-33.0%
CAR VINTAGE	902	333.75	170.2%	615.57	46.5%	928	664	39.8%
CHICAGO ETHANOL SWAP	3,594	2,749.05	30.7%	4,087.7	-12.1%	3,391	2,890	17.3%
CHICAGO ULSD PL VS HO SPR	34	39.5	-14.1%	31.96	6.2%	44	36	23.7%
CHICAGO UNL GAS PL VS RBO	0	0	-	0	-	0	0	-
CONWAY NATURAL GASOLINE (OPI	12	24.05	-50.1%	0.52	2200.2%	4	11	-60.2%
CONWAY NORMAL BUTANE (OPIS) S	20	29.75	-32.4%	5.09	295.2%	9	15	-36.7%
CONWAY PROPANE 5 DECIMALS S	956	912.15	4.8%	819.96	16.6%	863	696	24.0%
CRUDE OIL	0	0	-	0	-	0	0	-
CRUDE OIL LAST DAY	0	11.45	-100.0%	24.91	-100.0%	21	17	24.3%
CRUDE OIL OUTRIGHTS	7,485	4,204.45	78.0%	9,153.96	-18.2%	7,996	3,656	118.7%
CRUDE OIL PHY	881,537	826,098.5	6.7%	959,249.78	-8.1%	901,676	1,126,574	-20.0%
CRUDE OIL SPRDS	4,149	2,257.35	83.8%	3,785.39	9.6%	3,842	2,419	58.9%
CRUDE OIL TRADE AT MARKER SIN	0	0	-	0	-	0	0	-
DAILY PJM	0	0	-	0	-	0	0	-
DATED TO FRONTLINE BRENT	0	0	-	0	-	0	27	-100.0%
DIESEL 10P BRG FOB RDM VS	0	0.25	-100.0%	0	-	0	0	-100.0%
DUBAI CRUDE OIL CALENDAR	0	0	-	0	-	0	24	-100.0%
DUTCH TTF NATURAL GAS CAL MO	180	56.2	220.0%	70.87	153.8%	65	167	-61.1%
EIA FLAT TAX ONHWAY DIESE	9	3.9	138.9%	15.22	-38.8%	9	6	57.8%
EMMISSIONS	84	52.55	59.4%	107.57	-22.1%	95	15	540.8%
ETHANOL	1	0	-	0	-	0	0	163.1%
ETHANOL SWAP	25	7.5	236.8%	13.04	93.7%	18	14	29.8%
ETHANOL T2 FOB ROTT INCL DUTY	182	90.7	100.1%	218.52	-16.9%	194	153	26.9%
EURO GASOIL 10 CAL 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**

April 2023

Page 9 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Energy Futures</b>								
EURO GASOIL 10PPM VS ICE	0	6.5	-100.0%	0	-	0	14	-100.0%
EUROPE 1% FUEL OIL NWE CA	0	0	-	0	-	0	0	-
EUROPE 3.5% FUEL OIL RDAM	0	0	-	6.78	-99.2%	3	7	-59.4%
EUROPEAN GASOIL (ICE)	3	83.95	-96.2%	1.83	72.9%	3	91	-97.0%
EUROPEAN NAPHTHA BALMO	0	1.75	-91.0%	0.43	-63.7%	1	1	-65.4%
EUROPEAN NAPHTHA CRACK SPR	316	48.05	558.5%	250.13	26.5%	170	146	16.6%
EUROPE DATED BRENT SWAP	0	0	-	0	-	0	0	-
EUROPE NAPHTHA CALSWAP	34	16.2	110.9%	68.35	-50.0%	55	41	33.4%
EURO PROPANE CIF ARA SWA	96	65.5	46.2%	81	18.2%	98	92	5.5%
FREIGHT MARKETS	0	1.65	-100.0%	0.65	-100.0%	12	12	1.1%
FUEL OIL CRACK VS ICE	0	8.25	-100.0%	0	-	0	13	-100.0%
FUEL OIL NWE CRACK VS ICE	2	0	-	0	-	0	1	-54.0%
FUELOIL SWAP:CARGOES VS.B	0	0	-	0	-	0	0	-
GAS EURO-BOB OXY NWE BARGES	25	10.6	137.3%	16.52	52.3%	11	13	-11.6%
GAS EURO-BOB OXY NWE BARGES	133	74.1	79.1%	67.39	97.0%	87	185	-52.7%
GASOIL 0.1CIF MED VS ICE	0	0	-	0	-	0	1	-100.0%
GASOIL 0.1 RDAM BRGS VS I	0	0	-	0	-	0	0	-100.0%
GASOIL 0.1 ROTTERDAM BARG	0	0.25	-100.0%	0	-	0	1	-100.0%
GASOIL 10PPM VS ICE SWAP	0	0	-	0	-	0	0	-
GASOIL CALENDAR SWAP	0	0.25	-100.0%	0.78	-100.0%	0	11	-97.0%
GASOIL CRACK SPREAD CALEN	6	54.9	-89.6%	17.61	-67.7%	6	123	-94.9%
GASOIL MINI CALENDAR SWAP	9	8.25	3.3%	5.91	44.2%	12	22	-47.5%
GERMAN POWER BASELOAD CAL M	0	0	-	0	-	0	0	-
GRP THREE ULSD(PLT)VS HEA	192	358.75	-46.4%	107.17	79.5%	166	338	-50.9%
GRP THREE UNL GS (PLT) VS	108	245.5	-56.1%	129.78	-16.9%	144	222	-35.1%
GULF COAST 3% FUEL OIL BA	0	0	-	0	-	0	8	-100.0%
GULF COAST JET VS NYM 2 H	542	295.95	83.1%	383.04	41.5%	410	722	-43.1%
GULF COAST NO.6 FUEL OIL	875	463.9	88.7%	793.74	10.3%	956	545	75.5%
GULF COAST ULSD CALENDAR	11	3.5	203.8%	15.22	-30.1%	10	4	120.6%
GULF COAST ULSD CRACK SPR	0	0	-	0	-	0	0	-
HEATING OIL BALMO CLNDR S	0	0.75	-100.0%	0	-	10	18	-44.5%
HEATING OIL CRCK SPRD BAL	0	0	-	0	-	0	0	-
HEATING OIL PHY	144,332	123,608.75	16.8%	151,869.09	-5.0%	156,081	179,449	-13.0%
HENRY HUB SWAP	1,900	1,080.6	75.8%	2,089.65	-9.1%	1,984	1,483	33.8%
HTG OIL	3	1.8	40.3%	0	-	1	0	35.0%
ICE BRENT DUBAI SWAP	3	6.75	-53.2%	2.61	21.1%	1	25	-94.2%
INDONESIAN COAL ICI4	0	0	-	0	-	0	0	-
JAPAN C&F NAPHTHA CRACK S	0	0	-	0	-	0	0	-
JAPAN C&F NAPHTHA SWAP	6	4.85	17.2%	6.22	-8.6%	6	6	-7.7%
JAPAN NAPHTHA BALMO SWAP	0	0	-	0	-	0	0	102.3%
JET CIF NWE VS ICE	0	1.7	-100.0%	1.43	-100.0%	2	12	-80.1%
JET FUEL UP-DOWN BALMO CL	19	51.75	-63.4%	25.43	-25.5%	48	134	-64.2%
JKM LNG Futures	0	14.5	-100.0%	0	-	0	19	-100.0%
LA CARB DIESEL (OPIS) SWA	20	14.1	40.0%	26.87	-26.5%	25	26	-4.3%
LA CARBOB GASOLINE(OPIS)S	0	0	-	0	-	3	0	-
LA JET (OPIS) SWAP	24	28.75	-14.9%	30.65	-20.2%	28	32	-12.3%
LLS (ARGUS) VS WTI SWAP	0	0	-	0	-	7	1	542.3%
LTD NAT GAS	15,224	21,313.7	-28.6%	18,187.61	-16.3%	18,322	17,737	3.3%

\*\*\* 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**

April 2023

Page 10 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Energy Futures</b>								
MARS (ARGUS) VS WTI SWAP	0	0	-	0	-	0	18	-100.0%
MARS (ARGUS) VS WTI TRD M	614	605	1.5%	1,020.87	-39.9%	1,096	752	45.8%
MCCLOSKY ARA ARGS COAL	35	266.05	-87.0%	23.57	47.0%	54	367	-85.4%
MCCLOSKY RCH BAY COAL	0	23.3	-100.0%	0.52	-100.0%	0	25	-99.4%
MINI GAS EUROBOB OXY NWE ARG	0	0.25	-100.0%	0	-	0	3	-90.3%
MINI RBOB V. EBOBARG NWE BRGS	11	0	-	0	-	3	0	-
MINI RBOB V. EBOB(ARGUS) NWE B	12	38	-69.5%	0.87	1231.5%	8	24	-65.9%
MINY HTG OIL	0	0.6	-29.8%	0.48	-12.0%	1	0	35.0%
MINY NATURAL GAS	10,098	24,159.6	-58.2%	11,370.78	-11.2%	14,766	13,470	9.6%
MINY RBOB GAS	1	0.6	22.8%	0.3	142.1%	1	0	27.9%
MINY WTI CRUDE OIL	15,315	26,867	-43.0%	17,564.17	-12.8%	16,078	33,189	-51.6%
MJC FUT	0	0	-	0	-	0	0	-
MNC FUT	58	60.8	-4.8%	83.39	-30.6%	69	83	-17.3%
MONT BELVIEU ETHANE 5 DECIMAL	1,293	1,431.75	-9.7%	1,358.22	-4.8%	1,637	1,585	3.3%
MONT BELVIEU ETHANE OPIS BALM	38	23.75	61.8%	24.35	57.8%	49	42	16.4%
MONT BELVIEU LDH PROPANE 5 DE	10,126	7,776.95	30.2%	10,950.57	-7.5%	10,909	8,847	23.3%
MONT BELVIEU LDH PROPANE OPIS	91	206	-55.8%	202.22	-54.9%	133	206	-35.4%
MONT BELVIEU NATURAL GASOLIN	1,403	984.6	42.5%	1,337.39	4.9%	1,210	967	25.2%
MONT BELVIEU NATURAL GASOLIN	90	86.15	4.3%	75.04	19.8%	77	53	44.9%
MONT BELVIEU NORMAL BUTANE 5	2,469	2,345.95	5.2%	2,914.65	-15.3%	2,768	2,444	13.3%
MONT BELVIEU NORMAL BUTANE B	60	60.8	-0.7%	60.65	-0.5%	54	91	-40.9%
NATURAL GAS	10,530	11,153.1	-5.6%	10,797.91	-2.5%	10,400	9,510	9.4%
NATURAL GAS PEN SWP	1,249	2,082.25	-40.0%	820.91	52.2%	1,131	2,394	-52.8%
NATURAL GAS PHY	429,585	446,549.85	-3.8%	381,651.7	12.6%	421,983	398,761	5.8%
NEPOOL INTR HUB 5MW D AH	0	0	-	0	-	0	0	-
NEW ENGLAND HUB PEAK DAIL	0	0	-	0	-	0	0	-
NEW YORK ETHANOL SWAP	31	26.35	16.2%	16.96	80.6%	25	36	-31.0%
NEW YORK HUB ZONE G PEAK	0	0	-	0	-	0	0	-
N ILLINOIS HUB DAILY	0	0	-	0	-	0	0	-
NY1% VS GC SPREAD SWAP	0	0	-	0	-	0	0	-
NY HARBOR HEAT OIL SWP	238	83.3	186.0%	127.48	86.9%	115	54	113.3%
NY HARBOR LOW SULPUR GAS 100C	0	0	-	0	-	0	0	-
NY HARBOR RESIDUAL FUEL 1	8	10	-21.1%	5.43	45.3%	7	7	-3.0%
NYH NO 2 CRACK SPREAD CAL	623	196.2	217.7%	54.78	1037.7%	211	133	58.3%
NYISO ZONE G 5MW D AH PK	0	0	-	0	-	0	0	-
NY ULSD (ARGUS) VS HEATING OIL	4	0	-	39.52	-88.8%	20	18	16.5%
PETROCHEMICALS	230	146.4	57.3%	162.52	41.7%	204	187	9.3%
PETRO CRCKS & SPRDS ASIA	0	0	-	0	-	0	0	-
PETRO CRCKS & SPRDS NA	475	589.6	-19.5%	575.26	-17.5%	692	1,118	-38.1%
PETRO CRK&SPRD EURO	35	30.1	16.8%	29.87	17.7%	29	64	-55.1%
PETROLEUM PRODUCTS	38	131.4	-70.8%	159.09	-75.8%	121	115	5.1%
PETROLEUM PRODUCTS ASIA	19	41.15	-53.3%	37.39	-48.6%	27	53	-48.4%
PETRO OUTRIGHT EURO	312	423.05	-26.1%	325.57	-4.0%	369	609	-39.5%
PETRO OUTRIGHT NA	176	115.6	52.3%	126.74	39.0%	122	260	-52.9%
PJM AD HUB 5MW REAL TIME	0	0	-	0	-	0	0	-
PJM DAILY	0	0	-	0	-	0	0	-
PJM NI HUB 5MW REAL TIME	0	0	-	0	-	0	0	-
PJM WESTH RT OFF-PEAK	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**

April 2023

Page 11 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Energy Futures</b>								
PJM WESTH RT PEAK	0	0	-	0	-	0	0	-
PLASTICS	30	47.15	-36.1%	15.22	97.8%	31	54	-43.2%
PREMIUM UNLD 10P FOB MED	0	0	-	0.65	-100.0%	0	0	1.3%
PROPANE NON-LDH MB (OPIS) BAL	60	65	-7.9%	80.91	-26.0%	65	83	-22.1%
PROPANE NON-LDH MT. BEL (OPIS)	1,240	558.5	122.0%	623	99.0%	933	622	50.0%
RBOB CALENDAR SWAP	328	299.4	9.7%	471.52	-30.4%	373	321	15.9%
RBOB CRACK SPREAD	175	120	46.1%	35.87	388.8%	74	136	-45.9%
RBOB CRACK SPREAD BALMO S	5	0	-	0	-	1	0	-
RBOB GAS	2	1.2	57.9%	0	-	0	0	51.8%
RBOB GASOLINE BALMO CLNDR	38	23.45	60.9%	45.87	-17.7%	45	68	-34.3%
RBOB PHY	177,206	157,806.85	12.3%	160,712.96	10.3%	164,863	189,662	-13.1%
RBOB VS HEATING OIL SWAP	0	0	-	0	-	0	5	-91.9%
SINGAPORE 180CST BALMO	0	0	-	0.17	-100.0%	0	0	-
SINGAPORE 380CST BALMO	0	0.05	-100.0%	0	-	0	0	-100.0%
SINGAPORE 380CST FUEL OIL	9	10.15	-15.5%	6.78	26.5%	6	15	-58.4%
SINGAPORE FUEL 180CST CAL	0	0	-	0	-	0	0	-
SINGAPORE FUEL OIL 180 CS	0	0	-	0	-	0	0	-
SINGAPORE FUEL OIL SPREAD	0	0	-	0.26	-100.0%	0	0	-
SINGAPORE GASOIL	3	63.25	-94.6%	5.52	-38.0%	29	50	-42.4%
SINGAPORE GASOIL CALENDAR	1	6	-79.8%	1.87	-35.3%	2	13	-86.4%
SINGAPORE GASOIL SWAP	53	45.05	16.8%	23.91	120.1%	42	32	30.9%
SINGAPORE GASOIL VS ICE	0	0	-	0	-	0	48	-99.5%
SINGAPORE JET KERO GASOIL	0	0	-	0	-	0	43	-100.0%
SINGAPORE JET KEROSENE SW	0	0	-	0	-	0	5	-100.0%
SINGAPORE MOGAS 92 UNLEADED	0	0	-	4.35	-100.0%	1	3	-51.8%
SINGAPORE MOGAS 92 UNLEADED	45	0	-	10.87	311.6%	14	4	279.6%
TC2 ROTTERDAM TO USAC 37K	0	0	-	7.48	-100.0%	2	3	-23.6%
TC5 RAS TANURA TO YOKOHAM	0	0	-	0	-	0	1	-100.0%
TD3 MEG TO JAPAN 250K MT	0	0	-	0	-	0	75	-100.0%
ULSD UP-DOWN BALMO SWP	316	281.65	12.2%	408	-22.6%	341	376	-9.4%
UP DOWN GC ULSD VS NMX HO	1,982	903.55	119.3%	1,053.65	88.1%	1,397	1,850	-24.5%
WTI-BRENT CALENDAR SWAP	2,515	2,380.3	5.7%	3,392.57	-25.9%	2,611	3,198	-18.3%
WTI CALENDAR	3,225	3,320.75	-2.9%	2,798.3	15.3%	3,028	3,738	-19.0%
WTI MIDLAND CRUDE OIL	25	0	-	18.26	38.3%	11	0	-
WTS (ARGUS) VS WTI SWAP	338	82.5	309.2%	6.04	5485.8%	120	180	-33.3%
WTS (ARGUS) VS WTI TRD MT	1	45	-97.2%	38.26	-96.7%	12	55	-78.9%

\*\*\* 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**

April 2023

Page 12 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Energy Options</b>								
BRENT CALENDAR SWAP	1	0	-	0	-	5	32	-83.3%
BRENT CRUDE OIL 1 M CSO	0	177.5	-100.0%	0	-	0	1,067	-100.0%
BRENT OIL LAST DAY	865	1,790.55	-51.7%	1,029.35	-16.0%	891	1,676	-46.8%
COAL API2 INDEX	5	5.2	1.2%	0	-	2	5	-60.6%
CRUDE OIL 1MO	4,213	2,976.6	41.5%	921.74	357.1%	2,335	4,586	-49.1%
CRUDE OIL APO	2,494	488.55	410.5%	1,042.7	139.2%	1,364	1,196	14.1%
CRUDE OIL OUTRIGHTS	619	0	-	281.04	120.3%	418	0	-
CRUDE OIL PHY	124,056	101,694.95	22.0%	144,608.57	-14.2%	122,242	145,866	-16.2%
ELEC FINSETTLED	0	0	-	0	-	0	0	-
ETHANOL SWAP	116	91.15	27.6%	96.26	20.8%	100	188	-47.0%
FREIGHT MARKETS	0	0	-	0	-	0	0	-100.0%
HEATING OIL CRK SPD AVG PRICE	0	12.5	-100.0%	0	-	0	3	-100.0%
HEATING OIL PHY	528	337.4	56.6%	663.35	-20.4%	710	690	3.0%
HENRY HUB FINANCIAL LAST	630	219.85	186.5%	459.61	37.1%	764	315	142.2%
HO 1 MONTH CLNDR OPTIONS	355	8.75	3960.1%	45.65	678.2%	135	11	1161.1%
LLS CRUDE OIL	63	0	-	0	-	37	15	153.1%
MCCLOSKEY ARA ARGS COAL	0	0	-	0	-	0	0	-
NATURAL GAS	0	0.45	-100.0%	0	-	1	41	-97.0%
NATURAL GAS 1 M CSO FIN	3,447	3,222.5	7.0%	1,467.39	134.9%	3,839	6,186	-37.9%
NATURAL GAS 2 M CSO FIN	0	450	-100.0%	0	-	0	110	-100.0%
NATURAL GAS 3 M CSO FIN	7,682	1,747.5	339.6%	3,691.3	108.1%	3,643	1,415	157.4%
NATURAL GAS 5 M CSO FIN	39	645	-93.9%	278.26	-85.8%	107	564	-81.1%
NATURAL GAS 6 M CSO FIN	0	0	-	777.17	-100.0%	806	822	-2.0%
NATURAL GAS OPT	0	53.75	-100.0%	0	-	0	48	-100.0%
NATURAL GAS OPTION ON CALEND	0	0	-	0	-	0	7	-100.0%
NATURAL GAS PHY	146,410	126,955.85	15.3%	119,906.52	22.1%	127,500	112,873	13.0%
NY HARBOR HEAT OIL SWP	281	136.25	106.3%	285.39	-1.5%	170	100	69.0%
PETROCHEMICALS	0	15	-100.0%	0	-	4	10	-59.9%
PETRO OUTRIGHT NA	3	0	-	0	-	1	5	-83.8%
PJM WES HUB PEAK CAL MTH	0	0	-	0	-	0	0	-
RBOB 1MO CAL SPD OPTIONS	0	0	-	0	-	0	0	-
RBOB CALENDAR SWAP	0	3	-100.0%	0	-	0	2	-100.0%
RBOB PHY	213	75.9	180.3%	239.13	-11.0%	168	147	14.1%
SHORT TERM	18	17.5	5.3%	10.87	69.5%	10	12	-9.4%
SHORT TERM NATURAL GAS	37	57.5	-35.9%	250	-85.3%	98	27	263.5%
WTI-BRENT BULLET SWAP	1,372	1,165	17.8%	684.78	100.4%	794	1,513	-47.5%
WTI CRUDE OIL 1 M CSO FI	7,979	2,952.5	170.3%	2,750	190.2%	3,506	2,140	63.8%

\*\*\* 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**

April 2023

Page 13 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Metals Futures</b>								
ALUMINUM	4,860	1,309.8	271.1%	3,898.17	24.7%	4,173	1,217	242.8%
COBALT METAL FUTURES	183	29.45	522.8%	114.61	60.0%	173	22	670.8%
COMEX COPPER	114,910	86,594.3	32.7%	97,130.7	18.3%	110,270	85,894	28.4%
COMEX E-Mini GOLD	1,867	1,235.95	51.0%	2,490.48	-25.0%	2,150	1,545	39.1%
COMEX E-Mini SILVER	360	202.4	77.6%	347.83	3.4%	342	209	63.5%
COMEX GOLD	201,909	168,779.45	19.6%	307,647.57	-34.4%	245,070	240,345	2.0%
COMEX MINY COPPER	328	210.95	55.3%	336.3	-2.6%	305	185	65.1%
COMEX SILVER	86,167	74,444.15	15.7%	66,036.48	30.5%	75,978	70,981	7.0%
COPPER	5,601	117.65	4661.1%	5,436.52	3.0%	5,648	113	4907.9%
FERROUS PRODUCTS	46	74.75	-37.8%	47.35	-1.8%	63	131	-51.7%
GOLD	81	490.75	-83.5%	46.78	72.6%	35	606	-94.2%
HOT ROLLED COIL STEEL FUTURES	167	83.2	101.2%	194.61	-14.0%	327	98	233.6%
IRON ORE CHINA	2	67.25	-97.3%	2	-10.5%	10	64	-83.9%
METALS	60	7.5	695.8%	36.35	64.2%	46	15	213.9%
MICRO GOLD	83,563	50,477.6	65.5%	75,539.52	10.6%	72,186	60,682	19.0%
NYMEX HOT ROLLED STEEL	1,035	1,006.1	2.9%	1,446.65	-28.5%	1,516	1,290	17.5%
NYMEX PLATINUM	19,239	16,267.6	18.3%	26,046.61	-26.1%	22,517	20,488	9.9%
PALLADIUM	2,358	1,396.65	68.8%	1,953.26	20.7%	2,917	2,522	15.7%
SILVER	12,226	7,770.15	57.3%	10,564.43	15.7%	11,228	8,766	28.1%
URANIUM	0	0.3	-100.0%	0	-	0	0	-100.0%
<b>Metals Options</b>								
ALUMINUM	43	0	-	47.35	-9.8%	37	0	-
COMEX COPPER	5,540	3,661.9	51.3%	6,572.22	-15.7%	7,689	3,356	129.1%
COMEX GOLD	48,116	37,935.05	26.8%	66,107.39	-27.2%	52,640	46,543	13.1%
COMEX SILVER	9,358	4,783.05	95.6%	8,638.39	8.3%	8,550	5,429	57.5%
COPPER	433	22.5	1823.0%	517.26	-16.4%	532	21	2455.3%
GOLD	13,900	9,908.6	40.3%	16,137.17	-13.9%	14,528	10,731	35.4%
IRON ORE CHINA	0	0	-	0	-	0	0	-
NYMEX HOT ROLLED STEEL	71	33.75	110.5%	58.26	22.0%	131	85	54.4%
NYMEX PLATINUM	1,439	336.5	327.6%	494.35	191.0%	710	352	101.9%
PALLADIUM	48	2.1	2203.3%	55	-12.1%	51	1	4567.9%
SILVER	2,011	628.05	220.2%	1,833.39	9.7%	1,885	994	89.7%
<b>Ags Futures</b>								
FERTILIZER PRODUCTS	94	64.2	46.4%	79.13	18.8%	95	153	-37.6%

\*\*\* 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**

April 2023

Page 14 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Ag Products Futures</b>								
BLOCK CHEESE	11	9.75	10.7%	21.35	-49.5%	15	21	-30.1%
BUTTER CS	146	178.9	-18.6%	162.83	-10.5%	166	236	-29.7%
CASH-SETTLED CHEESE	684	379.85	80.0%	600.09	14.0%	605	492	22.9%
CATTLE	55,759	50,708.65	10.0%	72,208.04	-22.8%	64,034	62,040	3.2%
CDD SEASONAL STRIP	66	77.5	-15.1%	106.52	-38.2%	46	32	44.1%
CDD WEATHER	26	137.5	-80.9%	0	-	6	58	-89.3%
CHI WHEAT	147,701	89,427.05	65.2%	107,816.39	37.0%	117,724	119,597	-1.6%
CLASS IV MILK	21	86.85	-76.0%	24.04	-13.3%	32	128	-75.1%
CORN	383,758	364,644.35	5.2%	318,006.35	20.7%	339,826	366,759	-7.3%
DJ_UBS ROLL SELECT INDEX FUTU	149	37.2	301.8%	988.83	-84.9%	348	308	13.0%
DOW-UBS COMMOD INDEX	698	892.6	-21.7%	5,829.91	-88.0%	2,789	2,680	4.0%
DOW-UBS COMMOD INDEX SWAP	3,999	0	-	1,380	189.8%	1,710	0	-
DRY WHEY	81	51.4	57.7%	58.78	37.9%	58	52	12.3%
FEEDER CATTLE	19,342	14,109.25	37.1%	19,099.57	1.3%	17,163	13,326	28.8%
GOLDMAN SACHS	96	168.45	-43.1%	131.83	-27.3%	122	188	-35.1%
GSCI EXCESS RETURN FUT	87	224.4	-61.4%	3,332.52	-97.4%	1,003	1,935	-48.1%
HDD EURO SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD WEATHER	0	0	-	0	-	25	98	-74.7%
HDD WEATHER EUROPEAN	0	0	-	0	-	93	47	95.9%
HOGS	41,442	36,786.85	12.7%	58,447.48	-29.1%	49,419	46,849	5.5%
HOUSING INDEX	1	0.15	285.9%	0.78	-26.0%	1	1	43.9%
KC WHEAT	55,451	38,970.5	42.3%	39,791	39.4%	47,135	50,741	-7.1%
LUMBER	716	350.35	104.5%	601.26	19.1%	646	406	59.1%
MALAYSIAN PALM SWAP	0	0	-	0	-	0	0	-
MILK	1,345	1,390	-3.2%	1,326.39	1.4%	1,301	1,541	-15.6%
MINI CORN	1,216	2,674.6	-54.6%	1,278.74	-4.9%	1,154	3,409	-66.1%
MINI SOYBEAN	1,616	2,044.75	-21.0%	1,971.22	-18.0%	1,791	3,370	-46.8%
MINI WHEAT	1,157	819.55	41.2%	1,186.96	-2.5%	1,107	1,461	-24.2%
MLK MID OPTIONS	0	0	-	0	-	0	0	-
NFD MILK	205	311.75	-34.2%	272.39	-24.7%	277	348	-20.5%
OATS	840	428.2	96.2%	549.35	52.9%	612	492	24.5%
OTC SP GSCI ER SWAP	946	0	-	258	266.8%	896	0	-
PACIFIC RIM DAT SS WTHR	0	0	-	0	-	0	0	-
PORK CUTOUT	95	85.8	11.1%	56.3	69.3%	66	122	-46.0%
ROUGH RICE	1,075	1,289.45	-16.7%	721.3	49.0%	915	980	-6.7%
SOYBEAN	276,873	211,542.1	30.9%	231,212.09	19.7%	248,275	227,597	9.1%
SOYBEAN MEAL	146,481	104,774.7	39.8%	129,375.91	13.2%	131,892	109,891	20.0%
SOYBEAN OIL	143,893	112,924.15	27.4%	139,943.22	2.8%	138,324	111,892	23.6%
S&P GSCI ENHANCED ER SWAP	0	0	-	0	-	0	0	-
USD CRUDE PALM OIL	1,484	1,162	27.7%	1,567.39	-5.3%	1,496	1,117	33.9%
WHEAT	53	20.8	153.0%	48.7	8.1%	56	663	-91.6%

**Ag Products Options**

AUG-NOV SOYBEAN CAL SPRD	0	0	-	0	-	0	0	-
BLOCK CHEESE	10	12.65	-17.2%	13.83	-24.2%	9	11	-17.1%
BUTTER CS	105	71	47.4%	104.78	-0.1%	91	73	25.7%

\*\*\* 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**

April 2023

Page 15 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Ag Products Options</b>								
CASH-SETTLED CHEESE	287	167.05	71.5%	306.74	-6.6%	278	414	-32.8%
CATTLE	14,027	12,781.3	9.7%	15,877.83	-11.7%	13,205	10,626	24.3%
CDD SEASONAL STRIP	1,026	212.5	383.0%	130.43	686.8%	500	119	320.5%
CDD WEATHER	263	0	-	260.87	0.9%	728	0	-
CHI WHEAT	25,827	17,457.6	47.9%	32,545.96	-20.6%	29,220	32,003	-8.7%
CLASS IV MILK	217	292.15	-25.7%	315.04	-31.1%	310	323	-3.9%
CORN	113,786	140,519.3	-19.0%	105,222.39	8.1%	96,518	131,856	-26.8%
CORN NEARBY+2 CAL SPRD	2,870	1,096.4	161.8%	1,487.74	92.9%	1,480	1,406	5.3%
DEC-DEC CORN CAL SPRD	21	0	-	0	-	5	0	-
DEC-JULY CORN CAL SPRD	208	52	299.3%	4.78	4241.4%	50	41	22.9%
DEC-JULY WHEAT CAL SPRD	3	0	-	0	-	3	0	-
DRY WHEY	1	1.1	-52.1%	1.52	-65.4%	1	31	-97.1%
FEEDER CATTLE	2,596	2,014.7	28.9%	3,685.3	-29.6%	2,866	1,748	64.0%
HDD EURO SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD SEASONAL STRIP	0	0	-	0	-	0	0	-
HDD WEATHER	0	0	-	0	-	367	59	526.4%
HDD WEATHER EUROPEAN	0	0	-	0	-	247	12	1924.7%
HOGS	10,790	8,617.1	25.2%	15,075.7	-28.4%	13,049	11,745	11.1%
JAN-MAY SOYBEAN CAL SPRD	0	0	-	0	-	0	0	-
JULY-DEC CORN CAL SPRD	974	435.35	123.8%	608.52	60.1%	584	474	23.2%
JULY-DEC SOYMEAL CAL SPRD	51	0	-	34.35	48.6%	22	0	-
JULY-DEC SOY OIL CAL SPRD	18	0	-	2.61	606.1%	25	0	-
JULY-DEC WHEAT CAL SPRD	0	22.5	-100.0%	0	-	0	45	-100.0%
JULY-JULY WHEAT CAL SPRD	0	0	-	0.43	-100.0%	0	0	912.3%
JULY-NOV SOYBEAN CAL SPRD	674	512.05	31.7%	678.3	-0.6%	632	305	107.3%
KC WHEAT	4,297	2,762.35	55.6%	3,397.43	26.5%	3,262	4,090	-20.2%
LUMBER	7	24.55	-72.8%	8.3	-19.5%	11	27	-59.8%
LV CATL CSO	0	0	-	0	-	0	0	-
MAR-JULY CORN CAL SPRD	0	0	-	0	-	119	117	1.8%
MAR-JULY SOYBEAN CAL SPRD	0	0	-	0	-	0	0	-
MAR-JULY WHEAT CAL SPRD	0	0	-	0	-	0	2	-100.0%
MILK	912	1,011.3	-9.8%	1,324.7	-31.2%	1,101	955	15.3%
MLK MID OPTIONS	0	0.3	-82.5%	0.09	-39.5%	0	1	-71.7%
NFD MILK	181	245.55	-26.1%	220.43	-17.7%	231	253	-8.6%
NOV-JULY SOYBEAN CAL SPRD	0	0	-	0	-	0	7	-100.0%
NOV-MAR SOYBEAN CSO	0	0	-	0.22	-100.0%	0	0	-
OATS	2	8.5	-80.8%	5.83	-72.0%	6	12	-53.8%
PORK CUTOUT	0	0.25	5.3%	0	-	0	0	-79.8%
ROUGH RICE	73	114.1	-36.2%	84.91	-14.2%	91	68	33.6%
SEP-DEC SOYBEAN MEAL CSO	0	0	-	0	-	0	0	-
SOYBEAN	72,949	64,661.45	12.8%	74,237.35	-1.7%	63,686	87,282	-27.0%
SOYBEAN CRUSH	0	2.75	-100.0%	0	-	0	1	-94.7%
SOYBEAN MEAL	16,681	8,699.2	91.8%	20,090.57	-17.0%	18,012	12,967	38.9%
SOYBEAN OIL	11,193	13,642.3	-18.0%	13,025.39	-14.1%	12,073	12,839	-6.0%
SOYBN NEARBY+2 CAL SPRD	25	450.65	-94.4%	154.17	-83.6%	104	222	-53.0%
SOYMEAL NEARBY+2 CAL SPRD	0	20	-100.0%	0	-	28	13	105.2%
SOY OIL NEARBY+2 CAL SPRD	0	0	-	3.26	-100.0%	2	0	-
WHEAT	144	0	-	113.22	27.6%	109	15	640.7%

\*\*\* 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**

April 2023

Page 16 of 16

	ADV APR 2023	ADV APR 2022	% CHG	ADV MAR 2023	% CHG	ADV Y.T.D 2023	ADV Y.T.D 2022	% CHG
<b>Ag Products Options</b>								
WHEAT-CORN ICSSO	0	0	-	0.22	-100.0%	3	12	-79.7%
WHEAT NEARBY+2 CAL SPRD	6	95.75	-93.4%	21.74	-70.9%	44	301	-85.3%
<b>TOTAL FUTURES GROUP</b>								
Interest Rate Futures	6,662,305	7,789,814.7	-14.5%	12,245,974.13	-45.6%	9,720,964	9,319,766	4.3%
Equity Index Futures	4,559,443	5,528,316.65	-17.5%	6,658,904.35	-31.5%	5,631,691	6,447,479	-12.7%
Metals Futures	534,963	410,565.95	30.3%	599,316.22	-10.7%	554,954	495,173	12.1%
Energy Futures	1,790,778	1,730,029.75	3.5%	1,827,897.61	-2.0%	1,814,135	2,101,163	-13.7%
FX Futures	727,865	758,860.95	-4.1%	1,161,941.26	-37.4%	880,462	837,029	5.2%
Ags Futures	94	64.2	46.4%	79.13	18.8%	95	153	-37.6%
Ag Products Futures	1,287,512	1,036,709.4	24.2%	1,138,375.52	13.1%	1,171,125	1,128,876	3.7%
<b>TOTAL FUTURES</b>	<b>15,562,962</b>	<b>17,254,361.6</b>	<b>-9.8%</b>	<b>23,632,488.22</b>	<b>-34.1%</b>	<b>19,773,425.95</b>	<b>20,329,638.62</b>	<b>-2.7%</b>
<b>TOTAL OPTIONS GROUP</b>								
Interest Rate Options	2,519,807	1,833,690.65	37.4%	4,438,989.83	-43.2%	3,523,953	2,466,906	42.8%
Equity Index Options	1,077,683	1,109,690.15	-2.9%	1,469,989.04	-26.7%	1,278,679	1,177,725	8.6%
Metals Options	80,959	57,311.5	41.3%	100,460.78	-19.4%	86,754	67,512	28.5%
Energy Options	301,429	245,300.7	22.9%	279,489.09	7.9%	269,647	281,670	-4.3%
FX Options	29,881	51,973.7	-42.5%	50,020.48	-40.3%	39,354	44,435	-11.4%
Ag Products Options	280,225	276,003.75	1.5%	289,044.96	-3.1%	259,073	310,474	-16.6%
<b>TOTAL OPTIONS</b>	<b>4,289,984</b>	<b>3,573,970.45</b>	<b>20.0%</b>	<b>6,627,994.17</b>	<b>-35.3%</b>	<b>5,457,459.96</b>	<b>4,348,721.78</b>	<b>25.5%</b>
<b>TOTAL COMBINED</b>								
FX	757,746	810,834.65	-6.5%	1,211,961.74	-37.5%	919,816	881,464	4.4%
Equity Index	5,637,126	6,638,006.8	-15.1%	8,128,893.39	-30.7%	6,910,371	7,625,203	-9.4%
Interest Rate	9,182,112	9,623,505.35	-4.6%	16,684,963.96	-45.0%	13,244,917	11,786,672	12.4%
Energy	2,092,208	1,975,330.45	5.9%	2,107,386.7	-0.7%	2,083,782	2,382,833	-12.6%
Metals	615,922	467,877.45	31.6%	699,777	-12.0%	641,708	562,685	14.0%
Ags	94	64.2	46.4%	79.13	18.8%	95	153	-37.6%
Ag Products	1,567,737	1,312,713.15	19.4%	1,427,420.48	9.8%	1,430,198	1,439,350	-0.6%
<b>GRAND TOTAL</b>	<b>19,852,946</b>	<b>20,828,332.05</b>	<b>-4.7%</b>	<b>30,260,482.39</b>	<b>-34.4%</b>	<b>25,230,885.91</b>	<b>24,678,360.4</b>	<b>2.2%</b>

\*\*\* 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.