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September 4, 2008

Ms. Elizabeth King
Associate Director
Division of Trading and Markets
Securities and Exchange Commission
100 F Street, N.E.
Washington D.C. 20549

Re: Penny Pilot Report – For the Period from February 1, 2008 through July 31, 2008

Dear Ms. King:

The Chicago Board Options Exchange, Incorporated (“CBOE” or “Exchange”) is submitting this letter and the attached report which describes the impact of the Penny Pilot on the 63 classes that have been selected to participate in the Penny for the period February 1, 2008 through July 31, 2008. This is CBOE’s fourth report evaluating the Penny Pilot.¹ The attached report provides data pertaining to such areas as average spread, average size, total quotes per day, peak quote rates, and industry average daily volume.

As the SEC staff is aware, the Penny Pilot Program commenced on January 26, 2007. Through September 27, 2007, thirteen option classes were included in the Pilot Program. On September 28, 2007, twenty-two additional option classes were added to the Pilot Program. On March 28, 2008, twenty-eight additional classes were added to the Pilot Program. For purposes of this report, CBOE refers to the initial thirteen option classes as Phase I classes, the twenty-two option classes that were added to the Pilot Program on September 28, 2007 as Phase II classes,² and the twenty-eight option classes added on March 28, 2008 as Phase III classes. Collectively, these option classes represent approximately 50% of the national average daily volume.

In each of its three prior reports, CBOE identified various trends that had manifested themselves in the classes that had been selected to participate in the Pilot Program. These trends included: a significant reduction in liquidity at the BBO; a decrease in volume in many classes; a dramatic rise in quote traffic; and a reduction in average spread width. CBOE expressed its concern that many of these trends were causing other unintended and negative consequences for the options industry, including driving business that was previously transacted on the exchanges to off-floor mechanisms; making the execution of institutional orders difficult; eliminating small to medium size liquidity providers in favor of a select number of large participants; and the introduction of off-floor pricing and trade match mechanisms for options which, while still

¹ Previously, CBOE submitted three reports analyzing the Penny Pilot Program. See letters from CBOE’s President Edward Joyce to Elizabeth King, dated June 1, 2007, November 1, 2007, and March 4, 2008.

² On September 28, 2007, CBOE also began to quote and trade XSP options and DJX options in \$.01 increments for all option series below \$3, and \$.05 increments for all option series \$3 and above.

requiring an exchange for execution, will seek out those marketplaces offering the least amount of exposure and price discovery.

CBOE notes that these trends have continued into this latest review period, and the data included in this report shows that the Phase I, II and III option classes are similarly impacted by penny pricing. As a result, CBOE's assessment of the Penny Pilot and its impact on this growing industry that it started over 35 years ago has not changed a year and a half after the Penny Pilot commenced. Given that the Penny Pilot currently is scheduled to continue "as is" until March 27, 2009, CBOE believes that the SEC and the options industry should use the intervening seven months to develop a long-term solution to the issue of penny pricing in options. Developing a long-term solution now is necessary so that the exchanges, its members, market data vendors, and other market participants can make informed decisions regarding systems and capacity planning.

In its March 4, 2008 report, CBOE proposed that the industry adopt a structure for all option classes (except those of such high underlying levels as to make the effect of penny pricing moot) whereby all option series of less than \$1 premium value are quoted in penny increments, with all series at \$1 or above quoted in nickel increments.³ CBOE explained the advantage of its proposal, which included providing the benefits of penny quoting and trading in those option contracts that customers actually trade (approximately 35% of the national contract volume is in series priced up to \$1); introducing penny increments in nearly all listed option classes, and reducing the current dime increment to nickels in those same classes for series priced \$1 and above; and eliminating investor confusion as to which options are quoted in penny increments. As you know, CBOE's proposal was endorsed by the Equity Options Committee of SIFMA.

CBOE continues to believe that its earlier proposal is reasonable and appropriate, and would attract broad support from liquidity providers, and retail and institutional investors. We would be pleased to meet with you to discuss our proposal. If you have any questions concerning CBOE's report, please call me.

Sincerely,

A handwritten signature in cursive script, reading "Edward J. Joyce".

Edward J. Joyce

Attachment

³ CBOE also recommended that the then-scheduled expansion of the Phase III classes be postponed until July 2008, and that the remaining option classes be added to the Pilot Program over the succeeding quarters.

CBOE Penny Pilot Report

Time Period

Comparisons for Phase 1 and Phase 2 classes are done between a 3-month pre-period and a 6-month post period that starts on February 1, 2008 and ends on July 31, 2008. For Whole Foods (WFMI), the pre-period is from October through December 2006. For the remaining classes in the initial pilot, the pre-period is from November 2006 through January 2007.¹ For the classes in the second phase, the pre-period is from July 1, 2007 through September 27, 2007. For the classes in the third phase, the pre-period is from January 1, 2008 through March 27, 2008 and the post period is from March 28, 2008 through July 31, 2008. Note: data from Nasdaq Options Market is excluded from these statistics.

Quote Quality – Average Spreads and Average Size

The section focuses on quotes disseminated to OPRA for each of the pilot classes. The summary covers all quotes sent in all of the series and differentiates between quotes in series that are subject to quoting in penny differentials (penny series) and series that are quoted in nickel differentials (nickel series). Average spread is calculated as a straight average of the spreads (disseminated offer less disseminated bid) of all quotes disseminated to OPRA. Average quoted size is calculated by averaging both bid sizes and ask sizes disseminated to OPRA.

Phase 1 Classes

Spread Width: Overall, the Industry's average spreads in penny series decreased by an average of 49% from \$0.10 in the pre-period to \$0.05 in the post-period. Average spreads in the post period ranged from \$0.03 to \$0.09. In nickel series, spreads decreased an average of 18%. Average spreads in the post period ranged from \$0.12 to \$0.21. The table below shows Industry average spreads in the pre and post periods for each pilot stock for penny series, nickel series and all series.

Average Spread Width

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
A	0.13	0.06	-52%	0.25	0.19	-25%	0.19	0.11	-42%
AMD	0.09	0.04	-58%	0.21	0.17	-20%	0.16	0.06	-64%
CAT	0.09	0.05	-44%	0.21	0.21	2%	0.17	0.16	-7%
FLEX	0.10	0.05	-51%	0.18	0.17	-4%	0.14	0.07	-47%
GE	0.08	0.04	-52%	0.18	0.16	-7%	0.13	0.07	-43%
INTC	0.07	0.03	-58%	0.16	0.12	-26%	0.12	0.05	-55%
IWM	0.10	0.06	-46%	0.24	0.20	-16%	0.19	0.14	-26%
MSFT	0.07	0.03	-56%	0.15	0.13	-17%	0.11	0.06	-48%
QQQQ	0.13	0.09	-27%				0.13	0.09	-27%
SMH	0.09	0.05	-48%	0.18	0.15	-15%	0.13	0.08	-43%
SUNW	0.08	0.04	-47%	0.15	0.14	-5%	0.09	0.07	-26%
TXN	0.09	0.04	-52%	0.20	0.16	-20%	0.14	0.08	-44%
WFMI	0.11	0.05	-53%	0.30	0.16	-47%	0.26	0.10	-61%
Total	0.10	0.05	-49%	0.20	0.16	-18%	0.15	0.09	-42%

¹ Pre-period information for IWM quote information is from 12/19/06 when it was moved to the Hybrid Trading System. Additionally SUNW changed its symbol to JAVA but it is still showed as SUNW.

FOIA Confidential Treatment Requested by CBOE

Quoted Size: Quoted size has decreased significantly in the post period. The Industry's average sizes are down 82% from 13,685 to 2,494 in penny series and 59% from 4,212 to 1,738 in nickel series. The decrease in sizes was very similar in all classes in penny series. QQQQ, for example decreased from an average size of 60,549 to an average size of 8,558. The table below shows average size in penny series, nickel series and all series for the pilot classes in the pre and post periods.

Average Size

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
A	1,153	492	-57%	550	210	-62%	1,703	702	-59%
AMD	5,306	955	-82%	2,450	1,224	-50%	7,756	2,179	-72%
CAT	3,008	665	-78%	1,603	841	-48%	4,611	1,506	-67%
FLEX	1,670	836	-50%	1,135	672	-41%	2,805	1,508	-46%
GE	11,974	2,388	-80%	5,354	1,462	-73%	17,327	3,850	-78%
INTC	20,547	2,549	-88%	7,781	2,848	-63%	28,329	5,397	-81%
IWM	19,584	7,104	-64%	8,786	5,196	-41%	28,369	12,300	-57%
MSFT	18,093	4,611	-75%	6,759	3,866	-43%	24,852	8,477	-66%
QQQQ	60,549	8,558	-86%				60,549	8,558	-86%
SMH	17,473	1,347	-92%	5,905	1,505	-75%	23,378	2,852	-88%
SUNW	7,762	1,225	-84%	5,266	1,315	-75%	13,027	2,540	-81%
TXN	8,731	1,277	-85%	3,904	1,371	-65%	12,635	2,648	-79%
WFMI	2,061	409	-80%	1,053	348	-67%	3,114	757	-76%
Total	13,685	2,494	-82%	4,212	1,738	-59%	17,574	4,098	-77%

Phase 2 Classes

Spread Width: Overall, the Industry's average spreads in penny series decreased by an average of 47% from \$0.13 in the pre-period to \$0.07 in the post-period. Average spreads in the post period ranged from \$0.03 to \$0.20. In nickel series, spreads decreased an average of 29%. Average spreads in the post period ranged from \$0.14 to \$0.46. The table below shows Industry average spreads in the pre and post periods for each pilot stock for penny series, nickel series and all series.

Average Spread Width

	Penny Series			Nickel Series			All Series		
Class	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AAPL	0.10	0.06	-40%	0.33	0.25	-24%	0.30	0.23	-23%
AMGN	0.12	0.07	-43%	0.29	0.26	-11%	0.23	0.16	-29%
AMZN	0.10	0.05	-49%	0.32	0.19	-40%	0.28	0.17	-41%
BMJ	0.11	0.04	-61%	0.25	0.18	-31%	0.19	0.08	-56%
C	0.11	0.05	-59%	0.28	0.21	-26%	0.22	0.12	-45%
COP	0.11	0.05	-52%	0.30	0.23	-22%	0.26	0.18	-29%
CSCO	0.10	0.03	-65%	0.23	0.14	-38%	0.17	0.07	-62%
DIA	0.15	0.07	-53%	0.34	0.20	-42%	0.29	0.17	-43%
DNDN	0.17	0.20	22%	0.40	0.38	-5%	0.28	0.33	16%
FCX	0.20	0.12	-42%	0.58	0.40	-31%	0.53	0.37	-30%
GM	0.11	0.05	-52%	0.27	0.22	-21%	0.21	0.13	-39%
MO	0.12	0.07	-44%	0.29	0.29	2%	0.24	0.17	-30%
MOT	0.09	0.04	-54%	0.23	0.19	-17%	0.12	0.07	-45%
NYX	0.16	0.08	-49%	0.43	0.30	-30%	0.37	0.24	-36%
OIH	0.13	0.11	-10%	0.40	0.46	17%	0.36	0.42	16%
QCOM	0.10	0.04	-59%	0.24	0.16	-32%	0.18	0.11	-42%
RIMM	0.13	0.07	-47%	0.55	0.28	-48%	0.50	0.26	-49%
SPY	0.14	0.06	-56%	0.34	0.20	-42%	0.30	0.16	-45%
T	0.12	0.04	-67%	0.28	0.16	-41%	0.21	0.09	-55%
XLE	0.14	0.07	-51%	0.27	0.20	-26%	0.23	0.16	-31%
XLF	0.14	0.05	-66%	0.26	0.16	-39%	0.19	0.09	-51%
YHOO	0.10	0.09	-10%	0.25	0.24	-4%	0.18	0.17	-4%
Total	0.13	0.07	-47%	0.34	0.24	-29%	0.28	0.18	-36%

Quoted Size: Quoted size has decreased significantly in the post period. The Industry's average sizes are down 71% from 996 to 288 in penny series and 24% from 497 to 376 in nickel series. The decrease in sizes was very similar in all classes in penny series. CSCO, for example decreased 79% from an average size of 2,199 to an average size of 459 in penny series. The table below shows average size in penny series, nickel series and all series for the pilot classes in the pre and post periods.

Average Size

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AAPL	530	122	-77%	226	130	-43%	262	129	-51%
AMGN	410	104	-75%	181	144	-21%	258	124	-52%
AMZN	490	108	-78%	200	123	-39%	256	120	-53%
BMJ	541	212	-61%	280	230	-18%	406	217	-47%
C	1,146	445	-61%	688	670	-3%	864	546	-37%
COP	484	145	-70%	214	204	-5%	273	188	-31%
CSCO	2,199	459	-79%	1,033	683	-34%	1,569	522	-67%
DIA	2,460	770	-69%	1,715	846	-51%	1,888	827	-56%
DNDN	212	68	-68%	158	107	-32%	184	96	-48%
FCX	134	82	-39%	84	81	-4%	92	81	-12%
GM	519	201	-61%	309	359	16%	386	276	-29%
MO	323	127	-61%	155	130	-16%	205	129	-37%
MOT	1,420	334	-76%	458	290	-37%	1,223	327	-73%
NYX	208	82	-60%	154	111	-28%	165	103	-38%
OIH	382	117	-69%	149	101	-33%	181	103	-43%
QCOM	950	201	-79%	432	337	-22%	647	273	-58%
RIMM	233	90	-61%	94	101	8%	108	100	-8%
SPY	4,713	1,354	-71%	1,938	1505	-22%	2,513	1,466	-42%
T	649	269	-59%	376	422	12%	497	334	-33%
XLE	1,320	341	-74%	758	418	-45%	921	396	-57%
XLF	1,521	616	-59%	916	1187	30%	1,266	851	-33%
YHOO	1,069	85	-92%	417	93	-78%	726	89	-88%
Total	996	288	-71%	497	376	-24%	677	332	-51%

Phase 3 Classes

Spread Width: Overall, the Industry's average spreads in penny series decreased by an average of 52% from \$0.13 in the pre-period to \$0.06 in the post-period. Average spreads in the post period ranged from \$0.03 to \$0.15. In nickel series, spreads decreased an average of 28%. Average spreads in the post period ranged from \$0.15 to \$0.44. The table below shows Industry average spreads in the pre and post periods for each pilot stock for penny series, nickel series and all series.

Average Spread Width

	Penny Series			Nickel Series			All Series		
Class	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AA	0.12	0.06	-50%	0.26	0.22	-18%	0.20	0.14	-29%
AIG	0.14	0.06	-55%	0.38	0.23	-39%	0.31	0.16	-49%
BAC	0.11	0.06	-49%	0.29	0.21	-27%	0.21	0.14	-35%
BSC	0.23	0.11	-51%	0.56	0.36	-34%	0.50	0.27	-47%
CFC	0.19	0.14	-25%	0.48	0.43	-11%	0.32	0.31	-4%
DELL	0.09	0.03	-63%	0.22	0.15	-30%	0.14	0.06	-55%
EBAY	0.11	0.04	-61%	0.25	0.20	-20%	0.18	0.10	-43%
EEM	0.22	0.09	-56%	0.75	0.32	-58%	0.66	0.27	-58%
EMC	0.09	0.04	-59%	0.20	0.15	-27%	0.12	0.06	-53%
F	0.09	0.04	-55%	0.21	0.16	-24%	0.11	0.06	-50%
GS	0.19	0.12	-38%	0.56	0.44	-20%	0.52	0.40	-23%
HAL	0.11	0.05	-56%	0.24	0.20	-17%	0.18	0.13	-30%
HD	0.11	0.04	-66%	0.24	0.17	-31%	0.18	0.08	-53%
JPM	0.12	0.05	-60%	0.27	0.22	-21%	0.22	0.14	-34%
LEH	0.15	0.08	-47%	0.39	0.23	-40%	0.34	0.19	-44%
MER	0.15	0.07	-53%	0.34	0.25	-27%	0.29	0.19	-33%
MNX	0.25	0.15	-40%	1.00	0.76	-24%	0.91	0.63	-30%
NEM	0.12	0.05	-62%	0.28	0.18	-35%	0.24	0.13	-46%
PFE	0.09	0.04	-55%	0.22	0.16	-26%	0.14	0.07	-48%
RIO	0.13	0.06	-55%	0.28	0.20	-30%	0.22	0.13	-41%
SBUX	0.10	0.04	-65%	0.22	0.15	-33%	0.15	0.06	-61%
SNDK	0.11	0.04	-62%	0.28	0.22	-21%	0.21	0.12	-41%
TGT	0.13	0.05	-64%	0.28	0.20	-29%	0.24	0.14	-43%
VLO	0.11	0.05	-56%	0.28	0.22	-22%	0.23	0.15	-36%
VZ	0.11	0.06	-44%	0.25	0.22	-9%	0.19	0.13	-30%
WM	0.15	0.07	-53%	0.33	0.24	-27%	0.24	0.12	-49%
WMT	0.10	0.05	-55%	0.23	0.18	-21%	0.18	0.11	-36%
XOM	0.12	0.05	-60%	0.28	0.21	-25%	0.25	0.16	-37%
Total	0.13	0.06	-52%	0.34	0.25	-28%	0.27	0.17	-39%

Quoted Size: Quoted size has decreased significantly in the post period. The Industry's average sizes are down 77% from 952 to 220 in penny series and 41% from 498 to 294 in nickel series. The decrease in sizes was very similar in all classes in penny series. The table below shows average size in penny series, nickel series and all series for the pilot classes in the pre and post periods.

Average Size

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AA	586	109	-81%	311	164	-47%	424	139	-67%
AIG	592	154	-74%	364	250	-31%	427	209	-51%
BAC	1,255	329	-74%	757	538	-29%	969	442	-54%
BSC	324	101	-69%	193	121	-37%	215	113	-47%
CFC	257	87	-66%	251	87	-65%	254	87	-66%
DELL	2,292	333	-85%	1,029	441	-57%	1,822	359	-80%
EBAY	1,261	217	-83%	643	313	-51%	944	254	-73%
EEM	873	177	-80%	589	176	-70%	637	177	-72%
EMC	2,225	450	-80%	1,206	772	-36%	1,938	507	-74%
F	1,341	294	-78%	668	334	-50%	1,238	299	-76%
GS	235	71	-70%	127	64	-50%	137	65	-53%
HAL	972	180	-82%	441	309	-30%	693	245	-65%
HD	1,263	267	-79%	497	305	-39%	842	281	-67%
JPM	1,130	260	-77%	614	453	-26%	799	369	-54%
LEH	373	104	-72%	253	134	-47%	279	125	-55%
MER	596	115	-81%	385	155	-60%	441	142	-68%
MNX	671	515	-23%	492	424	-14%	515	442	-14%
NEM	622	132	-79%	414	229	-45%	474	190	-60%
PFE	1,989	402	-80%	697	383	-45%	1,524	398	-74%
RIO	775	254	-67%	381	320	-16%	527	289	-45%
SBUX	1,037	238	-77%	465	277	-40%	817	245	-70%
SNDK	867	191	-78%	420	343	-18%	598	262	-56%
TGT	611	174	-72%	354	274	-23%	422	233	-45%
VLO	742	154	-79%	430	272	-37%	514	224	-57%
VZ	840	188	-78%	440	218	-51%	615	200	-67%
WM	487	226	-54%	327	225	-31%	405	225	-44%
WMT	1,434	232	-84%	699	360	-48%	1,006	295	-71%
XOM	1,018	219	-79%	486	299	-39%	603	272	-55%
Total	952	220	-77%	498	294	-41%	717	253	-65%

Quote Quantity

This section focuses on the number of quotes disseminated to OPRA and the number of quotes that individual quoters sent to CBOE. As described above, the numbers are compared for the pre and post periods.

Phase 1 Classes

Outbound Quotes to OPRA: The Industry's total number of quotes per day in the penny series increased 276% from an average of 1.33 million to 5.01 million. In the nickel series the Industry's total number of quotes per day increased 134% from an average of 1.2 million to 2.8 million. In penny series, changes ranged from an decrease of 15% in AMD to an increase of 411% in IWM. The table below compares pre- and post-period quote traffic for each of the penny pilot classes in penny series, nickel series and all series.

Quotes per Day

	Penny Series			Nickel Series			All Series		
Class	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
A	319,150	836,162	162%	291,943	533,233	83%	611,093	1,369,394	124%
AMD	1,111,099	942,913	-15%	1,105,372	142,537	-87%	2,216,471	1,085,450	-51%
CAT	1,020,435	2,301,927	126%	1,856,912	4,595,852	147%	2,877,347	6,897,779	140%
FLEX	129,693	328,057	153%	119,617	80,224	-33%	249,310	408,281	64%
GE	616,097	2,861,963	365%	544,236	1,062,764	95%	1,160,333	3,924,727	238%
INTC	705,679	2,530,798	259%	598,575	774,357	29%	1,304,254	3,305,155	153%
IWM	2,648,860	13,540,910	411%	5,849,903	21,608,606	269%	8,498,763	35,149,516	314%
MSFT	1,115,342	3,412,224	206%	922,322	1,323,485	43%	2,037,664	4,735,708	132%
QQQQ	7,046,005	31,139,868	342%				7,046,005	31,139,868	342%
SMH	740,611	2,321,328	213%	728,012	930,070	28%	1,468,623	3,251,398	121%
SUNW	301,383	939,478	212%	40,160	305,706	661%	341,544	1,245,184	265%
TXN	845,332	1,692,958	100%	785,255	896,119	14%	1,630,587	2,589,077	59%
WFMI	756,813	2,336,178	209%	1,727,648	1,863,586	8%	2,484,461	4,199,764	69%
Average	1,335,115	5,014,213	276%	1,214,163	2,843,045	134%	2,455,881	7,638,562	211%

Peak Quotes per Second: Peak quotes are based on sustained rates over a 1-minute period. All of the quotes in a minute are counted and the total is divided by 60 to determine the quotes per second. For this portion of the analysis, the pre period is from December 1, 2007 through the penny pilot start date for each stock. The post period includes all of the peaks since the class started the penny pilot. Peak rates for quotes inbound to CBOE increased substantially, with peaks in SUNW increasing 514%, IWM increasing 271%, and TXN increasing 214%. Twelve of the 13 classes had increases in peak quote rates outbound to OPRA. SUNW had the biggest increase at 463%. The table below shows the inbound and outbound peak rates in the pre and post periods for each of the pilot classes.

CBOE Peak Quote Rates

Class	<i>Inbound</i>			<i>Outbound</i>		
	Pre	Post	% Chg	Pre	Post	% Chg
A	218	608	179%	154	485	215%
AMD	445	557	25%	323	527	63%
CAT	728	1,107	52%	499	917	84%
FLEX	211	211	0%	169	113	-33%
GE	344	688	100%	238	563	136%
INTC	341	595	74%	271	499	84%
IWM	857	3,181	271%	700	2,402	243%
MSFT	545	696	28%	434	715	65%
QQQQ	825	2,554	210%	743	2,343	215%
SMH	171	403	136%	151	333	121%
SUNW	57	350	514%	48	270	463%
TXN	285	896	214%	225	438	95%
WFMI	600	958	60%	468	604	29%

Phase 2 Classes

Outbound Quotes to OPRA: The Industry's total number of quotes per day in the penny series increased 137% from an average of 1.73 million to 4.1 million. In the nickel series the Industry's total number of quotes per day increased 97% from an average of 6.5 million to 12.8 million. In penny series, changes ranged from an increase of 3% in MO to an increase of 372% in CSCO. The table below compares pre- and post-period quote traffic for each of the penny pilot classes in penny series, nickel series and all series.

Quotes per Day

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AAPL	3,046,909	4,586,856	51%	22,808,987	39,894,731	75%	25,855,895	44,481,586	72%
AMGN	682,920	1,107,502	62%	1,341,235	1,138,146	-15%	2,024,154	2,245,648	11%
AMZN	1,364,044	2,993,797	119%	5,713,813	12,829,697	125%	7,077,857	15,823,495	124%
BMJ	533,512	776,572	46%	569,448	311,039	-45%	1,102,959	1,087,611	-1%
C	1,099,964	2,702,886	146%	1,756,308	2,203,595	25%	2,856,272	4,906,481	72%
COP	1,268,397	1,864,594	47%	4,572,051	5,044,656	10%	5,840,448	6,909,250	18%
CSCO	552,746	2,610,424	372%	649,046	1,019,309	57%	1,201,793	3,629,733	202%
DIA	6,642,862	12,040,737	81%	21,868,260	36,067,030	65%	28,511,122	48,107,767	69%
DNDN	154,750	168,141	9%	162,318	450,725	178%	317,069	618,865	95%
FCX	1,397,283	1,928,584	38%	7,926,679	13,515,852	71%	9,323,962	15,444,436	66%
GM	970,295	1,717,619	77%	1,658,542	1,563,560	-6%	2,628,837	3,281,179	25%
MO	885,475	908,689	3%	2,097,219	692,871	-67%	2,982,693	1,601,561	-46%
MOT	602,007	862,487	43%	155,345	160,426	3%	757,352	1,022,912	35%
NYX	943,804	1,475,768	56%	3,742,270	3,742,338	0%	4,686,074	5,218,105	11%
OIH	1,443,427	2,887,767	100%	9,077,926	19,008,492	109%	10,521,353	21,896,259	108%
QCOM	889,667	2,322,060	161%	1,250,832	2,626,805	110%	2,140,498	4,948,864	131%
RIMM	2,082,325	3,659,265	76%	18,329,980	29,642,874	62%	20,412,306	33,302,139	63%
SPY	9,290,510	29,502,910	218%	35,577,287	84,147,040	137%	44,867,797	113,649,950	153%
T	746,992	1,771,402	137%	945,272	1,320,930	40%	1,692,264	3,092,332	83%
XLE	3,721,355	9,433,241	153%	9,095,070	22,901,130	152%	12,816,424	32,334,371	152%
XLF	977,365	3,871,595	296%	714,874	2,696,491	277%	1,692,239	6,568,085	288%
YHOO	475,367	1,033,286	117%	527,007	1,204,147	128%	1,002,373	2,237,433	123%
Total	1,729,027	4,101,190	137%	6,503,321	12,826,449	97%	8,232,348	16,927,639	106%

Peak Quotes per Second: Peak quotes are based on sustained rates over a 1-minute period. All of the quotes in a minute are counted and the total is divided by 60 to determine the quotes per second. The post period includes all of the peaks since the class started the penny pilot. Peak rates for quotes inbound to CBOE increased substantially, with peaks in XLE increasing 223%, AMGN increasing 199%, and YHOO increasing 172%. Twenty of the 22 classes had increases in peak quote rates outbound to OPRA. AMGN had the biggest increase at 290%. The table below shows the inbound and outbound peak rates in the pre and post periods for each of the pilot classes.

CBOE Peak Quote Rates

Class	<i>Inbound</i>			<i>Outbound</i>		
	Pre	Post	% Chg	Pre	Post	% Chg
AAPL	2,741	4,294	57%	1,936	3,209	66%
AMGN	517	1,545	199%	375	1,462	290%
AMZN	1,501	3,292	119%	1,029	1,975	92%
BMJ	344	581	69%	276	387	40%
C	519	1,086	109%	359	689	92%
COP	1,460	1,501	3%	1,160	1,251	8%
CSCO	544	955	76%	444	673	51%
DIA	2,412	3,812	58%	1,921	2,794	45%
DNDN	642	903	41%	578	750	30%
FCX	1,943	3,029	56%	1,716	1,828	7%
GM	1,155	1,379	19%	973	1,212	25%
MO	934	702	-25%	737	522	-29%
MOT	206	547	166%	161	266	66%
NYX	1,640	2,245	37%	1,135	1,339	18%
OIH	1,437	2,770	93%	1,142	2,183	91%
QCOM	560	1,061	89%	457	787	72%
RIMM	3,172	4,618	46%	2,526	2,085	-17%
SPY	3,255	6,160	89%	2,931	4,564	56%
T	473	1,032	118%	418	597	43%
XLE	1,193	3,855	223%	1,005	2,860	185%
XLF	478	1,184	148%	377	901	139%
YHOO	348	947	172%	271	579	113%

Phase 3 Classes

Outbound Quotes to OPRA: The Industry's total number of quotes per day in the penny series increased 52% from an average of 1.3 million to 1.9 million. In the nickel series the Industry's total number of quotes per day decreased 7% from an average of 3.6 million to 3.4 million. In penny series, changes ranged from an decrease of 80% in BSC to an increase of 198% in AIG. The table below compares pre- and post-period quote traffic for each of the penny pilot classes in penny series, nickel series and all series.

Quotes per Day

Class	Penny Series			Nickel Series			All Series		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AA	980,914	1,514,336	54%	1,396,385	1,792,293	28%	2,377,299	3,306,629	39%
AIG	955,208	2,843,041	198%	2,488,116	3,839,877	54%	3,443,324	6,682,918	94%
BAC	1,982,659	3,048,810	54%	2,669,153	3,583,172	34%	4,651,812	6,631,983	43%
BSC	2,088,171	413,414	-80%	10,093,395	645,927	-94%	12,181,566	1,059,341	-91%
CFC	418,077	344,009	-18%	337,306	474,246	41%	755,382	818,255	8%
DELL	850,846	1,895,577	123%	504,367	583,107	16%	1,355,212	2,478,685	83%
EBAY	905,420	1,367,549	51%	954,698	864,560	-9%	1,860,118	2,232,109	20%
EEM	1,143,404	1,393,258	22%	5,632,365	6,130,151	9%	6,775,768	7,523,410	11%
EMC	1,011,439	1,384,743	37%	396,996	298,967	-25%	1,408,435	1,683,710	20%
F	279,528	727,533	160%	50,393	98,717	96%	329,920	826,251	150%
GS	2,605,878	3,086,573	18%	25,533,954	21,883,899	-14%	28,139,833	24,970,472	-11%
HAL	1,047,394	2,040,781	95%	1,157,106	2,069,105	79%	2,204,500	4,109,887	86%
HD	919,194	1,589,133	73%	1,122,373	925,792	-18%	2,041,567	2,514,926	23%
JPM	2,013,109	4,008,732	99%	3,587,246	5,185,869	45%	5,600,355	9,194,601	64%
LEH	1,455,596	3,457,175	138%	5,121,145	8,740,194	71%	6,576,741	12,197,369	85%
MER	2,413,819	2,891,772	20%	6,682,465	6,419,021	-4%	9,096,283	9,310,792	2%
MXN	1,268,040	2,533,455	100%	8,850,633	10,107,364	14%	10,118,673	12,640,819	25%
NEM	1,463,981	1,712,187	17%	3,583,259	2,512,657	-30%	5,047,240	4,224,843	-16%
PFE	394,101	511,806	30%	221,716	167,794	-24%	615,817	679,600	10%
RIO	1,468,234	2,561,960	74%	2,498,918	2,968,562	19%	3,967,152	5,530,522	39%
SBUX	701,468	1,403,120	100%	437,698	330,380	-25%	1,139,165	1,733,499	52%
SNDK	932,658	1,645,012	76%	1,413,160	1,443,291	2%	2,345,818	3,088,303	32%
TGT	1,203,351	1,749,552	45%	3,362,283	2,533,657	-25%	4,565,633	4,283,209	-6%
VLO	1,687,816	2,557,889	52%	4,564,834	3,664,634	-20%	6,252,650	6,222,523	0%
VZ	912,800	1,321,571	45%	1,177,023	956,745	-19%	2,089,823	2,278,315	9%
WM	1,395,361	1,449,252	4%	1,488,563	664,008	-55%	2,883,925	2,113,261	-27%
WMT	1,374,169	2,028,545	48%	1,918,598	1,974,679	3%	3,292,767	4,003,223	22%
XOM	1,322,868	1,847,150	40%	4,695,045	3,705,693	-21%	6,017,913	5,552,843	-8%
Total	1,256,982	1,904,569	52%	3,640,685	3,377,299	-7%	4,897,668	5,281,868	8%

Peak Quotes per Second: Peak quotes are based on sustained rates over a 1-minute period. All of the quotes in a minute are counted and the total is divided by 60 to determine the quotes per second. The post period includes all of the peaks since the class started the penny pilot. Peak rates for quotes inbound to CBOE increased, with peaks in AIG increasing 125%, F increasing 110% and BAC increasing 106%. Twenty two of the 28 classes had increases in peak quote rates outbound to OPRA. AIG had the biggest increase at 193%. The table below shows the inbound and outbound peak rates in the pre and post periods for each of the pilot classes.

CBOE Peak Quote Rates

Class	<i>Inbound</i>			<i>Outbound</i>		
	Pre	Post	% Chg	Pre	Post	% Chg
AA	635	861	36%	464	550	19%
AIG	783	1,763	125%	454	1,333	193%
BAC	916	1,885	106%	646	1,379	114%
BSC	2,763	521	-81%	1,371	337	-75%
CFC	538	296	-45%	282	214	-24%
DELL	606	861	42%	447	547	22%
EBAY	457	554	21%	337	372	10%
EEM	1,404	1,635	16%	912	1,206	32%
EMC	382	440	15%	193	306	58%
F	148	311	110%	109	173	58%
GS	3,201	3,484	9%	1,624	1,552	-4%
HAL	402	713	77%	290	488	68%
HD	488	483	-1%	242	335	39%
JPM	920	1,801	96%	546	1,323	142%
LEH	1,781	2,463	38%	827	1,625	96%
MER	2,035	2,573	26%	1,016	1,396	37%
MNX	1,868	2,361	26%	1,531	1,506	-2%
NEM	874	808	-8%	439	512	16%
PFE	251	247	-2%	165	155	-6%
RIO	966	1,375	42%	488	1,015	108%
SBUX	358	375	5%	239	280	17%
SNDK	504	742	47%	314	493	57%
TGT	907	817	-10%	380	534	41%
VLO	858	1,526	78%	554	852	54%
VZ	444	694	56%	238	573	140%
WM	883	925	5%	552	411	-25%
WMT	833	872	5%	453	608	34%
XOM	617	741	20%	416	506	22%

Trading Volume**Phase 1 Classes**

Average Daily Volume: Industry volume in the pilot classes has increased. Overall, Industry average daily volume has increased 61% from 1.2 million contracts to 1.9 million contracts. Much of this increase is due to volume increasing 107% in IWM and 88% in QQQQ – already the two most active classes. In fact, without IWM & QQQQ, Industry volume was up just 5%. Just five of the thirteen classes showed volume increases. Of the eight classes that showed decreases in volume, AMD and WFMI were down 52% and INTC was down 22%. Customer, Firm and Market Maker average daily volume all increased, however, Customer volume increased just 8% and Firm volume decreased 20% respectively when IWM and QQQQ are excluded. Customer, Firm and Market Maker are the trading origin ranges defined by The Options Clearing Corp.

Industry Average Daily Volume

Class	Total ADV			Customer ADV			Firm ADV			Market Maker ADV		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
A	3,437	3,227	-6%	1,476	1,204	-18%	423	350	-17%	1,537	1,673	9%
AMD	52,962	25,408	-52%	22,454	11,020	-51%	8,654	2,046	-76%	21,854	12,341	-44%
CAT	30,672	25,455	-17%	12,257	10,146	-17%	4,875	3,807	-22%	13,540	11,502	-15%
FLEX	2,910	4,386	51%	1,207	1,631	35%	244	595	144%	1,459	2,160	48%
GE	70,181	120,532	72%	20,601	51,323	149%	11,382	17,786	56%	38,198	51,423	35%
INTC	97,807	76,493	-22%	43,253	29,932	-31%	17,478	10,221	-42%	37,076	36,340	-2%
IWM	287,934	594,590	107%	108,773	235,078	116%	57,467	56,343	-2%	121,695	303,169	149%
MSFT	100,409	149,066	48%	44,493	61,459	38%	19,250	21,487	12%	36,665	66,120	80%
QQQQ	433,088	815,542	88%	208,561	338,829	62%	57,336	54,784	-4%	167,192	421,929	152%
SMH	35,318	32,258	-9%	11,942	12,179	2%	8,698	5,294	-39%	14,677	14,784	1%
SUNW	15,455	12,556	-19%	7,906	4,052	-49%	2,679	2,660	-1%	4,870	5,844	20%
TXN	31,791	25,164	-21%	10,886	9,678	-11%	7,663	3,416	-55%	13,242	12,069	-9%
WFMI	17,362	8,389	-52%	4,417	3,004	-32%	4,701	862	-82%	8,244	4,523	-45%
Total	1,179,326	1,893,066	61%	498,226	769,537	54%	200,850	179,652	-11%	480,251	943,877	97%

Phase 2 Classes

Average Daily Volume: Industry volume in the Phase 2 classes has increased 31% from 2.4 million contracts to 3.2 million contracts. C had a volume increase of 210% and YHOO had an increase of 190%. Thirteen of the classes showed volume decreases.

Industry Average Daily Volume

Class	Total ADV			Customer ADV			Firm ADV			Market Maker ADV		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AAPL	312,638	277,342	-11%	158,304	121,166	-23%	22,801	16,445	-28%	131,534	139,730	6%
AMGN	37,835	26,484	-30%	13,767	11,411	-17%	8,760	5,663	-35%	15,308	9,411	-39%
AMZN	57,783	47,929	-17%	25,606	18,571	-27%	4,826	4,322	-10%	27,350	25,037	-8%
BMJ	78,700	11,889	-85%	31,729	4,641	-85%	22,641	2,535	-89%	24,330	4,713	-81%
C	84,141	261,016	210%	33,443	99,548	198%	15,405	44,361	188%	35,293	117,108	232%
COP	40,199	27,828	-31%	15,260	9,805	-36%	6,235	4,187	-33%	18,704	13,836	-26%
CSCO	64,738	87,580	35%	30,574	37,274	22%	8,884	12,447	40%	25,280	37,859	50%
DIA	85,314	27,942	-67%	32,924	9,986	-70%	4,721	361	-92%	47,669	17,596	-63%
DNDN	53,208	17,664	-67%	31,119	11,979	-62%	4,610	2,278	-51%	17,479	3,407	-81%
FCX	65,240	46,017	-29%	25,150	16,874	-33%	11,687	7,780	-33%	28,403	21,363	-25%
GM	94,426	85,886	-9%	40,000	35,280	-12%	18,982	12,429	-35%	35,444	38,177	8%
MO	60,669	18,911	-69%	18,918	5,506	-71%	13,392	3,480	-74%	28,359	9,925	-65%
MOT	27,614	23,685	-14%	13,102	8,773	-33%	4,071	5,426	33%	10,441	9,486	-9%
NYX	29,974	14,792	-51%	14,562	6,356	-56%	3,759	1,445	-62%	11,653	6,991	-40%
OIH	64,731	40,524	-37%	29,034	16,210	-44%	6,647	2,844	-57%	29,051	21,470	-26%
QCOM	64,289	64,419	0%	25,201	27,967	11%	14,975	9,026	-40%	24,113	27,426	14%
RIMM	82,363	111,101	35%	39,969	49,737	24%	3,014	4,944	64%	39,379	56,420	43%
SPY	701,880	1,048,972	49%	244,979	364,120	49%	79,964	96,617	21%	376,937	588,234	56%
T	36,488	37,020	1%	10,744	11,361	6%	7,751	6,889	-11%	17,993	18,769	4%
XLE	61,996	159,099	157%	22,810	68,883	202%	12,539	27,490	119%	26,647	62,726	135%
XLFF	237,180	517,015	118%	97,343	235,329	142%	66,489	88,455	33%	73,348	193,231	163%
YHOO	69,895	202,763	190%	31,535	100,815	220%	13,182	45,223	243%	25,179	56,726	125%
Total	2,411,303	3,155,878	31%	986,073	1,271,591	29%	355,335	404,648	14%	1,069,895	1,479,639	38%

Phase 3 Classes

Average Daily Volume: Industry volume in the Phase 3 classes has decreased 1% from 1.62 million contracts to 1.60 million contracts. F had a volume increase of 95% and LEH had an increase of 67%. Twelve of the classes showed volume decreases.

Industry Average Daily Volume

Class	Total ADV			Customer ADV			Firm ADV			Market Maker ADV		
	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg	Pre	Post	% Chg
AA	31,362	45,456	45%	12,113	19,504	61%	6,646	7,706	16%	12,604	18,245	45%
AIG	68,508	80,284	17%	24,938	23,818	-4%	18,226	21,795	20%	25,344	34,671	37%
BAC	103,588	151,008	46%	38,219	56,545	48%	18,243	20,257	11%	47,125	74,207	57%
BSC	108,897	33,044	-70%	46,242	10,987	-76%	21,172	7,407	-65%	41,483	14,650	-65%
CFC	66,808	27,621	-59%	35,736	13,191	-63%	7,893	6,143	-22%	23,179	8,287	-64%
DELL	47,307	33,735	-29%	17,431	12,900	-26%	8,556	4,100	-52%	21,320	16,735	-22%
EBAY	27,733	25,936	-6%	10,969	10,823	-1%	5,129	3,302	-36%	11,636	11,811	2%
EEM	103,465	89,134	-14%	44,310	40,118	-9%	21,075	19,845	-6%	38,081	29,171	-23%
EMC	48,445	55,810	15%	22,703	22,634	0%	6,212	9,270	49%	19,531	23,906	22%
F	26,489	51,535	95%	10,700	23,185	117%	4,316	7,614	76%	11,473	20,737	81%
GS	69,381	77,964	12%	31,585	33,296	5%	4,598	5,648	23%	33,197	39,020	18%
HAL	29,652	22,102	-25%	8,751	9,359	7%	8,319	2,369	-72%	12,583	10,375	-18%
HD	35,025	24,511	-30%	11,469	7,930	-31%	8,683	4,363	-50%	14,873	12,218	-18%
JPM	83,668	92,036	10%	32,624	32,628	0%	14,195	15,389	8%	36,848	44,019	19%
LEH	98,053	164,020	67%	42,566	63,649	50%	14,149	25,250	78%	41,338	75,122	82%
MER	118,386	129,194	9%	38,170	48,832	28%	24,539	23,148	-6%	55,677	57,214	3%
MNX	34,141	34,695	2%	9,097	6,152	-32%	7,794	5,659	-27%	17,250	22,884	33%
NEM	32,866	21,063	-36%	14,684	9,321	-37%	4,374	1,992	-54%	13,808	9,750	-29%
PFE	40,802	42,065	3%	18,271	15,713	-14%	7,917	8,791	11%	14,613	17,561	20%
RIO	68,380	73,281	7%	26,722	27,215	2%	16,149	16,898	5%	25,509	29,168	14%
SBUX	25,170	16,065	-36%	9,907	5,855	-41%	4,076	2,081	-49%	11,187	8,128	-27%
SNDK	27,781	30,642	10%	10,707	12,076	13%	5,351	3,383	-37%	11,723	15,184	30%
TGT	56,017	64,833	16%	13,807	19,589	42%	18,471	18,906	2%	23,739	26,338	11%
VLO	41,604	43,055	3%	14,228	18,335	29%	7,111	4,274	-40%	20,266	20,447	1%
VZ	49,102	15,387	-69%	6,803	4,420	-35%	7,066	2,703	-62%	35,233	8,264	-77%
WM	85,055	69,777	-18%	33,768	33,623	0%	19,031	8,292	-56%	32,256	27,861	-14%
WMT	55,538	44,036	-21%	16,872	14,792	-12%	12,266	8,639	-30%	26,399	20,605	-22%
XOM	44,512	45,567	2%	13,539	16,787	24%	8,113	5,959	-27%	22,860	22,821	0%
Total	1,627,735	1,603,852	-1%	616,931	613,274	-1%	309,670	271,181	-12%	701,134	719,397	3%