

Class	Orders	Contracts	Total Contracts	Orders Unful. % (ALL)	Orders Unful. % (ALL)	Contracts Unful. % (ALL)	Contracts Unful. % (ALL)	Orders Unful. (Limited)	Orders Unful. % (Limited)	Contracts Unful. (Limited)	Contracts Unful. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (average)	Time (average with 3 second PIPs)	Time (average without (ML))	Time (average (ML only))	Time Mean (non PIP date)	Time (25 contracts or less)	Improvement \$ (25 contracts or less)	Time (26 - 50 contracts)	Improvement \$ (26 - 50 contracts)	Time (51 - 75 contracts)	Improvement \$ (51 - 75 contracts)	Time (76 - 100 contracts)	Improvement \$ (76 - 100 contracts)	Time (101 or more contracts)	Improvement \$ (100 or more contracts)	BOX/OCC Market Share	BOX OCC ADV
487	129,114	2,193,380	2,845,729	88	0.04%	884	0.04%	15	0.01%	180	0.01%	90,077	69.77%	1,531,083	53.80%	\$2,784	\$4,232,188	\$0,057	0.28	3.03	0.18	6.74	0	0.30	0.0346	0.32	0.0299	0.35	0.0281	0.27	0.0256	0.23	0.0192	6.37%	335,086
A	44	364	416	0	0.00%	0	0.00%	0	0.00%	0	0.00%	37	84.09%	320	87.91%	\$4,281	\$1,370	\$0,044	0.07	3.59	0.07	na	0	0.10	0.0425	0.00	0.0433	na	na	na	na	na	9.00%	162	
AA	188	3,545	6,326	0	0.00%	0	0.00%	0	0.00%	0	0.00%	136	72.34%	2,410	67.98%	\$3,733	\$8,997	\$0,065	0.15	2.85	0.14	5.00	0	0.15	0.0319	0.28	0.0398	0.00	0.0149	0.11	0.0581	0.00	0.0374	9.75%	1,024
AAPL	12,144	91,560	114,214	1	8.23E-05	3	3.28E-05	0	0.00%	0	0.00%	10,108	83.23%	73,109	79.85%	\$3,187	\$232,976	\$0,052	0.18	3.33	0.15	5.57	0	0.21	0.0365	0.29	0.0464	0.41	0.0305	0.17	0.0383	0.01	0.0175	6.27%	8,199
ABC	25	427	452	0	0.00%	0	0.00%	0	0.00%	0	0.00%	22	88.00%	377	88.29%	\$5,931	\$2,236	\$0,045	0.00	3.53	0.00	na	0	0.00	0.0528	0.00	0.0681	na	na	na	na	na	10.50%	80	
ABGX	23	223	313	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.128	0.19	0.19	na	0	0.19	na	na	na	na	na	na	na	na	na	5.49%	16	
ABS	3	25	34	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.232	2.24	2.24	0.00	4.00	4	2.24	na	na	na	na	na	na	na	na	1.99%	12	
ABT	126	1,765	2,471	0	0.00%	0	0.00%	0	0.00%	0	0.00%	99	78.57%	1,265	71.67%	\$3,258	\$4,121	\$0,075	0.12	2.92	0.12	na	0	0.09	0.0364	0.12	0.0297	0.45	0.0500	0.00	0.0122	na	14.82%	691	
ABX	400	6,344	8,863	0	0.00%	0	0.00%	0	0.00%	0	0.00%	328	82.00%	4,913	77.44%	\$3,043	\$14,949	\$0,057	0.13	3.18	0.11	4.00	0	0.20	0.0308	0.13	0.0233	0.13	0.0423	0.00	0.0277	0.00	0.0340	10.81%	930
ACF	20	135	136	0	0.00%	0	0.00%	0	0.00%	0	0.00%	17	85.00%	109	80.74%	\$4,679	\$510	\$0,068	0.23	3.46	0.23	na	1	0.23	0.0468	na	na	na	na	na	na	na	3.09%	20	
ACS	29	330	467	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	13.79%	35	10.61%	\$15,771	\$552	\$0,202	0.48	0.90	0.48	na	0	0.28	0.1577	1.00	na	na	na	na	na	na	2.12%	86	
ADBE	144	1,747	1,991	0	0.00%	0	0.00%	0	0.00%	0	0.00%	46	31.94%	545	31.20%	\$3,521	\$1,919	\$0,055	0.26	1.48	0.26	na	0	0.37	0.0352	0.19	na	0.00	na	0.00	na	na	12.38%	1,249	
ADI	31	485	530	0	0.00%	0	0.00%	0	0.00%	0	0.00%	23	74.19%	345	71.13%	\$2,759	\$952	\$0,065	0.16	2.87	0.16	na	0	0.08	0.0342	0.00	na	1.00	0.0200	0.00	0.0200	na	10.44%	129	
ADP	40	1,193	1,759	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	22.50%	295	24.73%	\$1,376	\$406	\$0,068	0.69	1.68	0.66	5.00	0	0.60	0.0303	0.61	0.0200	0.00	na	2.50	na	0.00	0.0100	9.86%	347
ADRX	62	896	2,233	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	9.68%	65	7.25%	\$4,615	\$300	\$0.149	0.37	0.66	0.25	21.00	0	0.47	0.0462	0.29	na	na	na	na	na	na	3.21%	207	
ADSK	229	1,821	2,594	0	0.00%	0	0.00%	0	0.00%	0	0.00%	150	65.50%	1,001	54.97%	\$3,227	\$3,230	\$0,075	0.26	2.44	0.26	na	0	0.23	0.0335	0.57	0.0340	0.00	0.0100	na	na	na	6.27%	380	
AEM	260	2,668	3,219	0	0.00%	0	0.00%	0	0.00%	0	0.00%	216	83.08%	2,149	80.55%	\$3,304	\$7,101	\$0,081	0.20	3.37	0.20	na	0	0.15	0.0398	0.72	0.0259	0.00	0.0223	0.00	0.0217	0.00	0.0127	8.80%	272
AES	1	12	22	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.183	0.00	0.00	na	na	0	0.00	na	na	na	na	na	na	na	na	1.47%	10	
AET	130	1,846	2,237	0	0.00%	0	0.00%	0	0.00%	0	0.00%	96	73.85%	1,456	78.87%	\$3,450	\$5,023	\$0,052	0.12	3.26	0.12	na	0	0.15	0.0389	0.14	0.0368	0.00	0.0200	0.00	0.0385	0.00	0.0200	9.75%	375
AFFX	121	1,029	2,183	0	0.00%	0	0.00%	0	0.00%	0	0.00%	76	62.81%	532	51.70%	\$2,485	\$1,322	\$0,090	0.45	2.47	0.24	9.17	0	0.45	0.0268	0.00	0.0146	1.00	na	na	na	na	9.36%	302	
AGIX	21	486	723	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.125	0.07	0.07	na	0	0.19	na	na	na	na	na	na	na	na	na	2.14%	86	
AGN	17	193	261	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	41.18%	60	31.09%	\$2,633	\$158	\$0.124	0.16	1.40	0.16	na	0	0.28	0.0450	0.00	0.0100	na	na	na	na	na	5.08%	80	
AHC	166	1,498	1,747	0	0.00%	0	0.00%	0	0.00%	0	0.00%	130	78.31%	1,112	74.23%	\$4,681	\$5,205	\$0.138	0.13	3.06	0.13	na	0	0.14	0.0462	0.14	0.0406	0.00	0.0792	na	na	na	8.51%	342	
AIG	275	7,270	10,860	0	0.00%	0	0.00%	0	0.00%	0	0.00%	164	59.64%	4,281	58.89%	\$2,869	\$12,283	\$0,072	0.14	2.49	0.13	10.29	0	0.31	0.0365	0.11	0.0224	0.28	0.0196	0.00	0.0343	0.00	0.0252	8.83%	1,344
AKAM	215	1,493	2,504	0	0.00%	0	0.00%	0	0.00%	0	0.00%	176	81.86%	1,109	74.28%	\$4,194	\$4,651	\$0,064	0.51	3.38	0.45	5.00	0	0.50	0.0404	0.57	0.0515	na	na	na	na	na	6.21%	230	
AL	53	764	1,253	0	0.00%	0	0.00%	0	0.00%	0	0.00%	24	45.28%	268	35.08%	\$4,690	\$1,257	\$0,086	0.25	1.64	0.25	na	0	0.25	0.0505	0.26	0.0229	na	na	na	na	na	7.59%	254	
ALA	4	37	68	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.184	0.59	0.59	0.59	na	0	0.59	na	na	na	na	na	na	na	na	4.42%	44	
ALD	14	103	103	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	14.29%	16	15.53%	\$1,375	\$22	\$0.151	0.84	1.47	0.40	5.00	0	0.84	0.0138	na	na	na	na	na	na	na	na	3.33%	24
ALL	144	2,037	3,681	0	0.00%	0	0.00%	0	0.00%	0	0.00%	85	59.03%	1,087	53.36%	\$3,071	\$3,338	\$0,073	0.53	2.62	0.53	na	0	0.53	0.0333	0.26	0.0319	0.00	0.0200	2.00	0.0200	na	na	6.33%	473
ALTR	95	1,714	2,473	0	0.00%	0	0.00%	0	0.00%	0	0.00%	46	48.42%	935	54.55%	\$2,749	\$2,570	\$0,058	0.24	2.34	0.24	5.00	0	0.26	0.0241	0.16	0.0238	1.00	na	0.00	0.0358	na	na	8.86%	292
AMAT	655	11,308	15,126	0	0.00%	0	0.00%	0	0.00%	0	0.00%	532	81.22%	7,999	70.74%	\$2,243	\$17,942	\$0,046	0.11	2.92	0.10	4.00	0	0.15	0.0228	0.15	0.0234	0.00	0.0269	0.04	0.0199	0.08	0.0225	16.31%	2,945
AMD	1,420	25,790	35,166	0	0.00%	0	0.00%	0	0.00%	0	0.00%	914	64.37%	16,410	63.63%	\$3,783	\$62,087	\$0,064	0.23	2.74	0.21	7.98	0	0.29	0.0387	0.13	0.0427	0.26	0.0546	0.42	0.0611	0.13	0.0257	6.62%	3,838
AMGN	905	6,861	8,381	0	0.00%	0	0.00%	0	0.00%	0	0.00%	695	76.80%	5,136	74.86%	\$3,745	\$19,233	\$0,058	0.29	3.24	0.27	7.94	0	0.39	0.0392	0.05	0.0342	0.00	0.0158	0.00	0.0375	na	na	8.72%	1,219
AMLN	318	2,502	3,654	0	0.00%	0	0.00%	0	0.00%	0	0.00%	242	76.10%	1,623	64.87%	\$4,315	\$7,003	\$0.127	0.18	2.76	0.18	na	0	0.20	0.0418	0.15	0.0526	0.00	0.0200	na	na	na	na	6.25%	414
AMR	83	1,456	2,474	0	0.00%	0	0.00%	0	0.00%	0	0.00%	25	30.12%	674	46.29%	\$3,736	\$2,518	\$0.102	0.25	2.07	0.25	na	0	0.31	0.0525	0.13	0.0329	0.00	0.0200	0.45	na	na	na	3.43%	542
AMT	43	550	1,874	0	0.00%	0	0.00%	0	0.00%	0	0.00%	13	30.23%	98	17.82%	\$3,898	\$382	\$0.108	0.32	1.01	0.32	na	0	0.35	0.0390	0.23	na	na	na	na	na	na	3.20%	159	
AMTD	137	1,381	1,881	0	0.00%	0	0.00%	0	0.00%	0	0.00%	88	64.23%	921	66.69%	\$3,376	\$309	\$0,068	0.21	2.81	0.21	na	0	0.23	0.0387	0.00	0.0265	1.00	0.0100	na	na	na	na	9.22%	452
AMX	31	712	1,807	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	19.35%	40	5.62%	\$4,225	\$169	\$0.101	0.15	3.38	0.15	na	0	0.28	0.0423	0.10	na	na	na	na	na	na	3.84%	172	
AMZN	475	8,082	11,078	0	0.00%	0	0.00%	0	0.00%	0	0.00%	357	75.16%	6,340	78.45%	\$2,033	\$12,891	\$0,056	0.13	3.25	0.12	4.95	0	0.23	0.0269	0.14	0.0298	0.24	0.0100	0.23	0.0242	0.00	0.0115	5.28%	1,368
AN	5	81	115	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.132	0.12	0.12	0.12	na	0	0.24	na	na	na								

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BUD	83	1,365	1,391	0	0.00%	0	0.00%	0	0.00%	0	0.00%	63	75.90%	1,119	81.98%	\$3,383	\$3,786	\$0,047	0.07	3.24	0.07	4.00	0.18	0.0477	0.00	0.0277	0.00	0.0200	0.00	0.0400	9.93%	255				
BVF	78	839	1,041	0	0.00%	0	0.00%	0	0.00%	0	0.00%	51	65.38%	560	66.75%	\$2,650	\$1,484	\$0,067	0.14	2.77	0.14	na	0.17	0.0281	0.00	0.0200	0.00	0.0269	na	na	na	11.89%	350			
BZH	95	2,002	4,273	0	0.00%	0	0.00%	0	0.00%	0	0.00%	49	51.58%	1,106	55.24%	\$3,806	\$4,209	\$0,115	0.21	2.42	0.21	na	0.20	0.0441	0.61	0.0564	0.00	0.0300	0.50	na	0.0304	10.40%	562			
C	379	9,526	12,974	0	0.00%	0	0.00%	0	0.00%	0	0.00%	266	70.18%	6,654	69.85%	\$2,593	\$17,254	\$0,047	0.14	2.89	0.13	5.00	0.17	0.0277	0.15	0.0249	0.13	0.0221	0.11	0.0220	0.12	0.0263	5.76%	1,854		
CA	24	465	589	0	0.00%	0	0.00%	0	0.00%	0	0.00%	15	62.50%	344	73.98%	\$4,520	\$1,555	\$0,084	0.11	3.06	0.11	na	0.24	0.0452	0.00	0.0100	na	na	0.00	0.0540	na	na	9.50%	139		
CAG	26	824	1,378	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	34.62%	82	9.95%	\$2,878	\$236	\$0,094	0.31	0.71	0.31	na	0.09	0.0288	0.40	na	0.00	na	0.41	na	na	na	6.40%	258		
CAH	35	386	761	0	0.00%	0	0.00%	0	0.00%	0	0.00%	16	45.71%	169	43.78%	\$3,911	\$661	\$0,181	0.40	2.15	0.40	na	0.44	0.0389	0.00	0.0400	na	na	na	na	na	na	8.83%	229		
CAL	65	794	2,076	0	0.00%	0	0.00%	0	0.00%	0	0.00%	27	41.54%	423	53.27%	\$4,175	\$1,766	\$0,137	0.27	2.32	0.23	5.00	0.26	0.0401	0.43	0.0514	0.00	0.0300	na	na	na	na	2.65%	207		
CAT	527	6,054	7,523	0	0.00%	0	0.00%	0	0.00%	0	0.00%	426	80.83%	5,012	82.79%	\$3,689	\$18,489	\$0,065	0.15	3.40	0.14	6.00	0.18	0.0387	0.13	0.0340	0.10	0.0331	0.00	0.0434	0.00	0.0252	8.12%	1,205		
CB	36	225	273	0	0.00%	0	0.00%	0	0.00%	0	0.00%	20	55.56%	167	74.22%	\$3,695	\$617	\$0,110	0.04	3.00	0.04	na	0.05	0.0362	0.00	0.0381	na	na	na	na	na	na	6.06%	70		
CBH	74	944	1,379	0	0.00%	0	0.00%	0	0.00%	0	0.00%	44	59.46%	518	54.87%	\$2,795	\$1,448	\$0,123	0.19	2.33	0.19	na	0.20	0.0286	0.21	0.0275	0.00	0.0272	na	na	na	na	5.68%	141		
CC	8	98	288	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	25.00%	59	60.20%	\$5,542	\$327	\$0,307	0.19	2.60	0.19	na	1	0.40	0.0300	0.00	0.0600	na	na	na	na	na	na	4.65%	40	
CKK	16	240	714	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	25.00%	48	20.00%	\$3,375	\$162	\$0,266	0.05	0.85	0.05	na	0.06	0.0338	0.00	na	na	na	na	na	na	na	na	4.92%	66	
CCL	57	658	992	0	0.00%	0	0.00%	0	0.00%	0	0.00%	20	35.09%	246	37.39%	\$2,467	\$607	\$0,110	0.41	1.87	0.41	na	0.33	0.0259	0.57	0.0200	na	na	na	na	na	na	na	2.56%	122	
CCMP	58	305	405	0	0.00%	0	0.00%	0	0.00%	0	0.00%	40	68.97%	210	68.85%	\$6,586	\$1,383	\$0,077	0.29	2.77	0.29	na	0.29	0.0659	na	na	na	na	na	na	na	na	na	10.16%	62	
CCU	16	267	289	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	18.75%	30	11.24%	\$1,000	\$30	\$0,125	0.38	0.83	0.38	na	0.21	0.0100	0.50	na	na	na	na	na	na	na	na	8.86%	88	
CD	62	1,806	2,461	0	0.00%	0	0.00%	0	0.00%	0	0.00%	24	38.71%	800	44.30%	\$1,623	\$1,298	\$0,117	0.36	2.10	0.33	4.00	0.29	0.0229	0.32	0.0170	na	na	0.34	0.0100	0.57	0.0100	2.98%	220		
CDWC	35	397	1,189	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	25.71%	99	24.94%	\$2,636	\$261	\$0,104	0.33	1.33	0.33	na	0.33	0.0264	na	na	na	na	na	na	na	na	na	7.92%	82	
CECO	56	433	1,582	1	1.79%	10	2.31%	0	0.00%	0	0.00%	29	51.79%	146	33.72%	\$3,938	\$575	\$0,111	0.14	1.49	0.14	na	0.14	0.0394	na	na	na	na	na	na	na	na	na	6.29%	127	
CELG	899	8,990	11,558	0	0.00%	0	0.00%	0	0.00%	0	0.00%	754	83.87%	7,690	85.54%	\$4,068	\$31,283	\$0,087	0.11	3.48	0.11	5.20	0.13	0.0425	0.06	0.0389	0.13	0.0328	0.00	0.0356	na	na	6.02%	1,030		
CEPH	576	5,746	9,985	0	0.00%	0	0.00%	0	0.00%	0	0.00%	245	42.53%	1,977	34.41%	\$3,620	\$7,156	\$0,104	0.39	1.72	0.33	7.02	0.46	0.0460	0.13	0.0231	0.00	0.0157	0.22	0.0175	na	na	7.82%	1,311		
CFC	73	1,118	1,718	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55	75.34%	897	80.23%	\$3,045	\$2,731	\$0,073	0.12	3.28	0.12	na	0.22	0.0355	0.00	0.0314	0.00	0.0237	0.00	0.0200	na	na	na	na	6.26%	273
CHINA	37	714	732	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	56.76%	301	42.16%	\$1,395	\$420	\$0,047	0.20	1.88	0.20	na	0.15	0.0133	0.29	0.0183	0.00	0.0132	na	na	na	na	na	14.71%	118	
CHIR	14	145	216	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	14.29%	31	21.38%	\$11,645	\$361	\$0,270	1.23	2.08	1.23	na	0.23	0.1165	na	na	na	na	na	na	na	na	na	2.86%	42	
CHK	840	10,613	12,821	0	0.00%	0	0.00%	0	0.00%	0	0.00%	640	76.19%	7,938	74.80%	\$3,097	\$24,584	\$0,048	0.24	3.18	0.21	4.33	0.24	0.0311	0.22	0.0356	0.00	0.0207	0.16	0.0222	0.54	0.0460	5.88%	1,558		
CHKP	71	1,442	1,916	0	0.00%	0	0.00%	0	0.00%	0	0.00%	35	49.30%	922	63.94%	\$3,063	\$2,824	\$0,062	0.20	2.72	0.20	na	1	0.35	0.0378	0.00	0.0400	0.30	0.0100	0.00	0.0400	0.00	0.0214	7.66%	222	
CHS	298	2,609	3,413	0	0.00%	0	0.00%	0	0.00%	0	0.00%	225	75.50%	1,943	74.47%	\$3,497	\$6,795	\$0,084	0.15	3.12	0.13	5.00	0.15	0.0357	0.16	0.0225	0.00	0.0800	0.00	0.0364	na	na	na	na	5.62%	308
CI	33	313	608	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	27.27%	100	31.95%	\$7,760	\$776	\$0,123	0.28	1.56	0.19	6.00	0.28	0.0776	na	na	na	na	na	na	na	na	na	5.76%	102	
CIEN	306	6,696	8,530	0	0.00%	0	0.00%	0	0.00%	0	0.00%	203	66.34%	5,070	75.72%	\$2,073	\$10,512	\$0,043	0.15	3.12	0.15	5.00	0.19	0.0226	0.11	0.0221	0.28	0.0233	0.13	0.0174	0.00	0.0147	7.44%	599		
CL	97	1,298	1,671	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55	56.70%	590	45.45%	\$2,497	\$1,473	\$0,067	0.30	2.09	0.30	na	1	0.34	0.0343	0.22	0.0175	0.50	na	na	na	na	na	0.0100	8.96%	362
CMCSA	41	488	620	0	0.00%	0	0.00%	0	0.00%	0	0.00%	16	39.02%	137	28.07%	\$3,526	\$483	\$0,117	0.36	1.48	0.16	5.00	0.57	0.0432	0.00	0.0250	na	na	na	na	na	na	na	6.06%	285	
CMCSX	55	605	1,015	0	0.00%	0	0.00%	0	0.00%	0	0.00%	19	34.55%	91	15.04%	\$2,242	\$204	\$0,093	0.46	1.06	0.25	26.00	0.64	0.0236	0.17	0.0200	na	na	na	na	na	na	na	11.39%	251	
CME	752	4,966	5,688	1	0.13%	10	0.20%	0	0.00%	0	0.00%	637	84.71%	4,048	81.51%	\$7,137	\$28,889	\$0,424	0.17	3.37	0.15	30.00	0.17	0.0714	na	na	na	na	na	na	na	na	na	7.64%	649	
CMV1	144	2,177	6,062	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	14.58%	260	11.94%	\$3,277	\$852	\$0,113	0.45	0.92	0.39	4.00	0.44	0.0439	0.06	0.0150	2.07	na	na	na	na	na	na	4.96%	670	
CMX	32	229	400	0	0.00%	0	0.00%	0	0.00%	0	0.00%	12	37.50%	73	31.88%	\$3,068	\$224	\$0,180	0.09	1.36	0.09	na	0.10	0.0307	0.00	na	na	na	na	na	na	na	na	6.69%	94	
CNO	10	107	168	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	10.00%	10	9.35%	\$2,000	\$20	\$0,197	0.60	0.97	0.60	na	1	0.60	0.0200	na	na	na	na	na	na	na	na	na	8.60%	27
CNX	111	617	816	0	0.00%	0	0.00%	0	0.00%	0	0.00%	89	80.18%	418	67.75%	\$3,287	\$1,374	\$0,097	0.14	2.75	0.14	na	0.14	0.0329	na	na	na	na	na	na	na	na	na	2.53%	122	
COCO	11	130	698	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	45.45%	54	41.54%	\$1,722	\$93	\$0,148	0.29	1.95	0.29	na	0.08	0.0172	1.00	na	na	na	na	na	na	na	na	na	6.50%	39
COF	251	1,918	2,400	0	0.00%	0	0.00%	0	0.00%	0	0.00%	195	77.69%	1,385	72.21%	\$3,747	\$5,189	\$0,079	0.44	3.32	0.44	na	0.54	0.0383	0.00	0.0410	na	na	0.00	0.0200	na	na	na	na	5.22%	330
COH	124	1,012	1,017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	117	94.35%	930	91.90%	\$3,176	\$2,954	\$0,054	0.08	3.70	0.08	na	0.08	0.0325	0.11	0.0284	0.00	0.0400	na	na	na	na	na	na	10.	

Class	Orders	Contracts	Total Contracts	Orders Unfav. % (ALL)	Orders Unfav. % (ALL)	Contracts Unfav. % (ALL)	Contracts Unfav. % (ALL)	Orders Unfav. (Limited)	Orders Unfav. % (Limited)	Contracts Unfav. (Limited)	Contracts Unfav. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (average)	Time (average with 3 second PIPs)	Time (average without (ML))	Time (average (ML only))	Time Mean (non PIP date)	Improvement \$ (25 contracts or less)	Improvement \$ (25 - 50 contracts)	Improvement \$ (51 - 75 contracts)	Improvement \$ (76 - 100 contracts)	Improvement \$ (101 or more contracts)	Improvement \$ (100 or more contracts)	BOX/OCC Market Share	BOX/OCC ADV						
ELN	520	9,949	19,744	0	0.00%	0	0.00%	0	0.00%	0	0.00%	97	18.65%	2,239	22.50%	\$3,766	\$8,431	\$0.077	0.87	1.75	0.61	5.74	0	0.92	0.0354	1.08	0.0421	0.88	0.0400	0.61	0.0344	0.28	na	2.36%	2,008		
ELX	73	935	2,493	0	0.00%	0	0.00%	0	0.00%	0	0.00%	26	35.62%	384	41.07%	\$2,839	\$1,090	\$0.076	0.28	1.88	0.15	5.00	0	0.41	0.0264	0.00	0.0309	na	na	0.00	0.0300	na	na	9.77%	233		
EMC	221	5,459	7,489	0	0.00%	0	0.00%	0	0.00%	0	0.00%	155	70.14%	3,696	67.70%	\$2,129	\$7,867	\$0.042	0.20	2.82	0.20	na	0	0.19	0.0240	0.14	0.0233	0.11	0.0249	0.37	0.0214	0.17	0.0133	7.98%	1,215		
EOG	206	3,097	4,070	0	0.00%	0	0.00%	0	0.00%	0	0.00%	164	79.61%	2,571	83.02%	\$3,882	\$9,980	\$0.122	0.15	3.44	0.14	4.00	0	0.27	0.0462	0.14	0.0345	na	na	0.00	0.0499	0.00	0.0239	5.22%	480		
EP	73	1,565	1,831	0	0.00%	0	0.00%	0	0.00%	0	0.00%	49	67.12%	1,015	64.86%	\$2,600	\$2,639	\$0.056	0.13	2.69	0.13	na	0	0.08	0.0249	0.19	0.0305	0.49	na	0.00	0.0257	0.00	0.0215	8.32%	223		
ERES	15	172	193	0	0.00%	0	0.00%	0	0.00%	0	0.00%	13	86.67%	161	93.60%	\$2,062	\$332	\$0.085	0.00	3.74	0.00	na	0	0.00	0.0313	na	na	na	na	0.00	0.0101	na	na	2.86%	55		
ERICY	39	2,783	3,486	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	12.82%	2,152	77.33%	\$2,192	\$4,717	\$0.072	0.06	3.14	0.06	na	0	0.44	0.0683	0.08	na	na	0.00	0.0181	0.00	0.0209	14.15%	251			
ERTS	199	6,549	8,427	0	0.00%	0	0.00%	0	0.00%	0	0.00%	118	59.30%	4,187	63.93%	\$2,033	\$8,512	\$0.062	0.31	2.86	0.31	na	0	0.85	0.0362	0.36	0.0205	0.00	0.0454	0.00	0.0267	0.18	0.0139	11.81%	1,130		
ESI	12	69	69	0	0.00%	0	0.00%	0	0.00%	0	0.00%	10	83.33%	53	76.81%	\$1,302	\$69	\$0.194	0.07	3.14	0.07	na	0	0.07	0.0130	na	na	na	na	na	na	na	11.20%	14			
ESRX	135	1,041	2,003	0	0.00%	0	0.00%	0	0.00%	0	0.00%	88	65.19%	717	68.88%	\$3,711	\$2,661	\$0.270	0.15	2.87	0.15	na	0	0.17	0.0409	0.00	0.0133	na	na	na	na	na	na	5.74%	179		
ESV	75	1,227	1,523	0	0.00%	0	0.00%	0	0.00%	0	0.00%	44	58.67%	771	62.84%	\$4,384	\$3,380	\$0.076	0.18	2.69	0.18	na	0	0.24	0.0572	0.52	0.0200	0.00	0.0213	0.00	0.0500	0.00	0.0520	6.84%	326		
ETR	366	3,808	4,130	0	0.00%	0	0.00%	0	0.00%	0	0.00%	322	87.98%	3,365	88.37%	\$3,347	\$11,261	\$0.045	0.18	3.60	0.18	na	0	0.15	0.0373	0.31	0.0322	0.00	0.0161	0.00	0.0100	na	na	5.98%	337		
EX	13	640	750	0	0.00%	0	0.00%	0	0.00%	0	0.00%	10	76.92%	537	83.91%	\$2,434	\$1,307	\$0.045	0.09	3.42	0.09	na	0	0.15	0.0262	0.46	na	na	0.00	0.0206	0.00	0.0307	16.28%	109			
F	134	2,405	4,550	0	0.00%	0	0.00%	0	0.00%	0	0.00%	37	27.61%	896	37.26%	\$2,366	\$2,120	\$0.064	0.33	1.82	0.30	5.00	0	0.36	0.0243	0.16	0.0249	0.21	0.0292	0.67	0.0100	na	na	2.61%	653		
FBR	38	591	726	0	0.00%	0	0.00%	0	0.00%	0	0.00%	27	71.05%	364	61.59%	\$2,060	\$750	\$0.115	0.10	2.55	0.10	na	0	0.08	0.0220	0.19	na	na	0.00	0.0153	na	na	6.84%	80			
FCS	17	265	601	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	52.94%	89	33.58%	\$2,303	\$205	\$0.187	0.01	1.34	0.01	na	0	0.02	0.0230	0.00	na	na	na	na	na	na	na	6.26%	42		
FCX	445	4,018	5,482	0	0.00%	0	0.00%	0	0.00%	0	0.00%	354	79.95%	3,214	79.99%	\$3,904	\$12,549	\$0.121	0.13	3.30	0.12	4.00	0	0.18	0.0445	0.00	0.0355	0.00	0.0272	0.00	0.0200	0.0184	5.59%	424			
FD	66	744	1,069	0	0.00%	0	0.00%	0	0.00%	0	0.00%	43	65.15%	530	71.24%	\$3,425	\$1,815	\$0.111	0.09	3.02	0.09	na	0	0.15	0.0300	0.00	0.0284	0.00	0.0404	na	na	na	na	5.32%	158		
FDC	172	3,179	8,447	0	0.00%	0	0.00%	0	0.00%	0	0.00%	33	19.19%	604	19.00%	\$3,079	\$1,860	\$0.160	0.29	1.05	0.29	na	0	0.25	0.0307	0.39	0.0300	0.00	0.0256	0.00	0.0400	na	na	8.82%	719		
FDRY	64	801	1,864	0	0.00%	0	0.00%	0	0.00%	0	0.00%	25	39.06%	312	38.95%	\$1,779	\$555	\$0.082	0.54	2.10	0.17	5.00	0	0.26	0.0222	1.28	0.0100	na	na	na	na	na	na	4.92%	141		
FDX	350	3,025	3,769	0	0.00%	0	0.00%	0	0.00%	0	0.00%	272	77.71%	2,375	78.51%	\$3,846	\$9,134	\$0.076	0.24	3.35	0.24	na	0	0.29	0.0439	0.00	0.0229	0.00	0.0149	na	na	na	na	8.47%	686		
FFIV	411	1,748	1,873	0	0.00%	0	0.00%	0	0.00%	0	0.00%	374	91.00%	1,548	88.56%	\$4,755	\$7,360	\$0.119	0.10	3.58	0.10	4.00	0	0.10	0.0475	na	na	na	na	na	na	na	na	4.41%	116		
FTIB	71	970	1,018	0	0.00%	0	0.00%	0	0.00%	0	0.00%	59	83.10%	764	78.76%	\$2,576	\$1,968	\$0.056	0.14	3.26	0.14	na	0	0.14	0.0299	0.00	0.0268	0.51	0.0100	0.00	0.0233	na	na	4.41%	145		
FLEX	44	817	1,549	0	0.00%	0	0.00%	0	0.00%	0	0.00%	26	59.09%	381	46.63%	\$2,764	\$1,053	\$0.048	0.27	2.03	0.27	na	0	0.25	0.0372	0.00	0.0200	0.64	0.0200	na	na	na	na	9.58%	250		
FLML	58	518	767	0	0.00%	0	0.00%	0	0.00%	0	0.00%	15	25.86%	75	14.48%	\$3,973	\$298	\$0.119	0.71	1.27	0.71	na	1	0.46	0.0397	4.00	na	na	na	na	na	na	na	7.02%	80		
FNM	42	1,054	1,641	0	0.00%	0	0.00%	0	0.00%	0	0.00%	14	33.33%	627	59.49%	\$2,828	\$1,773	\$0.073	0.25	3.10	0.25	na	0	0.40	0.0609	0.59	na	na	na	na	na	na	na	0.0200	5.58%	315	
FR	92	2,063	4,002	0	0.00%	0	0.00%	0	0.00%	0	0.00%	40	43.48%	1,347	65.29%	\$1,781	\$2,399	\$0.114	0.19	2.80	0.16	4.00	0	0.27	0.0416	0.60	0.0343	na	na	na	na	na	na	0.0104	12.71%	687	
FRX	159	2,074	3,734	0	0.00%	0	0.00%	0	0.00%	0	0.00%	67	42.14%	797	38.43%	\$3,183	\$2,537	\$0.092	0.22	1.72	0.22	na	0	0.23	0.0323	0.23	0.0265	0.00	0.0700	0.00	0.0200	na	na	na	na	12.73%	972
GD	143	1,513	1,823	0	0.00%	0	0.00%	0	0.00%	0	0.00%	113	79.02%	1,198	79.18%	\$4,911	\$5,883	\$0.100	0.15	3.31	0.15	4.00	0	0.23	0.0615	0.00	0.0349	0.00	0.0200	na	na	na	na	0.0200	11.36%	301	
GDT	39	381	391	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	12.82%	26	6.82%	\$1,000	\$26	\$0.157	0.37	0.65	0.37	na	0	0.43	0.0100	0.00	na	na	na	na	na	na	na	na	0.65%	69	
GE	1,431	30,855	33,913	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,053	73.58%	25,368	82.22%	\$2,226	\$56,481	\$0.032	0.12	3.37	0.09	6.71	0	0.20	0.0255	0.05	0.0225	0.17	0.0322	0.08	0.0205	0.09	0.0199	7.51%	3,602		
GENZ	62	587	710	0	0.00%	0	0.00%	0	0.00%	0	0.00%	43	69.35%	415	70.07%	\$4,576	\$1,899	\$0.070	1.17	2.96	0.17	na	0	0.15	0.0475	0.22	0.0406	na	na	na	na	na	na	na	9.85%	271	
GERN	41	415	1,575	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.100	0.43	0.43	0.43	na	0	0.43	na	na	na	na	na	na	na	na	na	5.06%	85		
GGI	156	2,599	4,025	0	0.00%	0	0.00%	0	0.00%	0	0.00%	107	68.59%	1,672	64.33%	\$3,102	\$5,142	\$0.065	0.45	2.98	0.45	na	0	0.63	0.0392	0.51	0.0271	0.00	0.0200	0.00	0.0247	0.00	0.0186	6.56%	299		
GF	1,739	19,894	21,713	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,478	84.99%	16,835	84.62%	\$2,948	\$49,635	\$0.054	0.24	3.56	0.14	13.77	0	0.17	0.0332	0.57	0.0268	0.33	0.0232	0.06	0.0238	0.12	0.0226	11.61%	1,629		
GILD	201	1,787	2,250	0	0.00%	0	0.00%	0	0.00%	0	0.00%	150	74.63%	1,288	72.08%	\$4,120	\$5,306	\$0.098	0.19	3.05	0.19	na	1	0.20	0.0405	0.14	0.0492	0.00	0.0200	na	na	na	na	na	7.81%	406	
GIS	34	340	340	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	61.76%	154	45.29%	\$2,636	\$406	\$0.060	0.10	1.89	0.10	na	0	0.15	0.0264	0.00	na	na	na	na	na	na	na	na	10.30%	93	
GLW	55	370	1,221	0	0.00%	0	0.00%	0	0.00%	0	0.00%	42	76.36%	275	74.32%	\$4,185	\$1,151	\$0.074	0.38	3.25	0.38	na	1	0.34	0.0346	0.57	0.0367	na	na	na	na	na	na	na	3.78%	71	
GLX	1,268	13,658	15,714	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,168	92.11%	12,260	89.76%	\$3,648	\$44,724	\$0.046	0.13	3.68	0.13	4.00	0	0.16	0.0359	0.13	0.0405	0.07	0.0296	0.00	0.0337	0.00	0.0549	9.10%	1,225		

Class	Orders	Contracts	Total Contracts	Orders Unfav. % (ALL)	Orders Unfav. % (ALL)	Contracts Unfav. % (ALL)	Contracts Unfav. % (ALL)	Orders Unfav. (Limited)	Orders Unfav. % (Limited)	Contracts Unfav. (Limited)	Contracts Unfav. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (Average)	Time (Average with 3 second PIPs)	Time (Average without (ML))	Time (Average (ML only))	Time Mean (non PIP date)	Improvement \$ (25 contracts or less)	Time (26 - 50 contracts)	Improvement \$ (26 - 50 contracts)	Time (51 - 75 contracts)	Improvement \$ (51 - 75 contracts)	Time (76 - 100 contracts)	Improvement \$ (76 - 100 contracts)	Time (101 or more contracts)	Improvement \$ (101 or more contracts)	BOX/OCC Market Share	BOX/OCC ADV			
JBL	138	1,012	1,246	0	0.00%	0	0.00%	0	0.00%	0	0.00%	106	76.81%	728	71.94%	\$3,896	\$2,836	\$0.059	0.14	3.00	0.13	4.50	0	0.13	0.0399	0.26	0.0300	0.00	0.0339	na	na	na	8.45%	190			
JBLU	107	2,430	3,840	0	0.00%	0	0.00%	0	0.00%	0	0.00%	74	69.16%	1,540	63.37%	\$1,630	\$2,510	\$0.060	0.15	2.68	0.09	12.38	0	0.39	0.0185	0.00	0.0267	0.21	0.0100	0.00	0.0100	0.00	0.0135	11.09%	372		
JCOM	29	194	307	0	0.00%	0	0.00%	0	0.00%	0	0.00%	24	82.76%	152	78.35%	\$2,803	\$426	\$0.186	0.06	3.19	0.06	na	na	na	0	0.06	0.0280	na	na	na	na	na	na	2.18%	27		
JCP	38	467	1,115	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	55.26%	280	59.96%	\$4,461	\$1,249	\$0.075	0.10	2.45	0.10	na	na	na	0	0.16	0.0516	0.00	0.0200	0.00	0.0400	na	na	na	9.15%	122	
JDSU	393	9,626	12,211	0	0.00%	0	0.00%	0	0.00%	0	0.00%	223	56.74%	6,611	68.68%	\$2,416	\$15,974	\$0.035	0.43	3.12	0.25	10.71	1	0.73	0.0279	0.09	0.0247	0.11	0.0218	0.29	0.0225	0.65	0.0182	4.50%	1,177		
JNJ	508	5,524	6,265	0	0.00%	0	0.00%	0	0.00%	0	0.00%	396	77.95%	4,170	75.49%	\$2,921	\$12,181	\$0.042	0.09	3.05	0.08	5.00	0	0.06	0.0317	0.15	0.0301	0.00	0.0352	0.00	0.0212	0.53	0.0153	10.54%	1,274		
JNPR	891	15,192	20,068	0	0.00%	0	0.00%	0	0.00%	0	0.00%	685	76.88%	11,363	74.80%	\$2,548	\$28,950	\$0.046	0.11	3.07	0.11	na	na	na	0	0.15	0.0257	0.08	0.0246	0.10	0.0285	0.19	0.0265	0.03	0.0247	10.46%	1,886
JPM	834	12,353	14,696	0	0.00%	0	0.00%	0	0.00%	0	0.00%	701	84.05%	9,330	75.53%	\$2,636	\$24,591	\$0.036	0.16	3.08	0.12	4.05	0	0.09	0.0324	0.51	0.0290	0.24	0.0232	0.15	0.0255	0.03	0.0200	8.22%	2,002		
KBH	244	3,790	5,660	0	0.00%	0	0.00%	0	0.00%	0	0.00%	165	67.62%	2,218	58.52%	\$3,635	\$8,063	\$0.090	0.12	2.43	0.12	na	na	na	0	0.19	0.0445	0.16	0.0267	0.00	0.0318	0.00	0.0167	na	7.51%	831	
KFT	39	841	1,133	0	0.00%	0	0.00%	0	0.00%	0	0.00%	16	41.03%	503	59.81%	\$2,334	\$1,174	\$0.058	0.29	2.66	0.29	na	na	na	1	0.41	0.0245	0.68	0.0200	na	na	0.00	0.0200	0.00	0.0248	2.81%	258
KGC	42	869	962	0	0.00%	0	0.00%	0	0.00%	0	0.00%	27	64.29%	551	63.41%	\$2,615	\$1,441	\$0.053	0.22	2.73	0.22	na	na	na	0	0.21	0.0265	0.37	0.0300	1.00	na	0.00	0.0358	0.00	0.0100	4.45%	89
KKD	72	1,004	1,068	0	0.00%	0	0.00%	0	0.00%	0	0.00%	38	52.78%	667	66.43%	\$3,120	\$2,081	\$0.101	0.30	2.94	0.19	24.00	0	0.35	0.0350	0.28	0.0308	na	na	0.00	0.0150	na	na	2.60%	184		
KLAC	427	3,817	4,414	0	0.00%	0	0.00%	0	0.00%	0	0.00%	339	79.39%	3,099	81.19%	\$3,283	\$10,174	\$0.051	0.15	3.33	0.15	na	na	na	0	0.20	0.0272	0.07	0.0309	0.00	0.0306	0.00	0.0618	15.58%	1,013		
KMB	37	1,283	1,379	0	0.00%	0	0.00%	0	0.00%	0	0.00%	30	81.08%	1,130	88.07%	\$2,304	\$2,604	\$0.055	0.36	3.58	0.33	5.00	1	0.19	0.0411	0.24	0.0486	0.00	0.0100	0.00	0.0200	0.55	0.0164	9.29%	191		
KMG	67	812	956	0	0.00%	0	0.00%	0	0.00%	0	0.00%	52	77.61%	652	80.30%	\$4,170	\$2,719	\$0.103	0.03	3.24	0.03	na	na	na	0	0.05	0.0447	0.00	na	0.00	0.0381	na	na	na	8.18%	214	
KMX	36	235	255	0	0.00%	0	0.00%	0	0.00%	0	0.00%	27	75.00%	168	71.49%	\$3,351	\$563	\$0.069	0.23	3.06	0.23	na	na	na	0	0.23	0.0335	na	na	na	na	na	na	3.14%	36		
KO	173	4,060	6,443	0	0.00%	0	0.00%	0	0.00%	0	0.00%	123	71.10%	2,676	65.91%	\$2,537	\$6,789	\$0.062	0.11	2.72	0.11	4.00	0	0.13	0.0276	0.13	0.0268	0.17	0.0235	0.16	0.0258	0.00	0.0215	6.24%	1,222		
KR	25	751	841	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	12.00%	110	14.65%	\$1,636	\$180	\$0.054	0.39	0.97	0.39	na	na	na	0	0.39	0.0380	0.39	na	na	0.00	na	na	13.30%	219		
KSS	178	1,223	2,275	0	0.00%	0	0.00%	0	0.00%	0	0.00%	133	74.72%	1,298	67.50%	\$3,596	\$4,667	\$0.065	0.35	3.03	0.18	4.71	0	0.45	0.0392	0.13	0.0305	0.00	0.0258	na	na	na	na	7.84%	561		
L	13	341	509	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	30.77%	131	38.42%	\$3,153	\$413	\$0.059	0.03	1.57	0.03	na	na	na	0	0.13	0.0133	0.00	0.0400	0.00	0.0300	na	na	na	5.91%	222	
LEH	502	3,837	5,359	0	0.00%	0	0.00%	0	0.00%	0	0.00%	366	72.91%	2,570	66.98%	\$4,404	\$11,317	\$0.096	0.16	2.80	0.16	na	na	na	0	0.19	0.0467	0.05	0.0382	na	na	na	na	10.86%	1,083		
LEN	367	4,639	6,039	0	0.00%	0	0.00%	0	0.00%	0	0.00%	249	67.85%	1,967	42.40%	\$3,692	\$7,262	\$0.063	0.28	1.94	0.15	6.00	0	0.15	0.0405	0.23	0.0288	0.00	0.0200	3.00	0.0230	0.12	na	6.43%	956		
LEXR	85	1,011	2,279	0	0.00%	0	0.00%	0	0.00%	0	0.00%	24	28.24%	298	29.48%	\$2,178	\$649	\$0.087	0.38	1.55	0.38	na	na	na	0	0.39	0.0261	0.07	0.0100	na	na	na	na	2.33%	106		
LLF	1	10	21	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na	\$0	\$0.420	0.00	0.00	0.00	na	na	na	0	0.00	na	na	na	na	na	na	na	3.32%	10		
LLL	85	595	701	0	0.00%	0	0.00%	0	0.00%	0	0.00%	75	88.24%	508	85.38%	\$4,602	\$2,338	\$0.070	0.12	3.47	0.11	4.00	0	0.16	0.0428	0.00	0.0525	na	na	na	na	na	na	15.56%	159		
LLTC	44	973	1,611	0	0.00%	0	0.00%	0	0.00%	0	0.00%	26	59.09%	581	59.71%	\$3,379	\$1,963	\$0.056	0.16	2.51	0.16	na	na	na	0	0.25	0.0413	0.30	0.0300	na	na	0.00	0.0315	na	15.02%	366	
LLY	144	1,888	2,326	0	0.00%	0	0.00E+00	0	0.00E+00	0	0.00E+00	116	80.56%	1,458	77.22%	\$4,516	\$6,584	\$0.060	0.10	3.16	0.10	na	na	na	0	0.13	0.0452	0.13	0.0397	na	na	0.00	0.0400	0.00	0.0535	5.76%	336
LMT	46	605	615	0	0.00%	0	0.00%	0	0.00%	0	0.00%	39	84.78%	552	91.24%	\$3,380	\$1,866	\$0.045	0.07	3.72	0.07	na	na	na	1	0.13	0.0425	0.00	0.0293	0.00	0.0200	0.00	0.0200	na	na	12.77%	173
LNCR	19	168	168	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	26.32%	24	14.29%	\$2,375	\$57	\$0.085	0.37	0.94	0.37	na	na	na	0	0.37	0.0238	na	na	na	na	na	na	na	8.85%	29	
LOW	166	1,881	2,345	0	0.00%	0	0.00%	0	0.00%	0	0.00%	131	78.92%	1,386	73.68%	\$3,561	\$4,935	\$0.051	0.18	3.10	0.18	na	na	na	0	0.14	0.0378	0.33	0.0349	na	na	0.00	0.0200	na	na	9.98%	441
LRCX	88	1,026	1,860	0	0.00%	0	0.00%	0	0.00%	0	0.00%	70	79.55%	846	82.46%	\$2,052	\$1,736	\$0.112	0.16	3.43	0.16	na	na	na	1	0.36	0.0369	0.00	0.0200	na	na	na	na	0.00	0.0116	7.99%	207
LSI	133	2,612	2,827	0	0.00%	0	0.00%	0	0.00%	0	0.00%	106	79.70%	2,064	79.02%	\$2,865	\$5,914	\$0.043	0.06	3.20	0.06	na	na	na	0	0.14	0.0328	0.00	0.0313	0.00	0.0162	0.00	0.0200	7.21%	235		
LU	526	13,169	21,804	0	0.00%	0	0.00%	0	0.00%	0	0.00%	57	10.84%	3,779	28.70%	\$1,637	\$6,185	\$0.048	2.16	3.28	0.31	5.79	5	3.16	0.0222	2.27	0.0191	8.28	0.0262	2.97	0.0188	0.60	0.0130	3.28%	1,122		
LUV	71	1,502	1,512	0	0.00%	0	0.00%	0	0.00%	0	0.00%	51	71.83%	725	48.27%	\$2,975	\$2,157	\$0.043	0.04	1.97	0.04	na	na	na	0	0.02	0.0325	0.14	0.0100	na	na	0.00	0.0293	5.87%	137		
LVLTL	115	3,547	5,943	0	0.00%	0	0.00%	0	0.00%	0	0.00%	53	46.09%	1,535	43.28%	\$2,167	\$3,327	\$0.072	0.50	2.19	0.23	4.10	0	0.39	0.0192	0.32	0.0205	0.00	0.0379	0.10	0.0230	2.76	0.0200	4.10%	520		
LXK	30	412	726	0	0.00%	0	0.00%	0	0.00%	0	0.00%	17	56.67%	245	59.47%	\$2,457	\$602	\$0.138	0.56	2.94	0.56	na	na	na	0	0.26	0.0319	1.49	0.0163	0.00	0.0200	na	na	na	na	5.96%	146
LYO	24	287	390	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	8.33%	18	6.27%	\$2,000	\$36	\$0.120	0.62	0.87	0.44	4.46	0	0.86	0.0200	na	na	na	na	na	na	na	na	2.21%	75		
MAT	7	109	109	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	71.43%	29	26.61%	\$3,483	\$101	\$0.045	0.73	1.80	0.73	na	na	na	1	0.00	0.0348	1.00	na	na	na	na	na	na	16.07%	100	
MATK	27	245	455	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	na																					

Class	Orders	Contracts	Total Contracts	Orders Unfav. % (ALL)	Orders Unfav. % (ALL)	Contracts Unfav. % (ALL)	Contracts Unfav. % (ALL)	Orders Unfav. (Limited)	Orders Unfav. % (Limited)	Contracts Unfav. (Limited)	Contracts Unfav. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (Average)	Time (Average with 3 second PIPs)	Time (Average without ML)	Time (Average ML only)	Time Mean (non PIP date)	Improvement \$ (25 contracts or less)	Time (26 - 50 contracts)	Improvement \$ (26 - 50 contracts)	Time (51 - 75 contracts)	Improvement \$ (51 - 75 contracts)	Time (76 - 100 contracts)	Improvement \$ (76 - 100 contracts)	Time (101 or more contracts)	Improvement \$ (101 or more contracts)	BOX/OCC Market Share	BOX/OCC ADV	
NKTR	39	394	528	0	0.00%	0	0.00%	0	0.00%	0	0.00%	10	25.64%	107	27.16%	\$2,645	\$283	\$0.115	0.22	1.30	0.22	n.a	0.23	0.0264	0.00	n.a	n.a	n.a	n.a	n.a	n.a	2.83%	62		
NOC	35	433	524	0	0.00%	0	0.00%	0	0.00%	0	0.00%	22	62.86%	307	70.90%	\$4,635	\$1,423	\$0.151	0.25	3.07	0.25	n.a	1	0.34	0.0634	n.a	n.a	0.00	0.0150	n.a	n.a	n.a	17.96%	102	
NOK	185	4,145	5,413	0	0.00%	0	0.00%	0	0.00%	0	0.00%	147	79.46%	2,746	66.25%	\$2,343	\$6,433	\$0.051	0.09	2.71	0.08	4.00	0.11	0.0279	0.07	0.0201	0.37	0.0343	0.06	0.0224	0.00	0.0100	3.95%	1,361	
NOVL	100	2,221	2,588	0	0.00%	0	0.00%	0	0.00%	0	0.00%	70	70.00%	1,598	71.95%	\$2,273	\$3,632	\$0.042	0.04	2.92	0.04	n.a	0.09	0.0226	0.04	0.0213	0.00	0.0300	0.00	0.0194	0.00	0.0265	4.48%	206	
NPSP	36	367	528	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.122	0.49	0.49	0.47	4.00	0.49	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	4.28%	88		
NSM	173	4,250	7,037	0	0.00%	0	0.00%	0	0.00%	0	0.00%	116	67.05%	3,382	79.58%	\$2,366	\$8,002	\$0.065	0.08	3.24	0.08	n.a	0.19	0.0308	0.10	0.0337	n.a	0.00	0.0356	0.00	0.0167	13.79%	585		
NTAP	224	3,361	4,847	0	0.00%	0	0.00%	0	0.00%	0	0.00%	88	39.29%	2,276	67.72%	\$2,257	\$5,136	\$0.074	0.30	2.99	0.14	5.86	0.59	0.0300	0.14	0.0360	n.a	n.a	0.00	0.0327	0.00	0.0100	7.77%	430	
NTES	217	2,589	3,768	0	0.00%	0	0.00%	0	0.00%	0	0.00%	62	28.57%	1,025	39.59%	\$5,861	\$6,008	\$0.124	0.28	1.80	0.28	n.a	0.25	0.0720	0.00	0.0415	0.00	0.0254	1.00	0.0325	n.a	n.a	6.21%	588	
NTLI	4	43	65	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.226	0.26	0.26	0.26	n.a	0.26	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.74%	14		
NUE	165	2,060	3,829	0	0.00%	0	0.00%	0	0.00%	0	0.00%	41	24.85%	530	25.73%	\$2,232	\$1,183	\$0.122	0.28	1.31	0.28	n.a	0.34	0.0229	0.09	0.0217	n.a	n.a	n.a	n.a	n.a	2.64%	381		
NVDA	1,559	15,552	18,656	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,305	83.71%	12,164	78.22%	\$2,805	\$34,118	\$0.065	0.13	3.23	0.13	4.00	0.18	0.0347	0.22	0.0407	0.36	0.0319	0.10	0.0342	0.00	0.0134	8.85%	1,665	
NVLS	152	2,775	3,357	0	0.00%	0	0.00%	0	0.00%	0	0.00%	113	74.34%	2,075	74.77%	\$2,629	\$5,455	\$0.044	0.17	1.15	0.17	n.a	0.16	0.0276	0.32	0.0229	0.00	0.0700	0.00	0.0277	0.00	0.0100	14.97%	590	
NWFL	15	186	206	0	0.00%	0	0.00%	0	0.00%	0	0.00%	8	53.33%	55	29.57%	\$5,345	\$294	\$0.048	0.24	1.42	0.24	n.a	0.40	0.0535	n.a	n.a	0.00	n.a	n.a	n.a	n.a	3.20%	19		
NWSA	7	69	102	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.083	0.39	0.39	0.39	n.a	0.39	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.55%	8		
NYB	64	964	1,396	0	0.00%	0	0.00%	0	0.00%	0	0.00%	44	68.75%	784	81.33%	\$2,631	\$2,063	\$0.047	0.39	3.30	0.09	n.a	0.10	0.0261	0.19	0.0269	0.00	0.0192	0.00	0.0306	n.a	n.a	6.11%	82	
OHIC	450	10,847	22,588	5	1.11%	212	1.95%	0	0.00%	0	0.00%	24	5.33%	1,491	13.75%	\$3,820	\$5,696	\$0.109	0.42	0.96	0.31	9.37	0.64	0.0654	0.43	0.0889	0.00	0.0400	0.40	0.11	0.0296	6.31%	2,911		
OIM	10	104	233	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	20.00%	41	39.42%	\$4,854	\$199	\$0.124	0.21	1.79	0.21	n.a	0.32	0.0400	0.00	0.0500	n.a	n.a	n.a	n.a	n.a	11.56%	86		
ONXX	13	156	219	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.115	1.46	1.46	0.58	12.00	1.46	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1.06%	32		
OPWV	116	878	3,898	0	0.00%	0	0.00%	0	0.00%	0	0.00%	95	81.90%	676	76.99%	\$3,281	\$2,218	\$0.076	0.37	3.12	0.07	n.a	0.08	0.0344	0.00	0.0224	n.a	n.a	n.a	n.a	n.a	3.99%	109		
ORCL	770	30,220	35,226	0	0.00%	0	0.00%	0	0.00%	0	0.00%	611	79.53%	22,118	73.19%	\$1,824	\$40,337	\$0.034	0.19	3.10	0.19	9.23	0.17	0.0245	0.48	0.0237	0.23	0.0199	0.00	0.0220	0.15	0.0122	9.55%	3,970	
OSIP	38	404	782	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	15.79%	61	15.10%	\$6,082	\$371	\$0.118	0.41	1.02	0.13	4.00	0.13	0.0608	4.00	n.a	n.a	n.a	n.a	n.a	n.a	4.72%	177		
OSTK	138	1,485	2,017	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.133	0.93	0.93	0.25	7.42	0.85	n.a	1.89	n.a	n.a	n.a	n.a	n.a	n.a	4.70%	510		
OVTI	409	3,871	4,558	0	0.00%	0	0.00%	0	0.00%	0	0.00%	343	83.86%	3,130	80.86%	\$3,994	\$12,501	\$0.058	0.39	3.51	0.50	n.a	0.22	0.0407	0.14	0.0404	1.20	0.0423	1.95	0.0264	n.a	n.a	5.79%	519	
OXY	232	3,358	4,100	0	0.00%	0	0.00%	0	0.00%	0	0.00%	193	83.19%	2,845	84.72%	\$4,226	\$12,022	\$0.086	0.13	3.51	0.13	n.a	1	0.23	0.0448	0.09	0.0359	0.00	0.0500	0.00	0.0250	0.00	0.0434	8.84%	580
PAAS	581	6,156	6,993	0	0.00%	0	0.00%	0	0.00%	0	0.00%	500	86.06%	5,294	86.00%	\$3,250	\$17,204	\$0.055	0.11	3.50	0.11	n.a	0.14	0.0367	0.08	0.0277	0.00	0.0236	0.00	0.0237	0.00	0.0220	8.54%	632	
PALM	964	10,682	16,789	1	0.10%	20	0.19%	0	0.00%	0	0.00%	647	67.12%	7,372	69.01%	\$2,293	\$16,907	\$0.061	0.16	2.89	0.16	8.00	0.19	0.0251	0.21	0.0202	0.00	0.0178	0.11	0.0225	0.00	0.0200	4.47%	1,122	
PAYX	126	1,943	2,658	0	0.00%	0	0.00%	0	0.00%	0	0.00%	70	55.56%	1,079	55.53%	\$2,790	\$3,010	\$0.065	0.18	2.40	0.18	n.a	0.24	0.0251	0.12	0.0305	n.a	n.a	n.a	n.a	n.a	8.94%	379		
PCG	45	664	2,012	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	20.00%	111	16.72%	\$2,036	\$226	\$0.127	1.12	1.77	0.34	21.00	1.68	0.0270	0.36	0.0122	n.a	n.a	n.a	n.a	n.a	25.20%	118		
PCLN	17	164	907	0	0.00%	0	0.00%	0	0.00%	0	0.00%	11	64.71%	97	59.15%	\$3,794	\$368	\$0.094	0.27	2.62	0.27	n.a	0.33	0.0493	0.00	0.0100	n.a	n.a	n.a	n.a	n.a	8.12%	56		
PD	1,308	12,117	15,593	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,096	83.79%	10,273	84.78%	\$4,284	\$44,010	\$0.114	0.17	3.52	0.17	5.00	0.23	0.0450	0.07	0.0444	0.00	0.0205	0.00	0.0296	n.a	n.a	6.24%	1,181	
PDG	1	17	17	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.050	0.00	0.00	0.00	n.a	0.00	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.97%	7		
PDLI	42	422	2,707	0	0.00%	0	0.00%	0	0.00%	0	0.00%	18	42.86%	148	35.07%	\$2,784	\$412	\$0.096	2.00	3.40	2.00	n.a	0.32	0.0317	5.56	0.0249	n.a	n.a	n.a	n.a	n.a	9.55%	102		
PEP	112	1,365	1,543	0	0.00%	0	0.00%	0	0.00%	0	0.00%	48	42.86%	455	33.33%	\$3,145	\$1,431	\$0.052	0.36	1.61	0.36	n.a	0.30	0.0336	0.23	0.0277	0.35	n.a	n.a	n.a	1.00	0.0300	8.82%	538	
PETM	27	421	593	0	0.00%	0	0.00%	0	0.00%	0	0.00%	15	55.56%	280	66.51%	\$3,339	\$935	\$0.108	0.07	2.71	0.07	n.a	0.13	0.0524	0.00	n.a	0.00	0.0100	0.00	0.0214	n.a	n.a	8.80%	59	
PFE	589	14,102	18,300	0	0.00%	0	0.00%	0	0.00%	0	0.00%	435	73.85%	10,056	71.31%	\$2,344	\$23,575	\$0.041	0.12	2.94	0.10	5.35	0.12	0.0238	0.17	0.0232	0.23	0.0181	0.03	0.0234	0.08	0.0241	8.81%	3,031	
PG	486	5,857	8,114	0	0.00%	0	0.00%	0	0.00%	0	0.00%	383	78.81%	4,109	70.16%	\$3,237	\$13,301	\$0.042	0.13	2.86	0.13	n.a	0.13	0.0352	0.13	0.0317	0.15	0.0300	0.11	0.0240	n.a	n.a	9.63%	1,865	
PHM	326	3,809	4,762	0	0.00%	0	0.00%	0	0.00%	0	0.00%	262	80.37%	2,881	75.64%	\$2,577	\$7,424	\$0.066	0.15	3.06	0.14	5.00	0.19	0.0338	0.19	0.0237	0.00	0.0200	0.16	0.0168	0.00	0.0228	9.87%	516	
PIXR	15	109	122	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.097	4.85	4.85	0.40	19.80	4.85	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.09%	68		
PMCS	84	1,796	2,365	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55	65.48%	1,246	69.38%	\$2,733	\$3,405	\$0.054	0.11	2.83	0.11	n.a	0.25	0.0295	0.07	0.0273	0.00	n.a	0.00	0.0313	0.00	0.0123	7.84%	249	
PNC	24	306	361	0	0.00%	0	0.00%	0	0.00%	0	0.00%	15	62.50%	154	50.33%	\$5,123	\$789	\$0.065	0.43	2.40	0.43	n.a	1	0.25	0.0326	0.64	0.0900	n.a	n.a	n.a	n.a	n.a	7.57%	126	
PPH	6	78	246	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	16.67%	5	6.41%	\$6,000	\$30	\$0.292	0.0																

Class	Orders	Contracts	Total Contracts	Orders Unfav. % (ALL)	Orders Unfav. % (ALL)	Contracts Unfav. % (ALL)	Contracts Unfav. % (ALL)	Orders Unfav. (Limited)	Orders Unfav. % (Limited)	Contracts Unfav. (Limited)	Contracts Unfav. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (Average)	Time (Average with 3 second PIPs)	Time (Average without (ML))	Time (Average (ML only))	Time Mean (non PIP date)	Improvement \$ (25 contracts or less)	Improvement \$ (25 - 50 contracts)	Improvement \$ (51 - 75 contracts)	Improvement \$ (76 - 100 contracts)	Improvement \$ (101 or more contracts)	Improvement \$ (100 or more contracts)	BOX/OCC Market Share	BOX/OCC ADV				
SMH	1,378	49,631	53,129	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,227	89.04%	45,742	92.16%	\$2,415	\$110,482	\$0.030	0.06	3.72	0.05	8.19	0.16	0.0279	0.09	0.0295	0.06	0.0315	0.07	0.0321	0.03	0.0189	7.74%	4,378	
SNKD	1,412	17,115	20,019	1	0.07%	2	0.01%	0	0.00%	0	0.00%	1,043	73.87%	13,580	79.35%	\$2,904	\$39,443	\$0.067	0.19	3.33	0.18	5.17	0.31	0.0386	0.31	0.0440	0.00	0.0100	0.13	0.0200	0.00	0.0171	6.05%	2,535	
SNE	21	167	203	0	0.00%	0	0.00%	0	0.00%	0	0.00%	13	61.90%	88	52.69%	\$5,080	\$447	\$0.158	0.12	2.15	0.12	n.a	0.12	0.0508	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	8.85%	85	
SNPS	12	119	174	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	75.00%	71	59.66%	\$2,042	\$145	\$0.080	0.26	2.60	0.26	n.a	0.26	0.0204	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	7.42%	34	
SOHU	172	1,341	1,706	0	0.00%	0	0.00%	0	0.00%	0	0.00%	137	79.65%	895	66.74%	\$2,279	\$2,040	\$0.066	0.60	3.23	0.16	5.31	1	0.41	0.0248	1.71	0.0142	0.00	0.0200	n.a	n.a	n.a	n.a	6.37%	220
SONS	15	240	325	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.076	0.11	0.11	0.11	n.a	0.15	n.a	0.00	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.97%	56	
SOV	14	288	349	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	28.57%	57	19.79%	\$2,842	\$162	\$0.142	0.54	1.33	0.54	n.a	0.32	0.0285	0.62	0.0283	n.a	n.a	n.a	n.a	n.a	n.a	n.a	2.85%	43
SPF	28	360	447	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	75.00%	170	47.22%	\$3,388	\$576	\$0.119	0.24	2.00	0.24	n.a	0.47	0.0351	0.00	0.0300	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.58%	51
SPW	34	160	202	0	0.00%	0	0.00%	0	0.00%	0	0.00%	18	52.94%	31	19.38%	\$3,839	\$119	\$0.067	0.39	1.16	0.39	n.a	0.39	0.0394	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	4.32%	125	
SPY	3,243	92,667	98,360	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2,446	75.42%	70,838	76.44%	\$1,888	\$13,722	\$0.047	0.35	3.36	0.11	12.05	0.53	0.0266	0.46	0.0222	0.27	0.0229	0.14	0.0208	0.29	0.0154	2.56%	8,626	
STA	20	182	439	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	45.00%	75	41.21%	\$2,320	\$174	\$0.168	0.31	1.77	0.31	n.a	0.17	0.0253	1.00	0.0200	n.a	n.a	n.a	n.a	n.a	n.a	n.a	6.01%	112
STJ	153	1,847	3,800	0	0.00%	0	0.00%	0	0.00%	0	0.00%	78	50.98%	953	51.60%	\$3,012	\$2,870	\$0.088	0.38	2.44	0.18	20.26	0.54	0.0402	0.00	0.0124	0.00	0.0400	n.a	n.a	n.a	n.a	n.a	6.30%	343
STM	1	4	4	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	100.00%	4	100.00%	\$2,000	\$8	\$0.010	0.00	4.00	0.00	n.a	0.00	0.0200	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	32.97%	119	
STX	128	4,346	5,159	0	0.00%	0	0.00%	0	0.00%	0	0.00%	61	47.66%	3,556	81.82%	\$2,789	\$9,919	\$0.073	0.07	3.36	0.06	4.25	0.28	0.0432	0.08	0.0413	0.00	0.0317	0.00	0.0302	0.00	0.0183	3.61%	529	
SUN	224	2,310	2,561	0	0.00%	0	0.00%	0	0.00%	0	0.00%	152	67.86%	1,622	70.22%	\$5,239	\$8,498	\$0.076	0.13	2.90	0.13	n.a	0.16	0.0555	0.00	0.0495	0.00	0.0375	n.a	n.a	n.a	n.a	n.a	6.37%	607
SUN	217	2,059	2,175	0	0.00%	0	0.00%	0	0.00%	0	0.00%	187	86.18%	1,782	86.55%	\$4,821	\$8,591	\$0.058	0.10	3.47	0.10	n.a	0.14	0.0537	0.05	0.0423	0.00	0.0375	n.a	n.a	n.a	n.a	n.a	9.45%	336
SUNW	133	6,127	8,772	0	0.00%	0	0.00%	0	0.00%	0	0.00%	50	37.59%	2,578	42.08%	\$2,351	\$6,061	\$0.052	0.32	2.00	0.28	4.75	0.44	0.0258	0.04	0.0272	0.95	n.a	0.15	n.a	0.33	0.0220	3.16%	1,190	
SUPG	45	571	1,425	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	6.67%	25	4.38%	\$1,600	\$40	\$0.064	4.77	4.94	0.32	10.01	1	2.88	0.0160	14.50	n.a	5.00	n.a	n.a	n.a	n.a	n.a	4.55%	74
SWIR	3	33	122	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.370	0.33	0.33	0.33	n.a	0.33	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.12%	7	
SWY	32	797	1,310	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	21.88%	50	6.27%	\$4,000	\$200	\$0.088	0.18	0.41	0.18	n.a	0.29	0.0400	0.42	n.a	0.00	n.a	n.a	n.a	n.a	n.a	12.05%	163	
SVYK	90	923	1,295	0	0.00%	0	0.00%	0	0.00%	0	0.00%	69	76.67%	630	68.26%	\$3,587	\$2,260	\$0.087	0.13	2.87	0.13	n.a	0.15	0.0413	0.14	0.0190	n.a	n.a	n.a	n.a	n.a	n.a	7.95%	183	
SYMC	365	7,862	9,053	0	0.00%	0	0.00%	0	0.00%	0	0.00%	283	77.53%	6,381	81.16%	\$3,012	\$19,219	\$0.034	0.11	3.33	0.11	22.00	0.16	0.0279	0.14	0.0340	0.21	0.0201	0.00	0.0381	0.00	0.0175	9.48%	819	
T	157	2,123	2,901	0	0.00%	0	0.00%	0	0.00%	0	0.00%	120	76.43%	1,484	69.90%	\$3,179	\$4,718	\$0.058	0.15	2.93	0.15	n.a	0.09	0.0323	0.26	0.0392	0.00	0.0276	0.33	0.0278	n.a	n.a	7.00%	1,102	
TARO	59	803	1,206	0	0.00%	0	0.00%	0	0.00%	0	0.00%	31	52.54%	363	45.21%	\$2,565	\$931	\$0.087	0.43	2.24	0.43	n.a	0.71	0.0282	0.17	0.0141	0.00	0.0400	n.a	n.a	n.a	n.a	n.a	7.03%	86
TASR	89	1,530	3,257	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55	61.80%	1,061	69.35%	\$2,854	\$3,028	\$0.067	0.19	3.01	0.09	5.00	0.16	0.0298	0.38	0.0342	n.a	n.a	0.00	0.0208	n.a	n.a	2.80%	201	
TE	10	100	110	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	50.00%	77	77.00%	\$2,922	\$225	\$0.070	0.12	3.20	0.12	n.a	1	0.20	0.0338	0.00	0.0250	n.a	n.a	n.a	n.a	n.a	n.a	9.38%	16
TER	37	599	1,350	0	0.00%	0	0.00%	0	0.00%	0	0.00%	26	70.27%	354	59.10%	\$2,424	\$858	\$0.058	0.09	2.44	0.09	n.a	0.12	0.0211	0.00	0.0354	0.00	n.a	n.a	n.a	n.a	n.a	n.a	5.67%	105
TEVA	218	2,857	3,699	0	0.00%	0	0.00%	0	0.00%	0	0.00%	133	61.01%	1,945	68.08%	\$3,350	\$6,515	\$0.078	0.17	2.88	0.17	5.00	0.25	0.0319	0.13	0.0373	0.00	0.0360	0.00	0.0447	0.00	0.0231	8.30%	466	
TGT	159	1,880	2,164	0	0.00%	0	0.00%	0	0.00%	0	0.00%	135	84.91%	1,508	80.21%	\$2,825	\$4,260	\$0.039	0.12	3.30	0.12	n.a	0.05	0.0349	0.34	0.0231	0.00	0.0200	0.00	0.0167	n.a	n.a	n.a	14.02%	903
THC	49	1,083	2,562	0	0.00%	0	0.00%	0	0.00%	0	0.00%	27	55.10%	630	58.17%	\$3,144	\$1,981	\$0.085	0.27	2.53	0.27	n.a	0.30	0.0323	0.32	0.0305	0.00	0.0302	n.a	n.a	n.a	n.a	n.a	8.53%	216
TIF	1	10	10	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.050	0.00	0.00	0.00	n.a	0.00	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	2.77%	32	
TIVO	169	2,532	4,968	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	3.55%	95	3.75%	\$3,053	\$290	\$0.070	1.57	1.72	0.25	8.22	1.68	0.0262	0.72	0.0400	3.22	n.a	0.00	n.a	n.a	n.a	n.a	3.50%	404
TK	25	366	440	0	0.00%	0	0.00%	0	0.00%	0	0.00%	16	64.00%	261	71.31%	\$2,690	\$702	\$0.085	0.14	2.85	0.14	n.a	0.19	0.0293	0.00	0.0233	n.a	n.a	n.a	n.a	n.a	n.a	n.a	4.08%	46
TLAB	54	808	975	0	0.00%	0	0.00%	0	0.00%	0	0.00%	30	55.56%	523	64.73%	\$4,545	\$2,377	\$0.052	0.37	2.89	0.10	22.00	0.58	0.0417	0.15	0.0509	0.00	0.0400	n.a	n.a	n.a	n.a	n.a	5.38%	182
TMX	35	1,729	3,378	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	n.a	\$0	\$0.118	0.85	0.85	0.60	5.00	1	0.52	n.a	0.38	n.a	1.46	n.a	0.52	n.a	26.90%	425		
TOL	671	11,621	15,084	0	0.00%	0	0.00%	0	0.00%	0	0.00%	491	73.17%	6,917	59.52%	\$2,927	\$20,249	\$0.056	0.14	2.50	0.14	5.00	0.14	0.0341	0.12	0.0262	0.24	0.0200	0.00	0.0266	0.21	0.0266	7.89%	1,522	
TSM	28	481	952	0	0.00%	0	0.00%	0	0.00%	0	0.00%	11	39.29%	177	36.80%	\$3,249	\$575	\$0.078	0.34	1.76	0.34	n.a	0.38	0.0286	0.30	0.0400	n.a	n.a	n.a	n.a	n.a	n.a	n.a	9.16%	115
TSN	46	1,170	2,271	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	45.65%	708	60.51%	\$1,942	\$1,375	\$0.056	0.30	2.72	0.30	n.a	0.59	0.0239	0.30	0.0239	n.a	n.a	0.00	0.0156	n.a	n.a	4.69%	218	
TTWO	150	1,788	5,737	0	0.00%	0	0.00%	0	0.00%	0	0.00%	77	51.33%	799	44.69%	\$3,203	\$2,559	\$0.060	0.17	1.94	0.17	4.00	0.20	0.0352	0.11	0.0233	n.a	n.a	n.a	n.a	n.a	n.a	n.a	3.78%	376
TWX	239	8,021	11,861	0	0.00%	0	0.00%	0	0.00%	0	0.00%	188	78.66%	5,429	67.68%	\$2,389	\$12,970	\$0.037	0.17	2.84	0.17	4.00	0.09	0.0241	0.14	0.0200	0.08	0.0160	0.17	0.0273	0.30	0.0235	7.00%	1,447	
TXN	752	17,998	22,855	0	0.00%	0																													

Class	Orders	Contracts	Total Contracts	Orders Unfav. (ALL)	Orders Unfav. % (ALL)	Contracts Unfav. (ALL)	Contracts Unfav. % (ALL)	Orders Unfav. (Limited)	Orders Unfav. % (Limited)	Contracts Unfav. (Limited)	Contracts Unfav. % (Limited)	Orders Improved	Orders Improved %	Contracts Improved	Contracts Improved %	Average Improvement	Total Improvement	Average Effective Spread	Time (average)	Time (average with 3 second PIPs)	Time (average without (ML))	Time (average (ML only))	Time Mean (non PIP data)	Improvement \$ (25 contracts or less)	Time (25 - 50 contracts)	Improvement \$ (26 - 50 contracts)	Time (51 - 75 contracts)	Improvement \$ (51 - 75 contracts)	Time (76 - 100 contracts)	Improvement \$ (76 - 100 contracts)	Time (101 or more contracts)	Improvement \$ (100 or more contracts)	BOX/OCC Market Share	BOX/OCC ADV	
XLE	985	15,338	18,570	0	0.00%	0	0.00%	0	0.00%	0	0.00%	898	91.17%	10,490	68.39%	\$3,345	\$35,084	\$0.051	0.22	2.93	0.22	n.a	0	0.07	0.0347	0.08	0.0363	2.55	0.0426	0.10	0.0285	0.21	0.0266	4.48%	3,189
XLF	62	3,520	3,520	0	0.00%	0	0.00%	0	0.00%	0	0.00%	51	82.26%	2,666	75.74%	\$2,094	\$5,583	\$0.023	0.06	3.09	0.06	n.a	0	0.01	0.0255	0.22	0.0410	n.a	n.a	n.a	0.06	0.0191	2.05%	334	
XLNX	267	3,343	3,684	0	0.00%	0	0.00%	0	0.00%	0	0.00%	194	72.66%	2,405	71.94%	\$3,592	\$8,639	\$0.045	0.11	2.98	0.11	n.a	0	0.18	0.0426	0.07	0.0440	0.00	0.0400	0.00	0.0199	0.00	0.0100	13.02%	567
XMSR	405	6,079	8,104	1	0.25%	11	0.18%	0	0.00%	0	0.00%	305	75.31%	4,473	73.58%	\$3,290	\$14,715	\$0.058	0.19	3.12	0.18	4.73	0	0.22	0.0324	0.18	0.0345	0.00	0.0500	0.32	0.0310	0.17	0.0314	9.89%	1,547
XOM	835	16,523	21,550	0	0.00%	0	0.00%	0	0.00%	0	0.00%	666	79.76%	11,437	69.22%	\$2,693	\$30,799	\$0.053	0.23	2.94	0.15	14.05	0	0.16	0.0337	0.18	0.0283	1.32	0.0396	0.08	0.0261	0.17	0.0194	10.40%	2,958
XRX	23	422	1,076	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	13.04%	45	10.66%	\$2,822	\$127	\$0.089	0.06	0.49	0.06	n.a	0	0.08	0.0282	0.00	n.a	n.a	n.a	n.a	0.00	n.a	9.34%	203	
YHOO	1,965	37,367	45,407	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1,518	77.25%	31,134	83.32%	\$2,478	\$77,159	\$0.036	0.13	3.42	0.10	5.85	0	0.15	0.0279	0.14	0.0273	0.33	0.0227	0.06	0.0245	0.02	0.0172	7.95%	3,646
ZMH	97	711	1,122	0	0.00%	0	0.00%	0	0.00%	0	0.00%	73	75.26%	461	64.84%	\$3,492	\$1,610	\$0.080	0.14	2.66	0.14	n.a	0	0.19	0.0369	0.00	0.0313	n.a	n.a	n.a	n.a	n.a	6.01%	187	