

Total PIM Volume Data (Jan 2016 - June 2016)

Total	Jan. 2016	Feb. 2016	Mar. 2016	Apr. 2016	May. 2016	Jun. 2016	Totals/%
PIM	1,237,113	1,551,014	1,202,287	1,161,793	1,033,650	942,751	7,128,608
ISE	47,442,409	43,260,932	42,933,444	39,054,965	34,902,619	42,010,395	249,604,764
Industry	364,671,833	331,918,260	347,068,227	331,842,870	311,177,955	367,558,193	2,054,237,338
% PIM-to-ISE	2.61%	3.59%	2.80%	2.97%	2.96%	2.24%	2.86%
% PIM-to-Ind.	0.34%	0.47%	0.35%	0.35%	0.33%	0.26%	0.35%

ADV	Jan. 2016	Feb. 2016	Mar. 2016	Apr. 2016	May. 2016	Jun. 2016	Totals
PIM	65,111	77,551	57,252	55,323	49,221	42,852	57,489
ISE	2,496,969	2,163,047	2,044,450	1,859,760	1,662,029	1,909,563	2,012,942
Industry	19,193,254	16,595,913	16,527,058	15,802,041	14,817,998	16,707,191	16,566,430
Trading Days	19	20	21	21	21	22	124

PIM Price Improvement Data (Jan 2016 – June 2016)

Appendix: Detailed price improvement statistics for the volume transacted through PIM for January 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	7612	370	56	12	0	0	2	0	0	0	0	0	8052	3	50.94%	47.64%
0.02	3517	1472	63	4	12	4	0	0	0	0	0	0	5072	4	52.83%	46.87%
0.03	787	1852	344	31	0	0	0	0	0	0	0	0	3014	5	47.98%	37.47%
0.04	269	697	445	41	16	4	0	0	0	0	0	0	1472	5	39.84%	35.59%
0.05	244	1369	1659	1183	504	275	192	6	0	0	0	0	5432	6	25.47%	25.92%
>.05<=.10	108	1839	2631	2626	2196	1449	1711	65	0	30	0	1	12671	6	22.47%	23.67%
>.10<=.20	44	775	1130	1114	1374	1965	6254	1393	25	4	0	0	14078	6	26.38%	28.40%
>.20<=.30	0	8	26	112	198	555	2619	2169	302	0	0	0	5989	6	29.65%	24.25%
>.30<=.40	0	0	55	43	118	97	830	1976	363	175	0	1	3658	6	30.33%	31.28%
>.40<=.50	0	0	0	89	21	109	572	802	783	149	11	0	2536	5	24.92%	23.28%
>.50	1	0	4	46	11	76	501	1325	1578	982	577	2117	7218	5	28.21%	28.13%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	3980	272	25	8	0	0	0	0	0	0	0	0	4285	3	67.07%	63.88%
0.02	2554	366	89	0	4	0	0	1	0	11	0	8	3033	4	60.97%	51.33%
0.03	1073	682	100	8	0	6	0	0	0	0	0	0	1869	4	49.89%	42.88%
0.04	319	414	251	26	1	2	10	0	0	0	0	0	1023	4	51.22%	40.30%
0.05	1664	2065	998	474	501	220	376	44	0	0	0	0	6342	5	43.12%	39.40%
>.05<=.10	977	2024	1572	1332	694	923	1638	91	10	0	0	0	9261	5	50.79%	39.54%
>.10<=.20	497	756	1228	971	1154	1139	3738	984	69	5	0	0	10541	6	58.07%	43.10%
>.20<=.30	75	100	220	179	267	462	1717	1922	191	23	3	1	5160	6	60.73%	45.41%
>.30<=.40	28	60	65	80	130	437	801	1565	443	63	3	3	3678	6	53.53%	32.09%
>.40<=.50	78	0	4	17	28	196	299	637	483	99	20	26	1887	7	60.21%	49.34%
>.50	58	68	20	46	62	207	295	1407	1491	805	416	1491	6366	7	51.86%	38.65%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	0	5	0	0	0	0	0	0	0	0	0	0	5	2	100.00%	100.00%
0.02	0	5	0	0	0	0	0	0	0	0	0	0	5	5	58.33%	60.00%
0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	0	30	0	0	0	0	0	0	0	0	0	0	30	4	40.00%	40.00%
>.05<=.10	0	19	20	6	25	5	0	0	0	0	0	0	75	4	43.27%	36.00%
>.10<=.20	0	0	0	32	38	20	0	0	0	0	0	0	90	3	77.58%	65.56%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	11	0	0	0	0	0	0	0	0	0	0	0	22	5	46.67%	22.73%
0.02	21	7	0	0	0	0	0	0	0	0	0	0	28	3	70.00%	57.14%
0.03	39	50	0	0	0	0	0	0	0	0	0	0	89	4	27.19%	34.83%
0.04	6	10	0	0	10	0	0	0	0	0	0	0	26	3	63.33%	65.38%
0.05	0	59	0	2	0	0	0	0	0	0	0	0	61	5	0.00%	0.00%
>.05<=.10	26	39	30	0	0	6	0	5	0	0	0	0	106	4	20.63%	23.58%
>.10<=.20	0	0	10	0	10	0	2	0	0	0	0	0	22	3	13.33%	18.18%
>.20<=.30	0	6	0	0	5	10	0	0	0	0	0	0	21	6	22.73%	23.81%
>.30<=.40	0	0	0	0	0	0	7	0	0	0	0	0	7	5	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	2	0	0	1	0	0	0	0	0	3	4	50.00%	66.67%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	16032	1170	0	0	0	0	0	0	0	0	0	0	17202	3	50.48%	60.17%
0.02	15825	30705	263	0	0	0	70	0	0	0	0	0	46863	3	70.11%	81.61%
0.03	55502	18801	1307	883	0	0	0	0	0	0	0	0	76493	3	63.57%	86.31%
0.04	4489	11178	5199	650	1000	0	0	0	0	0	0	0	22516	4	48.33%	54.85%
0.05	1317	11428	4514	3671	1832	1049	40	0	0	0	0	0	23851	4	40.02%	52.17%
>.05<=.10	43888	41939	33805	23255	6937	32731	11584	110	0	0	0	0	194249	5	34.13%	53.01%
>.10<=.20	4891	14237	16568	29703	11780	36041	57465	6666	0	0	0	0	177351	5	28.94%	58.69%
>.20<=.30	3742	2806	8555	2165	1959	11063	11600	8608	1015	0	0	0	51513	4	31.89%	46.32%
>.30<=.40	2555	866	677	2428	386	5499	10954	13287	2435	1200	0	0	40287	4	26.55%	54.32%
>.40<=.50	14816	292	1401	385	459	1692	5089	6480	6721	1394	510	0	39239	4	21.55%	64.40%
>.50	207	1780	323	93	1156	2536	7487	9510	4569	3256	4428	9970	45315	4	36.87%	44.57%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	17270	417	0	0	0	0	0	0	0	0	0	0	17687	3	63.00%	56.68%
0.02	36568	5604	0	0	0	0	0	0	0	0	0	0	46846	4	59.69%	85.81%
0.03	16048	13538	797	0	0	0	0	0	0	0	0	0	31583	4	57.87%	80.63%
0.04	6068	8430	839	0	0	0	0	0	0	0	0	0	23989	4	55.11%	81.92%
0.05	17591	14996	7667	22239	2423	140	20	20	0	0	0	0	66730	4	51.17%	74.77%
>.05<=.10	18008	17381	17140	11129	395	2327	1269	69	0	0	0	0	76326	4	49.33%	62.43%
>.10<=.20	11044	4889	3316	6680	3470	8757	7402	976	0	0	0	0	47795	4	44.77%	60.73%
>.20<=.30	2441	1336	3150	1467	288	4512	10815	2541	32	0	0	0	28112	3	50.58%	67.73%
>.30<=.40	3319	212	55	42	204	5355	2357	205	190	133	0	0	12072	3	42.66%	65.65%
>.40<=.50	2343	217	276	15	2	1879	1632	2070	1170	50	0	0	9654	3	50.87%	71.06%
>.50	777	717	7	98	0	1141	3381	4113	557	678	247	1478	13194	3	57.36%	75.62%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	329	0	0	0	0	0	0	0	0	0	0	0	329	2	94.00%	94.00%
0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.05<=.10	0	0	0	100	500	50	0	0	0	0	0	0	650	4	20.00%	9.23%
>.10<=.20	0	0	0	182	0	150	187	0	0	0	0	0	519	4	45.00%	47.59%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	2017	33	0	0	0	0	0	2050	4	80.59%	80.59%

Non-Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives	
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50					
0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.02	100	0	0	0	0	0	0	0	0	0	0	0	100	4	40.00%	40.00%	
0.03	179	0	0	0	0	0	0	0	0	0	0	0	179	5	44.75%	45.25%	
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
>.05<=.10	350	20	0	96	60	0	0	0	0	0	0	0	526	6	38.74%	37.26%	
>.10<=.20	0	3	53	20	74	0	0	64	0	0	0	0	214	4	47.44%	49.53%	
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	
>.50	0	0	0	0	0	398	54	0	0	0	0	0	452	3	50.00%	88.05%	

Appendix: Detailed price improvement statistics for the volume transacted through PIM for February 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	5852	657	30	19	0	0	0	1	0	0	0	0	6559	3	48.80%	47.13%
0.02	2945	2110	141	0	19	0	0	0	0	0	0	0	5215	4	52.34%	48.83%
0.03	1107	2828	232	54	17	5	16	0	0	0	0	0	4259	5	46.71%	43.66%
0.04	303	1347	244	58	0	0	0	0	0	0	0	0	1952	5	38.60%	35.55%
0.05	238	2882	2391	1090	476	247	263	5	0	0	0	0	7592	6	25.43%	27.64%
>.05<=.10	93	1810	2958	2119	1723	979	1433	51	0	1	6	3	11201	6	25.19%	26.31%
>.10<=.20	20	284	728	2508	1579	2697	5774	946	16	0	0	12	14564	6	21.45%	21.25%
>.20<=.30	10	10	0	77	105	527	2223	2317	86	34	5	35	5450	6	24.49%	22.18%
>.30<=.40	2	89	29	39	28	86	971	2283	852	182	23	29	4630	5	25.19%	21.83%
>.40<=.50	0	0	0	24	27	40	321	677	586	173	25	5	1878	6	24.87%	26.27%
>.50	0	17	13	0	33	33	469	1206	1934	1350	989	2136	8183	5	23.27%	24.40%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	1861	236	15	10	7	13	5	0	0	0	0	0	2147	4	61.37%	58.30%
0.02	1865	387	18	0	0	0	0	0	0	0	0	0	2270	4	63.59%	53.29%
0.03	1146	817	39	1	1	0	0	0	0	0	0	0	2004	5	47.44%	40.36%
0.04	525	494	205	34	0	1	4	1	0	0	0	3	1267	5	32.50%	31.26%
0.05	2278	2165	1012	555	255	232	448	13	0	1	0	0	6978	4	48.03%	40.72%
>.05<=.10	1106	2310	1630	976	590	784	1308	119	4	0	0	0	8827	5	49.03%	37.80%
>.10<=.20	578	1103	1112	1471	1304	1354	3192	908	28	3	0	3	11063	6	55.25%	35.88%
>.20<=.30	154	265	401	325	168	514	1732	1185	187	21	3	5	4960	6	62.37%	40.45%
>.30<=.40	118	46	29	104	103	145	1145	944	258	19	9	2	2922	6	60.74%	49.09%
>.40<=.50	96	48	78	1	8	118	345	544	307	77	12	11	1645	6	54.29%	40.73%
>.50	77	15	38	39	57	227	492	1691	1375	747	500	1450	6708	6	53.19%	40.08%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	27	1	0	0	0	0	0	0	0	0	0	0	28	2	71.13%	43.75%
0.02	0	5	0	0	0	0	0	0	0	0	0	0	5	2	100.00%	100.00%
0.03	0	64	0	0	0	0	0	0	0	0	0	0	64	5	70.00%	71.88%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	0	9	24	20	0	0	0	0	0	0	0	0	53	6	28.15%	22.64%
>.05<=.10	0	41	0	53	33	0	1	0	0	0	0	0	128	6	30.24%	20.31%
>.10<=.20	0	2	10	24	0	0	84	25	0	0	0	0	145	4	24.29%	39.76%
>.20<=.30	0	0	0	0	0	0	80	27	0	0	0	0	107	6	6.67%	16.82%
>.30<=.40	0	0	0	0	0	0	0	10	0	0	0	0	10	5	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	24	0	24	10	0.00%	0.00%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	121	0	0	0	0	0	0	0	0	0	0	0	121	2	70.42%	61.98%
0.02	101	0	0	0	0	0	0	0	0	0	0	0	101	4	55.00%	43.56%
0.03	84	0	0	0	0	0	0	0	0	0	0	0	84	4	53.32%	48.81%
0.04	30	72	15	0	0	0	0	0	0	0	0	0	117	5	27.69%	22.22%
0.05	17	84	0	0	0	0	0	0	0	0	0	0	101	5	43.41%	41.58%
>.05<=.10	7	70	77	0	3	0	0	0	0	0	0	0	157	5	34.37%	21.02%
>.10<=.20	0	13	37	0	25	6	17	0	0	0	0	0	98	5	33.27%	30.61%
>.20<=.30	5	0	0	21	0	30	21	0	0	0	0	0	77	5	11.11%	5.19%
>.30<=.40	0	0	0	0	0	0	0	0	3	0	0	0	3	7	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	24113	5559	0	0	0	0	0	0	0	0	0	0	29672	3	48.94%	50.41%
0.02	21260	58215	3256	0	0	0	0	0	0	0	0	0	82731	3	68.62%	77.76%
0.03	8156	35434	10204	47	0	0	0	0	0	0	0	0	53841	3	60.03%	63.83%
0.04	12477	17556	6798	1260	0	0	0	0	0	0	0	0	38091	4	47.28%	66.24%
0.05	10535	41293	9259	9848	2441	1820	248	0	0	0	0	0	75444	4	35.79%	61.95%
>.05<=.10	24015	43647	54871	24056	18346	12398	12007	60	0	0	0	0	189400	5	30.83%	52.35%
>.10<=.20	12365	26257	16500	25217	37214	25587	42575	8043	0	490	0	361	194810	4	34.38%	57.67%
>.20<=.30	3332	3457	1229	837	1328	7276	17340	25817	1050	0	0	0	61666	5	31.33%	55.62%
>.30<=.40	2282	1226	373	204	149	4468	9355	14988	1505	616	0	0	35216	4	34.72%	57.87%
>.40<=.50	607	552	735	793	713	1005	7592	6001	1726	389	1231	0	21344	4	33.70%	47.06%
>.50	1620	144	113	254	495	1708	4163	12768	7682	4271	6089	5741	45048	4	41.97%	62.44%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	21860	4053	0	63	0	0	0	0	0	0	0	0	25976	3	68.14%	84.43%
0.02	24038	6582	65	0	0	0	0	0	0	0	0	0	96259	4	60.78%	88.97%
0.03	19747	26697	2267	0	0	0	0	0	0	0	0	0	68072	4	54.42%	77.16%
0.04	12663	7369	1078	715	0	0	0	0	0	0	0	0	21825	3	57.81%	53.26%
0.05	22247	5751	14570	2823	1762	5139	80	0	50	0	0	0	56133	4	53.84%	74.47%
>.05<=.10	22259	34738	21743	8213	13328	8983	1847	0	0	0	0	0	141875	4	51.38%	67.79%
>.10<=.20	17971	18238	8945	10049	12449	16441	8191	4220	28	0	0	34	97259	4	44.85%	70.93%
>.20<=.30	9258	4819	1382	1228	550	6837	8924	2218	0	0	0	0	35216	3	55.22%	71.74%
>.30<=.40	1372	246	60	35	27	3345	3430	1110	204	0	0	0	9829	3	48.84%	68.97%
>.40<=.50	1447	447	51	0	0	967	1547	1749	508	0	0	0	6716	4	56.30%	65.71%
>.50	1331	1072	171	5	0	373	1820	7638	9200	295	190	1875	23970	3	49.42%	77.17%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	1050	0	0	0	0	0	0	0	0	0	0	0	1050	5	40.03%	40.03%
0.02	1261	503	0	0	0	0	0	0	0	0	0	0	1764	3	61.00%	69.16%
0.03	624	1290	0	0	0	0	0	0	0	0	0	0	1914	3	58.07%	59.49%
0.04	554	1	0	0	0	0	0	0	0	0	0	0	555	6	40.00%	40.00%
0.05	313	356	50	0	0	0	0	0	0	0	0	0	719	5	30.33%	37.41%
>.05<=.10	507	235	3943	150	80	100	0	0	0	0	0	0	5015	5	21.50%	48.00%
>.10<=.20	0	59	11	426	10	0	150	0	0	0	0	0	656	4	19.00%	26.53%
>.20<=.30	29	0	0	0	0	0	0	0	0	0	0	0	29	2	48.33%	48.33%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	250	0	0	0	0	0	0	0	0	0	0	0	250	2	80.00%	88.00%
0.02	2523	0	0	0	0	0	0	0	0	0	0	0	2523	3	55.17%	58.20%
0.03	667	44	0	0	0	0	0	0	0	0	0	0	711	5	44.22%	48.95%
0.04	66	50	0	0	0	0	0	0	0	0	0	0	116	5	40.45%	40.52%
0.05	341	0	0	0	0	0	0	0	0	0	0	0	341	2	62.46%	53.37%
>.05<=.10	48	32	900	0	50	0	0	0	0	0	0	0	1030	4	36.00%	76.12%
>.10<=.20	60	0	30	40	0	0	121	0	0	0	0	0	251	3	60.39%	64.14%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Appendix: Detailed price improvement statistics for the volume transacted through PIM for March 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	6964	528	11	0	0	0	55	4	0	0	0	0	7562	3	52.75%	47.03%
0.02	2907	1913	37	7	0	0	0	0	0	0	0	0	4864	4	57.95%	49.36%
0.03	619	2172	222	4	35	0	4	0	0	0	0	0	3056	5	48.40%	45.03%
0.04	235	1034	202	121	6	4	36	0	0	0	0	0	1638	5	45.17%	37.54%
0.05	420	3151	2945	1889	752	240	279	24	0	0	0	0	9700	6	26.26%	26.39%
>.05<=.10	255	1946	3708	2510	1724	1179	1387	90	1	0	0	0	12800	6	29.60%	27.33%
>.10<=.20	99	342	709	1651	1393	1929	5444	1071	11	2	0	0	12651	6	28.44%	23.47%
>.20<=.30	0	73	108	128	169	264	1845	2186	129	8	47	0	4972	5	32.15%	26.93%
>.30<=.40	9	25	49	54	5	244	970	1881	504	150	0	2	3893	5	31.61%	21.64%
>.40<=.50	34	0	17	13	19	65	325	1061	548	252	36	1	2371	5	27.95%	25.29%
>.50	0	0	6	18	0	0	239	1854	1779	1905	908	1925	8634	5	28.97%	24.78%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	2584	195	6	8	1	0	33	2	0	0	0	0	2829	4	73.64%	57.06%
0.02	1818	625	35	0	0	0	0	0	0	0	0	0	2478	4	69.19%	54.12%
0.03	763	731	102	2	0	0	3	0	0	0	0	0	1601	4	62.26%	51.03%
0.04	234	426	76	35	8	0	1	0	0	0	0	0	780	4	48.30%	40.54%
0.05	2335	3509	1550	585	477	281	688	42	8	0	0	0	9475	4	48.31%	42.14%
>.05<=.10	1190	2545	2416	1245	879	538	1428	168	36	1	0	27	10473	5	51.63%	38.44%
>.10<=.20	896	1247	1280	1102	822	894	2604	930	37	0	0	0	9812	5	59.77%	43.33%
>.20<=.30	158	415	344	598	208	407	1439	1202	164	4	1	1	4941	5	60.16%	39.43%
>.30<=.40	42	181	56	80	59	251	834	1249	330	45	12	0	3139	6	56.55%	41.79%
>.40<=.50	19	16	19	88	54	68	320	707	211	36	19	3	1560	6	56.66%	43.93%
>.50	8	60	25	24	42	81	207	1109	798	548	189	683	3774	6	49.43%	36.66%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.02	60	10	0	0	0	0	0	0	0	0	0	0	70	5	49.05%	47.14%
0.03	0	53	0	1	10	0	0	0	0	0	0	0	64	3	52.27%	53.13%
0.04	24	16	0	0	26	0	0	0	0	0	0	0	66	5	41.15%	40.91%
0.05	9	46	27	1	0	14	0	0	0	0	0	0	97	5	36.25%	26.79%
>.05<=.10	20	31	0	50	0	0	61	0	0	0	0	0	162	4	25.83%	35.56%
>.10<=.20	2	36	0	2	19	134	123	10	0	0	0	0	326	5	14.00%	14.42%
>.20<=.30	0	0	0	0	0	0	15	0	0	0	0	0	15	4	40.00%	40.00%
>.30<=.40	0	0	0	0	0	0	0	10	0	0	0	0	10	3	0.00%	0.00%
>.40<=.50	0	0	0	0	0	24	0	0	0	0	0	0	24	2	70.59%	70.59%
>.50	0	0	0	0	0	0	0	84	88	0	10	20	202	3	37.18%	30.20%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	77	12	0	0	0	0	0	0	0	0	0	0	89	4	44.57%	44.94%
0.02	174	0	0	0	0	0	0	0	0	0	0	0	174	3	53.64%	52.17%
0.03	121	107	0	0	0	0	0	0	0	0	0	0	228	4	54.92%	53.07%
0.04	58	74	0	0	0	0	0	0	0	0	0	0	132	4	50.42%	48.63%
0.05	77	76	0	0	0	1	0	0	0	0	0	0	154	5	40.23%	42.86%
>.05<=.10	189	391	163	63	0	0	0	0	0	0	0	0	806	3	50.71%	41.26%
>.10<=.20	15	46	32	14	15	0	14	0	0	0	0	0	136	5	27.86%	43.38%
>.20<=.30	0	2	12	0	12	4	8	0	0	0	0	0	38	5	22.50%	23.68%
>.30<=.40	0	0	0	0	0	0	25	0	0	0	5	0	30	5	50.00%	16.67%
>.40<=.50	0	9	6	0	0	0	14	0	0	0	0	0	29	5	30.00%	24.14%
>.50	6	6	6	0	28	28	1	63	0	11	30	9	188	3	51.18%	60.11%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	10446	4224	0	0	0	0	0	0	0	0	0	0	14670	3	48.62%	55.36%
0.02	8466	34024	488	0	0	0	0	0	0	0	0	0	42978	3	63.40%	80.68%
0.03	30683	26890	22109	1812	0	0	0	0	0	0	0	0	81494	3	58.96%	71.54%
0.04	5302	45113	7170	1514	697	0	0	0	0	0	0	0	59796	3	61.32%	43.46%
0.05	12818	16029	12105	2689	1394	1482	319	0	0	0	0	0	46836	5	40.92%	53.54%
>.05<=.10	9079	44096	32615	24073	5951	7553	4932	145	0	0	0	0	128444	5	32.78%	50.90%
>.10<=.20	11956	9699	19231	13221	13282	23021	38008	5625	0	0	0	0	134170	4	35.20%	59.74%
>.20<=.30	4601	1703	571	2045	1606	6448	13470	9495	2766	0	0	0	42705	4	28.98%	48.53%
>.30<=.40	1968	1014	188	647	321	1758	5431	8846	1499	0	0	0	21672	5	37.26%	42.99%
>.40<=.50	198	0	0	154	178	1150	1220	3879	545	150	70	0	7609	4	45.60%	59.37%
>.50	2017	230	141	196	48	1245	2185	5727	3598	3407	1000	8396	28201	5	38.52%	60.59%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	21258	664	0	0	0	0	0	0	0	0	0	0	24426	3	58.19%	59.88%
0.02	26731	7358	140	0	0	0	0	0	0	0	0	0	50814	4	50.96%	66.83%
0.03	21381	10809	812	0	0	55	0	0	0	0	0	0	50645	4	53.41%	51.92%
0.04	33413	5183	4255	0	416	0	0	0	0	0	0	0	53229	4	55.10%	78.67%
0.05	14763	9610	4999	2493	340	1092	326	0	0	0	0	0	33623	4	51.29%	67.36%
>.05<=.10	46184	19055	11448	11684	2389	4905	1730	20	0	0	0	0	101842	4	47.62%	63.26%
>.10<=.20	15745	6714	6398	2846	3202	14035	6789	2827	0	0	0	0	77368	3	53.87%	75.15%
>.20<=.30	3957	1282	577	986	1041	4791	3716	1262	103	0	0	0	19148	3	40.72%	59.97%
>.30<=.40	850	508	318	432	189	1822	3023	437	183	0	0	0	7762	3	50.03%	52.67%
>.40<=.50	425	171	279	123	35	159	2699	1815	101	0	0	0	5807	4	53.00%	76.36%
>.50	1139	247	0	784	14	359	1323	2714	1714	2	239	3796	12331	4	62.21%	81.58%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	371	0	0	0	0	0	0	0	0	0	0	0	371	5	40.00%	40.00%
0.02	1263	5300	0	0	0	0	0	0	0	0	0	0	6563	2	82.81%	86.39%
0.03	95	2693	0	0	0	0	0	0	0	0	0	0	2788	3	52.05%	46.47%
0.04	103	270	0	0	0	0	0	0	0	0	0	0	373	5	40.00%	40.00%
0.05	338	100	0	0	0	0	0	0	0	0	0	0	438	4	40.00%	40.00%
>.05<=.10	269	445	7008	790	206	800	0	0	0	0	0	0	9518	4	21.46%	29.00%
>.10<=.20	0	816	846	565	208	550	504	0	0	0	0	0	3489	3	39.39%	32.59%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	55	0	0	0	0	55	5	0.00%	0.00%

Non-Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	292	0	0	0	0	0	0	0	0	0	0	0	292	3	60.14%	60.27%
0.02	2676	144	0	0	0	0	0	0	0	0	0	0	2820	3	56.85%	56.66%
0.03	240	0	0	0	0	0	0	0	0	0	0	0	240	2	100.00%	100.00%
0.04	62	0	50	0	0	0	0	0	0	0	0	0	112	4	70.00%	63.08%
0.05	224	31	0	11	0	0	0	0	0	0	0	0	266	5	70.14%	72.99%
>.05<=.10	705	506	160	163	0	0	0	0	0	0	0	0	1534	3	52.76%	57.76%
>.10<=.20	96	166	25	10	29	54	108	100	0	0	0	0	588	4	31.20%	31.29%
>.20<=.30	30	0	142	0	50	0	675	0	0	0	0	0	897	3	59.42%	76.59%
>.30<=.40	0	0	0	0	0	200	0	0	0	0	0	0	200	2	100.00%	100.00%
>.40<=.50	0	0	0	0	80	0	0	0	0	0	0	0	80	3	100.00%	100.00%
>.50	0	0	0	0	0	0	0	50	0	0	0	0	50	2	100.00%	100.00%

Appendix: Detailed price improvement statistics for the volume transacted through PIM for April 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	9286	434	2	20	0	0	0	0	0	0	0	0	9742	3	52.92%	43.28%
0.02	3890	929	9	0	0	0	0	0	0	0	0	0	4828	5	54.63%	42.66%
0.03	1000	1380	103	6	1	6	0	0	0	0	0	0	2496	5	42.37%	34.70%
0.04	153	857	509	21	0	0	0	0	0	0	0	0	1540	6	31.70%	34.32%
0.05	316	1790	2668	1914	490	113	113	0	0	0	0	0	7404	6	21.42%	21.29%
>.05<=.10	183	1976	2732	3566	1846	1676	1315	2	0	0	0	0	13296	6	24.96%	22.78%
>.10<=.20	50	1414	993	2192	1882	2788	4457	1056	1	0	0	0	14853	6	22.28%	20.13%
>.20<=.30	0	190	389	250	163	393	2080	1548	183	0	0	0	5216	6	22.07%	21.96%
>.30<=.40	100	54	10	306	117	464	1012	1848	127	34	0	0	4072	5	21.80%	25.88%
>.40<=.50	24	2	61	33	28	175	317	1225	554	37	2	4	2462	5	31.27%	33.05%
>.50	0	27	10	2	3	59	206	1660	991	447	402	1157	4964	5	21.44%	24.54%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	5268	269	64	45	0	0	0	0	0	0	0	0	5646	3	72.95%	58.47%
0.02	2585	425	44	0	0	0	0	0	0	0	0	0	3054	4	65.55%	50.03%
0.03	792	663	79	2	0	0	0	0	0	0	0	0	1536	4	50.33%	37.36%
0.04	468	696	264	0	2	2	0	0	0	0	0	0	1432	5	36.99%	28.90%
0.05	3026	3387	1695	728	456	69	94	12	0	0	0	0	9467	5	45.68%	40.63%
>.05<=.10	1483	2975	2229	1565	789	1205	504	47	0	0	0	0	10839	5	40.88%	32.82%
>.10<=.20	881	1773	1513	1665	1492	1136	2664	366	1	0	0	0	11491	5	44.70%	33.17%
>.20<=.30	302	338	207	421	222	663	1988	936	89	1	1	0	5168	6	39.55%	30.53%
>.30<=.40	80	54	158	154	82	282	714	770	153	12	14	0	2473	6	38.37%	30.38%
>.40<=.50	25	28	15	18	47	75	354	791	157	31	4	0	1545	6	32.54%	34.76%
>.50	65	36	1	79	49	54	606	888	1237	583	285	689	4572	6	30.16%	34.81%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	17	0	0	0	0	0	0	0	0	0	0	0	17	4	53.09%	43.75%
0.02	40	54	0	0	0	0	0	0	0	0	0	0	94	4	50.47%	38.68%
0.03	4	52	0	0	0	0	0	0	0	0	0	0	56	5	58.33%	43.08%
0.04	0	93	23	0	4	0	0	0	0	0	0	0	120	4	37.02%	35.00%
0.05	0	25	2	0	0	0	0	0	0	0	0	0	27	3	29.09%	21.62%
>.05<=.10	0	104	57	39	0	0	0	0	0	0	0	0	200	5	31.74%	35.07%
>.10<=.20	0	0	0	0	0	10	0	0	0	0	0	0	10	6	0.00%	0.00%
>.20<=.30	0	0	0	0	0	6	7	0	0	0	0	0	13	3	20.00%	30.77%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	139	0	0	0	0	0	0	0	0	0	0	0	139	3	65.16%	74.10%
0.02	126	14	0	0	0	0	0	0	0	0	0	0	140	5	47.77%	47.14%
0.03	96	33	0	0	0	0	0	0	0	0	0	0	129	5	36.53%	38.57%
0.04	49	23	0	0	0	0	0	0	0	0	0	0	72	4	45.86%	46.58%
0.05	43	64	42	0	0	0	0	0	0	0	0	0	149	4	49.83%	35.57%
>.05<=.10	2	17	59	1	10	0	0	0	0	0	0	0	89	5	41.50%	28.09%
>.10<=.20	1	3	0	10	14	14	10	5	0	0	0	0	57	4	25.56%	17.24%
>.20<=.30	0	0	0	0	20	0	29	0	0	0	0	0	49	5	59.18%	59.18%
>.30<=.40	0	0	0	0	0	0	0	8	0	0	0	0	8	9	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	10965	3391	100	0	0	0	0	0	0	0	0	0	14456	3	50.12%	58.02%
0.02	24773	35437	7562	0	0	0	0	0	0	0	0	0	67772	3	62.06%	78.52%
0.03	22243	62360	2947	390	0	0	0	0	0	0	0	0	87940	3	55.41%	78.36%
0.04	1258	33869	7285	416	0	52	0	0	0	0	0	0	42880	4	40.17%	65.22%
0.05	6513	25186	10928	5094	2941	495	64	0	0	0	0	0	51221	5	33.21%	57.25%
>.05<=.10	7851	29624	49001	22640	9524	12240	4938	100	1200	0	0	54	137172	5	27.75%	44.89%
>.10<=.20	9916	8669	11569	13675	37509	30359	34299	2981	0	0	0	0	149494	4	39.77%	58.37%
>.20<=.30	703	1376	1436	3352	129	3701	11231	6185	392	0	0	0	28505	4	38.75%	50.69%
>.30<=.40	394	3887	592	107	652	2914	4113	4431	1102	60	0	211	18488	4	41.24%	55.92%
>.40<=.50	231	49	130	93	0	1404	4161	2349	1574	513	0	0	10504	4	46.20%	55.28%
>.50	954	63	0	75	0	1702	2681	4950	6996	2223	1467	5742	26853	4	45.59%	55.32%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	29825	471	41	0	0	0	0	0	0	0	0	0	34264	3	65.44%	72.21%
0.02	33414	14840	73	0	0	0	0	0	0	0	0	0	56538	4	51.57%	73.49%
0.03	18801	4915	100	0	0	0	0	0	0	0	0	0	24027	4	44.49%	67.75%
0.04	14168	13699	9926	820	0	0	0	0	0	0	0	0	39224	3	50.13%	76.77%
0.05	22568	17249	1927	4133	809	740	0	0	0	0	0	0	47844	4	47.80%	64.30%
>.05<=.10	29475	10144	10725	5005	6076	9100	4129	0	0	0	0	456	85103	4	51.55%	67.66%
>.10<=.20	7641	4404	3967	7273	3254	14742	5414	239	0	0	0	0	51091	3	51.74%	68.56%
>.20<=.30	1803	401	634	1295	111	3438	2962	1840	60	0	0	0	28560	3	62.64%	83.93%
>.30<=.40	612	478	79	56	71	559	2418	1405	3	0	0	0	5681	4	52.47%	53.42%
>.40<=.50	250	200	0	0	135	235	1390	1491	0	0	0	0	3701	3	46.47%	60.77%
>.50	849	252	0	79	200	1366	3098	2134	1152	634	221	2012	11997	3	55.51%	72.15%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	910	62	0	0	0	0	0	0	0	0	0	0	972	4	64.96%	67.54%
0.02	1277	752	0	0	0	0	0	0	0	0	0	0	2029	3	66.18%	65.98%
0.03	0	332	0	0	0	0	0	0	0	0	0	0	332	5	55.00%	54.82%
0.04	382	300	0	0	0	0	0	0	0	0	0	0	682	5	40.00%	40.00%
0.05	0	506	0	0	0	0	0	0	0	0	0	0	506	6	40.07%	40.04%
>.05<=.10	490	0	580	500	0	0	0	0	0	0	0	0	1570	5	47.50%	60.13%
>.10<=.20	0	0	0	0	0	50	705	0	0	0	0	0	755	3	36.67%	62.78%
>.20<=.30	0	0	0	0	0	754	166	0	0	0	0	0	920	2	46.88%	65.22%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	78	78	0	0	0	0	0	0	0	0	0	0	156	4	42.62%	42.62%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	964	0	0	0	0	0	0	0	0	0	0	0	964	4	55.91%	57.26%
0.02	482	0	0	0	0	0	0	0	0	0	0	0	482	4	48.83%	48.34%
0.03	156	0	0	0	0	0	0	0	0	0	0	0	156	5	40.54%	40.38%
0.04	0	50	0	0	0	0	0	0	0	0	0	0	50	5	0.00%	0.00%
0.05	0	0	78	0	0	0	0	0	0	0	0	0	78	7	0.00%	0.00%
>.05<=.10	0	76	130	0	0	0	0	0	0	0	0	0	206	6	20.00%	29.13%
>.10<=.20	0	158	0	0	63	12	0	0	0	0	0	0	233	4	67.11%	78.97%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	28	64	0	0	0	0	0	92	5	69.57%	69.57%

Appendix: Detailed price improvement statistics for the volume transacted through PIM for May 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	4812	429	0	0	0	0	0	3	0	0	0	0	5244	3	50.92%	45.55%
0.02	1710	4988	174	17	16	1	0	0	0	0	0	0	6906	3	77.21%	69.59%
0.03	373	3103	883	68	0	0	0	0	0	0	0	0	4427	3	70.98%	64.17%
0.04	74	945	839	179	10	0	0	0	0	0	0	0	2047	3	68.80%	55.56%
0.05	244	1292	1564	1029	612	116	76	0	0	0	0	0	4933	4	51.59%	41.86%
>.05<=.10	151	1461	2501	2972	1907	2684	1437	12	0	0	0	0	13125	4	49.13%	34.93%
>.10<=.20	52	412	830	883	1123	2880	5586	692	7	0	0	27	12510	4	37.31%	24.73%
>.20<=.30	42	71	173	53	123	313	1565	1449	212	0	0	0	4001	5	38.52%	34.16%
>.30<=.40	0	10	46	43	55	205	778	1386	521	134	0	47	3225	4	35.64%	30.21%
>.40<=.50	0	10	0	0	0	0	127	591	282	88	13	1	1112	5	38.97%	34.44%
>.50	19	30	3	10	0	0	172	569	988	585	468	888	3756	5	35.79%	36.69%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	16037	408	13	0	0	0	0	0	0	0	0	0	16458	3	77.93%	73.33%
0.02	6581	3425	142	5	1	0	0	0	0	0	0	0	10154	3	72.75%	64.32%
0.03	2151	2490	657	72	4	0	0	0	0	0	0	0	5374	3	69.91%	58.42%
0.04	551	1308	860	105	22	10	0	0	0	0	0	0	2856	3	66.46%	60.87%
0.05	3504	2959	1587	637	254	132	60	0	0	0	0	0	9133	4	51.21%	46.61%
>.05<=.10	2864	3500	2016	1433	725	588	518	9	1	0	0	0	11654	4	46.42%	40.45%
>.10<=.20	1775	1005	826	741	943	881	2333	457	2	0	0	12	9010	4	48.26%	43.62%
>.20<=.30	468	170	159	381	163	712	1015	452	80	0	0	0	3612	4	51.37%	48.99%
>.30<=.40	224	78	105	74	45	207	459	600	316	66	5	0	2179	4	49.42%	46.40%
>.40<=.50	87	38	57	0	7	37	93	391	314	71	37	0	1132	5	48.66%	49.29%
>.50	60	76	114	41	30	91	242	735	794	339	136	481	3139	5	39.38%	30.09%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	41	0	1	0	0	0	0	0	0	0	0	0	42	3	39.66%	42.86%
0.02	48	105	16	0	0	0	0	0	0	0	0	0	169	3	57.34%	45.31%
0.03	1	47	0	0	0	0	0	0	0	0	0	0	48	4	64.77%	58.00%
0.04	0	19	11	0	0	0	0	0	0	0	0	0	30	6	21.15%	36.67%
0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.05<=.10	0	0	43	15	0	0	0	0	0	0	0	0	58	4	35.56%	31.03%
>.10<=.20	0	0	0	0	28	0	1	0	0	0	0	0	29	5	33.33%	3.45%
>.20<=.30	0	0	0	0	0	0	0	1	0	0	0	0	1	5	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	4	0	0	0	4	6	0.00%	0.00%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	48	10	0	0	0	0	0	0	0	0	0	0	58	4	70.71%	74.14%
0.02	5	34	0	0	0	0	0	0	0	0	0	0	39	6	20.00%	5.13%
0.03	38	45	0	0	0	0	0	0	0	0	0	0	83	5	47.37%	49.40%
0.04	0	0	20	0	0	0	0	0	0	0	0	0	20	2	100.00%	100.00%
0.05	3	6	0	0	0	0	0	0	0	0	0	0	9	6	33.33%	22.22%
>.05<=.10	29	37	23	16	0	0	0	0	0	0	0	0	105	4	36.90%	37.14%
>.10<=.20	0	1	0	0	0	0	0	0	0	0	0	0	1	4	0.00%	0.00%
>.20<=.30	0	0	0	0	0	0	5	0	0	0	0	0	5	6	50.00%	20.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	5	8	0	0	0	13	8	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	20398	9718	0	0	0	0	0	0	0	0	0	0	57446	3	62.44%	79.97%
0.02	39204	48438	3784	0	0	0	0	0	0	0	0	0	98770	3	67.61%	87.48%
0.03	18355	35442	3207	1375	0	0	0	0	0	0	0	0	64234	3	58.07%	68.50%
0.04	13220	49673	21625	6218	21	0	0	0	0	0	0	0	90757	4	52.71%	85.22%
0.05	29950	27346	13269	4630	14089	944	0	0	0	0	94	0	111863	4	40.58%	72.87%
>.05<=.10	27999	42537	37867	32346	9950	20192	6222	0	0	0	0	0	178191	4	38.20%	55.12%
>.10<=.20	18916	15643	22463	13671	7238	32049	22834	2288	0	0	0	0	142126	4	39.51%	60.70%
>.20<=.30	1298	5653	970	966	2575	17654	20446	5823	632	0	0	0	56017	4	45.28%	56.97%
>.30<=.40	1082	938	1596	76	300	4665	6989	4696	1201	100	0	0	21893	3	44.92%	57.19%
>.40<=.50	280	0	0	1399	644	1873	5185	7647	2066	87	403	0	19689	3	49.04%	56.90%
>.50	172	354	401	53	5	2385	2882	8479	7920	1953	2717	17276	44597	3	49.28%	68.99%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	13258	363	0	0	0	0	0	0	0	0	0	0	40951	3	66.32%	88.84%
0.02	31018	13804	1634	0	0	0	0	0	0	0	0	0	46456	3	60.80%	87.37%
0.03	10357	15444	1215	0	0	0	0	0	0	0	0	0	32871	3	61.73%	76.46%
0.04	3786	31523	9940	0	0	0	0	0	0	0	0	0	45249	3	49.52%	87.03%
0.05	25687	4578	3405	264	103	622	0	0	0	0	0	0	49607	3	52.38%	83.03%
>.05<=.10	21048	12585	7053	11369	1156	3195	1495	0	0	0	0	0	57901	3	51.74%	72.61%
>.10<=.20	14870	6344	6112	4009	1499	7628	4718	418	0	0	0	0	51622	3	58.47%	79.13%
>.20<=.30	1115	3509	535	69	328	6424	3856	584	50	0	0	0	16470	3	64.46%	71.86%
>.30<=.40	143	475	1500	12	0	2228	1756	1747	0	0	0	0	7861	3	59.08%	71.02%
>.40<=.50	250	0	0	1000	144	1167	933	2163	670	0	0	0	6432	3	59.53%	65.87%
>.50	172	304	29	0	5	1012	1126	2494	2552	39	1165	11070	19968	3	62.05%	87.87%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	173	0	0	0	0	0	0	0	0	0	0	0	173	2	63.27%	56.78%
0.02	326	0	0	0	0	0	0	0	0	0	0	0	326	4	55.56%	50.14%
0.03	200	154	71	0	0	0	0	0	0	0	0	0	425	5	45.19%	47.53%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.05<=.10	0	0	7500	50	0	100	0	0	0	0	0	0	7650	3	70.00%	98.82%
>.10<=.20	0	0	0	1000	0	0	0	0	0	0	0	0	1000	3	49.50%	49.50%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer >=50 contracts; Not at NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	562	0	0	0	0	0	0	0	0	0	0	0	562	2	76.12%	75.85%
0.02	0	100	0	0	0	0	0	0	0	0	0	0	100	2	100.00%	100.00%
0.03	100	0	0	0	0	0	0	0	0	0	0	0	100	3	70.00%	70.00%
0.04	300	0	0	0	0	0	0	0	0	0	0	0	300	4	40.00%	40.00%
0.05	430	0	0	0	0	0	0	0	0	0	0	0	430	3	55.00%	60.44%
>.05<=.10	0	0	20	80	0	0	0	0	0	0	0	0	100	5	20.00%	20.00%
>.10<=.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	200	0	0	0	0	200	2	100.00%	100.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Appendix: Detailed price improvement statistics for the volume transacted through PIM for June 2016.

Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	5187	673	69	0	0	0	0	0	0	6	0	0	5935	3	52.11%	47.49%
0.02	1155	5045	204	0	0	0	0	0	0	0	0	0	6404	2	81.58%	75.70%
0.03	322	3596	1030	39	2	0	0	0	0	0	0	0	4989	3	70.45%	57.68%
0.04	116	1493	986	343	73	22	0	0	0	0	0	0	3033	3	64.44%	54.39%
0.05	424	1455	2255	1602	1424	388	127	0	0	0	0	0	7675	4	52.63%	47.12%
>.05<=.10	222	1136	1897	2300	2175	2139	2032	32	0	0	0	0	11944	4	49.36%	37.27%
>.10<=.20	107	437	583	692	719	1661	6307	1658	10	0	0	0	12174	4	39.65%	28.45%
>.20<=.30	18	78	89	232	55	376	1858	2297	517	3	0	0	5523	4	39.99%	31.07%
>.30<=.40	0	43	41	39	21	141	1071	3521	687	72	0	0	5636	4	38.90%	31.52%
>.40<=.50	0	0	2	2	2	15	100	526	434	304	60	0	1445	5	38.48%	29.79%
>.50	14	47	22	39	12	173	373	757	1180	911	661	2420	6609	5	31.82%	26.05%

Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	23501	820	39	0	4	11	0	0	0	0	0	0	24375	2	79.43%	75.84%
0.02	6626	4623	112	27	0	0	0	0	0	0	0	0	11388	3	75.50%	68.71%
0.03	2009	3113	1052	42	15	0	0	0	0	0	0	0	6231	3	74.10%	65.34%
0.04	810	1425	956	257	8	5	7	0	0	0	0	0	3468	3	69.87%	56.48%
0.05	2922	2048	1453	759	445	121	148	11	0	0	0	0	7907	3	61.75%	56.72%
>.05<=.10	3037	2383	2071	1274	884	580	724	83	0	2	0	0	11038	3	59.26%	53.40%
>.10<=.20	1529	841	822	698	755	690	1784	476	3	0	0	0	7598	3	49.82%	47.03%
>.20<=.30	557	296	213	270	175	290	1481	885	74	3	0	0	4244	4	50.81%	40.40%
>.30<=.40	283	28	32	51	8	121	503	646	222	109	0	0	2003	4	58.26%	52.23%
>.40<=.50	29	61	42	15	20	34	158	278	147	81	23	0	888	4	55.33%	42.53%
>.50	110	22	42	15	9	118	206	954	637	354	330	1093	3890	4	50.98%	43.33%

Non-Customer <50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	135	0	0	0	0	0	0	0	0	0	0	0	135	3	61.14%	42.51%
0.02	26	60	0	0	0	0	0	0	0	0	0	0	86	5	64.72%	74.73%
0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.04	0	22	0	0	0	0	0	0	0	0	0	0	22	3	40.91%	40.91%
0.05	0	0	0	0	0	0	14	0	0	0	0	0	14	5	0.00%	0.00%
>.05<=.10	0	43	34	20	0	0	0	0	0	0	0	0	97	4	10.47%	18.56%
>.10<=.20	0	0	0	0	5	0	60	0	0	0	0	0	65	4	20.00%	15.38%
>.20<=.30	0	0	0	0	0	0	0	0	20	0	0	0	20	4	50.00%	50.00%
>.30<=.40	0	0	0	0	0	0	0	10	0	0	0	0	10	2	100.00%	100.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	2	0	2	5	50.00%	50.00%

Non-Customer <50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	115	28	0	0	0	0	0	0	0	0	0	0	143	2	70.36%	64.52%
0.02	52	31	0	0	0	0	0	0	0	0	0	0	83	3	47.14%	46.99%
0.03	49	9	0	0	0	0	0	0	0	0	0	0	58	4	44.07%	44.83%
0.04	13	0	0	0	0	0	0	0	0	0	0	0	13	3	70.00%	53.85%
0.05	0	83	0	0	19	0	0	0	0	0	0	0	102	5	20.50%	26.47%
>.05<=.10	0	0	0	33	0	0	0	0	0	0	0	0	33	4	42.42%	42.42%
>.10<=.20	0	0	0	0	0	0	2	0	0	0	0	0	2	8	0.00%	0.00%
>.20<=.30	0	0	0	0	0	2	7	10	0	0	0	0	19	4	46.67%	60.00%
>.30<=.40	0	0	0	0	0	0	0	17	0	0	0	0	17	7	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	1	0	0	1	2	100.00%	100.00%

Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	9258	13676	0	0	0	0	0	0	0	0	0	0	25079	3	67.28%	81.90%
0.02	15939	32834	919	0	0	0	0	0	0	0	0	0	49692	3	65.27%	78.79%
0.03	7672	11963	1451	655	0	0	0	0	0	0	0	0	21741	3	47.17%	63.75%
0.04	17912	16958	3995	80	778	0	0	0	0	0	0	0	39723	3	57.46%	78.90%
0.05	6298	14420	9936	3776	2080	1123	29	0	0	0	0	0	37662	4	35.22%	49.12%
>.05<=.10	7927	21377	47104	23951	7625	9322	6077	52	0	0	200	0	123635	4	34.23%	53.99%
>.10<=.20	5134	8854	7663	12106	5993	17109	21445	10830	0	0	0	20	89154	4	33.38%	47.65%
>.20<=.30	216	1335	1027	861	1634	3533	13556	8661	0	0	0	0	30889	4	34.26%	55.98%
>.30<=.40	214	50	375	507	0	2811	6062	3377	5913	300	0	0	19609	4	40.98%	63.27%
>.40<=.50	0	0	0	0	200	3232	3393	2667	217	9	0	0	9718	4	32.53%	48.65%
>.50	679	278	100	12	0	124	1431	5808	2937	2287	995	2374	17025	4	40.45%	52.16%

Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	25488	6308	100	0	0	0	0	0	0	0	0	0	60582	2	77.84%	75.06%
0.02	26596	5489	981	0	0	0	0	0	0	0	0	0	40091	3	63.98%	80.63%
0.03	21664	6755	566	69	0	0	0	0	0	0	0	0	48828	3	69.62%	80.02%
0.04	37352	4314	1328	1167	200	0	0	0	0	0	0	0	44361	3	60.72%	65.43%
0.05	16936	5961	1613	1800	111	3995	0	0	0	0	0	0	30416	3	53.99%	77.90%
>.05<=.10	17279	7539	7422	6442	1141	4268	561	0	0	0	0	0	44652	3	56.03%	76.25%
>.10<=.20	5892	4721	1135	1074	1901	8423	1838	529	0	0	0	0	25513	3	53.46%	67.06%
>.20<=.30	578	382	2075	551	7	2860	1643	2712	0	0	0	0	10808	3	66.90%	78.09%
>.30<=.40	2365	36	2	2	98	1005	542	155	905	738	0	0	5848	3	46.85%	76.27%
>.40<=.50	173	84	93	123	0	0	150	1329	0	100	0	0	2052	4	29.09%	50.10%
>.50	508	308	0	0	72	1475	1082	663	913	89	115	1251	6476	4	57.03%	68.35%

Non-Customer >=50 contracts; At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	710	0	0	0	0	0	0	0	0	0	0	0	710	3	40.11%	40.07%
0.02	959	0	0	0	0	0	0	0	0	0	0	0	959	3	46.96%	44.56%
0.03	262	0	0	0	0	0	0	0	0	0	0	0	262	6	40.18%	40.23%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	0	50	0	0	0	0	0	0	0	0	0	0	50	5	40.00%	40.00%
>.05<=.10	0	100	0	0	0	80	0	0	0	0	0	0	180	3	70.00%	66.67%
>.10<=.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%

Non-Customer >=50 contracts; Not At NBBO

Spread	Improvement												Total Contracts Traded	Average Number of Participant	Average Percent of Orders Initiator Receives	Average Percent of Contracts Initiator Receives
	0	0.01	0.02	0.03	0.04	0.05	>.05<=.10	>.10<=.20	>.20<=.30	>.30<=.40	>.40<=.50	>.50				
0.01	795	0	0	0	0	0	0	0	0	0	0	0	795	3	62.60%	62.38%
0.02	51	0	0	0	0	0	0	0	0	0	0	0	51	3	41.18%	41.18%
0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
0.05	271	0	0	0	0	0	0	0	0	0	0	0	271	3	40.59%	40.22%
>.05<=.10	0	0	20	80	0	0	0	0	0	0	0	0	100	4	80.00%	80.00%
>.10<=.20	0	0	0	60	0	40	50	0	0	0	0	0	150	4	70.00%	60.00%
>.20<=.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.30<=.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.40<=.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%
>.50	0	0	0	0	0	0	350	0	0	0	0	0	350	3	91.67%	85.71%

PIM Early Termination Data (Jan 2016 - June 2016)

	Jan. 2016	Feb. 2016	Mar. 2016	Apr. 2016	May. 2016	Jun. 2016	Totals/%
Early Terminated Auctions	141	205	136	97	50	44	673
% Early Terminated Auctions	0.14%	0.25%	0.16%	0.12%	0.09%	0.07%	0.15%
Traded Contracts in Early Terminated Auctions	1,475	3,535	856	2,450	766	513	9,595
% Traded Contracts in Early Terminated Auctions	0.12%	0.23%	0.07%	0.21%	0.07%	0.05%	0.13%
% Early Terminated Auctions Receiving PIM	62.41%	58.54%	48.53%	36.08%	24.00%	34.09%	49.93%
% Traded Contracts in Early Terminated Auctions Receiving PIM	47.93%	48.97%	51.17%	17.92%	21.93%	18.91%	37.31%
Amount of PI Received by Early Terminated Auctions	\$51.71	\$61.63	\$23.20	\$30.19	\$13.24	\$5.14	\$185.11