



BOX
BOSTON OPTIONS EXCHANGE

BOX Penny Pilot Report:
Penny Pilot Report 2



Table of Contents

Chapter 1- Overview and Summary

1.1	Purpose and Scope.....	3
1.2	Summary.....	4

Chapter 2- Quality of Markets

2.1	Best Bid/Ask Spread.....	6
2.2	Bid/Ask Size.....	7

Chapter 3- Capacity

	BOX Quotes to OPRA All Classes.....	8
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Chapter 4- Trading Activity

	BOX Average Daily Volume in Penny Pilot Classes.....	9
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Chapter 1- Overview and Summary

1.1 Purpose and Scope

Beginning on January 26, 2007, all six options exchanges, including BOX, commenced participation in the Penny Pilot Program which included the following thirteen (13) options: Ishares Russell 2000 (IWM); NASDAQ-100 Index Tracking Stock (QQQQ); SemiConductor Holders Trust (SMH); General Electric Company (GE); Advanced Micro Devices, Inc. (AMD); Microsoft Corporation (MSFT); Intel Corporation (INTC); Caterpillar, Inc. (CAT); Whole Foods Market, Inc. (WFMI); Texas Instruments, Inc. (TXN); Flextronics International Ltd. (FLEX); Sun Microsystems, Inc. (SUNW); and Agilent Technologies, Inc. (A).

For purposes of this report, the duration of Period One spans from January 26, 2007- April 26, 2007. The duration of Period Two spans from May 1, 2007- September 27, 2007. The dates for the additional data periods are: Additional Period 1 (A1) spans from January 8, 2007- January 19, 2007 and Additional Period 2 (A2) spans from April 9, 2007- April 19, 2007.



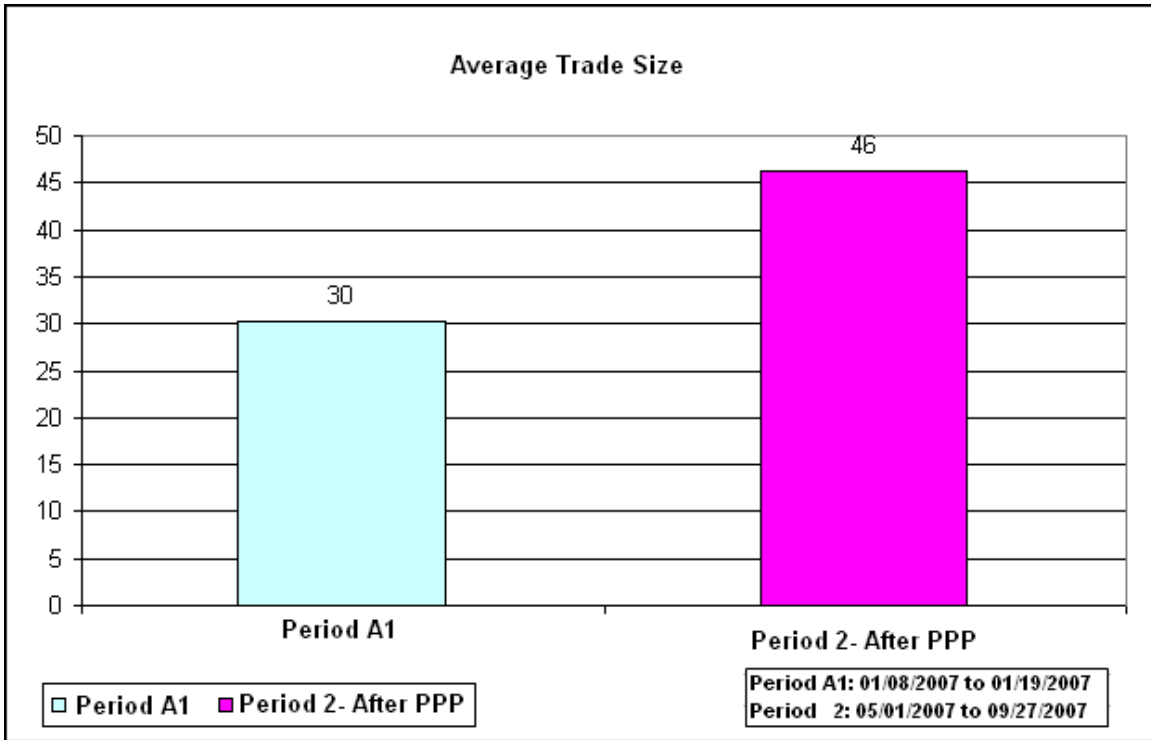


1.2 Summary

Pennies narrowed the Bid/Ask spread versus the period prior to the onset of the Penny Pilot Program at all levels of options premium including those series whose premium was in the lowest tranches of sub \$2.00. The table below shows the average Bid/Ask spread for various levels of options premium for the period January 8, 2007- January 19, 2007, or 10 days prior to the start date of the Penny Pilot versus Period 2. The spreads contracted across all premium levels most notably at the lower premium levels (\$1, \$2, and \$3) where the spreads narrowed as much as 50%. For example, a client on BOX whose average trade size approximates 45 contracts experienced a savings of 5 cents per contract or $(.05 \times 45) \times 100 = \225 at the \$2 premium level. A client executing 45 contracts at the lowest premium level of \$1 saved 3 cents per contract or $(.03 \times 45) \times 100 = \135 .

Penny intervals clearly benefited private investors as they were now able to finely price their orders and contribute to the narrowing of the prevailing quote as well as benefit from the narrowed Bid/Ask spread. From the middle of Period 1 and through all of Period 2, markets experienced a large increase in volatility over the first half of Period 1 and the pre-Penny period. Volatility contributed to a widening of the Bid/Ask spreads from what they would have otherwise been had market volatility remained at the earlier levels observed. For this reason, it is difficult to measure the true benefit of the Penny Pilot for this later period, as wider overall spreads became the norm.





The Average trade size for these same classes grew from 30 contracts to 46 contracts. The average size at the Bid/Ask declined at the \$2 premium level from 475 contracts to 150 contracts but was still more than enough liquidity for the 50% increase in BOX contract size. The client trading in these classes had sufficient liquidity at the top of the BOX Book to satisfy the average order size.

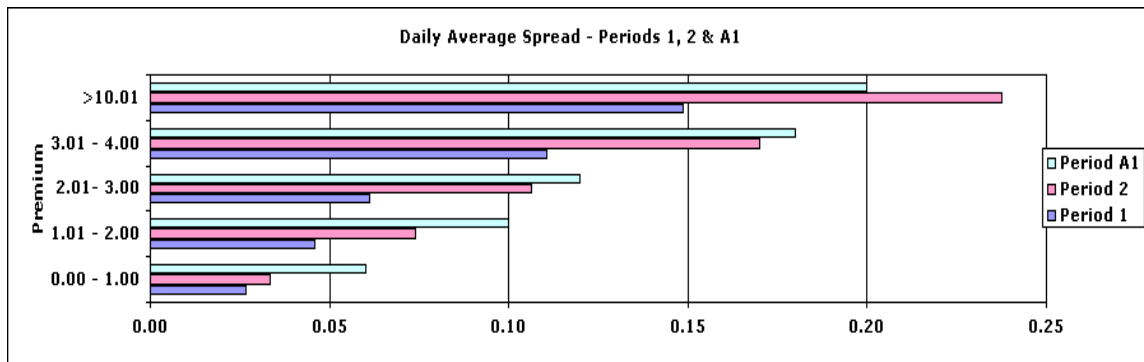




Chapter 2- Quality of Markets

2.1 Best Bid/Ask Spread

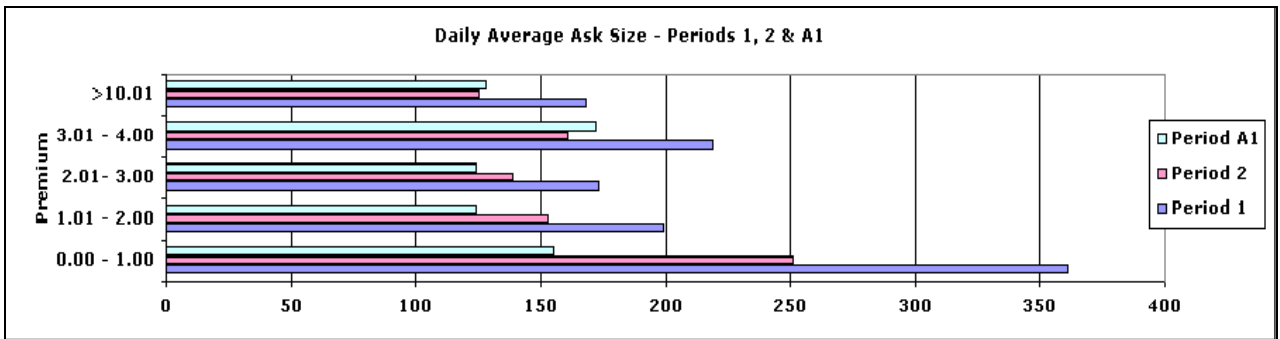
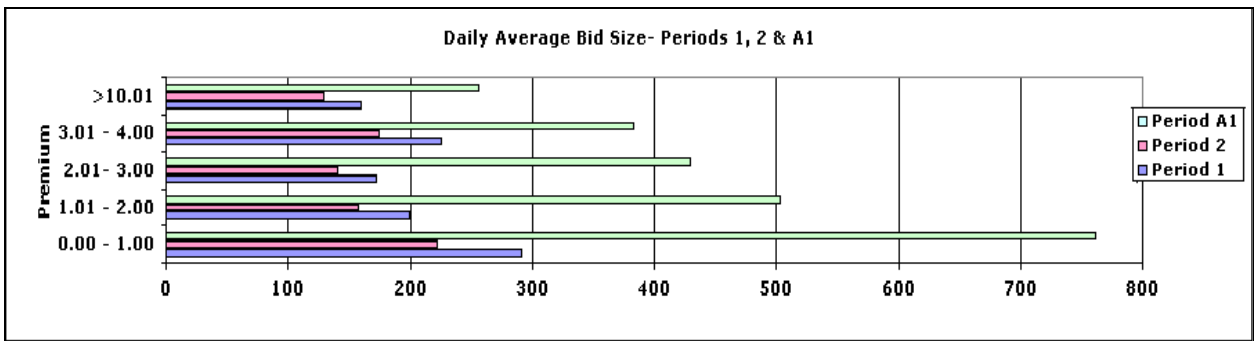
There was a marked increase in the Bid/Ask spread for Period 2 versus Period 1. The spread at all premium levels expanded during the period May 1, 2007-September 27, 2007. The explanation for this is due to the increase in market volatility; which is consistent with the argumentation in the previous summary pointing out that the benefits of the Penny Pilot in generating narrower Bid/Ask spreads was largely masked by higher rates of volatility during the latter half of Period 1 and all of Period 2. Nonetheless, it is reasonable to assume the spreads were still narrower during this volatile period than they would have been had the Penny Pilot not been in effect.





2.2 Bid/Ask Size

The Bid/Ask size for all premium levels was lower in Period 2 versus Period 1. Once again volatility can explain the reduction in posted size. Bid/Ask size is negatively correlated with increases in volatility. Nonetheless, the posted contract size at the top of the BOX Book during Period 2 remained well above the average order size of BOX customers which means that despite the decrease in posted size from Period 1 to Period 2, there remained sufficient liquidity to satisfy BOX customers as the better price that the Penny Pilot made possible.

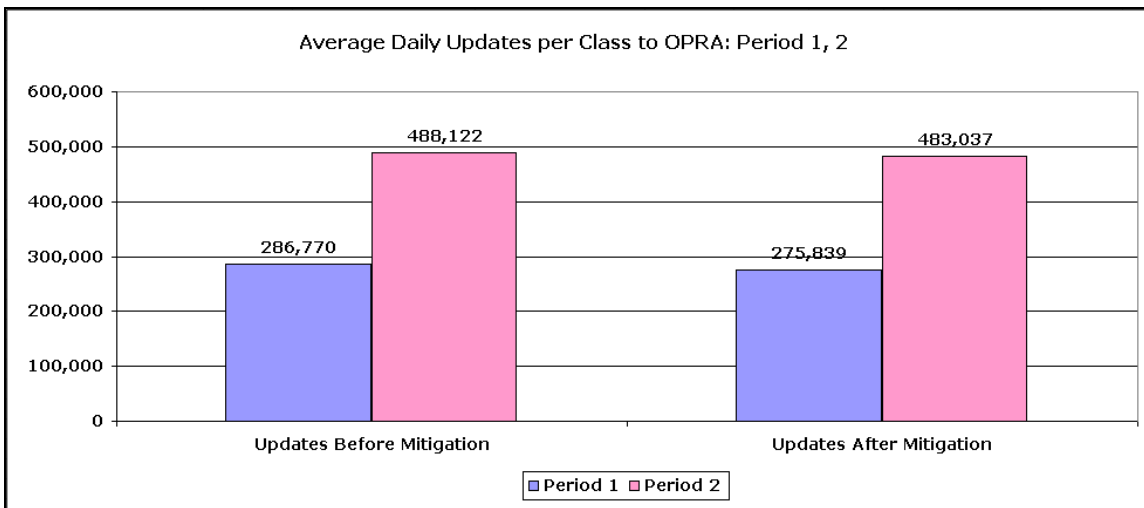




Chapter 3- Capacity

BOX Quotes to OPRA All Classes: Before and After Mitigation

BOX Market Makers send quote updates while all other Participants send updates via orders. BOX sends an update to OPRA for each quote or order update at the top of the book, unless the class is subject to quote mitigation, in which case an increase in volume with no related change in price may be buffered by the mitigation mechanism and only for a few hundred milliseconds.





Chapter 4- Trading Activity

Box Average Daily Volume

BOX volume increased during both periods. This is directly correlated with the overall increase in OCC volumes. BOX overall percentage of OCC volume remained the same during both periods. The following chart illustrates average daily trading volume for classes contained in the Penny Pilot.

