

BOX Penny Pilot Report: Penny Pilot Report 3



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## **Chapter 1- 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).

On September 28, 2007, the Pilot was expanded to included the following additional twenty-two (22) classes: SPDRs (SPY); Apple, Inc. (AAPL); Altria Group Inc. (MO); Dendreon Corp. (DNDN); Amgen Inc. (AMGN); Yahoo! Inc. (YHOO); QUALCOMM Inc. (QCOM); General Motors Corporation (GM); Energy Select Sector (XLE); DIAMONDS Trust, Series 1 (DIA); Oil Services HOLDRs (OIH); NYSE Euronext, Inc. (NYX); Cisco Systems, Inc. (CSCO); Financial Select Sector SPDR (XLF); AT&T Inc. (T); Citigroup Inc. (C); Amazon.com Inc. (AMZN); Motorola Inc. (MOT); Research in Motion Ltd. (RIMM); Freeport-McMoRan Copper & Gold Inc. (FCX); ConocoPhillips (COP); and Bristol-Myers Squibb Co. (BMY). The options classes represent the most actively traded, multiply-listed options classes that together with the original thirteen Penny Pilot classes, account for approximately 35% of total trading volume, based on OCC year-to-date trading volume data (through July 16, 2007). Excluded in this aggregate measurement are Google, NDX, and RUT because of their high premiums.



The minimum price variation for all classes included in the Penny Pilot Program, except for the QQQQs, is \$0.01 for all quotations in option series that are quoted at less than \$3 per contract and \$0.05 for all quotations in option series that are quoted at \$3 per contract or greater. The QQQQs are quoted in \$0.01 increments for all options series.

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. The duration of Period Three spans from September 28, 2007- January 31, 2008.

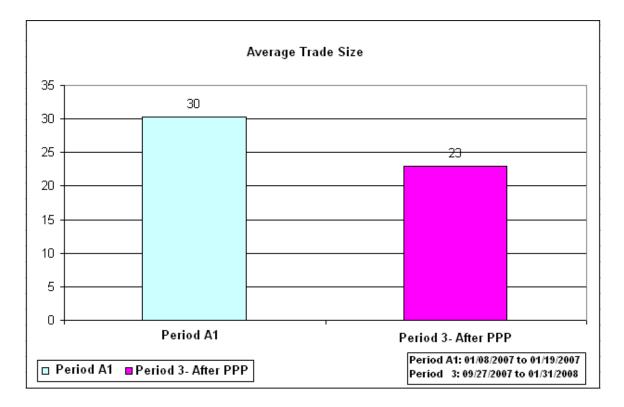


#### 1.2 Summary

As noted in the prior Penny Pilot Report, 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. Due to higher market volatility during Period 3 (the subject of this report), however, this trend did not continue. On the contrary, during Period 3 the average observed Bid/Ask spread widened when compared to that observed in Periods 1 and 2 at most premium levels, though the increase was not particularly dramatic for premiums below \$3.00. More detail is provided in section 2.1 below. However it is important to note that only at the highest premium level (above \$10) was the observed average Bid/Ask spread for Period 3 significantly above the norm prior to the start of the Penny Pilot Program. As trading at this premium level accounts for a relatively small percentage of overall volume, it is fair to say that customers were probably still better served than they would have been without penny quoting during Period 3.

BOX also observed a drop in the average trade size to 23 contracts, reversing what we had seen between the pre-Pilot period (30) and Periods 1 and 2 (46 contracts). BOX believes this is entirely due to increased market volatility and that it has nothing to do with reduced market liquidity on BOX.





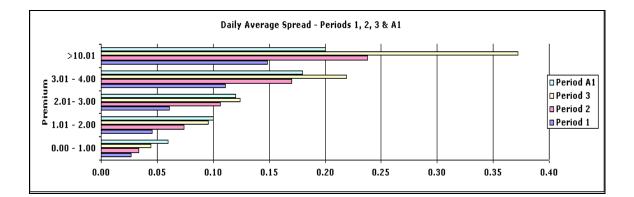
Market liquidity as measured by the average size of the bid and the offer at the top of the BOX Book deteriorated slightly in Period 3 due to higher volatility in the market place, but was still more than sufficient to execute the average BOX order as outlined in section 2.2.



## **Chapter 2- Quality of Markets**

## 2.1 Best Bid/Ask Spread

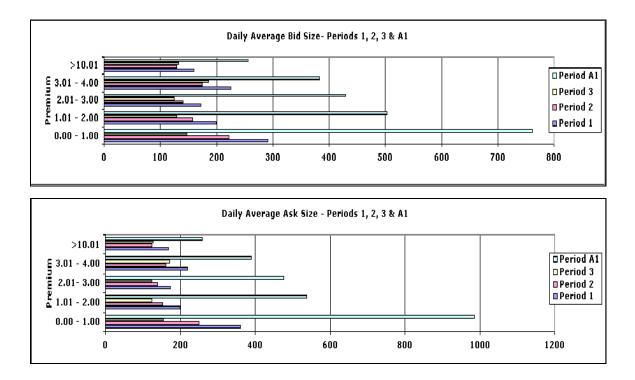
The table below illustrates that Bid/Ask spreads in Period 3 rose from those in Periods 1 and 2 though they remained at or better than that which had been observed prior to the launch of the Penny Pilot Program. BOX believes this rise is related entirely to the dramatic rise in market volatility during Period 3 (which had commenced in the latter half of the earlier period). 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 slightly lower in Period 3 versus Period 1 and 2, but continued to exceed 150 contracts at all premium levels, well above the average order size of 23 contracts. Once again volatility can explain the reduction in posted size.

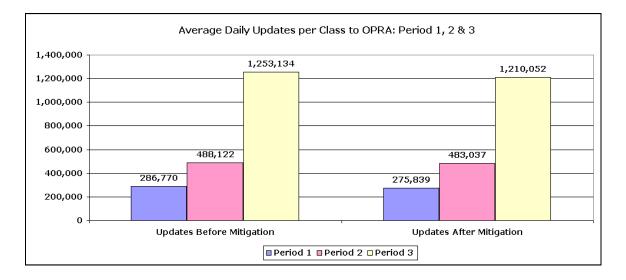




# **Chapter 3- Capacity**

### BOX Quotes to OPRA All Classes: Before and After Mitigation

BOX mitigation of updates to OPRA continued to be very light as overall traffic levels were supported by the existing infrastructure without problem. It is BOX's belief that the dramatic increase in per class traffic is entirely explained by the increase in market volatility.





# **Chapter 4- Trading Activity**

## **BOX Average Daily Volume**

BOX volume increased during Period 3. This is directly correlated with the overall increase in OCC volumes. BOX overall percentage of OCC volume increased only slightly during Period 3.

