



BOX Penny Pilot Report:  
Report Period October 2011 through March 2012

# Table of Contents

## Chapter 1 – Purpose, Scope, Summary, and Recommendation

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

## Chapter 2 - Quality of Markets

2.1	Best Bid/Ask Spread.....	5
2.2	Bid/Ask Size.....	6

## Chapter 3- Capacity and Trading Activity

3.1	BOX Quotes to OPRA.....	7
3.2	Trading Activity.....	8

Chapter 4 – Number of BOX Market Makers.....	8
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# **Chapter 1 – Purpose, Scope, Summary and Recommendation**

## **1.1 Purpose and Scope**

Beginning on January 26, 2007, all six options exchanges in operation at the time, including BOX, began participating in the Penny Pilot Program to quote and trade certain option classes in penny increments. Originally, the Pilot included thirteen (13) options classes. On September 28, 2007, the Pilot was expanded to include an additional twenty-two (22) classes, and it was expanded again on March 28, 2008 to include another twenty-eight (28) classes. In 2009, the Securities and Exchange Commission (the “Commission”) approved an extension of the Pilot, and it was expanded to include the 300 most active classes. The minimum price variation for all classes included in the Penny Pilot Program, except for QQQ, IWM, and SPY, is \$0.01 for all quotations in options series that are quoted at less than \$3 per contract and \$0.05 for all quotations in options series that are quoted at \$3 per contract or greater. The QQQs, IWM, and SPY are quoted in \$0.01 increments for all options series.

The Commission has requested that each exchange provide reports regarding the Pilot, including information about market quality as reflected by bid/ask spreads and size available, and market activity as reflected by quotes and trade volume in Pilot classes. BOX has previously produced reports related to other time periods since the beginning of the Pilot. This report provides information regarding the period from October 2011 through March 2012 for three data sets: (1) ten least active classes among those 63 included in the Pilot in March 2008 or before, (2) ten most active classes of those in the Pilot during the report Period, and (3) twenty least active classes of those in the Pilot during the report period.

The ten least active classes of those 63 that were in the Pilot in March 2008 or before, as measured by industry-wide average daily volume traded during the report

period were: A, AMD, FLEX, MNX, NYX, OIH, RIO, SMH, TXN, and WM. These comprise the data set “Least Active Classes (Original)” in the charts throughout this report.

The ten most active classes in the Pilot as measured by industry-wide average daily volume during the report period were: AAPL, BAC, C, EEM, GLD, IWM, MSFT, QQQ, SPY, and XLF. These comprise the data set identified as “Most Active Classes (Period)” in the charts throughout this report.

The twenty least active classes in the Pilot as measured by industry-wide average daily volume during the report period were: AMED, APWR, BCRX, BPOP, CTIC, DCTH, ENER, FIS, FLEX, FXP, HSY, PCL, SEED, SPWRA, SRS, TLB, URE, VRSN, XL, and YRCW. These classes comprise the data set identified as “Least Active Classes (Period)” in the charts throughout this report.

## **Summary and Recommendation**

BOX believes that quoting and trading in penny increments has improved the overall market quality and that the Pilot has benefitted retail customers. This report generally confirms the expected data results; the most active Pilot classes have more narrow spreads and greater liquidity than the least active classes. Based on the information provided in this and prior Pilot reports BOX has provided to the Commission, BOX recommends that the Commission terminate the Pilot and permit all classes to trade in penny increments at prices up to \$3.00 on a permanent basis. Ending the Pilot would allow the exchanges to avoid the complexity of trading certain classes in penny increments at all prices, some in penny increments only up to \$3.00, and other classes in \$.05 or \$.10 increments. Overall market volume and volatility have a more significant impact on Pilot class activity than the migration of the lesser-active classes to trading in penny increments.

## Chapter 2 - Quality of Markets

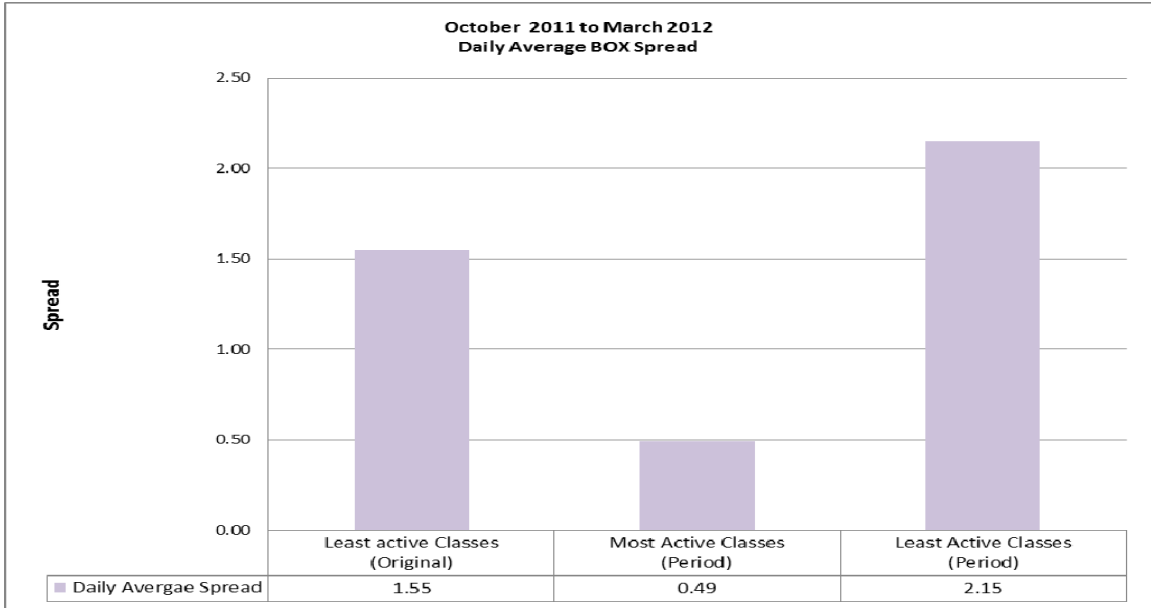
### 2.1 Best Bid/Ask Spread

The difference between the Best Bid and Best Ask is the “spread.” Generally, the less the average spread, the better the market quality. The chart below shows the daily average Bid/Ask Spread on BOX for each data set during the report period.

Fluctuations in the Bid/Ask spread are generally in direct correlation to volatility in the overall markets. BOX believes that quoting and trading in penny increments has improved the overall quality of the markets and that the Pilot has benefitted retail customers.

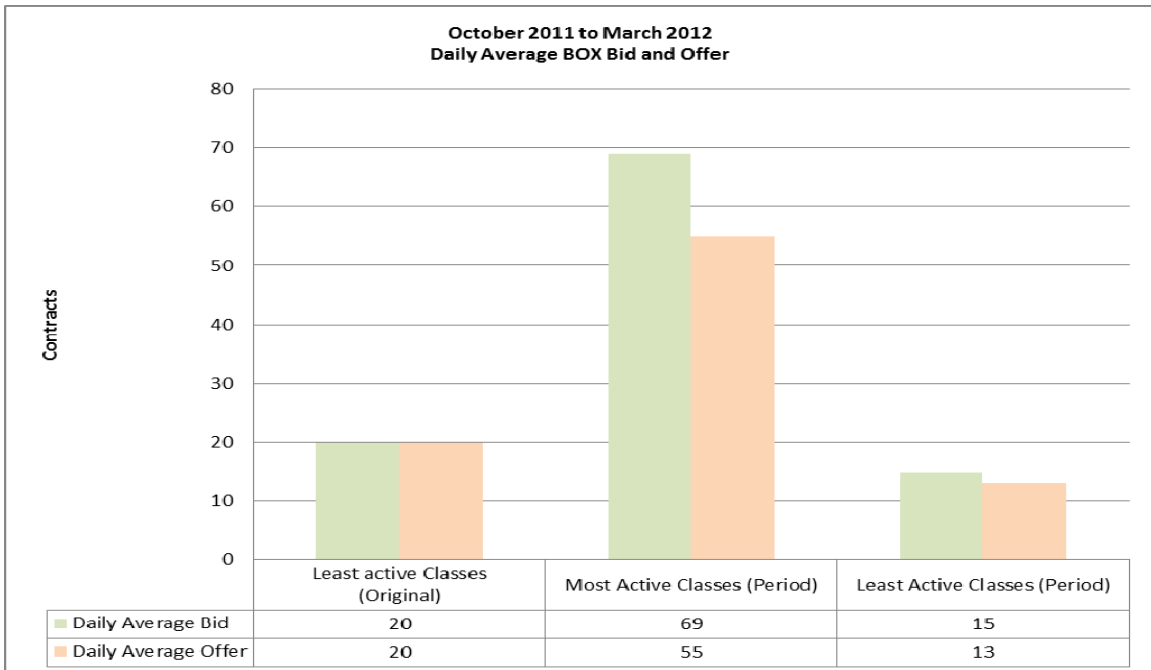
Each options class may contain numerous series within the class. Generally, trading activity in any particular class is concentrated in those series with expiration dates closer in time and strike prices closer to the price of the underlying stock or index value. Wider spreads generally arise in a particular data set because less active classes may have many inactive instruments that are quoted in very wide spreads, and only a few active instruments within the class that have more narrow spreads.

By comparison, the average spread for the more active classes is more narrow. Such a spread is indicative of the greater volume in the class generally, and in a greater number of series within the class, in particular.



## 2.2 Bid/Ask Size

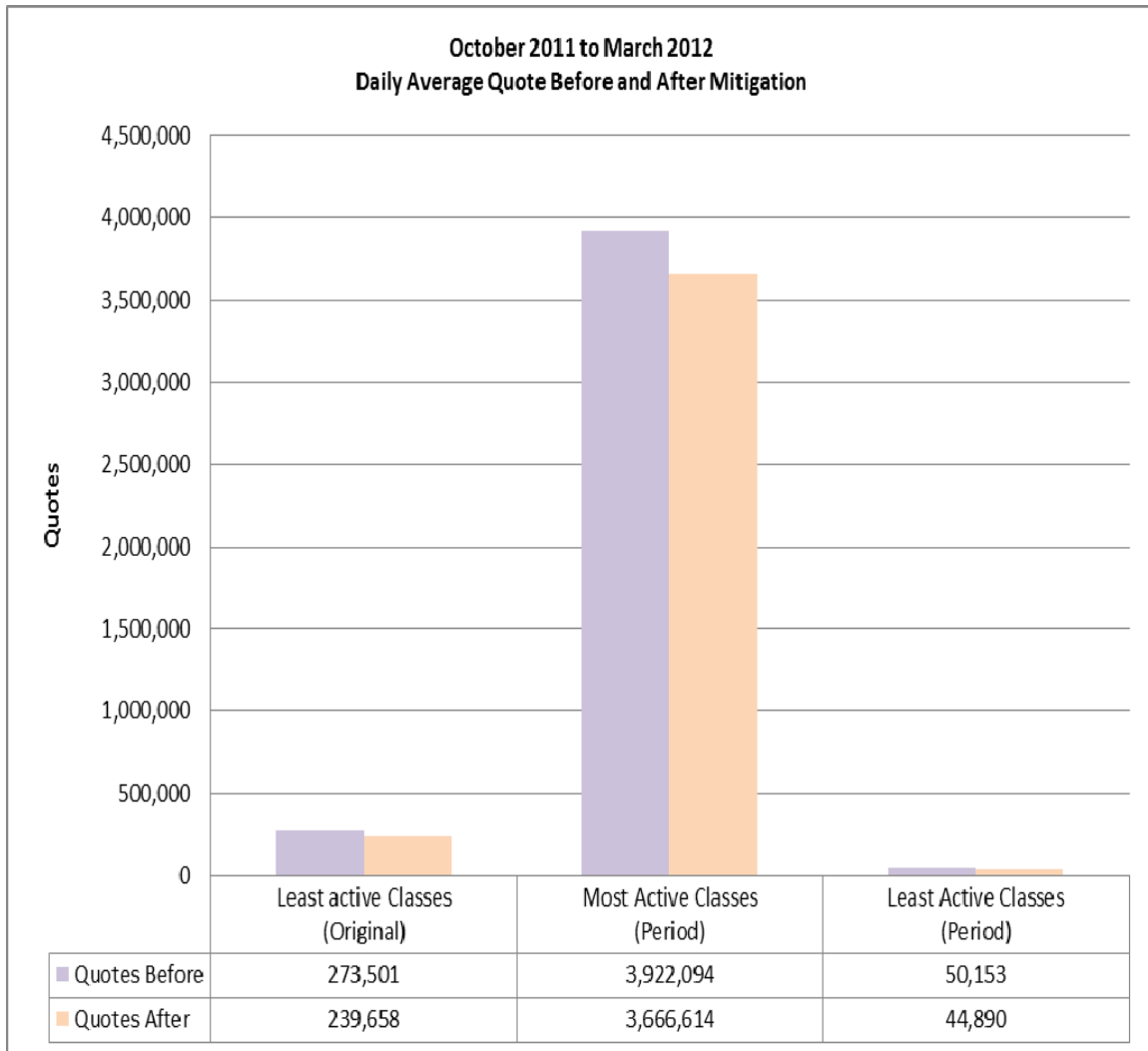
The number of contracts available at the BOX Best Bid/Ask is often referred to as the “size” and is another item that may reflect market quality. The chart below shows the average daily size available at the BOX Best Bid and Ask during the report period for each of the data sets. As one would expect, the average Bid/Ask size for the least active classes is much less than the size for the most active classes.



## Chapter 3 – Capacity and Trading Activity

### 3.1 BOX Quotes to OPRA: Before and After Mitigation

BOX sends its Best Bid and Best Ask prices for each options series to the Options Price Reporting Authority (“OPRA”), which then disseminates those prices to the market along with quotes from the other options exchanges. BOX notes that on average, over 3 million quotes per day are sent to OPRA for each of the Most Active Classes, whereas BOX sends only a fraction as many quotes per day for the Least Active Classes. The industry continues to increase systems capacity to accommodate ongoing increases in quoting and trading activity in all options classes.



### 3.2 Trading Activity

In addition to providing information about the selected data sets of Pilot classes, the Commission has inquired about the percentage of transactions in Pilot classes that occur through the BOX Price Improvement Period (“PIP”). Provided in the table below for each of the three respective data sets, is the per class: (i) daily average PIP volume; (ii) daily average total volume on BOX; and (iii) percentage of total volume on BOX traded in the PIP. Note that more than 34% of the total BOX volume for Pilot classes traded through the PIP, providing significant opportunity for price improvement for all Pilot classes.

	Daily Avg Contracts Traded in PIP	Daily Avg Total Contracts Traded	PIP Percentage
Least Active Classes (Original)	297	567	34.38
Most Active Classes (Period)	26,366	40,604	39.37
Least Active Classes (Period)	44	86	34.05

### Chapter 4 – Number of BOX Market Makers

The Commission has asked BOX to provide the number of BOX Market Makers at various points during the Pilot. As of October 2011, there were 13 firms registered as BOX Market Makers. As of March 2012, there were 12 firms registered as BOX Market Makers.