



June 17, 2009

Ms. Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F St., N.E.
Washington, DC 20549-0609

Re: File Numbers SR-NYSEArca-2009-44, SR-CBOE-2009-031, and SR-ISE-2009-32

Dear Ms. Murphy:

The Equity Options Trading Committee (“Committee”) of the Securities Industry and Financial Markets Association (“SIFMA”)¹ appreciates the opportunity to provide the Securities and Exchange Commission (the “SEC” or “Commission”) with our comments regarding the NYSE Arca, Inc.’s Notice of Filing of Proposed Rule Change Amending Rule 6.72 Governing Trading Differentials and Proposing to Expand the Penny Pilot (“NYSE Arca Filing”), the Chicago Board Options Exchange, Incorporated’s Notice of Filing of Proposed Rule Change Amending CBOE Rules Relating to the Penny Pilot Program (“CBOE Filing”), and the International Securities Exchange, LLC’s Notice of Filing of Proposed Rule Change Relating to the Penny Pilot Program.² In the NYSE Arca Filing, NYSE Arca proposes to extend its participation in the Penny Pilot Program to December 10, 2010 and to add additional classes of options to the Pilot. In addition, NYSE Arca proposes to designate all options series in two additional options classes as eligible for penny quoting regardless of the premium at which options in the series are trading. At present, penny quoting in all classes of options is limited to series trading at premiums below \$3, excepting all series in the QQQQ, which are currently quoted in penny increments. The Committee opposes this aspect of the NYSE Arca proposal and supports a proposal described in the CBOE Filing to limit penny quoting in all classes of options to those series trading at premiums of less than \$1, and also supports applying this \$1 breakpoint to all QQQQ series.

Summary of Committee’s Views

Over the past several years, the Committee has expressed strong support for a Penny Pilot Program, but we have also expressed our equally strongly held view that the benefits of penny quoting in narrowing quote spreads must be weighed against serious negative effects that penny quoting can have on the options markets in other respects. These negative effects include: greatly increased quote traffic that strains capacity and increases costs,

¹ SIFMA brings together the shared interests of more than 650 securities firms, banks and asset managers. SIFMA’s mission is to promote policies and practices that work to expand and perfect markets, foster the development of new products and services and create efficiencies for member firms, while preserving and enhancing the public’s trust and confidence in the markets and the industry. SIFMA works to represent its members’ interests locally and globally. It has offices in New York, Washington D.C. and London, and its associated firm, the Asian Securities Industry and Financial Markets Association, is based in Hong Kong.

² SR-ISE-2009-32 (June 11, 2009) (available on the ISE web site but not yet published for comment at the time of this writing).

decreased liquidity at the Best Bid/Offer (“BBO”), and a tendency to drive institutional customers into the OTC market, resulting in a less transparent market. We continue to believe that penny quoting is more beneficial for lower priced series and less beneficial for higher priced series. To achieve the correct balance between the positive and negative effects of penny pricing, the Committee believes that the optimal breakpoint must be selected based on market data. The breakpoint should be subject to adjustment from time to time based on objective data indicating where the breakpoint should be.

Based on analyses performed by the Committee and reports submitted by various exchanges, our present view is that the optimal breakpoint is \$1, and that options trading for less than \$1 should be quoted in pennies while options trading above that level should be quoted in nickel increments. We continue to withhold judgment on whether there should be an additional breakpoint above which dime increments would be appropriate.

The Committee’s recent empirical analysis of data gathered by The Options Clearing Corporation (“OCC”)³ from all options exchanges between January 1, 2009 to May 31, 2009 indicates that the strongest growth in volume in the Penny Pilot option classes occurs up to the \$1 breakpoint.⁴ Customer volume in Penny Pilot options priced up to \$1 exceeded customer volume in non-Penny Pilot options in the same price range, and customer activity in those series exceeded market maker activity.⁵ For example, in March, April, and May of 2009, customer volume accounted for 46%, 49%, and 48% of total volume in Penny Pilot options, respectively, whereas customer activity accounted for 42%, 41%, and 42% of total volume in non-Penny Pilot options during the same period.⁶ The CBOE’s report evaluating the Penny Pilot Program during the August 1, 2009 to January 31, 2009 period corroborates the conclusion that the benefit of penny quoting is concentrated in contracts priced up to \$1, as these were the most heavily traded by customers. The CBOE stated that “in January 2009, 42% of customer contract volume was in series priced up to \$1. In the Penny Pilot classes, 51% of customer contract volume was in series priced up to \$1.”⁷

Similarly, while the OCC data shows that a penny pricing structure is highly valuable to the customer, it also suggests that the value to the customer significantly diminishes beyond the \$1 breakpoint. Overall, data analyzed by the Committee illustrates that: (i) customers trade non-Penny Pilot options priced between \$1.01 and \$1.50 more heavily than they trade Penny Pilot options of the same price across the majority of the examined time period, and (ii) customers trade both Penny Pilot and non-Penny Pilot classes priced above \$1.50 far less heavily than market makers across the entirety of the examined time period.⁸ The data

³ The Options Clearing Corporation is the world's largest equity derivatives clearing organization. It clears transactions for put and call options on common stocks and other equity issues, stock indexes, foreign currencies, interest rate composites and single-stock futures. As a registered Derivatives Clearing Organization (DCO), it also offers clearing and settlement services for transactions in futures and options on futures. | www.optionsclearing.com.

⁴ Comparisons of Customer and Market Maker Trading Volume Across the U.S. Options Exchanges, June 17, 2009, p. 3, <http://www.sifma.org>.

⁵ *Id.* at 6.

⁶ *Id.* at 3.

⁷ CBOE’s Penny Pilot Report: For the Period from August 1, 2008 – January 31, 2009 (March 9, 2009), p. 2.

⁸ Comparisons of Customer and Market Maker Trading Volume Across the U.S. Options Exchanges, June 17, 2009, p. 6, <http://www.sifma.org>.

suggests that the diminishing return of receiving an additional penny is no longer justified by the resulting decrease in liquidity, and that customers prefer adequate liquidity to an almost insignificant cost reduction.⁹

The Committee is further persuaded by the CBOE's analysis of available market data, and the Committee endorses the proposal of the CBOE and other exchanges insofar as they propose to reduce the current breakpoint from \$3 to \$1.¹⁰ We strongly oppose the proposal of NYSE Arca to trade all series in certain option classes in penny increments regardless of price. Unlike the CBOE proposal, which provides a substantive discussion of trading results under the Penny Pilot Program and bases its proposal in an analysis of that data, NYSE Arca provides no credible reasoning or analysis to support its proposal.

The Committee also believes strongly that the Commission should enforce uniformity among the exchanges in the terms of the Penny Pilot Program. Having different break points, different market structures and different rules on different exchanges will dramatically increase programming costs for firms active in the market and cause investor confusion—particularly among retail investors. In setting a uniform standard to govern the next phase of the Penny Pilot Program, the Commission's decision should be driven by an analysis of available data. The Penny Pilot Program has generated market data on which rational decisions can be made, and we urge that this data be the basis for determining the most appropriate course of action.

Summary of Quarterly Report Findings

The Committee agrees with the CBOE in its assessment that a breakpoint shift to a \$1 threshold is warranted by the empirical analysis presented in the major exchanges' Penny Pilot reports. Over a year ago, the Committee's March 2008 letter referenced the findings of the exchanges' Penny Pilot Phase II Reports,¹¹ which indicated that the program had resulted in a significant and consistent decrease in spread widths. However, we also noted that the findings indicated significant increases in quote traffic, a decrease in average daily volume, and a decrease in liquidity at the BBO. More importantly, *recent* data presented in the CBOE's March 2009 report evaluating the Penny Pilot for the 1 August - 31 January period have generally corroborated these findings, reinforcing the Committee's support of the CBOE's \$1 breakpoint proposal.¹² The CBOE's March 2009 report highlighted some of the negative effects that the Committee believes penny quoting has had on the options markets, specifically:

1. Costs Due To Increased Quote Traffic: Quote traffic has continued to increase. In the last five months alone, the industry's total number of quotes per day in penny series

⁹ *Id.* at 7.

¹⁰ See SR-ISE-2009-32 (June 11, 2009) (available on the ISE web site but not yet published for comment at the time of this writing).

¹¹ Chicago Board Options Exchange, Penny Pilot Report dated March 4, 2008; International Securities Exchange Penny Pilot Analysis Phase 2, dated November 27, 2007; Philadelphia Stock Exchange Options Penny Pricing Pilot Report, dated February 29, 2007; American Stock Exchange Penny Pilot Report, dated November 2, 2007; New York Stock Exchange Arca Options: Understanding Economic and Capacity Impact of the Options Penny Pilot, dated November 14, 2007.

¹² See: CBOE's Penny Pilot Report: For the Period from August 1, 2008 – January 31, 2009 (March 9, 2009).

increased 363% in Phase I classes, 171% in Phase II classes, and 124% in Phase III classes. “There are real costs to exchanges and others to process and store these quotations,” reported the CBOE.¹³ In light of such capacity strains, the Committee also believes that continued analyses of Penny Pilot options classes should be undertaken to ensure that the addition of classes in the future does not incapacitate the system, and that adequate provisions are in place to remove classes of options from the Pilot should capacity issues arise.

2. Decreases in Average Daily Volume: While summary statistics suggest that trading volume increased in Penny Pilot classes during the most recent five month review period, a detailed review of the data shows that 8 of 13 Phase I classes, 13 of 22 Phase II classes, and 11 of 26 Phase III classes decreased in average daily volume.¹⁴ As discussed in the “Summary of Committee’s Views” above, the empirical data analyzed by the Committee for the period between January 1 and May 31, 2009 illustrates that customers were significantly present in the trading of options priced up to \$1.00, while market makers heavily dominated the trading of options priced over \$1.00 for this period across all exchanges, and traded options significantly more heavily than customers in the \$1.01 to \$1.50 price range.¹⁵

3. Significant Reduction in Liquidity at the BBO: During the most recent five month review period, the average quoted size decreased 91% for Phase I classes, 80% for Phase II classes, and 82% for Phase III classes. Anecdotal evidence suggests that this very significant decrease in quoted size is indeed having the predictable adverse effect on the options markets. A recent TABB Group study of fifty-four traders at various asset management firms, hedge funds, market makers and proprietary trading firms with aggregate assets under management of \$4.9 trillion noted that “traders’ leading complaint continues to be liquidity.”¹⁶ According to CBOE, “CBOE members and institutional investors continue to advise that executing large size orders is difficult in Penny Pilot classes, and that trading is moving to non-listed markets.”¹⁷ This is consistent with the initial observations of many members of the Committee, although the effect of the financial crisis on OTC derivatives and potential regulatory responses to the crisis make it difficult to predict the future in this regard. We believe that the problem would be mitigated by using larger quote increments in the higher-priced series, which are generally the less liquid series. For less liquid options series, a minimum price variation of greater than one cent enhances liquidity by making it worthwhile for market makers to provide quotations. The existence of minimum price variations of five and ten cents is an important reason that the options markets are so liquid, despite the large number of series. The ability to rapidly buy or sell options in even the classes with relatively low trading volume is an obvious benefit to investors and maintains confidence in the options market.¹⁸ The Committee requests that the Commission, when

¹³ CBOE’s Penny Pilot Report: For the Period from August 1, 2008 – January 31, 2009 (March 9, 2009), p.3.

¹⁴ *Id.*

¹⁵ Comparisons of Customer and Market Maker Trading Volume Across the U.S. Options Exchanges, June 17, 2009, pp. 6-7, <http://www.sifma.org>.

¹⁶ TABB Group Says Growth in U.S. Options Commission Revenues Seen as a Bright Spot for Brokerage Industry but Challenging Times Lie Ahead, February 23, 2009,

<http://www.reuters.com/article/pressRelease/idUS141385+23-Feb-2009+BW20090223>.

¹⁷ CBOE’s Penny Pilot Report: For the Period from August 1, 2008 – January 31, 2009 (March 9, 2009), p.2.

¹⁸ See, e.g., SIA Comment Letter to SEC re: quote mitigation plans (Dec. 20, 2006); SIA Letter to Erik R. Sirri re: Pilot Program for Quoting of Options in Penny Increments (Oct. 19, 2006).

considering the various proposals for the further roll out of the Penny Pilot, remain mindful of and take into account any of the pending changes to its various short sale rules that might affect liquidity in the options marketplace for Penny Pilot option classes.¹⁹

Since January 2007 – when the Penny Pilot program was launched – the reports and empirical findings submitted by the CBOE and other exchanges have confirmed the Committee’s position. The CBOE proposal endorsed by the Committee advocated a structure for all option classes whereby all options series of less than \$1 premium value are quoted in penny increments, with all series at \$1 or above quoted in nickel increments. This was also a major component of the International Stock Exchange’s (“ISE”) proposal and subsequent filing, and was included in PHLX and AMEX Penny Pilot Reports historically. While the Committee endorses the \$1 breakpoint at this time, the Committee believes that continuous analysis and quarterly reports by the exchanges should be undertaken to explore the best market structure for the industry.

Lack of Empirical Support for NYSE Arca Filing

As noted above, the NYSE Arca Filing supports expanding penny quoting to include all series of options, regardless of price, in two options classes, SPY (SPDR S&P 500 ETF) and IWM (iShares Russell 2000 Index Fund). The NYSE Arca Filing notes that these underlyings are the most actively traded issues nationally, and that they have more series trading at a premium between \$3 and \$10. NYSE Arca asserts that “issues that meet these criteria benefit the most from the ability to quote and trade all options in penny increments,” but fails to provide any analysis or empirical data to substantiate its conclusion. NYSE Arca offers no evidence that these proposals would benefit public customers and other market participants, or that any benefit derived from these proposals would outweigh the concerns outlined above as reflected in the data. The Committee has discussed the findings of the most recent CBOE report at length and believes that the CBOE’s proposed \$1 breakpoint is easy to understand, transparent, balanced, flexible, reasonable, and appropriate in light of market data. The Committee is concerned that a continuation of the current \$3 breakpoint would have unintended negative consequences in that it will exacerbate the negative effects referred to above. At a time when the TABB Group reports that liquidity and market structure are the two most severe challenges facing options traders, these consequences would be seriously harmful.²⁰

Importance of a Consistent Market Structure

The Committee believes that a lack of uniformity among plans adopted by the exchanges will result in undue burdens for member firms and confusion for market participants,

¹⁹ For example, the Committee believes that it is critical for the Commission to provide market makers with an exemption from any short sale price test proposal that may be adopted to address liquidity concerns in the options markets. Under the current proposals, there is no exemption for options market making. Without such an exemption, liquidity would be negatively affected across underlyings in the listed options markets. Therefore, we encourage the Commission to provide an options market maker exemption to preserve the liquidity in and quality of the options markets for the benefit of investors.

²⁰ The Tabb Group, US Options Trading 2009: Resilience in the Face of Crisis, May 27, 2009, <http://www.tabbgroup.com>.

especially retail investors. As the Committee has stated before, we believe that it is important that any adopted proposal is understood by all market participants, including investors. Such understanding would be impaired by the existence of multiple plans. More importantly, multiple plans would subject members and ultimately investors to the elevated costs of excessive systems modifications and personnel training activities. Accordingly, the Committee believes that the Commission should impose a single system which adopts the uniform \$1 breakpoint for penny quoting as embodied in the Long Term Penny Pilot Rollout Plan proposed by the CBOE.

For the reasons stated above, SIFMA respectfully requests the Commission to modify the Penny Pilot Phase III to conform to the CBOE's Long Term Penny Rollout Plan in respect of the proposed \$1 breakpoint. Thank you for your consideration of these views. If you have any questions, please do not hesitate to call me at 212-313-1260.

Sincerely,



Thomas F. Price
Managing Director

cc: Ms. Elizabeth King, Associate Director, Division of Trading and Markets



COMPARISONS OF CUSTOMER AND MARKET MAKER TRADING VOLUME ACROSS THE U.S. OPTIONS EXCHANGES

Customer and market maker volume comparisons support an options pricing structure whereby only options series of less than \$1 premium value are quoted in penny increments.

INTRODUCTION

Over the past several years, the Equity Options Trading Committee (“Committee”) of the Securities Industry and Financial Markets Association (“SIFMA”) has expressed numerous hesitations with the rollout of the options Penny Pilot Program. Currently, as the SEC considers expanding the Penny Pilot Program to include “the top 300 most actively traded multiply listed options that are not yet included in the Pilot Program,”¹ the Committee is concerned that such an expansion would disproportionately harm customers trading on the options exchanges.

Since January 2007 – when the Penny Pilot program was launched – the reports and empirical findings submitted by the CBOE, PHLX, and ISE have corroborated the Committee’s concerns in this area. As a result, the Committee firmly endorsed the conclusion of the CBOE, ISE, and PHLX that customer order flow is far more likely to be concentrated in low premium options as opposed to those with much higher premiums – a conclusion which underpins the Long Term Penny Pilot Rollout Plan endorsed by the three aforementioned exchanges.² This plan, which has been officially endorsed by the Committee, proposes that the industry adopt a structure for all option classes whereby all option series of less than \$1 premium value are quoted in penny increments, with all series at \$1 or above quoted in nickel increments.³ The Committee firmly believes that this is the most uniform of the options pricing proposals.

More importantly, a recent corpus of data corroborates the contention that the \$1 breakpoint proposal “provides the benefits of penny quoting and trading in those option contracts that customers actually trade.” The CBOE’s March 2009 report evaluating the Penny Pilot for the 1 August 2008 - 31 January 2009 period discussed these data cursorily: “In January 2009, 42% of customer contract volume was in series priced up to \$1. In the Penny Pilot classes, 51% of customer contract volume was in series priced up to \$1.”⁴ Reports published by a majority of the other options exchanges made similar observations. The conclusion is that *the benefits of penny quoting should be concentrated in the contracts that are most heavily traded by customers – those priced up to \$1.*

Because these findings were highly significant, the Committee sought to assess whether they applied consistently to a broader set of data gathered over a more extended and current period of time. Presented below, the Committee’s own analysis appears to confirm and amplify the conclusions of the quarterly reports submitted by the CBOE, ISE, and PHLX.

¹ Notice of Filing of Proposed Rule Change Amending Rule 6.72 Governing Trading Differentials and Proposing to Expand Penny Pilot, U.S. Securities and Exchange Commission, 20 May 2009, www.sec.gov.

² SIFMA Comment Letter to SEC re: Long term Penny Pilot Rollout Plan Detailed in the Penny Pilot Phase II Report, Submitted by the Chicago Board Options Exchange (CBOE) (March 10, 2008).

³ CBOE, Penny Pricing Report – September 28, 2007 through January 31, 2008, 4 March 2008, p.4.

⁴ See: CBOE’s Penny Pilot Report: For the Period from August 1, 2008 – January 31, 2009.

METHODOLOGY

Eight (8) separate sets of data gathered by the Options Clearing Corporation (OCC)⁵ from all options exchanges over a five month period – 1 January 2009 to 31 May 2009 – underpin the Committee’s most important findings. Naturally, these data only represent a limited time frame and could have been affected by a number of externalities. With that said, the Committee continues to evaluate additional data as it becomes available. The sets of data used are:

1. The volume by percent of Penny Pilot (PP) option classes⁶ (currently 57⁷) priced up to \$1 and traded by customers (C).
2. The volume by percent of Penny Pilot option classes (currently 57) priced up to \$1 and traded by market makers (MM).
3. The volume by percent of comparable non-Penny Pilot (NPP) option classes⁸ priced up to \$1 and traded by customers.
4. The volume by percent of comparable non-Penny Pilot option classes priced up to \$1 and traded by market makers.
5. The volume by percent of Penny Pilot option classes priced between \$1.01 and \$1.50 and traded by customers.
6. The volume by percent of Penny Pilot option classes priced between \$1.01 and \$1.50 and traded by market makers.
7. The volume by percent of comparable non-Penny Pilot option classes priced between \$1.01 and \$1.50 and traded by customers.
8. The volume by percent of comparable non-Penny Pilot option classes priced between \$1.01 and \$1.50 and traded by market makers.

Data Set	Options Class	Price	Trader
1	PP	≤ \$1.00	C
2	PP	≤ \$1.00	MM
3	NPP	≤ \$1.00	C
4	NPP	≤ \$1.00	MM
5	PP	\$1.01 - \$1.50	C
6	PP	\$1.01 - \$1.50	MM
7	NPP	\$1.01 - \$1.50	C
8	NPP	\$1.01 - \$1.50	MM

⁵ The Options Clearing Corporation (OCC) is the world's largest equity derivatives clearing organization. It clears transactions for put and call options on common stocks and other equity issues, stock indexes, foreign currencies, interest rate composites and single-stock futures. As a registered Derivatives Clearing Organization (DCO), it also offers clearing and settlement services for transactions in futures and options on futures. | www.optionsclearing.com

⁶ A “Penny Pilot option class” is the set of all the call options or all the put options for a particular stock, index fund, or futures security on a listed exchange that was included in the most recent (28 March 2008) expansion of SEC’s Penny Pilot Program – which provided for these options classes “to quote and trade all contracts in one cent increments.” | Notice of Filing of Proposed Rule Change Amending Rule 6.72 Governing Trading Differentials and Proposing to Expand Penny Pilot, U.S. Securities and Exchange Commission, 20 May 2009, www.sec.gov.

⁷ Externalities associated with recent market volatility and the “financial crisis” have narrowed the number of Penny Pilot classes from 63 to 57. Since the conversion to pennies, five symbols were delisted, including BSC (5/30/08), CFC (6/30/08), LEH (9/17/08), WM (9/25/08), MER (12/31/08), and GM (06/02/09).

⁸ The group of comparable non-Penny Pilot option classes was selected based on a set of criteria established by the International Securities Exchange (ISE) during an exercise that tracked the change over time in average daily trading volume (ADV) for classes of options included in the Pilot. For each of the penny Pilot symbols, a comparable symbol was found in the non-penny symbols and used as a reference point. The following list of 24 symbols was used as a baseline: ALU, AMX, BHP, CELEG, CVX, FXI, HPQ, IWN, IWO, IYR, JNPR, JPM, MDY, MRK, NILE, NMX, NOK, NRMX, PALM, RAI, RTH, TTM, USO, XLB. | Penny Pilot Analysis 5, International Securities Exchange, May 2009, p. 10, http://www.ise.com/assets/files/investors/Penny_Report_5.pdf.

After compiling the data, the Committee crafted comparison graphs to analyze trends over a period of five (5) months, starting on 1 January 2009 and ending on 31 May 2009. In the first comparison, data sets 1 and 2 are compared. In the second, data sets 1, 2, 3, and 4 are compared. In the third, data sets 5, 6, 7, and 8 are compared.

FINDINGS

The Committee's findings illustrate noteworthy differences between each of the data sets.

First, a comparison of data sets 1 and 2 (Figure 1) illustrates that during a majority of the examined time frame, customer volume in Penny Pilot option classes priced up to \$1 was heavier than market maker volume. In March 2009, customer volume was 46%, while market maker volume was only 44%. In April, customer volume was 49%, while market maker volume was only 38%. In May, customer volume was 48%, while market maker volume was 41%.

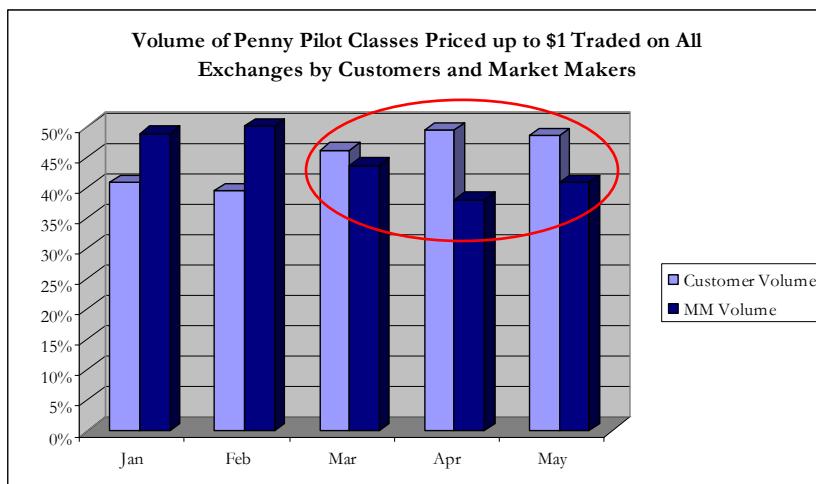


Figure 1, Options Clearing Corporation, 1 January 2009 - 31 May 2009

Second, a comparison of data sets 1, 2, 3, and 4 (Figure 2) illustrates a similar trend. Across the majority of the examined time frame, customer volume was either slightly lighter or equal to market maker volume in non-Penny Pilot options priced up to \$1. In January 2009, customer volume was 45%, while market maker volume was 46%. In March, customer volume was 42%, while market maker volume was 46%. In April, customer volume was 41%, while market maker volume was 45%. In May, customer volume was 42%, and market maker volume was 42%.

More importantly, across the majority of the examined time frame, customer volume in Penny Price options priced up to \$1.00 was heavier than customer volume in non-Penny Price options of the same price. In March, 46% of customer volume was in Penny Pilot options and 42% of customer volume was in non-Penny Pilot options. In April, 49% of customer volume was in Penny Pilot options and 41% of customer

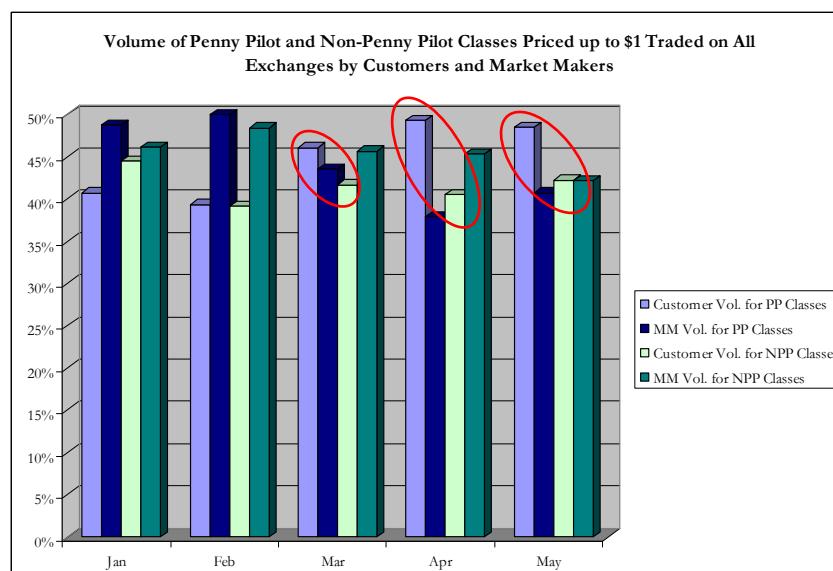


Figure 2, Options Clearing Corporation, 1 January 2009 - 31 May 2009

volume was in non-Penny Pilot options. In May, 48% of customer volume was in Penny Pilot options and 42% of customer volume was in non-Penny Pilot options.

The strong growth in the volume of Penny Pilot option classes priced up to \$1.00 traded by customers indicates that the Penny Pilot was a positive introduction into the market for these option classes. It shows that, at the right price, a penny pricing structure is highly valuable to the customer. Above that price, however, the value to the customer diminishes. The data that follow indicate this.

Third, a comparison of data sets 5, 6, 7, and 8 (Figure 3) illustrates that across the entirety of the examined time frame, customer volume in Penny Pilot *and* non-Penny Pilot options priced between \$1.01 and \$1.50 was lighter than market maker volume. Across every possible variable in this price range, market maker volume was heavier than customer volume, and market maker volume in this price range surpassed customer volume by an increment that, on average, is far greater than the increment by which market maker volume surpassed customer volume in the previous graph.

More importantly, across the majority of the examined time frame, customer volume in non-Penny Price options priced between \$1.01 and \$1.50 was heavier than customer volume in Penny Price options of the same price. In January, 40% of customer volume was in non-Penny Pilot options and 37% of customer volume was in Penny Pilot options. In February, 37% of customer volume was in non-Penny Pilot options and 33% of customer volume was in Penny Pilot options. In March, 40% of customer volume was in non-Penny Pilot options and 35% of customer volume was in Penny Pilot options. In May, 41% of customer volume was in non-Penny Pilot options and 22% of customer volume was in Penny Pilot options. Like the previous data, this illustrates that, at the right price, a penny pricing structure is highly valuable to the customer. Beyond that price, however, the value to the customer appears to diminish.

In March, 40% of customer volume was in non-Penny Pilot options and 35% of customer volume was in Penny Pilot options. In May, 41% of customer volume was in non-Penny Pilot options and 22% of customer volume was in Penny Pilot options. Like the previous data, this illustrates that, at the right price, a penny pricing structure is highly valuable to the customer. Beyond that price, however, the value to the customer appears to diminish.

The Committee's analysis also highlights that across the entirety of the examined time period customer volume in Penny Pilot and non-Penny Pilot classes priced above \$1.50 was much lighter than market maker volume in the same classes. This observation is

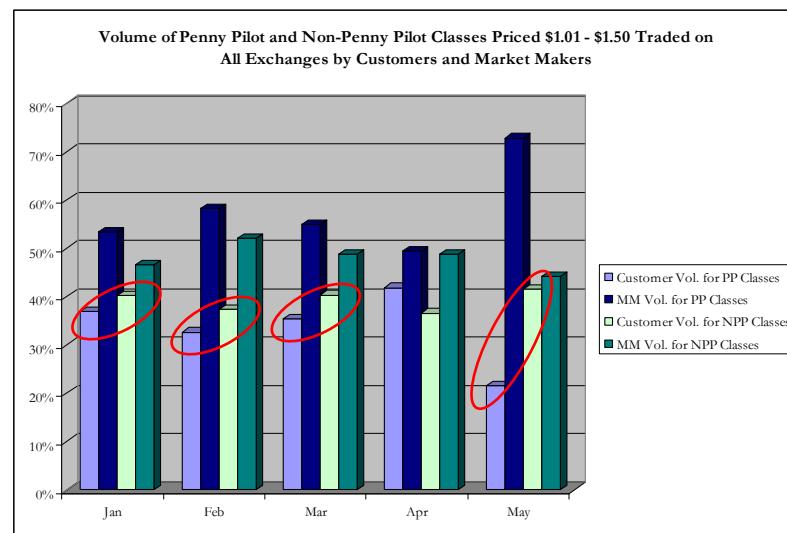


Figure 3, Options Clearing Corporation, 1 January 2009 - 31 May 2009

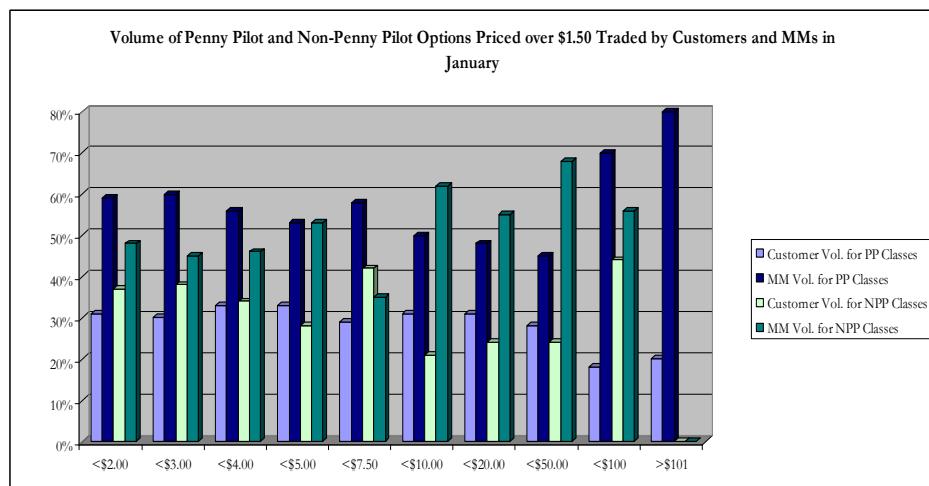


Figure 4, Options Clearing Corporation, 1 January 2009 - 31 May 2009

illustrated in the following graphs (Figures 4-8). The raw data, which were not explained above, are available in Appendix A.

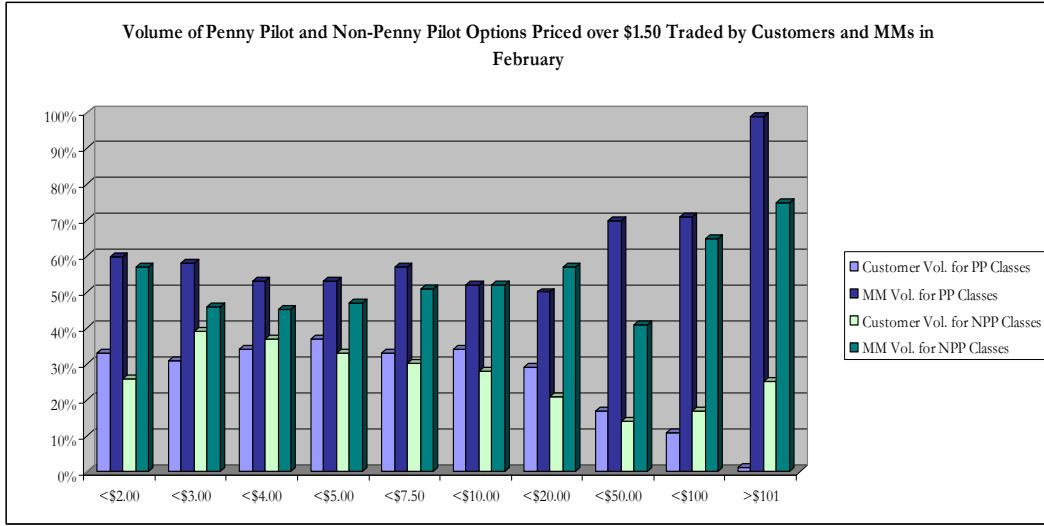


Figure 5, Options Clearing Corporation, 1 January 2009 - 31 May 2009

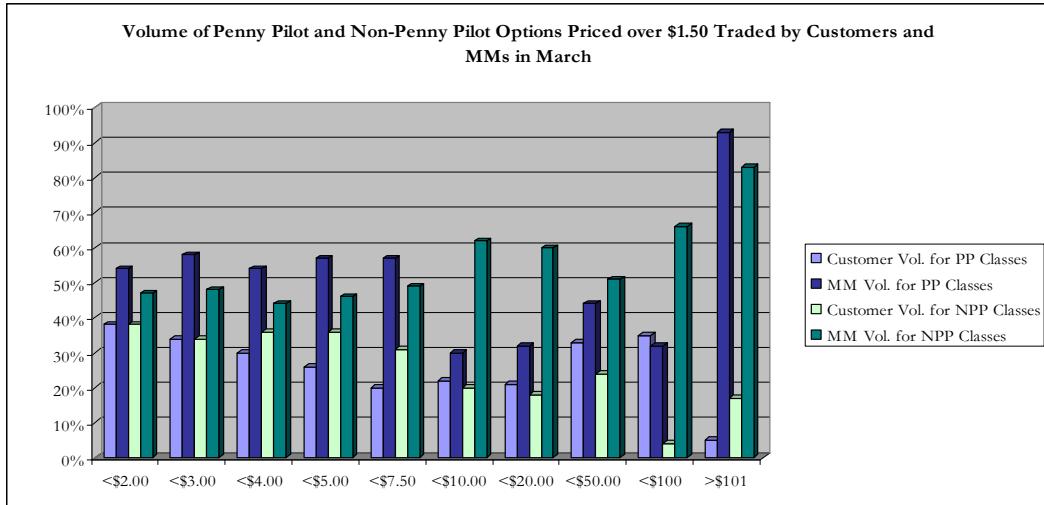


Figure 6, Options Clearing Corporation, 1 January 2009 - 31 May 2009

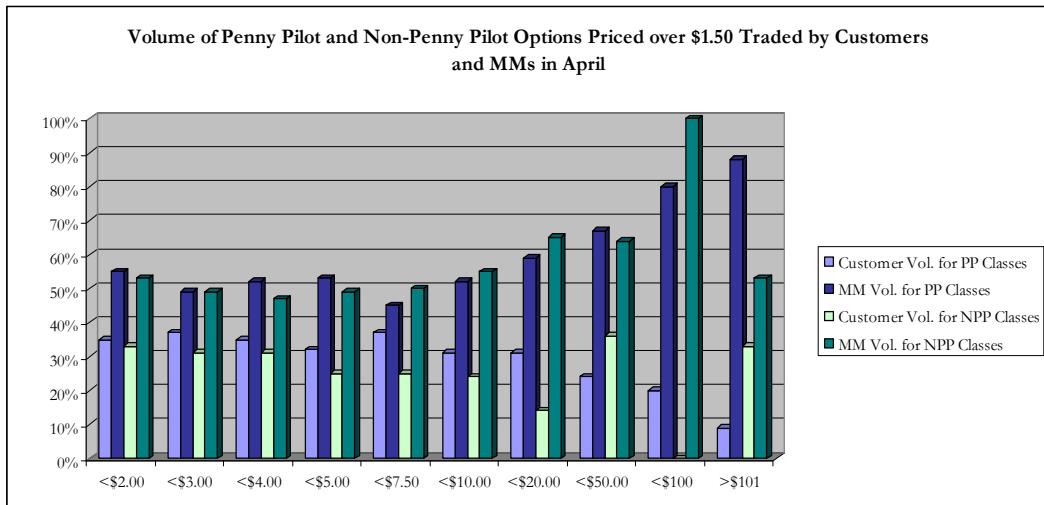


Figure 7, Options Clearing Corporation, 1 January 2009 - 31 May 2009

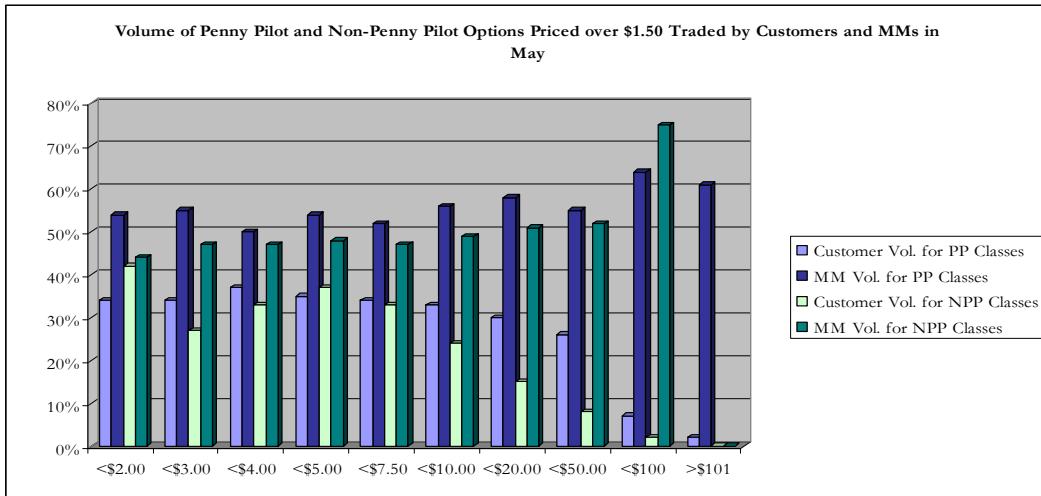


Figure 8, Options Clearing Corporation, 1 January 2009 - 31 May 2009

Summarized, the findings illustrate:

1. Across the majority of the examined time frame, customer volume in Penny Pilot option classes priced up to \$1 was heavier than market maker volume in the same classes.
2. Across the majority of the examined time frame, customer volume was either slightly lighter or equal to market maker volume in non-Penny Pilot options priced up to \$1.
3. Across the majority of the examined time frame, customer volume in Penny Price options priced up to \$1.00 was heavier than customer volume in non-Penny Price options of the same price.
4. Across the entirety of the examined time frame, customer volume in Penny Pilot *and* non-Penny Pilot options classes priced between \$1.01 and \$1.50 was lighter than market maker volume in the same classes.
5. Across the majority of the examined time frame, customer volume in non-Penny Price options priced between \$1.01 and \$1.50 was heavier than customer volume in Penny Price options of the same price.
6. Across the entirety of the examined time period, customer volume in Penny Pilot and non-Penny Pilot classes priced above \$1.50 was much lighter than market maker volume in the same classes.

CONCLUSIONS

The expansion of the Penny Pilot Program to include the top 300 most actively traded multiply listed options not yet included in the program is aimed at benefitting customers through reduced spreads. Put simply, “The narrowest possible spread between the bid and the ask provides a substantial benefit to customers.”⁹ The Committee – like the exchanges and the SEC – is emphatically aligned with the customer and fully supports measures which are beneficial. This is precisely why it stands behind the exchanges’ proposal that the industry adopt a structure for all option classes whereby all

⁹ Understanding Economic and Capacity Impacts of the Options Penny Pilot, Post 3: September 28, 2007 – January 31, 2008, NYSEArca Options, 29 February 2008.

option series of less than \$1 premium value are quoted in penny increments, with all series at \$1 or above quoted in nickel increments.

The strong growth in the volume of Penny Pilot option classes priced up to \$1.00 traded by customers since the initiation of the pilot indicates that the Penny Pilot thus far has been a positive introduction into the market for these option classes. It shows that, at the right price, a penny pricing structure is highly valuable to the customer. Beyond that price, however, the value to the customer diminishes.

Because an interval of one cent represents a much larger percent change in the price of an inexpensive option than it does in the price of a more expensive one, penny pricing has a disproportionate effect on the contract prices of inexpensive option classes – where customer volume is heaviest. For example, the difference between a \$0.05 quote and a \$0.04 quote is 25% of the original price, but the difference between a \$3.00 quote and a \$2.99 quote is only 0.3% of the original price.

As a result, there is a point at which the diminishing return of getting an extra penny on a quote is no longer justified by the resulting decrease in liquidity (Figure 9¹⁰). In other words, there is a point at which customers, because of diminishing returns, prefer the benefit of adequate liquidity over a cost reduction that is a minuscule percentage of the overall trade. The data the Committee has presented above indicates that this point is \$1.00.

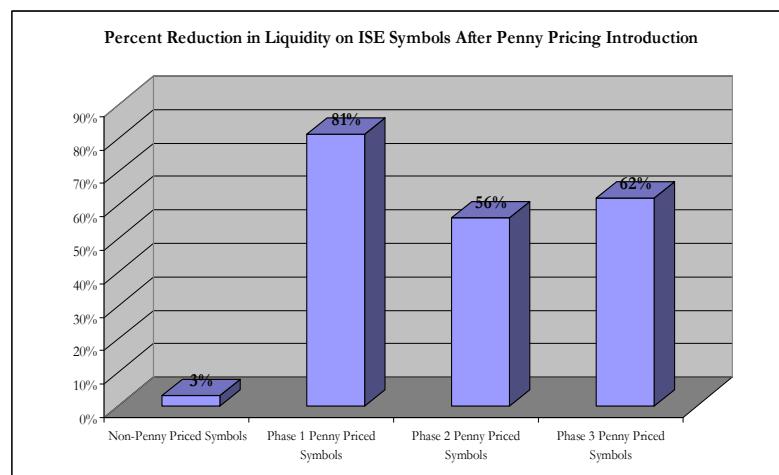


Figure 9, Penny Pilot Analysis 5, International Securities Exchange, May 2009, p.5.

Similarly, the statistics generated by the Exchanges illustrates that the benefits of narrowed bid-ask spreads are also concentrated among option classes priced up to a dollar. This is because, for these classes, the average spread is typically at or near the minimum price variation, indicating that the market might demand a narrower spread. Put simply, it is likely that the minimum price variation is causing an unnecessarily wide spread. For these classes, reduced pricing increments are appropriate – even demanded. For more expensive options that are traded less heavily, however, bid-ask spreads can be in excess of the minimum price variation. In these cases, it is likely that the width of the spread is a function of a lack of liquidity in the option, rather than the minimum price variation.

Statistically, data for the first five months of 2009 shows that across all exchanges, the volume of options priced over \$1.00 was heavily dominated by market makers, while customers exhibited a larger presence in options priced up to \$1.00. Additionally, across the majority of the examined time frame, customer volume in Penny Price options priced up to \$1.00 was heavier than customer volume in non-Penny Price options of the same price. For options priced between \$1.01 and \$1.50,

¹⁰ The time period over which the reduction is measured begins three months prior to the introduction of penny pricing and ends a year after the pennies were introduced. Liquidity is measured by volume weighted size at the BBO, which is the volume of contracts available at the BBO for each option series as published to OPRA. For more details on calculating volume weighted size at the BBO, please see: Penny Pilot Analysis 5, International Securities Exchange, May 2009, pg. 8.

customer volume in non-Penny Price options was heavier than customer volume in Penny Price options of the same price. Thus, we believe that in the interest of enhancing liquidity penny pricing should be limited to option classes priced under \$1.00. Although this data is drawn from a limited time period, the period was characterized by far less market turbulence than the last 4 months of 2008 and thus contains far less distortion. Further, the conclusions, principally, are consistent with those articulated by the Committee and the exchanges in recent quarterly reports.

Additionally, the Committee firmly believes that setting a uniform standard for all equity and ETF option classes is extremely important. As the CBOE pointed out in its 12 June 2009 letter to the SEC, NYSEArca proposes to exclude option classes with “high premiums,” but provides no guidance, definition, or indication of what constitutes a “high premium,” or which classes it would classify as a high premium class.¹¹ Because it avoids establishing arbitrary (or undefined) premium standards, the \$1 breakpoint proposal endorsed by the Committee would combat confusion among market participants and enforce a uniform standard.

To preserve liquidity, avoid price fragmentation, and prevent unnecessary volatility, market makers must be permitted to fulfill their obligations to customers. This is especially true in light of liquidity concerns caused by proposed short sale price test regulation that excludes necessary exemptions for market makers. In Penny Pilot Report 6, the BOX concluded that “despite the decline in volatility, liquidity at top of the Book did not improve (in period 6). BOX believes that this can be directly attributed to the lingering effects of the ‘financial crisis’ and reduced customer participation in the markets. Liquidity providers, while quoting more tightly in Period 6 versus Period 5, chose to control risk by maintaining quotes sizes similar to that of Period 5.”¹² Further, “BOX believes that liquidity providers continued to struggle with ‘hard to borrow’ constraints and reduced customer participation and chose to control risk by maintaining quotes of similar quantity to that of Period 5.”¹³ As the Committee’s data has demonstrated, market makers dominate the trade of option classes priced above \$1.00. In the process, they fulfill their obligation to provide liquidity to investors, maintain orderly markets, and preserve high order execution quality. Penny pricing in the options classes more heavily traded by market makers – those priced above \$1.00 – will negatively affect the ability of market makers to fulfill these obligations to the customer.

¹¹ “For example, in the Google Inc. (GOOG) options class, which is a \$400+ underlying, the at-the-money calls with one week to expiration are currently trading around \$7. If that is what NYSEArca means by ‘high premium,’ CBOE would suggest most options classes have at least some series that have similar ‘high premiums,’ though presumably NYSEArca is not planning to exclude all these classes from any expansion.” | CBOE Comment on SR-NYSEArca-2009-44, 12 June 2009.

¹² Boston Options Exchange Penny Pilot Report 6, pg. 6.

¹³ *Id.*, pg.8.

APPENDIX A

TABLE 1: Percent Volume of Penny Pilot Options Priced over \$1.50 Traded by Customers and Market Makers

For each month, the larger volumes are shaded.

Price Range	Jan		Feb		Mar		Apr		May	
	C	MM								
<\$2.00	31%	59%	33%	60%	38%	54%	35%	55%	34%	54%
<\$3.00	30%	60%	31%	58%	34%	58%	37%	49%	34%	55%
<\$4.00	33%	56%	34%	53%	30%	54%	35%	52%	37%	50%
<\$5.00	33%	53%	37%	53%	26%	57%	32%	53%	35%	54%
<\$7.50	29%	58%	33%	57%	20%	57%	37%	45%	34%	52%
<\$10.00	31%	50%	34%	52%	22%	30%	31%	52%	33%	56%
<\$20.00	31%	48%	29%	50%	21%	32%	31%	59%	30%	58%
<\$50.00	28%	45%	17%	70%	33%	44%	24%	67%	26%	55%
<\$100	18%	70%	11%	71%	35%	32%	20%	80%	7%	64%
>\$101	20%	80%	1%	99%	5%	93%	9%	88%	2%	61%

TABLE 2: Percent Volume of Non-Penny Pilot Options Priced over \$1.50 Traded by Customers and Market Makers

For each month, the larger volumes are shaded.

Price Range	Jan		Feb		Mar		Apr		May	
	C	MM	C	MM	C	MM	C	MM	C	MM
<\$2.00	37%	48%	26%	57%	38%	47%	33%	53%	42%	44%
<\$3.00	38%	45%	39%	46%	34%	48%	31%	49%	27%	47%
<\$4.00	34%	46%	37%	45%	36%	44%	31%	47%	33%	47%
<\$5.00	28%	53%	33%	47%	36%	46%	25%	49%	37%	48%
<\$7.50	42%	35%	30%	51%	31%	49%	25%	50%	33%	47%
<\$10.00	21%	62%	28%	52%	20%	62%	24%	55%	24%	49%
<\$20.00	24%	55%	21%	57%	18%	60%	14%	65%	15%	51%
<\$50.00	24%	68%	14%	41%	24%	51%	36%	64%	8%	52%
<\$100	44%	56%	17%	65%	4%	66%	0%	100%	2%	75%
>\$101	NA	NA	25%	75%	17%	83%	33%	53%	NA	NA