Small and medium size enterprises (so-called SMEs) are the backbone of the American economy. According to data collected by IHS Global Insight, 92% of jobs in a company are created after a company goes public\(^1\), highlighting the importance of ensuring that when a company makes the leap to becoming public, the equity market structure in place incents investors to provide smaller companies with sufficient levels of liquidity support during that critical transition and thereafter. NYSE Euronext expresses support for pilot programs on a number of issues, including wider tick sizes and issuer payment incentives for market makers – both designed to help increase the liquidity in illiquid securities.

Small companies consistently raise two concerns about going public as it relates to market structure: will there be sufficient interest in the company’s stock and will there be sufficient analyst coverage of the stock to attract long-term investors. These concerns highlight why both short-term liquidity providers and long-term investors are necessary to provide smaller companies with the capital they need to grow, while maintaining an investor’s confidence that they will have the ability to modify their positions with ease if desired.

**The State of Trading for Smaller Companies**

Several developments in recent years have made the environment more challenging for brokers to trade and cover a smaller company which contributes to the anemic IPO market. *First*, decimalization of the markets in 2001 had the effect of decreasing average spreads by roughly 38% in NYSE and NASDAQ listed securities, shifting some economic benefits from market makers to investors.\(^2\) *Second*, institutional commissions decreased 33%\(^3\) in the years leading up to Regulation NMS (Reg. NMS) implementation in 2007. *Third*, the Global Research Settlement in 2003, in combination with the low commission, low spread marketplace, resulted in brokerage firms cutting their research departments, particularly in smaller cap names. *Fourth*, the significant growth in off-exchange trading\(^4\) discourages market makers from quoting on displayed markets as orders execute off-exchange ahead of standing public orders, primarily matching the exchange price. We believe that the combination of these developments warrant action by the SEC to

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2. Data is calculated based on decrease in dollar value of spreads between 2001 and 2007, when the next major market structure changes were implemented through Regulation NMS. Consolidate Tape Association and NYSE Euronext. [Link](http://www.batstrading.com/market_volume.php), [Link](http://www.thetradenews.com/news/Trading_Venues/Exchanges/Direct_Edge CEO_plays_down_market_share_dip.a spx), CT data.
3. [Tabb](http://www.batstrading.com/market_volume.php)
4. We estimate that from 2007 (October) and 2013 (January), off-exchange trading increased from 19.5% (with BATS and DirectEdge broken out separately) to 36.6%. [Link](http://www.batstrading.com/market_volume.php), [Link](http://www.thetradenews.com/news/Trading_Venues/Exchanges/Direct_Edge CEO_plays_down_market_share_dip.a spx), CT data.
conduct pilot programs, such as in tick size reform, that may assist with incentivizing liquidity in small and mid cap stocks, and consequently improve capital-raising in this category. While we are realistic that the effect of these reforms individually may be marginal, we think it is important to gather evidence to help develop a comprehensive, holistic review of the market.

Tables 1-3 provide data on the less liquid segment of the market, which includes thousands of companies. Some observations include the following:

- **Institutional ownership and analyst coverage**: Lower market capitalization generally leads to lower institutional ownership and less analyst coverage (Table 1). Over the past 5 years, analyst coverage has declined across all securities.
- **Dollar volume traded**: 3320 common stocks, out of a total of 4846, have less than $10 million in trading volume executed per day (Table 2) whereas S&P 100 stocks have $558 million in trading volume traded each day on average. 1910 common stocks have less than $1 million in daily dollar volume traded.
- **Average quoted spreads (in cents)**: 2524 stocks (76% of total) have an average quoted spread of $0.02 or higher (Table 2). Increasing spreads to $0.02 for stocks in this category will not necessarily increase trading costs and could incentivize investors to increase their liquidity provision.
- **Displayed dollar size at the best price**: 1138 stocks have less than $5000 in consolidated quoted size at the inside price (Table 2). Table 3 shows that as quoted spreads (in basis points) narrow, the quoted size declines relative to trading activity in the stock. This provides evidence that suggests wider spreads encourage traders to submit and expose limit orders, while narrower spreads may reduce incentives to display orders.
- **Stock price**: Many less liquid securities have low stock prices, with 1133 trading at prices below $5 (Table 2). Generally, lower priced stocks have lower quoted spreads than higher priced stocks.

| 2012 % Ownership and Analyst Coverage by Market Cap |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **Market Cap**  | **Cap Size**    | **# Stocks**    | **Weighted Avg.** | **Median** |
|                 |                |                | **% Institutional** | **% Retail** | **% Institutional** | **% Retail** |
| >$10B           | Large          | 303            | 71.2%              | 25.9%        | 80.8%              | 16.2%          | 23.4 |
| $2B-$10B        | Mid            | 543            | 77.6%              | 17.9%        | 83.6%              | 11.6%          | 13.9 |
| $300M-$2B       | Small          | 951            | 69.4%              | 21.3%        | 76.1%              | 14.2%          | 7.6  |
| <$300M          | Micro          | 1,851          | 30.2%              | 40.0%        | 30.7%              | 36.4%          | 1.4  |

| 2007 % Ownership and Analyst Coverage by Market Cap |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **Market Cap**  | **Cap Size**    | **# Stocks**    | **Weighted Avg.** | **Median** | **2005-06 Avg. # Analysts Covering** |
|                 |                |                | **% Institutional** | **% Retail** | **% Institutional** | **% Retail** |
| >$10B           | Large          | 276            | 67.6%              | NA           | 76.8%              | NA             | 14.0 |
| $2B-$10B        | Mid            | 553            | 67.0%              | NA           | 74.7%              | NA             | 10.4 |
| $300M-$2B       | Small          | 956            | 71.9%              | NA           | 75.9%              | NA             | 6.0  |
| <$300M          | Micro          | 1,050          | 48.2%              | NA           | 41.5%              | NA             | 2.6  |
Potential Benefits from Larger Tick Sizes

As the Securities and Exchange Commission recognized in its 2010 Concept Release on Equity Market Structure\(^5\), small cap stocks can – and often do – trade differently than large cap stocks. One area of concern is whether the current market structure itself, which treats all stocks similarly, impacts small cap stocks in an adverse manner. While narrower spreads are generally a positive result for investors, especially in more liquid securities, we believe a $0.01 minimum tick size for illiquid stocks may counter-intuitively create a disincentive to provide liquidity at the best price, resulting in smaller quoted sizes and thinner markets. This is because of the ability to “step in front of” a displayed bid or offer by a penny, which could be a temporary and not meaningful benefit, not impacting the natural or average spread-width of a security. We believe a controlled pilot program to monitor the results of larger tick sizes in less liquid securities is worthwhile (and the only effective way) to observe whether it results in a positive impact on liquidity, and lower volatility, in this segment.

In a recent paper to the UK Government’s Government Office for Science, Professor James Angel highlighted several benefits that tick rules can provide, including:6

1. Protection for time priority of limit orders.
2. Provides a floor on the bid-ask spread.
3. Simplified trading environment.
4. Reduced bandwidth needs.
5. Reduced time in negotiation.

We believe that these suggested benefits generally align with the goals of achieving greater market quality for all investors and issuers. It is also likely that these benefits would contribute to increased institutional investor interest to these smaller companies accessing the public markets for capital.

**Pilot Considerations**

We believe there are several ways to establish a pilot program and would like to work with the SEC and industry to develop a thoughtful plan with the primary focus of increasing liquidity in less liquid securities. We have outlined some suggestions regarding the pilot.

**A. Goal**

a. Study the effects of tick size changes on liquidity provision and effective spreads for less liquid stocks

**B. Time Period and Number of Securities**

a. For an effective pilot, market participants will need enough time and incentives to adapt to the new environment with the larger tick size.

b. To adapt to the new environment and determine the secondary effects of liquidity and research coverage, we agree with the sentiment expressed by the SEC’s Advisory Committee on Smaller and Emerging Growth Companies that the time period should be longer than one year.

c. There should be a sufficient number of stocks included (300-500) so that market makers will have an economic incentive to adapt their trading strategies and there is enough data collected to analyze the costs and benefits.

**C. Data**

a. Public information like the daily consolidated tape data (TAQ) would be useful, but not be sufficient for a thorough analysis to look at liquidity provision changes in the book and trader participation. Each exchange could provide additional data to researchers, such as order-level data (including non-displayed orders) and trader identifiers.

b. Behaviors to be examined could include changes in displayed depth at the NBBO, cumulative depth, trade size, trader participation (increase in liquidity provision, time/size at NBBO), dollar volume traded, off-exchange activity, fragmentation, volatility and quotes/orders/cancels.

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6 [http://www.bis.gov.uk/assets/foresight/docs/computer-trading/12-1068-eia7-tick-size-regulation-costs-benefits](http://www.bis.gov.uk/assets/foresight/docs/computer-trading/12-1068-eia7-tick-size-regulation-costs-benefits)
In closing, NYSE Euronext believes a market-wide pilot program with larger tick increments in less liquid securities would be a worthwhile experiment. Less liquid companies could benefit from having a larger tick size by inducing market participants to post added liquidity, resulting in greater depth and liquidity to the markets, benefiting investors and issuers. A pilot program would provide the Commission with data that can be utilized in a cost-benefit analysis to determine whether or not to make the pilot permanent.