The Tick Size Pilot Program: Six Months In

Roughly six months ago the SEC began its long-awaited Tick Size Pilot Program. The pilot originated from the JOBS Act (Jumpstart Our Business Startups Act), signed into law in April 2012. The act directed the SEC to conduct a study on decimalization (stocks traded in penny increments) to ascertain what impact widening spreads would have on equity markets, and small cap stocks in particular. The general goal was to enhance market quality, which might encourage more small firms to become publically traded companies through initial public offerings (IPOs). After several delays, the program is finally live and we can start to measure its impact on a substantial portion of the small capitalization market. The initial effects have given some insight into market structure which can impact every type of market participant, whether retail investor, high-frequency trader or institutional trader.

Initially the pilot directive to the SEC emerged from a particularly winding path of logic. The premise was that decimalization has made it less profitable for brokers to make markets in and trade small capitalization stocks, which in turn reduces the incentive to provide research on those companies. The reduction in pricing increments brought about by decimalization compressed the spreads between bid and offer prices that brokers tried to capture as profits. The reduced profits, in theory, means brokers are less motivated to trade these securities. As a result, brokers may offer less research coverage on these companies to their clients leading to less institutional interest and a lower desire for other companies to initiate IPOs. Regulators suppose the wider spreads from the program will incentivize research coverage and encourage IPOs. Along the way to implementation, the program was steered toward a more general objective of improving liquidity in the small cap market.

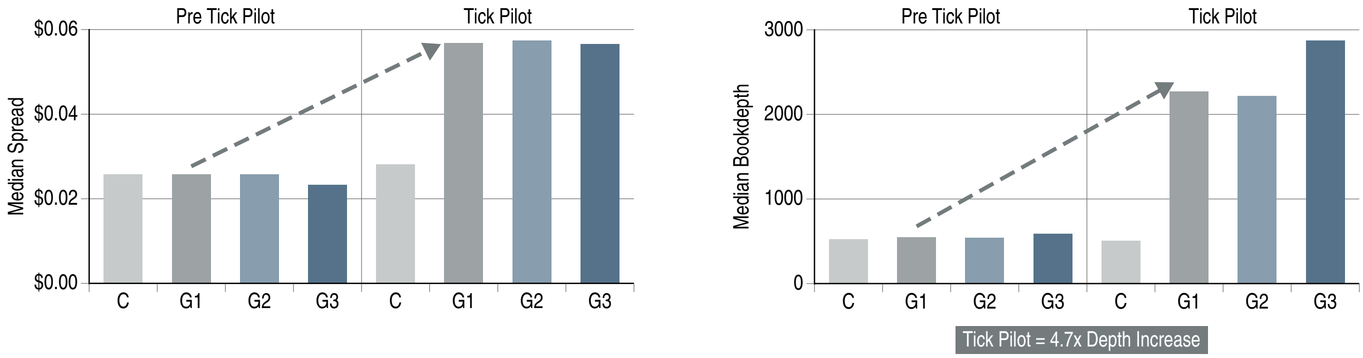
The program took shape over the course of a few years and finally went live on October 3, 2016 in a staged roll-out. Despite the relative simplicity of the original idea (nickel spreads, instead of pennies), the final form was more complex, frustrating some market participants, but also allowing for the collection of a wider variety of data points. The program will last for two years, with one control group and three test groups – each group comprised of 400 constituents. Given the large number of participants, the program will comprise a significant portion of overall small cap trading volume. Group 1 is relatively simple as it limits bids and offers to nickel increments, but still allows trades to occur at any price. Group 2 is more demanding, with the same limitations on bids and offers, but only allowing trades to occur on the bid, on the offer, or at the midpoint of the spread. Finally, Group 3 has the same rules as Group 2, but with the added restriction of "trade-at." This means that orders posted on exchanges must be executed ahead of any "hidden" liquidity – an idea which theoretically encourages the posting of orders, and would therefore increase general liquidity.

With four months of data now available, we can begin to evaluate the program's effectiveness at fulfilling its objectives. Regarding the original objective of incentivizing institutional research coverage to encourage IPOs, it's too early to reach a conclusion given that IPOs are influenced by multiple factors. The general sentiment is that the program has not made meaningful progress toward this goal. However, the pilot program has certainly provided interesting data regarding the more general objective of liquidity improvement. Here we can examine the data related to posted liquidity and trading costs.

FIGURE 1 | **Stocks that were less than 5 cents wide are wider and deeper**

Spread: Stocks with pre-pilot spreads less than $0.05

Depth: Stocks with pre-pilot spreads less than $0.05

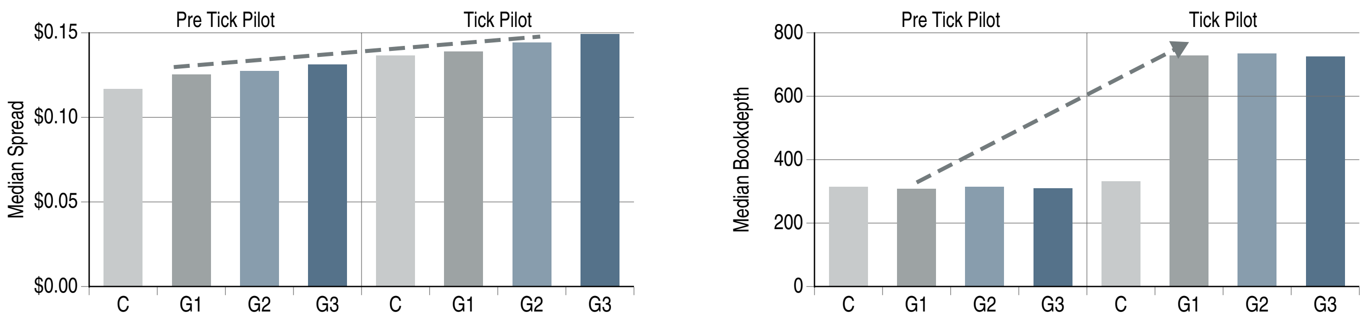


Source: KCG, TAQ data

FIGURE 2 | **Stocks that were more than 5 cents wide: Deeper too, less pennying**

Spread: Stocks with pre-pilot spreads higher than $0.05

Depth: Stocks with pre-pilot spreads higher than $0.05



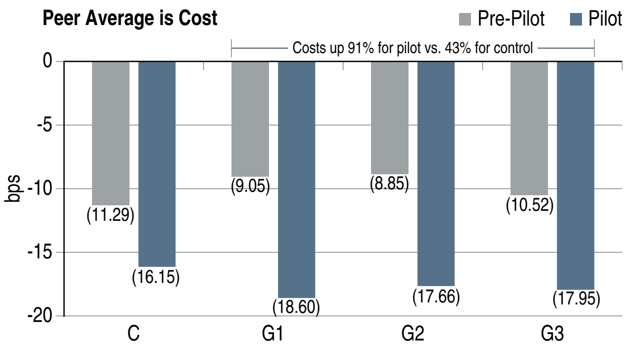
Source: KCG, TAQ data

Posted liquidity has shown increases across all three test groups. For stocks that previously traded with an average spread of $0.05 or less, the increase in posted liquidity makes sense as orders that might have formerly been posted every one or two cents are now aggregated at every nickel. In fact, the median top-of-book depth for these tickers has increased by almost five times according to one study (*Figure 1*). For stocks with previous spreads of greater than five cents, median top-of-book depth has also more than doubled, with only a slight increase in average spread (*Figure 2*). The numbers look fairly impressive from this perspective.

The cost of trading when measured by the difference between the midpoint and the actual price of a trade, however, has risen. Intuitively, with an increased spread, investors who “cross the spread” (buy for the offer price, or sell at the bid price) might expect inferior prices under the new rules. However, the magnitude of this increase might be a little surprising. Costs for the test groups are up nearly 50% more than those of the Control Group even when normalized for volatility (*Figure 3*). This is partially a function of passive orders working poorly in the test groups, with passive trading down 30% in Group 3, and less than that in Groups 1 and 2 (*Figure 4*). The Control Group has also seen a decrease in passive trading. This is likely due to the market’s recent strength, which would incentivize more aggressive trading to guarantee a trade order’s execution. Anecdotally, traders have noticed that the stocks in the pilot groups also tend to trade in one direction per day, as opposed to trading back and forth. This incentivizes traders to be more aggressive early or risk paying a higher price later in the day. Empirically it seems that the better market depth and worse pricing have essentially offset each other for institutional investors. Retail investors typically care more about price than depth, so at this point the program looks to be a slight negative for them.

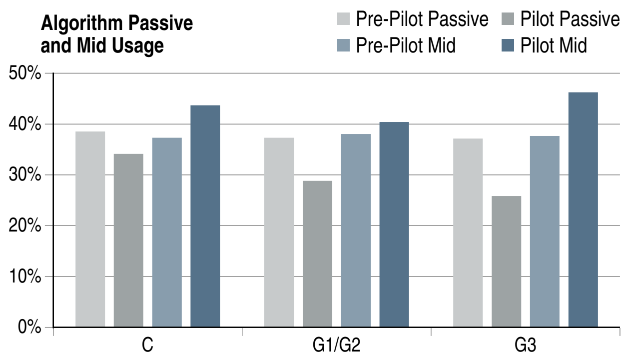
Some observations might indicate that the winner appears to be high-frequency traders, who are able to take advantage of the mandated larger spreads by capturing the difference as profit, similar to the market-makers of the pre-decimalization era, albeit on a smaller scale of volume and price. If this is the case, the pilot program is probably meeting its original objective of incentivizing market making in small cap stocks. The caveat is that today’s market makers are no longer the research-producing institutional brokers who were compensated with hefty commissions and spreads for the risks of making markets. Instead, they are electronic traders who sometimes fight for fractions of a cent on order sizes of a much smaller magnitude.

FIGURE 3 | **Trading Costs Up ~50% Compared to Control Group**



Source: ITG. Pre-pilot data includes August and September 2016. Pilot data includes November and December 2016.

FIGURE 4 | **Shift From Passive to Midpoint and Aggressive Trading**
Passive trading lower in all test groups, down 30% in G3



Source: ITG. Pre-pilot data includes August and September 2016. Pilot data includes November and December 2016.

As the Tick Size Pilot Program continues, we expect to see more robust data with more actionable results. We also expect to see trading styles adjust to the new regimes, whether through level of aggression of trading, selection of trading venue, usage of limits or other adaptations. Thus far, the program has led to a reasonable increase in market depth while increasing trading costs. Both of these were common predictions made by market participants before the pilot started, although the hope was that it would work out to be a net positive rather than a wash or a net negative. We'll continue to monitor conditions as the pilot progresses and evaluate whether it leads to improved conditions for all investors.

About Mesirow Financial
Mesirow Financial is an independent, employee-owned firm founded in 1937. As specialists in investment, risk management and advisory services, we are committed to helping our institutional, corporate and individual clients achieve their objectives. Our professionals are inspired by an entrepreneurial desire to develop tailored solutions designed to deliver measurable results. To learn more, please visit mesirowfinancial.com.

To learn more about how Mesirow can help you, please contact Eric Welt at 312.595.2281 or ewelt@mesirowfinancial.com.

Mesirow Financial®
EQUITY MANAGEMENT