Market Commentary

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The Tick Pilot: Fasten Your Seatbelts

Chance favors only the prepared mind.
-- Louis Pasteur

Introduction

When the Tick-Size Pilot goes wheels-up on October 3rd, we will all be embarking on a major experiment in market structure. In this note, we spell out some of what we know and what we expect to see with regards to how trading will change for securities in the Tick Pilot. We also document some of the key questions and themes that we will be watching over the course of the two-year pilot.

Key Predictions:

- Spread costs will go up. We think the increase could well exceed $500 million per year.
- Displayed liquidity will increase in all groups, but traded volume and trade sizes will not necessarily increase.
- Dark pool market share will increase for securities in Tick Pilot Groups One and Two.
- For Group Three securities we expect reduced liquidity and informational efficiency in line with Canada's experiment with "Trade-At" restrictions.

Key Questions:

- Given that hidden liquidity at the touch is discouraged in Group Three, will we see reduced overall liquidity, even if displayed liquidity improves?
- Will significant volume move to the mid-point? Somewhat surprisingly, we have not seen evidence that larger spreads drive liquidity to the mid-point.
- How will wholesalers adjust given reduced pricing flexibility in Group Two and Group Three securities?
- Wider tick sizes should attract increased market-making. How will HFT behavior differ in this less-liquid segment of the market where make-take incentives are a much lower fraction of the spread?
- Finally, what don't we know that we don't know?

Background

The JOBS Act mandated that the SEC conduct an experiment aimed at improving liquidity in smaller, more thinly traded stocks. To that end, the SEC approved a plan to examine three sets of relatively illiquid stocks over a two-year period. The 400 stocks initially in each of the three groups are to have nickel-wide spreads enforced with degrees of stringency ranging from relatively mild restrictions in Group One to strict “Trade-At” rules in Group Three. For reference, trading in a control-group of comparable stocks will be observed over the same period to isolate the effects of the various tested restrictions.

FINRA recently released the final list of stocks to be studied over the next two years. With the October 3 start of the Pilot fast approaching, we look at the characteristics of the stocks on this list to make predictions about their behavior under the Pilot and to form some of the questions we will be hoping to answer as the Pilot progresses.

The mechanics of the Tick-Size Pilot have been well described in numerous regulatory and trade publications, so we won’t go into details here. For present purposes, we’ll just give a thumbnail sketch of each of the study’s groups of 400 stocks. These are rough sketches, so refer to source documentation (linked above) for details.

Group One: *Orders* can’t be accepted or ranked in increments of less than a nickel. Still, they can *trade* at any price currently permitted, including at the mid-quote or with price-improvement, say from an exchange retail liquidity program (RLP).

Group Two: For stocks in this group the further restriction is added that *trades* must be in nickels. There are exceptions for mid-quote trades, RLP trades and negotiated trades.

Group Three: With the same exceptions as for Group Two, stocks in this group will trade with the still-more restrictive “Trade-At” constraint—protected displayed prices and sizes must be traded against before hidden liquidity can be accessed. A new Trade-At ISO order type has been added to facilitate this.

Figure 1 shows current quoted and effective spreads of Pilot stocks. As the figure shows, 57% of Pilot stocks currently trade tighter than a nickel in quoted spread and 63% trade tighter than a nickel in effective spread[1]. Mid-point trading and other factors will cause some Pilot stocks to have effective spreads different from a nickel, but five cents is a useful benchmark. For reasons explained below, we expect effective spreads for the vast majority of these stocks to increase to something close to a nickel, especially in Groups Two and Three.

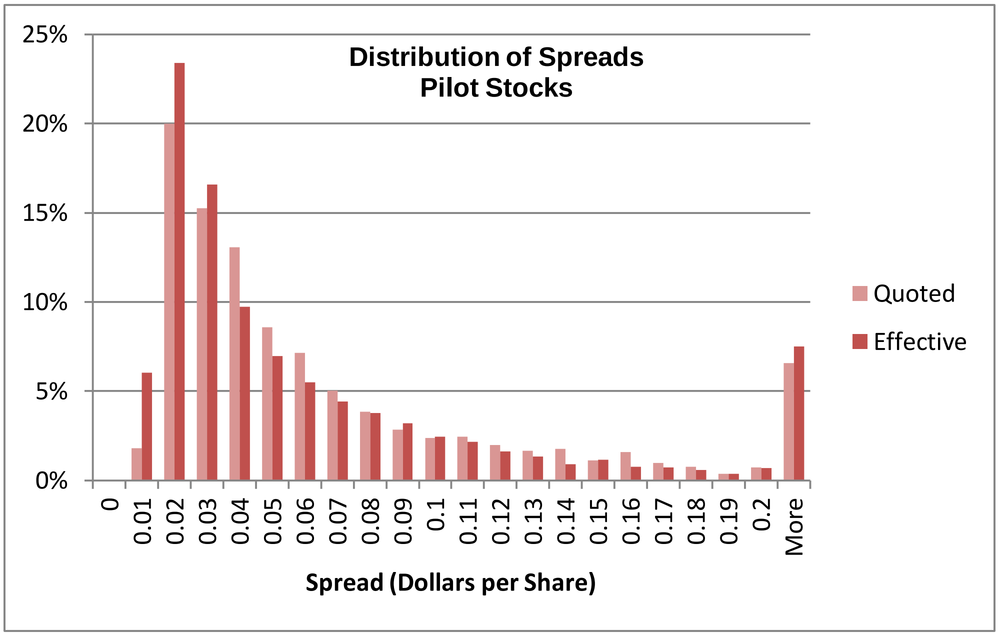

Figure 1 - Source: Instinet and FINRA

What Do We Expect To See?

Pilot stocks tend to have low prices and trade relatively heavily at the touch in dark venues. These factors, among others, will shape the market's response to the Pilot.

Pilot Stocks Have Low Share Prices

One of the main drivers of how a stock trades these days is its price per share. This makes sense because in the US the costs (or rebates) of trading are exacted on a per share basis. This is of course true of spread costs, which for many Pilot stocks, will be increased by the rules of the Pilot relative to their share price.

[1] Effective spreads are a measure of spread costs actually incurred in the market; it reflects price improvement and costs from walking the book.

As Figure 2 shows, the Pilot stocks are especially tilted toward low-priced stocks, with 70% currently trading below $25. (For reference the per-share prices of the components of the S&P Small Cap are also shown in the figure. There, 45% of stocks are trading below $25.) This is significant because low-priced stocks trade differently from the rest of the universe due to their high proportional spreads.

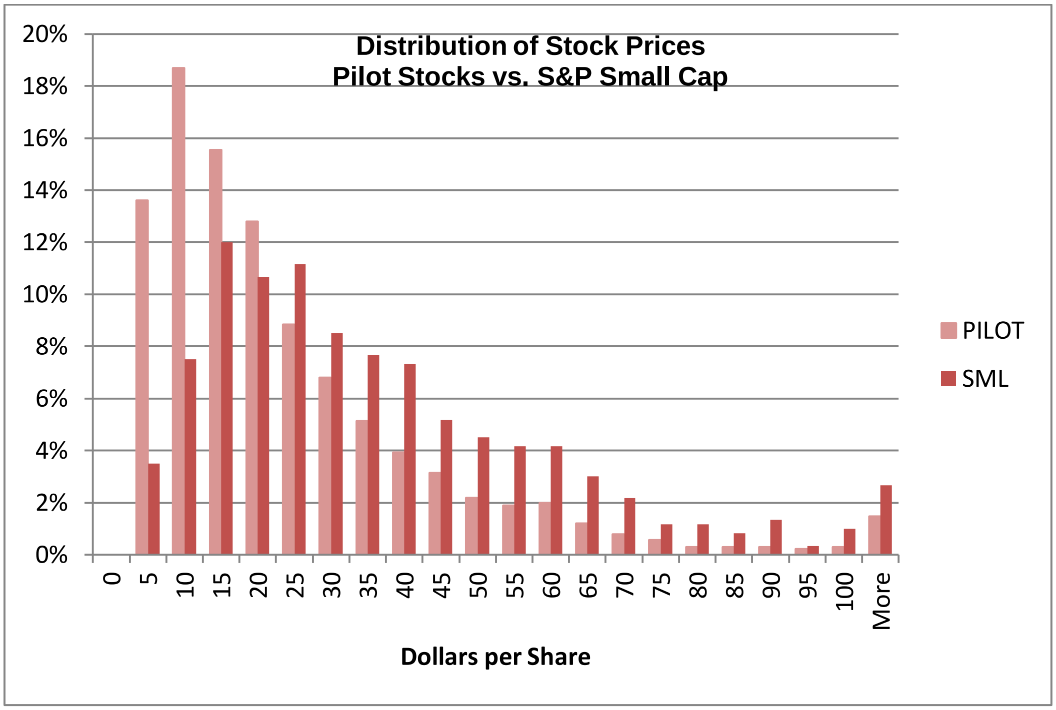

Figure 2 - Source: Instinet, Bloomberg and FINRA

Low-Priced Stocks Trade More Heavily in the Dark

Before the Pilot starts we can see where low-priced stocks trade with their current minimum price increment of a penny. As we see in Figure 3 for the low-priced (price ≤ $10) components of the S&P Small Cap, there is a pronounced tendency to trade a greater share of volume in dark pools. The tendency strengthens the lower the price of the stock. The same is also true of the recently-announced list of stocks in the Pilot study.

All else equal, we would expect a five-dollar stock that trades a penny wide to trade a lot like a $25 stock with a nickel spread. The lower the price of the stock, the greater will be the impact of an exogenous increase in spread costs. So the higher percent of dark-pool volume for the five-dollar stocks in this graph should tell us a lot about where a $25 Pilot stock will trade after spread-per-share costs increase under the Pilot.

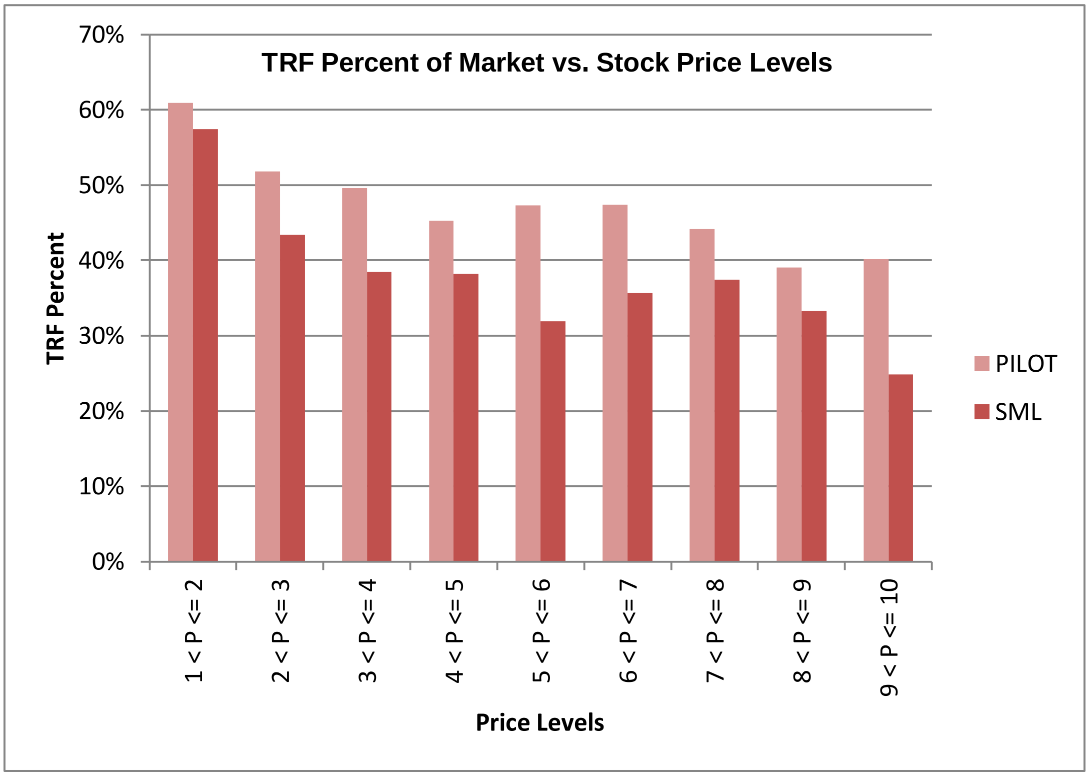

Figure 3 - Source: Instinet, Bloomberg and FINRA

We estimate that almost 70% of sub-$25 Pilot stocks currently have effective spreads less than a nickel, with more than 50% less than three cents a share (see Figure 4). One need not assume that effective spreads for these stocks will increase to a full nickel in order to predict that spreads per share will increase under the Pilot and that volume for these stocks will migrate to dark pools as traders jostle for queue position in tick-constrained markets.

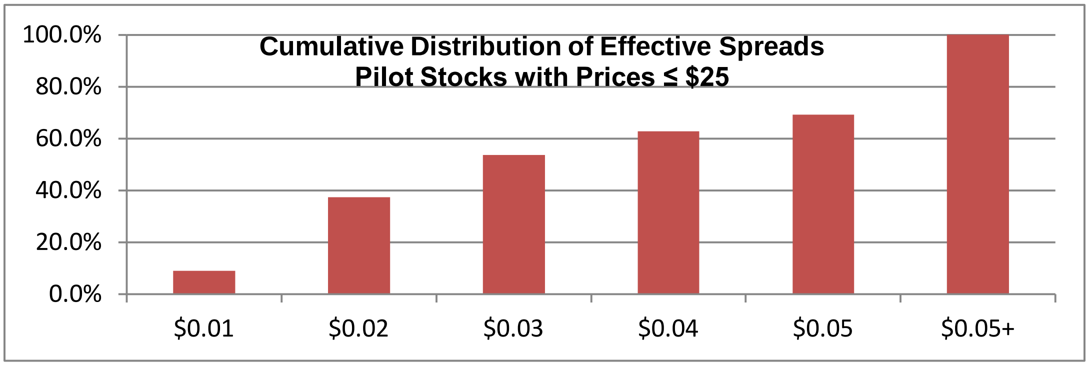

Figure 4 - Source: Instinet and FINRA

Movement to the Mid-Quote Will Probably Be Muted

Even with their unconstrained ability to print in the dark at the mid, Groups One and Two may not move to the mid much. The vast majority of dark pool activity for Pilot names currently happens at the touch, as Figure 5 shows. A huge migration to mid-point trading would be required to make much of a difference. Still, trading at the touch in the dark is not impaired for the stocks in these two groups, so we expect a material increase in dark trading for these names due to the effects of increased spreads relative to per-share prices. For these two groups it will also be interesting to compare the role of wholesalers in providing liquidity and price improvement.

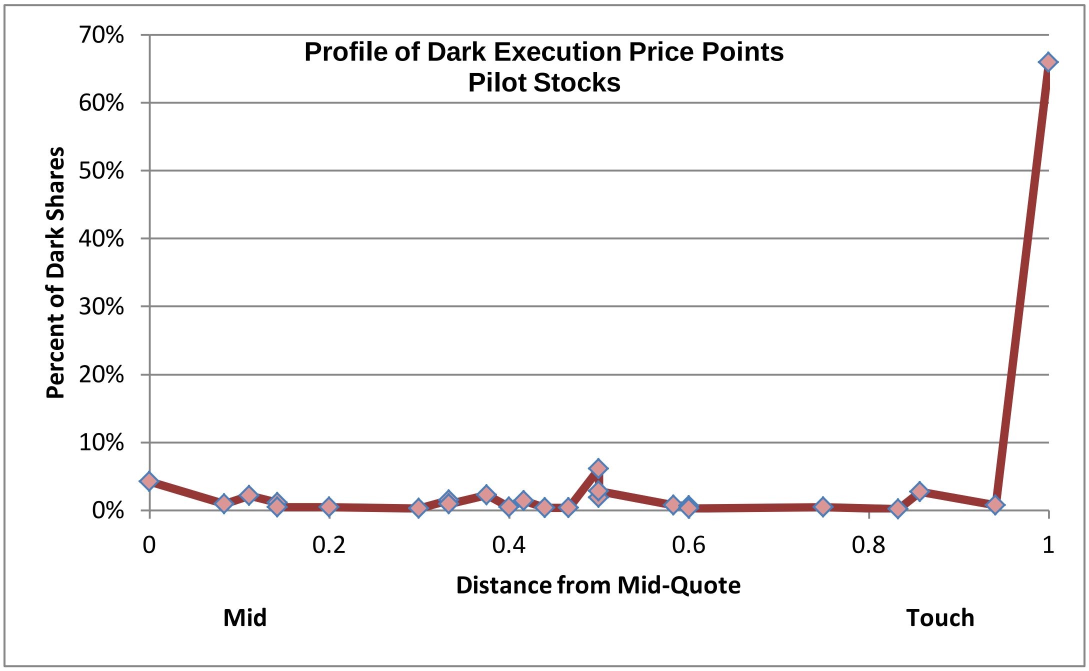

Figure 5 - Source: Instinet and FINRA

Group Three Stocks Will Be Different Though

For the stocks subject to Trade-At in Group Three, we would expect to see something close to full nickel effective spreads, with disadvantaged non-displayed liquidity greatly reduced. For these stocks dark-pool volumes will almost surely shrink a lot as they did in Canada when Trade-At was introduced there. Also, for the reasons laid out in our previous piece on the Tick Pilot we expect a noticeable degradation in market quality for these names.

It's Your Nickel

Let's say that effective spreads don't increase the full nickel. Let's say that on a volume-weighted basis they go up to four cents. More than 600 of the 1,200 Pilot stocks in Groups One through Three currently trade tighter than four cents. For these stocks, total spread costs will increase by about a billion dollars over the two-year course of the Pilot. If effective spreads increase to a full nickel for Pilot stocks currently trading tighter than that, total per-year spread costs will increase by about one-and-a-half billion dollars over the two years.

Access Fees and the HFT Ecosystem

Finally, with wider spreads comes a proportionate decrease in the (relative) importance of maker and taker fees/rebates. In a backhanded way, the Tick-Size Pilot is also an access-fee pilot in this sense. We expect to see a diminished role for access fees in order routing for all the Pilot groups. In that light, it will be very interesting to see how HFT trade dynamics differ from what we observe in the more liquid stocks that are typically the focus of HFT activity.

Phased Implementation

The Pilot securities have recently been identified. Also quite recently, the Operating Committee for the Pilot study has announced that the Pilot will now be phased in during the first month. Five symbols in each of Groups One and Two will be subject to the Pilot on the first day, October 3. All stocks in Groups One and Two will not be subject to the Pilot until October 17th when the first five stocks of Group Three will be added to the Pilot. All 1,200 stocks will not be fully subject to the Pilot until October 31. This phase-in will surely come as a relief to operations people who are frantically preparing for the Tick Pilot Study.

Inter-Listed Securities

Fifty-three of the stocks in the Pilot trade inter-changeably on both US and Canadian markets. Eight are in Group One, five in Group Two and eighteen are subject to Trade-At restrictions in Group Three, with the balance in the control group. Activity in these stocks will be very interesting to watch. Competition between the two regulatory frameworks will set in high relief the market's verdict on the experimental restrictions of the Tick Pilot.

Open Questions

After the start of the Pilot, markets will adapt to these constraints in, perhaps, surprising ways. For example, all three groups are permitted to print at the mid-quote. Will we see a large increase in mid-quote trading for Pilot stocks? (As noted above, Pilot stocks rarely trade at the mid currently.) All 1,200 pilot stocks are exempted from mandated spreads for *bona fide* retail flow, subject to varying levels of required price improvement. Will this experiment inject new life into exchanges' retail programs? (At last check, NYSE's retail program accounted for 0.2% of exchange volume.) There are various outlets for block trades, auction trades and negotiated trades. Will we see a significant migration to these options? (The requirement for block status under the Pilot is only 5,000 shares (or $100,000), so perhaps we will see more block trading.) These are all interesting questions that we look forward to learning the answers to after October 3.

Conclusion

We've laid out some of what we expect to see and hope to learn from the Tick Pilot. We expect the increase in spreads as a proportion of share price to push trading in Group One and Two stocks more toward dark venues, which is almost surely not what the Pilot's advocates would have wanted. We expect market quality to suffer in Group Three stocks. Spread costs for investors will surely increase. The increased spreads will undoubtedly attract more market-makers to this segment of the market. It will be very interesting to see how their increased presence affects market dynamics. It will also be very interesting to see if there is much of an effect on mid-point and block activity. An early, telling indication of the market's verdict will come from those stocks that are traded inter-changeably in both the US and Canada.