The Equity Market Structure Advisory Committee (“Committee”) recommends that the Commission propose a pilot program to adjust the access fee cap under Rule 610. The suggested framework for the pilot is described below, as well as a background discussion and areas suggested for public comment.

The Regulation NMS Subcommittee (“Subcommittee”) generated this recommendation after:

- Multiple meetings of the Subcommittee, the minutes of which have all been posted to the SEC’s website.
- The participation of additional outside experts in these meetings in order to broaden the composition of constituents involved in the discussion. The Subcommittee itself included an Exchange executive, buy-side participants, sell-side representatives, an individual investor representative and an academic. The additional outside participants included:
  - A representative from an online retail firm;
  - An additional academic;
  - An executive from a proprietary trading firm;
  - Brief participation from an individual involved with listed companies. It is also worth noting that several of the Subcommittee members are employees of and/or interact with listed companies in their current functions, while other Subcommittee members have dealt with listed companies in former positions. It is also worth noting that NYSE and Nasdaq were requested to participate in our discussions in order to share their views as listing exchanges, but declined multiple invitations.
- Incorporating the full EMSAC Committee and panel deliberations during the public EMSAC meetings, most notably the April 26, 2016 meeting, including the participation of NYSE and Nasdaq.

The intent of the proposed pilot is to better understand, within the context of our current market structure, the effect of access fees on liquidity provision, liquidity taking and order routing with the ultimate goal of improving market quality. The Committee does not believe that there are any certain or predetermined outcomes from the pilot, and the net effect of many counterbalancing factors are not believed to be significantly beneficial or detrimental to any single group. Ultimately, the findings from the pilot are purely intended to inform the broader debate on how to improve market quality for issuers, investors and market participants.
PILOT FRAMEWORK

1. Access fee caps for all quotations covered under SEC Rule 610(c) for a select number of symbols, divided into the following buckets:
   a. **Bucket 1** - Control bucket
   b. **Bucket 2** - $.0020 access fee cap
   c. **Bucket 3** - $.0010 access fee cap
   d. **Bucket 4** - $.0002 access fee cap*

2. Random sample of 100 (total) common stocks and ETFs within each bucket
   a. Each issue with an individual market capitalization >$3 billion.
   b. Stratified random sampling for both the common stock and ETF selections based on market capitalization, share price, and trading volume.
   c. We further suggest that the pilot should begin with a more limited set of 10 stocks for an initial three-month measurement period and then expand to the full set of pilot stocks.

3. Two-year pilot program.
4. Consistent with the current structure of Rule 610, applied to protected quotations and not depth of book quotations.
5. Consistent with the current structure of Rule 610, does not cover inverted venues.*
6. Consistent with the current structure of Rule 610, no direct application to ATSSs.*

* see Items Suggested for Public Comment below

MEASUREMENT CRITERIA

- General intent is to attempt to:
  - Measure the impact of lower access fees on liquidly provisioning - bid/ask spreads, market depth, order routing behaviors, ratio of hidden liquidity vs. displayed liquidity on the exchanges, quoting behavior;
  - Measure the impact of lower access fees on liquidity taking - ratio of on vs. off exchange trading, order routing behaviors, price impact, slippage/realized spread, trade volume.

- Suggested measurement criteria:
  - Quoted Spreads
  - Effective Spreads
  - Realized Spreads
  - Displayed liquidity – changes at the inside, depth at 3, 5, 10 cents beyond the NBBO
  - Volatility – stock-level changes; number of price changes at the NBBO
  - Hidden liquidity – off-exchange market share; mid-point exchange executions and exchange dark liquidity
  - Changes in trading volume
  - Behavioral routing changes as evidenced by:
    - Market share shifts among trading venues
    - On- vs. off-exchange trading levels
    - ATS vs. broker internalization levels
  - Changes in the levels of Price improvement in the marketplace
  - Percentage of time the market is locked/crossed
• Slippage and price impact
• Retail and institutional commission pricing
• Shifts among Exchange order type usage
• Significant behavioral changes in pricing from ATSs and/or Exchange reserve quantities
• Ongoing monitoring to potentially terminate the program early should there be significant deterioration in any of the measurement criteria. The Committee would additionally suggest periodic (every six-months) reporting of data.
• Given that the pilot does not prohibit rebates nor apply to inverted venues (see discussion in Items Suggested for Public Comment), the Committee would suggest monitoring to ensure that marketplace behavior does not evolve in a way that potentially negates the output of the pilot, e.g.:
  a. Monitoring for material order flow migration to inverted venues/ATSs;
  b. Potentially institute a moratorium on new inverted pricing schemes.

ADDITIONAL DETAIL

• Justification for Why a Pilot Should be Conducted
  • “Maker-taker” is one of the more debated aspects of current market structure. The Regulation NMS adopting release acknowledged that “[p]erhaps more than any other single issue, the proposed limitation on access fees splintered the commenters.”1
  • Regulation NMS Rule 610 limited the fees that any trading center can charge (or can allow to be charged) for accessing its protected quotations to no more than $0.003 per share.2
  • Given the complex ecosystem of our marketplace, definitive conclusions on access fee modifications are difficult to draw without an actual implementation. In addition, market characteristics, such as effective spreads, have declined since the cap was set.
  • Limited experiments, such as the recent Nasdaq pilot, have shown that individual market experiments do not yield conclusive results about the potential impact of market-wide policy reform on access fees.
  • The access fee cap of $0.003 effectively sets a ceiling for rebates. In the nine years since the cap went into effect, there are and have been multiple exchange pricing models along the spectrum up to the access fee cap, including inverted exchanges where rebates are paid to those accessing quotes. However, the largest exchanges in terms of volume are those that charge access fees at or near the cap and, hence, pay the highest rebates to attract displayed liquidity.
  • While reducing market complexity is difficult to outline and justify as a primary pilot goal, there is a case to be made that rules such as the access fee cap create structural complexity (such as fragmentation, order types, etc.) for which the tangible cost/benefit is difficult to measure. A pilot will potentially help measure the dynamic between Rule 610 and complexity.
  • A pilot would study, and hopefully help to answer, the following questions:
    o The relationship among access fees, liquidity provision and market quality;

2 SEC Regulation NMS adopting release, p.27 (link above)
The relationship between access fees, rebates, and order routing practices;
The potential impact of access fee dynamics on the price discovery process.

- **Regarding Pilot Framework Item 2:**
  a. The Committee understand the addressable universe of U.S. common stocks and ETFs with market capitalizations >$3b to be approximately 970 (and approximately 1,250 with the inclusion of ADRs, REITs, companies incorporated outside the US and limited partnerships). The Committee believes the selection of 100 names per bucket (300 in total) appropriately balances the desire to achieve an adequate sample size and stratification, without over-inclusion within the pilot.
  b. Access fees are more meaningful in larger-capitalization stocks, supporting the $3b market cap cutoff; in addition this level will limit overlap with the “tick pilot” that is currently in development.

- **Regarding Pilot Framework Item 4** - Rule 610 does not apply to non-displayed liquidity on Exchanges, and current industry fee schedules do not distinguish between displayed and non-displayed liquidity. While the Committee is concerned that the lower access fee caps could create a theoretical incentive for distinct higher rebates on non-displayed Exchange liquidity, this was outweighed by the desire to not introduce additional rulemaking beyond an adjustment to the access fee cap. As such, we are not incorporating application of the access fee cap to non-displayed Exchange liquidity, but encourage the SEC to not allow any rule filings that would look to exploit this differential and disrupt the pilot by introducing a change in the current market structure which could impact data interpretation.

**ITEMS SUGGESTED FOR PUBLIC COMMENT**

1. **Regarding Pilot Framework Item 1.d.** - The Committee intentionally selected $.0002 as the rate in Bucket 4 in order to create a bucket where any rebate should result in a de minimis economic incentive. The Committee also discussed whether this bucket should in fact be a no-rebate bucket in order to more clearly measure behavior in the absence of inducements to trade. However, the Committee does not suggest a no-rebate bucket in the pilot for several reasons:
   a. Capping inducements is currently not an existing component of our market structure, and the Committee worries about the complicating impacts of introducing such a restriction on the effectiveness of the pilot.
   b. Exchange rebates are only one of several examples of inducements to trade (e.g., payment for order flow, soft dollars, rebates to liquidity takers on inverted exchanges (see below), clearing arrangements, etc.).
   c. As such, while the Committee would encourage the SEC to consider a separate potential study and/or pilot around the role of inducements in trading, we do not believe the access fee pilot is the place to do so.
   d. Given that these considerations also span the other EMSAC Subcommittees, this topic may also warrant a specific EMSAC recommendation in the future.
2. **Regarding Pilot Framework Item 5** - The Committee does not propose extending the jurisdiction of Rule 610 to include fees for providing liquidity (or rebates for taking liquidity) on inverted exchanges in the pilot program in order to remain consistent with the market structure that is currently in place, and along the same lines as the logic highlighted above.
   a. The Committee would encourage additional public comment on this conclusion.

3. **Regarding Pilot Framework Item 6** – The Committee is endeavoring to create as broad and inclusive of a pilot as possible, and is sensitive to not inadvertently create an unlevel playing field for exchanges vs. ATSs. However, the Committee does not believe that extending the application of Rule 610 to ATSs would be a beneficial part of the pilot given that (i) such limitation does not apply today, (ii) ATSs are not afforded a protected quote, and (iii) ATS transaction fees generally take the form of an institutional commission. The Committee would, however, encourage this to be a specific point for public comment.

4. **Options** - The Committee believes no specific implications arise with respect to Options markets, but this warrants further consideration and confirmation.

5. **Trade-At** – The Committee does not agree with an inclusion of Trade-At in this pilot for the following reasons, but would encourage additional public comment:
   a. The access fee pilot is being proposed to determine, in part, if a trade-at provision is needed. Many in the market believe that a motivation for ATS activity is economic, i.e., take fees are too high, and an access fee pilot will help answer that question. Trade-at will predetermine an outcome of forcing flow back onto Exchanges that will be independent of the changes to access fees, thus impacting the measurement criteria for the pilot.
   b. The purpose of this pilot is to generate data to see the impact on market quality when the cap is changed. It is the Committee's opinion that, while many issues are intertwined, trade-at would address different market structure questions, such as segmentation. In addition, the likely shift of flows as a result of trade-at would both make the pilot more complex and impact effective measurement of the access fee change.
   c. The Committee believes an access fee pilot is relatively simple to implement and conduct, and should be kept that way without introducing significant additional complications.
   d. The tick pilot will yield trade-at results that can be further studied; thus duplication is not warranted.

6. **ETFs** – Pursuant to the July 8, 2016 full EMSAC meeting, the Committee is recommending the inclusion of ETFs in the pilot. The Committee would encourage additional public comment on this point.