COMMITTEE ON CAPITAL MARKETS REGULATION

Enhancing U.S. Equity Market Structure for Retail Investors

September 2021

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Executive Summary

Securities and Exchange Commission ("**SEC**") Chairman Gary Gensler recently raised the issue of whether the U.S. equity markets are as efficient as they should be for investors. In particular, Chair Gensler has noted concerns with the prevalence of off-exchange trading, whereby certain orders are executed away from a U.S. stock exchange. Indeed, market orders by individual "retail" investors are typically executed off-exchange by wholesale broker-dealers.[1] Chair Gensler has also raised questions regarding potential conflicts of interest with the use of payment for order flow arrangements whereby retail broker-dealers receive monetary payments from wholesale broker-dealers.[2] Chair Gensler recently went further indicating that a ban on payment for order flow is under active consideration.[3]

This statement by the Committee on Capital Markets Regulation (the "**Committee**") will proceed in two parts. In Part I, we describe the regulation and functioning of U.S. equity market structure with a focus on retail investors. In Part II, we set forth policy recommendations that would provide additional transparency for retail investors and enhance competition among broker-dealers and exchanges. We note that our recommendations are consistent with a report issued by the Committee in 2016, *The U.S. Equity Markets: A Plan for Regulatory Reform*.[4]

First, we consider whether the SEC should implement a trade-at rule that would require certain orders to be executed only on exchanges by prohibiting off-exchange trading at the same price that is otherwise publicly available on a U.S. stock exchange. We conclude that the SEC should not implement a trade-at rule. We find that off-exchange trading is beneficial for institutional and retail investors and that trade-at rules reduce competition between market centers (including exchanges, alternative trading systems and wholesale broker-dealers) and have historically resulted in increased transaction costs for all investors. The SEC should therefore continue to allow trades to be executed at the market center where they receive best execution. Second, we recommend that the SEC require that retail broker-dealers provide disclosures regarding trade execution quality to their customers, so that retail customers can evaluate and compare the execution quality provided by retail broker-dealers. This will further facilitate competition between retail broker-dealers over execution quality and ensure that the effects of payment for order flow arrangements on execution quality, if any, are disclosed to retail investors. Third, we recommend that the SEC reduce the tick size for highly liquid stocks that trade at one penny spreads in all market conditions. A half penny tick size for such stocks would enhance competition between on-exchange and off-exchange trading and potentially reduce transaction costs for investors.

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[1] Market orders are submitted for execution at the best publicly available price. Limit orders are submitted for execution at a specific price.

[2] Chair Gary Gensler, *Speech: Prepared Remarks at the Global Exchange and FinTech Conference*, U.S. SEC. & EXCH. COMM'N (June 9, 2021), https://www.sec.gov/news/speech/gensler-global-exchange-fintech-2021-06-09.

[3] Avi Salzman, *SEC Chairman Says Banning Payment for Order Flow Is 'On the Table'*, BARRON'S (Aug. 30, 2021), https://www.barrons.com/articles/sec-chairman-says-banning-payment-for-order-is-on-the-table-51630350595.

[4] COMMITTEE ON CAPITAL MARKETS REGULATION, *The U.S. Equity Markets: A Plan for Regulatory Reform* (July 2016), https://www.capmktsreg.org/wp-content/uploads/2018/12/07_27_FINAL_DRAFT_EMS_REPORT.pdf.

Part I: Review of Equity Market Structure for Retail Investors

In Part I, we describe the regulation of the equity market structure for individual investors. First, we describe how retail broker-dealers and wholesale broker-dealers handle retail orders and the duty of best execution. We then describe the execution quality provided by wholesale broker-dealers for retail investor orders. Next, we describe the payment for order flow arrangements that exist between retail broker-dealers and wholesale broker-dealers.

Retail and Wholesale Broker-Dealers

When an individual investor places a market order to purchase or sell stock at the best publicly available price with their retail broker-dealer, such as Charles Schwab, Fidelity or Robinhood, the retail broker-dealer sends virtually all of these orders to wholesale broker-dealers, such as Citadel Securities, Virtu Financial and Two Sigma Securities. Wholesale broker-dealers then determine whether to execute those orders internally against their own inventory of stocks or route those market orders to another market center for execution. Wholesale broker-dealers internally execute approximately 70% of the market orders that they receive (this practice is often referred to as "internalization") and route the balance to other market centers for execution.[5] While the majority of market orders are internalized, by contrast, limit orders that must be executed at a price no worse than the limit price set by the customer, are generally displayed, and typically executed, on exchanges.

Duty of Best Execution and Rule 605 Disclosures

Retail broker-dealers route customer orders to wholesale broker-dealers in part to help satisfy their duty of best execution, which requires broker-dealers to seek to execute customer trades at the most favorable terms reasonably available. More specifically, Financial Industry Regulatory Authority ("**FINRA**") Rules and FINRA guidance require broker-dealers to ascertain the best market for their customer orders, which explicitly includes not just exchanges but also alternative trading systems ("**ATSs**") and other broker-dealers, and to route to that market so the resulting price to the customer is as favorable as possible under prevailing market conditions.[6] The duty of best execution also includes several affirmative obligations. For example, broker-dealers must periodically assess the quality of competing markets to ensure that order flow is directed to the markets providing the most beneficial terms for their customer orders.

Wholesale broker-dealers that receive orders from retail broker-dealers likewise are subject to best execution obligations under FINRA Rules and FINRA guidance. In addition, since wholesale broker-dealers are executing orders, they also must file publicly available Rule 605 reports providing quantitative information regarding their execution quality.[7]

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[5] *See, e.g.*, VIRTU FINANCIAL, *Measuring Real Execution Quality*, 5 (June 10, 2021), https://www.virtu.com/uploads/documents/virtu-real-pi_061021.pdf.

[6] FINRA, *Best Execution: Regulatory Obligations and Related Considerations* (last accessed July 23, 2021), https://www.finra.org/rules-guidance/guidance/reports/2021-finras-examination-and-risk-monitoring-program/best-execution

[7] FINRA, *SEC Rule 605* (last accessed July 23, 2021), https://www.finra.org/rules-guidance/guidance/sec-rule-605

Dark Trading and Price Improvement

When a wholesale broker-dealer internalizes an order, that order is executed against its own inventory, and not against a quote that is publicly displayed on an exchange. Such trade execution is often characterized as "dark" trading, however there is no truly dark trading in U.S. equity markets, because the size and price information of all executed trades must be immediately publicly reported.

The order protection rule requires wholesale broker-dealers to adopt policies and procedures to prevent them from executing trades at a price *worse* than the best publicly available price on an exchange (the national best bid and offer or "**NBBO**").[8] In practice, however, wholesale broker-dealers typically provide price improvement to the NBBO meaning that retail investors' orders are executed at prices that are even better than what is publicly available on an exchange. According to Rule 605 disclosures by wholesale broker-dealers, retail investors collectively received $3.7 billion in price improvement in 2020.[9]

A recent report by Virtu Financial, a wholesale broker-dealer, indicates that Rule 605 disclosures may be significantly underestimating the amount of price improvement provided to retail investors.[10] The Rule 605 disclosures measure price improvement by comparing the execution price for an order against the prevailing NBBO at the time of execution. However, Rule 605 disclosures fail to consider that there is limited size available at the NBBO. For example, suppose only 100 shares are available for sale at the national best offer of $10.00. If a 200-share retail buy order comes into a wholesale broker-dealer then the current Rule 605 reports would assume that there are 200 shares available for sale at $10.00 when in fact such liquidity does not exist on exchange. In reality, executing 200 shares on an exchange would be more costly, as 100 shares of the buy order would be executed at $10.00 but the other 100 shares would have to be executed at the next best available sale price (e.g., $10.01). Virtu Financial therefore measured its price improvement on the basis of all liquidity that was in fact publicly available on exchanges at the time of execution. In doing so, Virtu Financial's estimate of its "real" price improvement in 2020 increased from $953 million to $3.06 billion.

Assuming that Virtu Financial's approach to measuring price improvement would yield a similar increase in price improvement for other wholesale broker-dealers, then total price improvement provided to retail investors in 2020 would exceed $11 billion rather than the $3.7 billion in price improvement reported by Rule 605 disclosures. We note that Virtu Financial's revised estimates of price improvement also factors in displayed quotes for less than 100 shares that are priced better than the NBBO (referred to as odd lots) in order to maximize the accuracy of its price improvement estimate.

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[8] U.S. SEC. & EXCH. COMM'N, *Regulation NMS*, Release No. 34-51808; File No. S7-10-04 (July 9, 2005), https://www.sec.gov/rules/final/34-51808.pdf
[9] Bloomberg data accessed July 13, 2021.
[10] VIRTU FINANCIAL, *Measuring Real Execution Quality* (June 10, 2021), https://www.virtu.com/uploads/documents/virtu-real-pi_061021.pdf.

Why are Wholesale Broker-Dealers Able to Provide Price Improvement to Retail Investors?

Wholesale broker-dealers are able to offer tighter and more competitive pricing when executing retail orders because the risk of adverse selection from retail orders is less than that of the general market. Retail investor order flow is generally small in size, not correlated with other large incoming orders and overall balanced in terms of the number of buy and sell orders arriving over different time intervals. By contrast, when a broker-dealer acting as a market maker is displaying quotes on a public exchange that are available to anyone on the marketplace there is less randomness in the nature of the order flow that is going to come in and interact with the displayed quote. In practice, there is a higher degree of adverse selection due to correlated (i.e., non-random) order flow. For example, orders coming in for execution against a market maker's displayed quotes could be from a large institutional asset manager that is sending one part of a larger trade, with more price impacting orders to follow.

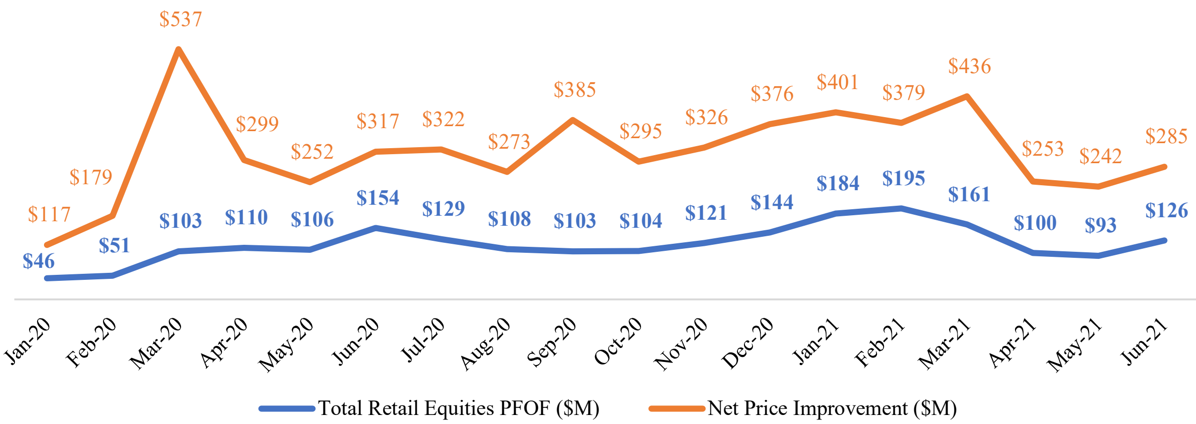
Payment for Order Flow

Retail broker-dealers and wholesale broker-dealers are permitted under SEC rules to enter into a relationship whereby the retail broker-dealer agrees to send its customers' orders to the wholesale broker-dealer that would provide best execution for those orders. It is also a common and longstanding practice for retail broker-dealers to require that the wholesale broker-dealers receiving retail orders make a monetary payment to the retail broker-dealer, referred to as "payment for order flow."[11] However, each retail broker-dealer charges the same fee to all wholesale broker-dealers that receive its retail orders, so wholesale broker-dealers do not compete with each other for retail order flow by offering to pay a retail broker-dealer more for order flow. Indeed, broker-dealers are required to disclose their payment for order flow arrangements,[12] and they are prohibited from sending retail orders to a wholesale broker-dealer primarily on the basis of payment for order flow.[13] Instead, wholesale broker-dealers compete with each other and with exchanges and alternative trading systems to receive retail order flow on the basis of execution quality.

In 2020, retail broker-dealers received approximately $1.3 billion in payment for order flow from wholesale broker-dealers.[14] **Figure 1** on the next page demonstrates that wholesale broker-dealers provide more than twice as much price improvement (as measured by Rule 605) to retail investors than they pay in payment for order flow arrangements to retail broker-dealers.

[11] Rule 10b-10(d)(8) under the Exchange Act defines "payment for order flow" to include "any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration to a broker-dealer in return for the routing of customer orders by such broker or dealer to any broker or dealer, national securities exchange, registered securities association, or exchange member for execution." 17 C.F.R. § 240.10b-10(d)(8).
[12] 17 C.F.R. § 242.606. Also note Footnote 397 in SEC Institutional Order Handling Release which requires that PFOF arrangements be disclosed with particularlity.
[13] U.S. SEC. & EXCH. COMM'N, *Order Instituting Administrative and Cease-and-Desist Proceedings – Robinhood Financial, LLC* (Dec. 17, 2020), https://www.sec.gov/litigation/admin/2020/33-10906.pdf
[14] 17 C.F.R. § 242.606(a)(1).

Figure 1
Total Retail Equities PFOF and Net Price Improvement through June 2021 ($M)



Source: Bloomberg data accessed September 1, 2021

It is also worth noting that exchanges also provide payment for order flow in the form of exchange rebates that they pay to broker-dealers that post liquidity on an exchange.[15] Exchange rebates in 2016 were $2.5 billion, nearly double the payment for order flow paid by wholesale broker-dealers to retail broker-dealers in 2020.[16] More recent comprehensive data as to the rebates paid by exchanges to broker-dealers is not publicly available.

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[15] Rule 10b-10(d)(8) under the Exchange Act.

[16] *See* U.S. SEC. & EXCH. COMM'N, *Recommendation of the SEC Investor Advisory Committee Regarding Exchange Rebate Tier Disclosure* (Jan. 24, 2020), https://www.sec.gov/spotlight/investor-advisory-committee-2012/exchange-rebate-tier-disclosure.pdf; U.S. SEC. & EXCH. COMM'N, *Transaction Fee Pilot for NMS Stocks*, Release No. 34-82873, 26 fn. 64 (March 14, 2018), https://www.sec.gov/rules/proposed/2018/34-82873.pdf; *Letter from IEX Group, Inc. to the U.S. Sec. & Exch. Comm'n re: Equity Market Structure Advisory Committee Recommendation for Access Fee Pilot, File No. 265-29*, 2 (Nov. 15, 2017), https://www.sec.gov/comments/265-29/26529-2691444-161491.pdf.

Part II: Analysis of Equity Market Structure for Retail Investors & Recommendations

In Part II, we evaluate potential policy reforms to enhance the performance of U.S. equity market structure for retail investors. First, we evaluate a "trade-at" rule that would require certain orders to be executed only on exchanges. We then consider enhanced disclosure requirements for retail broker-dealers that would better enable retail investors to determine whether they are receiving best execution for their orders and compare the execution quality of retail broker-dealers, including the effects of payment for order flow arrangements. Finally, we evaluate allowing certain highly liquid stocks to be quoted in half-cent increments in order to facilitate expanded competition between exchanges and off-exchange trading venues.

Off-Exchange Dark Trading & Trade-At Rule

As of July 2021, approximately 43.1% of total equity trading by share volume and 37.7% of total equity trading by dollar volume in U.S. equity markets took place off-exchange at ATSs or wholesale broker-dealers and not against a quote that is publicly displayed on an exchange.[17] Policymakers, including Chair Gensler, have raised concerns with the extent of off-exchange trading.[18]

One way to reduce the extent of off-exchange trading would be a trade-at rule that would prohibit off-exchange market centers from executing trades in the dark unless they do so at a minimum-level of price improvement to the best publicly displayed price (the NBBO). This would mean that an ATS or wholesale broker-dealer could not execute a trade off-exchange if it matched the best publicly displayed price for a stock. A key question for policymakers is therefore whether the extent of off-exchange "dark" trading is harming the efficiency of markets for investors and warrants such a reform to equity market structure.

The empirical research generally finds that off-exchange "dark" trading can reduce trading costs for investors and enhance price discovery, suggesting that off-exchange dark trading is complementary to the public display of orders on exchanges.

The CFA Institute (2012) found that increases in off-exchange "dark" trading correlate with narrower bid-ask spreads and increased liquidity on exchanges.[19] The CFA Institute suggests the following explanation: that off-exchange trading results in more liquidity on exchanges because exchanges must compete aggressively with off-exchange market centers in order to attract

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[17] *See* Alexander Osipovich, *GameStop Mania Highlights Shift to Dark Trading*, WALL STREET JOURNAL (February, 12, 2021), https://www.wsj.com/articles/gamestop-mania-highlights-shift-to-darktrading-11613125980.

[18] Chair Gary Gensler, *Speech: Prepared Remarks at the Global Exchange and FinTech Conference*, U.S. SEC. & EXCH. COMM'N (June 9, 2021), https://www.sec.gov/news/speech/gensler-global-exchange-fintech-2021-06-09

[19] CFA INSTITUTE, *Dark Pools, Internalization, and Equity Market Quality*, 5-6 (Oct. 2012), https://www.cfainstitute.org/-/media/documents/article/position-paper/dark-pools-internalization-equity-market-quality.ashx. *See also* Sabrina Buti, Barbara Rindi, Ingrid M. Werner, *Diving Into Dark Pools*, Fisher College of Business Working Paper No. 2010-03-010, 4 (March 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1630499.

orders.[20] A trade-at rule could therefore reduce publicly displayed liquidity on exchanges by reducing competition from off-exchange market centers. For example, with reduced competition from off-exchange market centers, exchanges could increase fees for accessing liquidity on an exchange or provide lower rebates for posting liquidity on an exchange thereby reducing liquidity on an exchange and increasing spreads and trading costs for all investors.

Comerton-Forde and Putnins (2015) also find that off-exchange dark trading can be beneficial to price discovery.[21] They explain that off-exchange dark trading introduces a degree of self-selection among traders, with relatively more informed traders (institutional investors) transacting in lit markets and less-informed traders (retail investors) transacting in dark markets.[22] Consistent with this research, Anganonstidis, Papachristou and Varsakelis (2019) find that limits on dark trading imposed in E.U. equity markets led to increased volatility and reduced price efficiency on E.U. stock exchanges.[23]

A trade-at rule could also directly increase trading costs for investors. Presently, institutional investors are often better able to reduce the price impact of their orders by executing trades off-exchange *at* the NBBO, because it enables institutional investors to minimize information leakage. A trade-at rule would explicitly prohibit institutional investors from doing so. A trade-at rule would also require regulators to determine a minimum level of price improvement to allow for the off-exchange execution of an order (such as 1/10 of one-cent). This would place regulators in the role of a rate setter versus allowing the marketplace to compete and could increase costs for investors that receive price improvement below the new regulatory minimum. Indeed, trade-at rules that were implemented in Canada and Australia increased transaction costs for investors.[24] Similar effects were found for stocks in the SEC's 2015 tick-size pilot study that were subject to a trade-at rule as spreads increased the most in the test group with a trade-at rule.[25]

Therefore, in our view, the empirical evidence indicates that off-exchange "dark" trading is generally beneficial for investors and a trade-at rule would likely increase transaction costs for investors and discourage competition among wholesale broker-dealers, alternative trading systems and exchanges. We therefore do not support the implementation of a "trade-at" rule, as such a rule would be attempting to address a problem that does not exist and would harm investors. The SEC

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[20] CFA INSTITUTE, *Dark Pools, Internalization, and Equity Market Quality*, 6 (Oct. 2012), https://www.cfainstitute.org/-/media/documents/article/position-paper/dark-pools-internalization-equity-market-quality.ashx

[21] Carole Comerton-Forder & Talis J. Putnins, *Dark Trading and Price Discovery*, 118 JOURNAL OF FINANCIAL ECONOMICS 70 at 4, 31 (June 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2183392.

[22] *Id.* at 4.

[23] Panagiotis Anganostidis, George Papachristou & Christos Varsakelis, *Market Quality and Dark Trading in the Post MiFID II Era: What Have We Learned So Far?*, 184 ECONOMIC LETTERS (Nov. 2019), https://www.sciencedirect.com/science/article/abs/pii/S0165176519303106.

[24] COMMITTEE ON CAPITAL MARKETS REGULATION, *The U.S. Equity Markets: A Plan for Regulatory Reform*, 65 (July 2016), https://www.capmktsreg.org/wp-content/uploads/2018/12/07_27_FINAL_DRAFT_EMS_REPORT.pdf.

[25] U.S. SEC. & EXCH. COMM'N, *Assessment of the Plan to Implement a Tick Size Pilot Program, Originally Submitted to the NMS Plan Participants*, 41-42 (July 3, 2018, revised Aug. 2, 2018), https://www.sec.gov/files/TICK%20PILOT%20ASSESSMENT%20FINAL%20Aug%202.pdf.

should instead continue to allow for trades to be executed at the market center providing best execution.

Payment for Order Flow & Execution Quality for Retail Investors

Policymakers have also raised concerns that payment for order flow ("**PFOF**") arrangements pose a conflict of interest for retail broker-dealers. The conflict of interest at issue is that retail broker-dealers are presumably incentivized to route orders to the wholesale broker-dealer that provides them with the most payment for order flow rather than the best execution prices for their customer orders. However, as noted earlier, retail broker-dealers are prohibited by their duty of best execution from doing so and are surveilled by FINRA and the SEC accordingly. Retail broker-dealers are required to route customer orders to the market centers that provide their customers with the best prices. So, in practice, the conflict of interest at issue is prohibited, and FINRA enforces that prohibition.[26]

An alternative view is that there is a trade-off between PFOF and price improvement whereby retail investors receive less price improvement due to PFOF arrangements. Proponents of this view contend that PFOF should be prohibited because doing so would increase the price improvement available to retail investors.[27] Of course, this line of argument assumes that if retail broker-dealers were prohibited from entering into PFOF agreements with wholesale broker-dealers then the money that was being paid from wholesale broker-dealers to retail broker-dealers would instead be passed onto retail investors in the form of more price improvement. However, if retail broker-dealers were prohibited from entering into payment for order flow agreements with wholesale broker-dealers then they would lose an important source of revenue and it is possible that they would have to *increase* costs for investors in other forms, including brokerage commissions and financing costs, to cover the cost of providing their brokerage services.

Our view is that retail investors should be provided the information necessary to compare the execution quality that they might receive for their orders across different retail broker-dealers. Presently, such mandatory disclosures do not exist as part of Rule 605 disclosures as to execution

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[26] *See* FINANCIAL INDUSTRY REGULATORY AUTHORITY, *Letter of Acceptance, Waiver, and Consent with Robinhood Financial LLC* (Dec. 19, 2019), https://www.finra.org/sites/default/files/fda_documents/2017056224001%20Robinhood%20Financial%2C%20LLC%20CRD%20165998%20AWC%20jm%20%282020-1579393181640%29.pdf; FINANCIAL INDUSTRY REGULATORY AUTHORITY, *Letter of Acceptance, Waiver, and Consent with Robinhood Financial LLC*, 1-2 (June 22, 2021), https://www.finra.org/sites/default/files/fda_documents/2020066971201%20Robinhood%20Financial%20LLC%20CRD%20165998%20AWC%20rjr%20%282021-1627690803848%29.pdf; U.S. SEC. & EXCH. COMM'N, *Order Instituting Administrative and Cease-and-Desist Proceedings – Robinhood Financial, LLC* (Dec. 17, 2020), https://www.sec.gov/litigation/admin/2020/33-10906.pdf
https://www.finra.org/sites/default/files/2021-05/Disciplinary_Actions_May_2021_1.pdf; FINANCIAL INDUSTRY REGULATORY AUTHORITY, Regulatory Notice 21-23: FINRA *Reminds Member Firms of Requirements Concerning Best Execution and Payment for Order Flow* (June 23, 2021), https://www.finra.org/rules-guidance/notices/21-23.

[27] *See generally* BETTER MARKETS, *Payment for Order Flow Fact Sheet*, 4-5 (Feb. 16, 2021), https://bettermarkets.com/sites/default/files/documents/Better_Markets_Payment_for_Order_Flow_Long_02-21-2021.pdf; Letter from Better Markets to the House Committee on Financial Services, 7 (Feb. 16, 2021), https://bettermarkets.com/sites/default/files/Critical%20Issues%20to%20Adress%20in%20the%20Game%20Stop%20Hearing.pdf.

quality or Rule 606 disclosures as to order routing practices. This is best demonstrated with an example provided in the Committee's 2016 report:[28]

> Suppose Retail Broker-dealer A routes all customer orders to Wholesale Broker-dealer 1. Retail Broker-dealer A's Rule 606 disclosures would tell the retail customer the percentage of the broker's total order flow sent to Wholesale Broker-dealer 1 and the details of payment for order flow arrangements if they exist. If a retail investor wanted to then determine the execution quality that his orders received, he would need to separately review the Rule 605 execution quality statistics of Wholesale Broker-dealer 1. However, Rule 605 does not require Wholesale Broker-dealer 1 to disclose execution quality metrics for each retail broker-dealer that routes orders to it. As a result, if Wholesale Broker-dealer 1 executes orders for multiple retail broker-dealers (which is generally the case), then the Rule 605 disclosures would not provide the execution quality metrics that apply specifically to the orders received from Retail Broker-dealer A. Therefore, the current disclosure regime does not provide a retail investor with the information necessary to determine the execution quality that his retail broker obtains for his orders.

To address this concern, we believe that the SEC should require that each retail broker-dealer produce publicly available standardized reports that allow retail investors to determine the execution quality of their orders. We believe that execution quality is an important measure by which retail investors should be able to evaluate broker performance. Such disclosures would likely enhance competition among retail broker-dealers on the basis of price improvement and overall execution quality. We further note that certain retail broker-dealers do not accept PFOF,[29] so if PFOF is in fact indirectly limiting the amount of price improvement provided by a wholesale broker-dealer, then this should be evident from comparing the disclosures of execution quality by retail broker-dealers that do not accept PFOF against disclosures of execution quality by otherwise similar retail broker-dealers that do accept PFOF.

One final note is that the Financial Information Forum (the "**FIF**")—an industry trade group including broker-dealers and exchanges—has developed a voluntarily execution quality disclosure program for retail broker-dealers to provide to retail investors.[30] In determining the mandatory disclosure requirements for retail broker-dealers, the SEC should take into consideration the quantitative disclosure template provided as part of the FIF's voluntary program. In addition, the FIF produced a number of specific recommendations to enhance the disclosure

[28] COMMITTEE ON CAPITAL MARKETS REGULATION, *The U.S. Equity Markets: A Plan for Regulatory Reform*, 82 (July 2016), https://www.capmktsreg.org/wp-content/uploads/2018/12/07_27_FINAL_DRAFT_EMS_REPORT.pdf.

[29] *See, e.g.*, FIDELITY, *Commitment to execution quality* (last accessed July 23, 2021), https://www.fidelity.com/trading/execution-quality/overview (stating that Fidelity "does not take payment for order flow from market makers for stock and ETF trades").

[30] FINANCIAL INFORMATION FORUM, *Retail Execution Quality – Overview* (last accessed Aug. 30, 2021), https://fif.com/index.php/retail-execution-quality/retail-execution-quality-overview

requirements of Rule 605 that should be considered, including creating marketable and non-marketable benchmark statistics to help investors more meaningfully evaluate execution quality.[31]

Reducing Tick Sizes for Highly Liquid Stocks & Further Enhancing Competition

In 2005, the SEC adopted the sub-penny rule of Regulation National Market System, which generally prohibits exchanges from publicly displaying orders in increments smaller than one penny.[32] However, according to the SEC, stocks that always trade with a penny spread and always have significant depth on both sides of the market would potentially be quoted in sub-penny increments, if permitted, and could warrant future consideration for exemptive relief if doing so would be in the public interest.[33] Recent research by the Members Exchange recently found that 47% of stocks by share volume or 25% by dollar volume always trade with a penny spread.[34] In our view, the SEC should reduce the tick size for stocks that always trade with a penny spread to a half-cent. Doing so would result in narrower spreads that would reduce transaction costs for investors and facilitate competition among market centers by better allowing exchanges to compete for publicly displayed order flow. Indeed, we note that the Members Exchange recently requested exemptive relief from the SEC to quote such stocks in half-penny pricing increments.[35]

We do not recommend a smaller tick size of 0.1 cents, for example, because as noted by the SEC, a tick size that is too narrow can harm market quality. More specifically, a tick size that is too narrow can cause "flickering quotations," in which a stock quote rapidly switches back and forth between prices complicating broker-dealer routing decisions and hindering their ability to get the best prices for investors.[36] Excessively narrow tick sizes can also enable "stepping ahead" whereby a trader uses an economically insignificant quote to "step ahead" of an existing order, reducing the likelihood that orders posted by fundamental investors will be executed thereby disincentivizing the public display of orders.[37]

[31] Letter from Christopher Bok, of the Financial Information Forum, to Brett Redfearn, of the SEC Division of Trading and Markets, re: FIF Rule 605 Modernization Recommendations (Jan. 30, 2019), https://www.sec.gov/comments/s7-02-10/s70210-5002077-182848.pdf.

[32] U.S. SEC. & EXCH. COMM'N, *Regulation NMS*, Release No. 34-51808; File No. S7-10-04 (July 9, 2005), https://www.sec.gov/rules/final/34-51808.pdf

[33] *Id.* at 223 ("[A]nother commenter stated: 'If the Commission wanted to permit only certain stocks to be quoted and traded in sub-penny increments, the main factor that should be considered is the average spread and the quoted size. If a security always trades with a penny spread and there is tremendous liquidity available on both sides of the market, this is a strong indication that the minimum increment is too wide.' The Commission believes that this would be a reasonable consideration in analyzing whether it would be in the public interest and consistent with the protection of investors to grant an exemption[.]").

[34] Letter from Adrian Griffiths, Head of Market Structure, MEMX, re: Request for Exemptive Relief Pursuant to Rule 612(c) of Regulation NMS to Permit a Minimum Increment of $0.005 in "Tick Constrained" NMS Stocks (August 30, 2021).

[35] *Id.*

[36] *Id.* at 214.

[37] *Id.* at 213.

Conclusion

In this statement, the Committee reviewed the functioning of U.S. equity market structure for retail investors, including the best execution obligation as it applies to retail and wholesale broker-dealers. We also quantified the price improvement and payment for order flow arrangements that characterize the existing equity market structure for retail investors. We then evaluated certain policy reforms to U.S. equity market structure. First, we oppose the implementation of a trade-at rule that would reduce competition between market centers. Second, we recommend that the SEC require that retail broker-dealers provide disclosures regarding trade execution quality to their customers in order to enhance competition between retail broker-dealers. Such disclosures should ensure that the effects of payment for order flow arrangements on execution quality, if any, are disclosed to retail investors. And third, in order to enhance competition between exchanges and other market centers, we recommend that the SEC reduce tick sizes from one cent to a half-penny for highly liquid stocks that trade at one penny spreads in all market conditions.

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