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**Written Statement  
of  
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On Behalf of

**PTG Markets**

For the Hearing Titled

**From Order to Execution: Ensuring Efficient and Transparent Equity Markets**

House Financial Services Committee  
Subcommittee on Capital Markets

May 20, 2026

Chairman, Ranking Member, and distinguished members of the Committee, thank you for the opportunity to submit this testimony. My name is Matt MacKenzie, of the principal market-making firm Optiver, a Securities and Exchange Commission (SEC) registered broker-dealer, and I am providing this testimony on behalf of PTG Markets (PTG). PTG is a trade association of principal trading firms that commit their own capital and provide liquidity in equity, options, fixed income, and futures markets. Because PTG members bear the risk of their trading decisions directly, they have a practical and substantial interest in market structure rules that promote efficient execution, transparent pricing, resilient liquidity, and fair competition.

The topic of today's hearing is technical, but the policy question is straightforward: do today's rules reward the type of liquidity and competition that improve execution quality for investors, or do they also reward behavior and infrastructure that exist primarily to navigate the rules themselves?

The U.S. equity market is one of the deepest, most transparent, and most competitive markets in the world. That strength should be preserved. But a market structure can be both highly successful and in need of targeted modernization. Regulation NMS (Reg NMS) was adopted in 2005 to modernize and strengthen the regulatory framework for the national market system, including through the Order Protection Rule, the Access Rule, the Sub-Penny Rule, and market data amendments.<sup>1</sup> After two decades of technological change and market adaptation, several of those rules now warrant careful re-examination.

The SEC has already begun that process. In July 2025, the SEC announced a roundtable to examine trade-through prohibitions in NMS stocks and listed options, with Chairman Paul Atkins stating that Rule 611 and Reg NMS deserve a public reassessment.<sup>2</sup> PTG supports that review. The review's objective should be to define an outcome-based framework that protects investors, preserves transparency, and aligns regulatory incentives with actual execution quality.

My testimony focuses on five points.

1. Best execution is broader than displayed price. Rule 611 protects displayed quotations at the national best bid or offer, but displayed top-of-book price alone does not capture the full quality of an execution. Size, depth, likelihood of execution, speed, explicit fees, opportunity cost, and information leakage also matter.
2. Rule 611 has contributed to fragmentation and operational complexity. The rule makes every protected quotation relevant to the routing and compliance architecture of the national market system, even when a venue contributes only a small share of executed liquidity.
3. The market data revenue allocation formula can reward quoting activity that is disconnected from actual trading. Our analysis of full year 2025 trading data shows that low-market-share venues receive a disproportionate share of tape revenue relative to their notional trading share; with the imbalance most pronounced in quote-based revenue.
4. Complex order types and compliance systems were developed as by-products of the regulatory framework around Rule 611, rather than in service of investor demand. Intermarket Sweep Orders (ISOs), price-to-comply functionality, and quote-snapshot compliance systems are rational responses to the current rules, but their prevalence should prompt policymakers to ask whether the rules are still well calibrated.
5. Reform should be targeted, sequenced, and grounded in investor protection. The SEC should consider replacing or substantially revising Rule 611, reforming market data revenue allocation, maintaining

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<sup>1</sup> SEC, Regulation NMS final rule overview, Release No. 34-51808, adopted June 9, 2005 and effective August 29, 2005. The SEC overview describes the Order Protection Rule, Access Rule, Sub-Penny Rule, and Market Data Rules.

<sup>2</sup> SEC, Press Release No. 2025-99, SEC Announces Roundtable on Trade-Through Prohibitions, July 21, 2025.

rigorous review of exchange fees, and reassessing the locked-and-crossed-market prohibition in a coordinated manner.

## I. BACKGROUND

Reg NMS was designed for a specific policy problem: how to protect displayed quotations and promote competition among trading centers in an increasingly electronic equity market. The centerpiece of that approach, Rule 611, requires trading centers to maintain policies and procedures reasonably designed to prevent trade-throughs of protected quotations, subject to a series of exceptions.<sup>3</sup> In practical terms, the rule gives protected status to the best displayed automated quotations across trading centers.

The intuition behind Rule 611 is appealing. If one exchange is displaying a better price, why should an order execute at a worse price somewhere else? That question was of particular relevance twenty years ago. But the policy implications of that question have become more difficult to justify in the fragmented, and highly automated market that Reg NMS has produced. A better displayed price may be available for only a small number of shares. It may be gone before a routed order arrives. It may require accessing a venue with low follow-on liquidity or relatively high explicit and implicit costs. And for larger orders, mechanically routing to every protected top-of-book quotation can fragment execution, increase information leakage, and increase the cost of completing the remainder of the order.

That does not mean price is unimportant. Price is central to execution quality. The point is that price cannot be evaluated in isolation from the rest of any trade's execution. A rule that treats every protected top-of-book quote as dispositive can be both overinclusive and underinclusive: overinclusive because it can force routing to quotes that do not materially improve the order's overall outcome, and underinclusive because it does not directly measure the many other factors that investors care about when an order is actually executed.

This distinction is especially important because broker-dealers already operate under best execution obligations. FINRA Rule 5310 requires a member firm to use reasonable diligence to ascertain the best market for a customer order and obtain a price as favorable as possible under prevailing market conditions, considering factors such as the character of the market, the size and type of the transaction, the number of markets checked, accessibility of quotations, and the terms and conditions of the order.<sup>4</sup> FINRA's supplementary material also requires regular and rigorous review of execution quality, including price improvement, likelihood of execution, speed, size, transaction costs, customer needs, and internalization.<sup>4</sup>

In other words, removing or substantially revising Rule 611 would not leave investors in a vacuum. It would remove the rigid standard that is layered on top of a broader best execution framework. That broader framework is more adaptable because it asks whether an order received a favorable outcome under prevailing market conditions, not merely whether the routing process satisfied a mechanical protected-quotation hierarchy.

## II. VENUE PROLIFERATION AND THE COST OF PROTECTING QUOTES

The number and variety of U.S. exchange venues grew substantially following the adoption of Reg NMS. The SEC's current list of national securities exchanges includes a large and diverse set of exchange licenses, including venues that trade equities, options, or other products.<sup>5</sup> Full year 2025 equity-market

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<sup>3</sup> 17 C.F.R. section 242.611, Order Protection Rule. A "trade-through" in this context means a securities transaction that is executed on one venue at a price that is inferior to the price available on another venue at the same moment in time.

<sup>4</sup> FINRA Rule 5310, Best Execution and Interpositioning, including Supplementary Material .09 on regular and rigorous review of execution quality.

<sup>5</sup> SEC, National Securities Exchanges, last reviewed or updated January 7, 2026.

data we reviewed reflects 17 lit equity exchange venues.<sup>6</sup> That data shows a market in which executed trading volume is concentrated, but regulatory and economic obligations are distributed across a much larger venue set.

This structure creates two different kinds of competition. The first is the competition policymakers generally want: competition to provide deeper liquidity, better prices, faster and more reliable executions, useful innovation, and lower all-in costs. The second is competition that arises from regulatory status itself: once a venue has protected quotations, market participants must account for that venue in routing, compliance, connectivity, and data systems whether or not the venue regularly provides meaningful executed liquidity. This type of competition is evidenced by the fact that 12 of the 17 exchanges are operated by only 3 exchange groups.

For broker-dealers and liquidity providers, that second form of competition is not costless. PTG member firms like mine must evaluate connectivity, market data, membership, clearing, testing, surveillance, and compliance requirements across venues. They must design routing logic that can access protected quotations while managing the possibility that a quote is small, fleeting, inaccessible in practice, or not economically relevant to the full order. Those costs do not remain with the broker-dealer or principal trading firm alone. They become part of the cost structure of the entire national equity market.

The issue is not that new exchanges are inherently problematic. New entrants can bring useful innovation and competitive discipline. PTG supports competition among venues when that competition improves market quality. The issue is whether the regulatory framework gives every protected quote the same routing significance even when the venue contributes little to executed liquidity or depth. A framework that does so can encourage venue proliferation without ensuring proportional benefits to investors.

### III. MARKET DATA REVENUE ALLOCATION AND RELATED INCENTIVES

The market data revenue allocation formula reinforces this concern. Consolidated tape revenues are generated from the sale of market data and are allocated among participants in part based on quoting activity and in part based on trading activity. Quoting can provide real value when it represents accessible, durable, competitive liquidity. But quote-based revenue can also reward displayed activity that does not translate into executions, depth, or improved order outcomes.

The full year 2025 data we examined illustrates the incentive problem. Ten venues with less than 1% notional market share collectively represented approximately 3.81% of notional equity trading in the data set, but received approximately 10.95% of total tape revenue. They received approximately 12.51% of quote-based revenue and approximately 8.20% of trade-based revenue. Six venues with less than 0.5% market share represented approximately 1.01% of notional trading but received approximately 4.46% of total tape revenue, including approximately 5.42% of quote-based revenue. At the lowest end, two venues with a combined market share of approximately 0.04% received approximately 1.25% of total tape revenue; nearly 98% of their tape revenue came from the quoting component rather than the trading component.<sup>7</sup>

These figures should not be read to suggest that any venue is acting improperly. They show how the current incentives work. A venue can receive economically meaningful revenue from quoting activity even when its share of executed trading is very small. That structure can support venues whose principal

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<sup>6</sup> All the data we reviewed comes from year-end 2025. We examined historical market data volume from Cboe, and the SIP Operating Committee's A&B Tape data from the Consolidated Tape Association's Q4 report, and the Q4 2025 report from the Unlisted Trading Privileges Plan Administration. Please see Appendices A and B for further visualization of this data.

<sup>7</sup> Id.

contribution is to generate and display protected quotations rather than to provide substantial executed liquidity.

The policy question is therefore not whether more quoting is always good or always bad. More quoting is good when quotes are actionable, accessible, durable, and meaningfully improve price discovery or execution outcomes. More quoting is less valuable when it primarily increases message traffic, routing complexity, or tape-revenue entitlements without increasing the probability that investors receive better completed executions. In PTG's view, any exchange revenue formula should distinguish between those outcomes as much as possible.

#### IV. COMPLEX ORDER TYPES

Reg NMS also produced a market in which important order types and systems exist largely to manage regulatory obligations. Intermarket Sweep Orders ("ISOs")<sup>8</sup> are the clearest example. Rule 611 permits an exception for executions associated with ISOs, and the rule requires the responsible broker or dealer to take reasonable steps to establish that an ISO meets the rule's requirements.<sup>9</sup> ISOs are therefore not simply a trading preference; they are a mechanism for demonstrating that protected quotations have been addressed.

The same is true of order-handling tools designed to avoid locked or crossed markets. A locked market exists when the best bid equals the best offer; a crossed market exists when the best bid is higher than the best offer. In earlier market structures, such conditions could reflect stale quotes, manual access problems, or breakdowns in intermarket connectivity. Today, automated markets, sophisticated routing, and real-time surveillance have changed the risk profile. The reality is that in today's trading environment, locked and crossed markets would likely be resolved quickly. Yet the prohibition still requires systems that reprice, display, route, or cancel orders to avoid a regulatory condition, even where the underlying trading interest may be legitimate and economically useful.

These systems are not evidence that market participants like the members of PTG are indifferent to compliance. They are evidence of the opposite. Firms have built complex architecture to comply with rules whose policy justification has become less clear as markets have evolved. That architecture consumes engineering, compliance, testing, and surveillance resources that could otherwise be directed toward execution quality, risk management, and liquidity provision.

#### V. EXCHANGE FEES AND SEC SCRUTINY

Reforming Rule 611 should not be viewed as a substitute for scrutiny of exchange fees. In theory, if broker-dealers had more flexibility to route based on all-in execution quality, competitive pressure on exchange fees could increase. In practice, market participants will continue to need extensive connectivity, data, and access to major exchange groups. Some exchange fees are tied to infrastructure that is difficult to replicate or avoid. That means fee oversight remains important even if the trade-through framework changes.

The SEC staff's 2019 guidance on self-regulatory organization (SRO) fee filings provides a useful framework. It emphasizes that SRO fee filings must satisfy Exchange Act requirements, including that fees be reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition.<sup>10</sup> Those principles should remain central. If the SEC modifies Rule 611, it should do so in a way that preserves, and where appropriate strengthens, the evidentiary burden on exchanges to justify access, connectivity, and market data fees.

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<sup>8</sup> ISO allows routing to the preferred exchange as long as the broker-dealer sends the order to all exchanges.

<sup>9</sup> See Note 3 *Infra*, 17 C.F.R. section 242.611.

<sup>10</sup> SEC Division of Trading and Markets, Staff Guidance on SRO Rule Filings Relating to Fees, May 21, 2019.

## VI. RECOMMENDATIONS

Congress need not prescribe the details of exchange routing logic. The SEC has the expertise, data, and notice-and-comment process to evaluate the trade-offs. Congress can play a valuable oversight role by asking whether the existing rules continue to advance the Exchange Act's objectives of fair competition, efficient execution, investor protection, and the availability of market information. This hearing is an example of Congress embarking on that rigorous oversight. Accordingly, PTG recommends that policymakers support the SEC's ongoing review of Reg NMS and the Commission's focus on targeted reforms that align market structure incentives with actual execution quality and makes the following specific recommendations to inform those efforts.

### *1. Revise or replace Rule 611 substituting the current robust outcomes-based best execution standard*

The SEC should consider whether Rule 611 should be repealed, substantially revised, or replaced with a framework that relies more directly on enforceable best execution obligations and public execution-quality transparency. PTG's view is that the long-term goal should be to move away from a rigid protected-quotation hierarchy and toward a framework that evaluates order routing and execution based on outcomes.

A reformed approach should preserve investor protection. It should require broker-dealers to maintain written routing policies, conduct robust execution-quality reviews, and disclose the factors they consider when selecting venues. Those factors should include price improvement, execution speed, fill likelihood, execution size, explicit and implicit costs, liquidity characteristics, the use of venues with limited market share, the use of intentional-access delays, and any material economic arrangements that may affect routing.

The supervisory architecture should be determined by the SEC after consultation with FINRA, the exchanges, and market participants. FINRA has substantial experience applying best execution obligations to broker-dealers. The key policy point is that the standard should be enforceable, transparent, and focused on execution outcomes.

### *2. Use Rule 605 reports as a tool to provide complimentary transparency*

Rule 605 reports are standardized public reports of execution quality. They are intended to allow investors, broker-dealers, academics, and regulators to compare how orders are executed across market centers and, under the amended rule, certain larger broker-dealers. In 2024, the SEC adopted amendments to Rule 605 that expanded the scope of covered entities and orders, modernized order-size and order-type categories, added more granular timing and spread metrics, and required summary reports. The SEC later extended the compliance date for those amendments to August 1, 2026.<sup>11</sup>

These modernized 605 reports can become an important complement to a reformed Rule 611 framework. They can help market participants evaluate execution quality across multiple dimensions, including price improvement, effective spread, realized spread, speed, size, and execution likelihood. But Rule 605 transparency should supplement, not replace, enforceable best execution obligations. Disclosure is most useful when it gives firms and regulators better evidence for evaluating whether routing practices actually serve customers.

### *3. Reform the market data revenue allocation formula to reduce or eliminate quote credits*

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<sup>11</sup> SEC, Disclosure of Order Execution Information, Rule 605 amendments adopted March 6, 2024; SEC extension of compliance date to August 1, 2026.

The SEC should reform the market data revenue allocation formula so that tape revenue is tied more closely to actual trading and less to quote generation that may not produce executable liquidity. PTG supports eliminating quote credits and allocating tape revenue primarily—and ideally exclusively—based on executed notional value. If any quote-based component is retained, it should be designed to reward quotes that are demonstrably actionable, accessible, durable, and connected to market quality.

A notional-trading-based formula would better align revenue with the activity that most directly reflects executed investor interest. It would also reduce the incentive for low-volume venues to pursue quote-based revenue disconnected from executions. This change would not prevent new venues from competing. It would require them to compete by improving execution quality, attracting real liquidity, and generating trading activity rather than by relying on a revenue formula that overcompensates quoting relative to executions.

#### *4. Maintain rigorous oversight of exchange fees*

The SEC should maintain rigorous review of exchange fee filings, including market data, connectivity, port, and access fees. The need for that review will not disappear if Rule 611 changes. Some fees may become more contestable if routing flexibility increases, but significant exchange infrastructure will remain difficult for broker-dealers and liquidity providers to avoid. The SEC should therefore preserve a strong evidentiary framework for fee filings and consider whether additional transparency or cost-support requirements are appropriate. This review should be consistent with the basic principle that fees imposed by self-regulatory organizations must be justified under the Exchange Act.

#### *5. Reassess all related Reg NMS dependencies, including Rules 610 and 612*

Rule 611 should not be re-evaluated in isolation. The access fee cap in Rule 610, the locked-and-crossed-market prohibition, and the minimum pricing increment framework in Rule 612 are interdependent. A piecemeal approach could create new inconsistencies and duplicative implementation costs. The SEC should therefore evaluate these rules together, with attention to transition periods, implementation sequencing, and the interaction with amended Rule 605 reporting.

The locked-and-crossed-market prohibition is a strong candidate for modernization. The automation and interconnectivity concerns that justified the prohibition in earlier market structures are less compelling today. Removing or narrowing the prohibition could reduce complexity, eliminate certain order-handling workarounds, and allow displayed interest to interact more naturally, while preserving surveillance and anti-manipulation tools to address abusive conduct.

### CONCLUSION

The U.S. equity market is a national asset. It supports capital formation, retirement savings, institutional investment, and household participation in public companies. Its strength comes from transparency, competition, technological resilience, and confidence that orders will be handled fairly. Reg NMS was adopted to support those goals, and many of its objectives remain sound. But rules designed for one market environment can produce unintended incentives as the market evolves.

After two decades, the central question is whether the current framework still aligns incentives with investor outcomes. PTG believes targeted modernization would improve that alignment. A more principles-based and data-driven framework can protect investors while reducing unnecessary fragmentation, quote-driven revenue distortions, complex compliance workarounds, and avoidable costs.

PTG appreciates the Committee's attention to these issues and supports a careful SEC-led review of Reg NMS that focuses on execution quality, transparency, competition, and market resilience. The goal should

be a market structure in which venues compete to provide real liquidity and better executions, and in which regulatory incentives reward the best outcomes that investors actually experience.

On behalf of my firm, Optiver, and on behalf of PTG Markets, I thank you for the opportunity to appear before you today on this important issue and look forward to answering any questions.

# Appendix A

## Venues with Minimal Market Share Show Disproportionate Tape Revenues

2025   Venues with Less Than 1% Notional Market Share	
10 venues   < 1% market share each   3.81% combined share   receives 10.95% of tape revenue	Ratio: 2.9x
↳ 6 venues   < 0.5% market share each   1.01% combined share   receives 4.46% of tape revenue	Ratio: 4.4x
↳ ↳ 2 venues   ~0.04% combined share   receives 1.25% of tape revenue   98% from quoting	Ratio: 31x



## Appendix B

### Venues with less than 1% Market Share Compared to Venues with greater than 1% Market Share

#### 10 Venues | < 1% Market Share Each

3.81% combined market share

10.95% of total tape revenue

Revenue-to-share ratio: **2.9x**

73% quoting | 27% trading

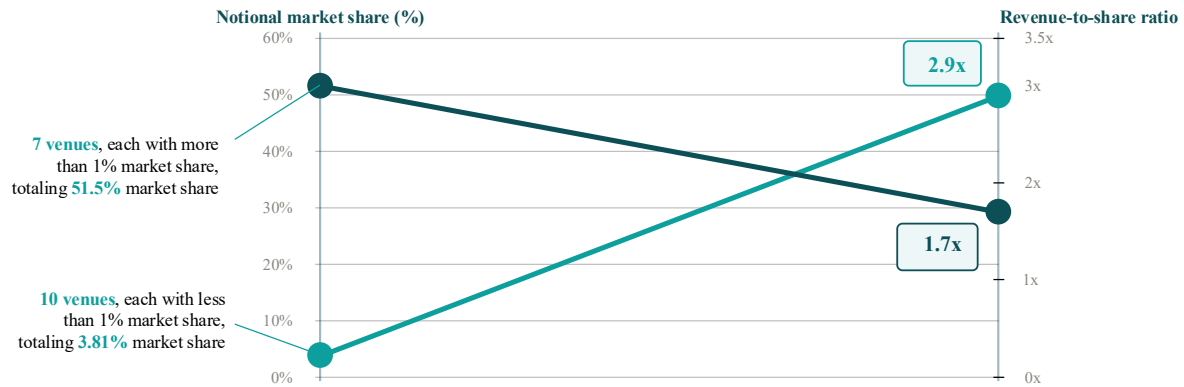
#### 7 Venues | > 1% Market Share Each

51.50% combined market share\*

89.05% of total tape revenue

Revenue-to-share ratio: **1.7x**

63% quoting | 37% trading



Key finding: Venues with less than 1% market share collectively receive tape revenue at a rate 2.9x their market share — 68% higher than the 1.7x ratio for larger venues.  
 \* Remaining ~45% market share is attributable to Trade Reporting Facilities (TRFs), which capture off-exchange trading activity excluded from this analysis.