

United States Court of Appeals  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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Argued March 18, 2022

Decided May 24, 2022

No. 21-1100

THE NASDAQ STOCK MARKET LLC, ET AL.,  
PETITIONERS

v.

SECURITIES AND EXCHANGE COMMISSION,  
RESPONDENT

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Consolidated with 21-1101, 21-1102

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On Petitions for Review of a Final Rule  
of the Securities and Exchange Commission

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*Thomas G. Hungar* argued the cause for petitioners. With him on the briefs were *Paul S. Mishkin*, *Matthew A. Kelly*, *Amir C. Tayrani*, *Joshua M. Wesneski*, *Paul E. Greenwalt III*, and *Michael K. Molzberger*.

*Dominick V. Freda*, Assistant General Counsel, Securities and Exchange Commission, argued the cause for respondent. With him on the brief were *Michael A. Conley*, Solicitor,

*Daniel Staroselsky*, Senior Litigation Counsel, and *Brooke J. Wagner*, Senior Counsel.

Before: ROGERS and RAO, *Circuit Judges*, and RANDOLPH, *Senior Circuit Judge*.

Opinion for the Court by *Circuit Judge* ROGERS.

ROGERS, *Circuit Judge*: In 2020, the Securities and Exchange Commission revised its decades-old regulation concerning securities market data, which had become largely obsolete in the face of transformative technological advances. Petitioners, securities exchanges that also develop and sell proprietary securities market data products using the data generated by trades on their respective platforms, challenged the new Market Data Infrastructure Rule as arbitrary and capricious and contrary to the goals and policies of the Securities Exchange Act. The Rule, however, clearly represents a reasonable balancing of the objectives Congress directed the Commission to address in a complex and technical area based on the record before the Commission. Accordingly, the court denies the petitions.

## I.

Section 11A of the amended Securities Exchange Act, Pub. L. No. 94-29, § 7, 89 Stat. 97, 111 (1975), grants the Commission broad power to establish a national market system for the trading of securities. 15 U.S.C. § 78k-1(a)(2); *see* S. REP. NO. 94-75, at 7 (1975). Finding that “[i]t is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets” to ensure “economically efficient execution of securities transactions,” “fair competition,” and the availability of market data to market participants, 15 U.S.C. § 78k-1(a)(1)(C), Congress directed the

Commission to promote the “prompt, accurate, reliable, and fair collection, processing, distribution, and publication of information with respect to quotations for and transactions in . . . securities and the fairness and usefulness of the form and content of such information,” *id.* § 78k-1(c)(1)(B).

In recent decades, pursuant to an existing Commission regulation, the national securities market has operated under a “centralized consolidation model” for the distribution of market data. Market Data Infrastructure, 86 Fed. Reg. 18,596, 18,598–99, 18,727 (Apr. 9, 2021). In 2005, the Commission adopted “Regulation NMS,” 70 Fed. Reg. 37,496 (June 29, 2005), to promote the availability of securities market data to investors and other market participants. “Because [national market system] stocks are traded so many places at once, one of the important innovations of the [national market system] is to make available to investors a stream of ‘core’ market data consolidated from all of the exchanges.” *NetCoalition v. SEC*, 615 F.3d 525, 529 (D.C. Cir. 2010), *superseded by statute as stated in NetCoalition v. SEC*, 715 F.3d 342, 344 (D.C. Cir. 2013). Under Regulation NMS, investors could obtain that “core data” from a centralized securities-information processor, which acts as a kind of quasi-utility operated jointly by self-regulatory organizations, including the exchanges, and the Financial Industry Regulatory Authority. The centralized securities-information processors receive limited categories of data from the exchanges, compile it, and transmit it to subscribers. That data includes key information for each stock: (1) the price and size of the last sale and the exchange on which the sale took place; (2) each exchange’s current highest bid and lowest offer, and the number of shares available at those prices; and (3) the national highest bid and lowest offer for each stock on any exchange. To obtain more detailed information about other transactions on the exchanges, a market participant must subscribe to the exchanges’ own proprietary data feeds, and

distribution of their proprietary data is a lucrative business for the exchanges.

Since the Commission adopted Regulation NMS in 2005 the securities market has evolved dramatically, so that the proprietary data products developed and sold by the exchanges themselves are vastly more useful to investors than the more affordable core data feeds. For example, the exchanges have developed proprietary data products that deliver data to subscribers much faster than the core data feeds. Proprietary products may also contain much more detailed information about the range of transactions taking place on the exchanges, rather than just the best bid and best offer quotes. As a result, the Commission determined, there was an information asymmetry in the marketplace for securities data — those market participants relying on the core data feed were at a significant informational disadvantage to participants that could afford to subscribe to the exchanges' comprehensive proprietary products. In short, the consolidated core data feed had “not kept pace with the needs of certain market participants, while the exchanges have expanded the content and reduced the latency of their proprietary data products in response to market participants' needs.” 86 Fed. Reg. at 18,641.

To address this problem, the Commission proposed and then adopted the Market Data Infrastructure Rule in 2020. The Rule aimed to “modernize the national market system” by promoting the development of new data distribution tools. *Id.* at 18,604–05. The Rule consisted of two main changes to the existing market structure in furtherance of this goal. First, the Rule updated the definition of core data to include more detailed trading information. Second, it adopted a competitive model for data feeds other than the one distributed by the centralized processor. The exchanges (which generate and

own the underlying trading data) would no longer have a monopoly on aggregating and distributing that data to investors. Rather, the Rule compels the exchanges to distribute that data to competing data consolidators for a fee set by a committee, consisting of the exchanges and other major market players and approved by the Commission. The competing consolidators, who must register with the Commission, may develop different kinds of data feeds in accordance with market demand based on the varied needs of investors. The Rule would also permit market participants to “self-aggregat[e]” by purchasing raw data directly from the exchanges and consolidating it for their own internal use. *Id.* at 18,602.

Certain exchanges challenged the Rule before it was published in the Federal Register, and the court dismissed the petitions as premature. *Nasdaq Stock Market LLC v. SEC*, 998 F.3d 1006, 1007 (D.C. Cir. 2021). Petitioners here challenged the Rule after it was published in the Federal Register, and the petitions were consolidated.

## II.

The court’s review of the Commission’s Rule is limited to ensuring that it is not “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *NetCoalition*, 615 F.3d at 532 (quoting 5 U.S.C. § 706(2)(A)); *see* 15 U.S.C. § 78y(b)(4). Arbitrary-and-capricious review is a “[h]ighly deferential” standard that “presumes the validity of agency action, requiring [the court] to determine whether the agency has considered the relevant factors and ‘articulate[d] a rational connection between the facts found and the choice made.’” *AT&T Corp. v. FCC*, 220 F.3d 607, 616 (D.C. Cir. 2000) (quoting *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

## A.

Section 11A of the Exchange Act authorizes the Commission to promulgate rules to ensure the “prompt, accurate, reliable, and fair collection, processing, distribution, and publication of information with respect to quotations for and transactions in . . . securities and the fairness and usefulness of the form and content of such information.” 15 U.S.C. § 78k-1(c)(1)(B). Recognizing that the existing market under Regulation NMS produced significant “information asymmetries” between traders who rely on the limited data available from the centralized processors’ core data feeds and those who can afford to purchase one or more proprietary data products, the Commission adopted the Market Data Infrastructure Rule. 86 Fed. Reg. at 18,725. The Commission reasonably concluded that the Rule would promote its stated goal in two primary ways.

First, the Rule adds new categories of data to the definition of “core data” so that investors who rely on core data will have information that more closely approximates what is available to proprietary data feed subscribers. *Id.* at 18,602. This change is likely to reduce asymmetries between consumers who rely only on the consolidated data feed and other consumers by enhancing the information available to consolidated data feed subscribers. Currently, only a few data points are available to consumers relying on core data from the centralized processors; the Rule changes that by requiring that certain additional categories of information that are currently only available through the exchanges’ proprietary data products be deemed core data. And while petitioners observe that this will not “*eliminate*” information asymmetries between users of the core data feed and users of proprietary products, Petitioners’ Br. 24, the Commission’s stated goal was to “*reduce*

information asymmetries,” 86 Fed. Reg. at 18,725 (emphasis added), not to achieve “absolute parity,” Respondent’s Br. 20.

Second, the Rule introduces competition into the data market by allowing entities other than the exchanges to develop and sell data products based on data obtained from the exchanges. This change is likely to promote the availability of many different kinds of data products at different price points, making it more likely that consumers for whom proprietary data products are prohibitively expensive will find in the marketplace an affordable product appropriately tailored to their data needs. The Commission explained that under the current regime, “the cost of [the exchanges’] proprietary market data products inhibits the purchase of, and the widespread dissemination of, this data to market participants that may need it to participate effectively in the markets.” 86 Fed. Reg. at 18,600. By contrast, under the new regime, consumers would no longer face a binary choice between affordable but content-limited feeds and content-rich but expensive products; instead, in the new competitive marketplace, consumers would be able to choose from an array of data products featuring different data at different speeds and at different price points.

Petitioners nevertheless contend that the Commission’s adoption of the Rule was arbitrary and capricious for two reasons: first, according to petitioners, the Rule will exacerbate, not reduce, information asymmetries in the data market; and second, in petitioners’ view, the Rule rests on speculation.

**1.** Petitioners maintain that the Rule will exacerbate information asymmetries in several respects. For one thing, the Rule will further stratify the data market, replacing a two-tiered system with a multi-tiered system. This stratification of the

market undercuts the Commission's goal, rendering the Rule arbitrary and capricious: If the Commission was concerned about a two-tiered data market, petitioners maintain, then surely a multi-tiered data market must amount to an even more asymmetrical distribution of information. But this objection misconstrues the Commission's goal in implementing the Rule, for the Commission aimed not to require that every market participant have access to the same data at the same speed, but rather to address a dearth of options for consumers with widely divergent data needs in the existing marketplace. *See id.* at 18,767. The Rule promotes the Commission's purpose by assuring that consumers who cannot afford existing proprietary data products are no longer limited to the consolidated feed as their only option.

Nor will the Rule's allowance for large firms to "self-aggregate" data for internal use exacerbate information asymmetries. Under the new regime, a small number of major players in the securities market would have the option to self-aggregate market data by purchasing raw data directly from the exchanges and aggregating it for their own internal use, rather than purchasing a prepackaged data product from one of the competing consolidators. Petitioners see self-aggregators gaining an additional speed advantage over all other market participants, because they would receive data faster by cutting out the middleman. Feed subscribers, by contrast, must wait to receive aggregated data from a third-party consolidator, which self-aggregators avoid. But the Commission explained that "[l]atency sensitive customers of competing consolidators," that is, customers whose trading strategies depend on split-second data advantages, "are likely to be co-located in the same data centers as their competing consolidators, so the transmission time between the servers of the competing consolidator and its customer will be exceedingly small." *Id.* at 18,648. What is more, the Commission has consistently



explained that “big firms already act as self-aggregators” under the current regime. Respondent’s Br. 23; *see* 86 Fed. Reg. at 18,599. Petitioners have not explained why any latency advantages enjoyed by self-aggregators would be more significant under the new Rule than the previous regime.

Petitioners also maintain that the Rule will exacerbate another problem the Commission claimed it would address: market resiliency. In adopting the Rule, the Commission noted that a competitive system with multiple consolidators would eliminate single points of failure in the system, i.e., the centralized securities-information processors. Petitioners contend that consumers would actually be more prone to disruptions in their access to data under the new system, because each competing consolidator would represent a single point of failure with respect to its own customers. But this misses the Commission’s point, which was that eliminating single points of failure would “improve the resiliency of the *national market system*” as a whole, not that it would guarantee that individual consumers could never experience outages or disruptions in their access to data. 86 Fed. Reg. at 18,661 (emphasis added). The Commission explained that competing consolidators will face twin pressures — regulatory requirements “designed to support their operational resiliency” and competition with each other — that will encourage resiliency and reliability. *Id.*

2. Petitioners also maintain that the Rule rests on unfounded speculation, rendering it arbitrary and capricious. But a concern that too few competing consolidators would enter the market to achieve the anticipated benefits of competition is misplaced: The Commission acknowledged that there was some uncertainty about the number of entrants to the market, but exhaustively explained why it predicted that the market would see “a sufficient number” of entrants to promote

competition, *id.* at 18,761. That analysis considered the barriers to entry for would-be competing consolidators, *id.* at 18,761–63; the anticipated fees to be charged for the underlying data the consolidators would purchase, aggregate, and sell, *id.* at 18,763–64; the fixed “connectivity” costs to competing consolidators, i.e., the fees charged to cover the cost of transmitting the underlying data to the competing consolidators, *id.* at 18,764; the anticipated demand for the competing consolidators’ data products, *id.* at 18,764–66; and the competing consolidators’ ability to offer differentiated data products, *id.* at 18,766–68. That was more than sufficient, because “when an agency’s decision is primarily predictive . . . [the court] require[s] only that the agency acknowledge factual uncertainties and identify the considerations it found persuasive.” *Am. Hosp. Ass’n v. Azar*, 983 F.3d 528, 536 (D.C. Cir. 2020) (quoting *Rural Cellular Ass’n v. FCC*, 588 F.3d 1095, 1105 (D.C. Cir. 2009)).

Similarly, the Commission reasonably predicted that only a small number of market participants would become self-aggregators, leaving enough demand for the competing consolidators’ products to achieve the benefits of competition. Petitioners point out that while the absolute number of self-aggregators might be small, the firms positioned to self-aggregate — an expensive and technically complex endeavor — likely represent a large segment of the total demand for market data. Again, however, the Commission recognized this possibility, observing that “while the number of potential self-aggregators might be small their overall trading volume might be large, because these market participants are also likely some of the highest trading-volume broker-dealers and registered investment advisors.” 86 Fed. Reg. at 18,766. On balance, the Commission nevertheless concluded that the predicted demand for the competing consolidators’ products outweighed concerns that self-aggregation might eat into the market; that

satisfied the Commission's obligations, *Am. Hosp. Ass'n*, 983 F.3d at 536, especially where the agency had to strike a balance between competing statutory objectives of efficiency, competition, and transparency, *see* 15 U.S.C. § 78k-1(a)(1)(C); *Fresno Mobile Radio, Inc. v. FCC*, 165 F.3d 965, 971 (D.C. Cir. 1999); *see also Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 845, 865 (1984); Concept Release on Equity Market Structure, 75 Fed. Reg. 3594, 3597 (Jan. 21, 2010).

Finally, petitioners maintain that, although the marketplace for data products can only succeed if competing consolidators offer differentiated products, namely, a variety of products with different categories of data, different levels of analytics, and different speeds, the Commission could only guess at whether they would be able to do so, since the fees to obtain the exchanges' raw data have not yet been set. Fees that are too high, petitioners maintain, may make it infeasible for competing consolidators to offer more affordable, less detailed data feeds given the high up-front cost to purchase the raw data. The Commission acknowledged that competing consolidators' ability to differentiate their products and charge different prices would depend partly on whether the national-market-system plans, which will determine data fees, set differentiated prices for different subsets of data or, rather, offer only comprehensive data at a single price point. 86 Fed. Reg. at 18,764, 18,767. But petitioners overstate matters when they suggest that the success of the new regime depends *entirely* on fee differentiation; the Commission reasonably concluded that the fact that comprehensive data will remain available at different speeds for different prices provides built-in differentiation, and even in the absence of any differentiation, demand for less expensive data products could make it worthwhile for a competing consolidator to purchase comprehensive data and repackage it as a subset of that data.

*Id.* at 18,767–68. Further, the existing equity data plans, of which petitioners are governing members, have already proposed just such a differentiated fee structure, which the Commission is currently considering.

On arbitrary-and-capricious review, the court’s role is “‘not to substitute its judgment for that of the agency,’ but instead to assess only whether the decision was ‘based on a consideration of the relevant factors and whether there has been a clear error of judgment.’” *DHS v. Regents of Univ. of Cal.*, 140 S. Ct. 1891, 1905 (2020) (citations omitted). The Rule’s design promotes the Commission’s stated goals and is grounded in the record before the Commission. Accordingly, petitioners have not shown that the Rule is arbitrary and capricious.

## B.

The Exchange Act requires the Commission to act with “due regard for the public interest, the protection of investors, and the maintenance of fair and orderly markets,” and to assure the “fair collection” and “distribution” of market data. 15 U.S.C. § 78k-1(a)(2), (c)(1)(B). When the Commission engages in rulemaking under the Exchange Act that requires it to consider “whether an action is necessary or appropriate in the public interest,” it must also consider “the protection of investors” as well as “whether the action will promote efficiency, competition, and capital formation.” 15 U.S.C. § 78c(f). An agency’s duty to consider economic impacts does not necessarily require a precise cost-benefit analysis, *see Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1039 (D.C. Cir. 2012); this court has recognized that the Commission “need not . . . base its every action upon empirical data,” *Chamber of Commerce v. SEC*, 412 F.3d 133, 142 (D.C. Cir. 2005), and may reasonably conduct “a general analysis based on informed

conjecture,” *id.* (quoting *Melcher v. FCC*, 134 F.3d 1143, 1158 (D.C. Cir. 1998)).

Petitioners maintain that the Rule is inconsistent with these statutory policies because it will deprive investors of a single, uniform “national best bid and offer” quote; stifle innovation in the data market; drive order flow to off-exchange “dark” trading venues and impede exchanges’ ability to compete with such venues; and deprive the exchanges themselves of a main source of revenue. In petitioners’ view, the Commission failed to adequately account for these outcomes, violating its statutory duties to weigh the Rule’s economic impacts, to protect investors and the public interest, and to promote the fair collection and distribution of market data. The record demonstrates that the Commission considered each of petitioners’ concerns and reasonably determined, based on the information available to it, that the Rule was warranted.

1. The Commission reasonably concluded that the Rule would not adversely affect the availability of a single, reliable “national best bid and offer” quote to the detriment of retail investors. The national best bid and offer is a data point reflecting the highest price currently being offered by a buyer and the lowest price currently being offered by a seller for a given security across all exchanges. *See* Market Data Infrastructure, 85 Fed. Reg. 16,726, 16,732 n.66 (Mar. 24, 2020). Petitioners maintain that the existence of a single, uniform national best bid and offer is critical for retail investors, who, unlike large broker-dealers, rely on visual stock quotes posted publicly to ensure they are getting the best price available. By decentralizing market data, petitioners believe, the Rule would eliminate the uniform national best bid and offer, leaving multiple quotes circulating at any given time and thus harming retail investors.

The Commission explained, however, that this exact kind of fragmentation already exists under the current regime: some market participants rely on the national best bid and offer as calculated by the exclusive processors, while others “calculat[e] their own version by aggregating petitioners’ faster proprietary-data feeds or hiring a third-party vendor to aggregate the data for them,” Respondent’s Br. 42 (citing 86 Fed. Reg. at 18,657), and still others, including some retail investors, use “top-of-book” proprietary data products, which may be less expensive than the centralized processors’ data, 86 Fed. Reg. at 18,601. Further, inherent delays in transmitting data to different geographic locations will always result in multiple quotes circulating at any given time. *Id.* at 18,737, 18,785. Yet petitioners have not explained how the national best bid and offer quote would be appreciably more fragmented under the new Rule than it is under the current regime.

2. The Commission could reasonably conclude that increased competition in the development and distribution of data products would enhance, not stifle, innovation. Petitioners claim that the Rule undermines the exchanges’ incentive to invest in developing innovative data products. But petitioners’ narrow focus on their own incentives ignores the broader context in which the Commission adopted the Rule: By permitting other entities besides exchanges to offer data products, the Rule would promote innovation in the broader data market and is designed to encourage a proliferation of new data products.

3. The Commission reasonably concluded that the Rule would promote competition notwithstanding the possibility that off-exchange “dark” trading venues could improve their competitive position under the new regime. Securities are traded not only on the highly regulated exchanges (so-called “lit” venues), but also on other off-exchange trading venues

(“dark” venues) that are subject to different regulatory requirements and that may not disclose the same data about trades executed there. According to petitioners, the Rule’s anticipated impact on exchanges’ revenue from their proprietary data products will inhibit their ability to compete with off-exchange venues, contrary to the Exchange Act’s commitment to promoting competition. In turn, petitioners contend, the increase in order flow to the less-regulated dark venues will reduce transparency in the marketplace as a whole. Petitioners contend the Commission’s failure to address these concerns adequately was an abdication of its duty to “apprise itself – and hence the public and the Congress – of the economic consequences of a proposed regulation.” *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148 (D.C. Cir. 2011) (quoting *Chamber of Commerce*, 412 F.3d at 144).

Petitioners’ contention that the Commission “duck[ed] serious evaluation of the costs” the Rule would impose on competition, Petitioners’ Br. 45 (quoting *Bus. Roundtable*, 647 F.3d at 1152), rests on a fallacy: Petitioners equate competition with their own competitive position. But a policy change can “disadvantage certain participants while simultaneously enhancing competition in the market.” U.S. Dep’t of Justice, Comment Letter on Proposed Rule, Market Data Infrastructure 4–5 (May 26, 2020). The Commission undertook an analysis of the likely effects of the Rule on competition, including the possibility that “the impact of . . . potential reductions in proprietary feed subscriptions could be large” for some exchanges, resulting in a sizable reduction in revenue. 86 Fed. Reg. at 18,794. The Commission nevertheless concluded that the Rule would promote “fair competition,” 15 U.S.C. § 78k-1(a)(1)(C)(ii), and explained in detail why such competition would ultimately benefit investors, *see* 86 Fed. Reg. at 18,799–804. This is therefore not a case where “the Commission’s prediction . . . had no basis beyond mere speculation,” *Bus.*

*Roundtable*, 647 F.3d at 1150; on the contrary, the Commission made “a reasonable predictive judgment based on the evidence it had,” *FCC v. Prometheus Radio Project*, 141 S. Ct. 1150, 1160 (2021). To the extent petitioners maintain the Commission was required to quantify each individual exchange’s anticipated revenue decreases under the Rule, this court has explained that the Commission need not “base its every action upon empirical data.” *Chamber of Commerce*, 412 F.3d at 142.

In any event, petitioners’ concern that the Rule will hurt exchanges’ bottom line is speculative. The Commission explained that the Rule may or may not cause a reduction in revenue for the exchanges; any losses may be partially or fully offset by the fees paid to exchanges by competing consolidators for their data and by the opportunity for the exchanges to continue to sell some version of their existing proprietary data products. 86 Fed. Reg. at 18,784, 18,794.

4. As for the purported downstream effects of any reduction in revenue, the Commission reasonably rejected petitioners’ concerns that their own lost profits would harm the marketplace as a whole. The Commission considered the possibility that the Rule would drive order flow to off-exchange venues and concluded that any resulting harm to overall market transparency would be offset by the other transparency benefits of the Rule, including the improved distribution and enhanced content of core data. *Id.* at 18,799. Indeed, the heart of the Rule was expanding the content and improving the distribution of core data, which “is the principal tool for enhancing the transparency of the buying and selling interest in a security.” *Id.* at 18,599 n.22; *see also id.* at 18,799. The Commission also reasonably predicted that expanded core data could decrease the incentive to trade on off-exchange venues and cause orders to flow away from those “dark”



venues to the more transparent exchanges. *See* 86 Fed. Reg. at 18,748, 18,759. Even if petitioners could somehow show that the net effect of the Rule on transparency would be negative, that would still not suffice, as transparency is not the only aim of Section 11A. Rather, Congress also directed the Commission to consider impacts on competition, among other things, and the Rule represents a reasonable balancing of those competing goals. This court has “never required anything more” of an agency than to weigh costs and benefits and to make “reasonable trade-offs,” *Covad Commc’ns Co. v. FCC*, 450 F.3d 528, 543 (D.C. Cir. 2006) (quoting *U.S. Telecom Ass’n v. FCC*, 290 F.3d 415, 425 (D.C. Cir. 2002)), and the Commission did so here.

Likewise, petitioners’ claim that reduced revenues will cripple their reinvestment in their own products, hurting their customers, defies basic economic principles. The Commission points out that like any business, the exchanges can obtain external funding for promising opportunities to develop new products in the future; they are not limited to their internal cash-on-hand in developing new products and services. Similarly unavailing is petitioners’ suggestion that “[a] reduction in market-data revenue would also limit the funds available to exchanges to fulfill their statutorily mandated regulatory responsibilities, which further ‘the protection of investors’ and the ‘maintenance of fair and orderly markets’ . . . .” Petitioners’ Br. 54. The notion that any reduction in revenue would necessarily compromise the exchanges’ bottom line so severely as to affect their ability to comply with their regulatory responsibilities is unsubstantiated.

All in all, the Commission acted well within its authority when it evaluated the Rule’s anticipated benefits against the possibility of harm to petitioners’ respective bottom lines. This court declines to re-weigh the technically complex trade-offs

the Commission carefully considered. *See Am. Hosp. Ass'n*, 983 F.3d at 536; *Fresno Mobile Radio, Inc*, 165 F.3d at 971.

Accordingly, for the foregoing reasons, the petitions are denied.