# United States Court of Appeals

## FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued October 25, 2021

Decided July 29, 2022

No. 20-1424

CITADEL SECURITIES LLC, PETITIONER

v.

SECURITIES AND EXCHANGE COMMISSION,
RESPONDENT

INVESTORS EXCHANGE LLC, INTERVENOR

On Petition for Review of an Order of the Securities and Exchange Commission

Jeffrey B. Wall argued the cause for petitioner. On the briefs were Jeffrey B. Korn, Patricia O. Haynes, Mark T. Stancil, and Kristin Bender.

Christina M. Carroll, Kristen C. Rodriguez, Douglas W. Henkin, and Richard M. Zuckerman were on the brief for amici curiae New York Stock Exchange, LLC, et al. in support of petitioner.

Alexandra A.E. Shapiro and Daniel J. O'Neill were on the brief for amicus curiae Andrew N. Vollmer in support of petitioner.

*Emily True Parise*, Senior Litigation Counsel, U.S. Securities and Exchange Commission, argued the cause for respondent. With her on the brief were *Michael A. Conley*, Acting General Counsel, *Dominick V. Freda*, Assistant General Counsel, and *Brooke Wagner*, Attorney.

Catherine E. Stetson argued the cause for intervenor. With her on the brief were Katherine B. Wellington and Reedy C. Swanson. Sundeep Iyer and Neal K. Katyal entered appearances.

Dennis M. Kelleher, Stephen W. Hall, and Jason R. Grimes were on the brief for amicus curiae Better Markets, Inc. in support of respondent.

Daniel A. Rubens and Alexandra Bursak were on the brief for amicus curiae XTX Markets, LLC in support of respondent.

*Thomas A. Burns* was on the brief for *amicus curiae* Healthy Markets Association in support of respondent.

Before: RAO and WALKER, *Circuit Judges*, and SENTELLE, *Senior Circuit Judge*.

Opinion for the Court filed by Circuit Judge WALKER.

WALKER, *Circuit Judge*: The Securities and Exchange Commission approved a recent attempt by a securities exchange to prevent investors from buying and selling securities before other investors can know that market prices have changed.

We deny the petition challenging the SEC's decision.

Ι

Gone are the days of stock traders who yelled out orders from crowded trading floors as they stared at a scrolling tickertape. Today, securities exchanges are electronic, and orders move at the speed of light.

This section describes (A) a few basics about those securities exchanges; (B) some of the rules governing them; (C) the concept of "latency arbitrage"; (D) an exchange's new strategy to protect investors from latency arbitrage; and (E) the SEC's approval of that strategy.

### A

Securities traders can play two roles: liquidity provider or liquidity taker. A taker seeks to accept a provider's "bid" to buy or "offer" to sell. When all goes well, the trade executes, meaning the taker either buys what the provider offered or sells what the provider bid for. A single trader can don and doff a provider or taker hat at any time.

The trades between providers and takers happen through orders, which are instructions sent from traders to exchanges. There are many types of orders. For example, orders can be either "displayed" or "non-displayed," meaning publicly viewable or not publicly viewable. And certain orders called "limit orders" stipulate that a security must trade for a prespecified price or better from the provider's perspective.

Here's an example that combines some of what we've covered so far: A liquidity provider posts a displayed limit order on the New York Stock Exchange. The order bids to "buy 10 shares of Apple stock at \$10.00 per share or lower." A liquidity taker then sees that bid and sends its own order to the New York Stock Exchange that accepts the bid and sells the 10 shares of Apple stock for \$10.00 per share.

В

In 2005, the SEC promulgated a series of initiatives dubbed "Regulation NMS," which stands for National Market System. One of those initiatives established the concept of the "[n]ational best bid and national best offer," which are the best bid and best offer for a security, from the taker's point of view, across all U.S. securities exchanges. 17 C.F.R. § 242.600(b)(50). In other words, the national best bid or offer is the highest-priced bid to buy or the lowest-priced offer to sell a security on any U.S. exchange.

Regulation NMS also classifies some providers' orders as "protected" bids or offers (collectively "protected quotations"). Protected quotations are "automated," publicly displayed, and the national best bid or offer. *Id.* § 242.600(b)(70).

That classification matters because Rule 611 of Regulation NMS requires exchanges to implement policies that prevent the execution of trades for protected quotations that are worse for the taker than the national best bid or offer. *Id.* § 242.611(a)(1). So if a security's national best bid or offer changes, then the

correct execution price for protected quotations of that security changes as well. As a result, exchanges must constantly communicate to keep abreast of securities' nationwide prices. *See Nasdaq Stock Market LLC v. SEC*, No. 21-1167, 2022 WL 2431638, at \*2 (D.C. Cir. July 5, 2022) ("At the heart of the national market system is the collection, consolidation and dissemination of securities market data from the various securities exchanges." (cleaned up)).

C

Now speed enters the picture. When a security's national best bid or offer changes, providers must update their orders to reflect that change.

To do so, providers send electronic messages to the exchanges. Those messages often arrive faster than the blink of an eye. Still, the updates are not instantaneous. It takes a moment for an update to reach exchanges all over the country. That moment is called "latency."

During that latency, certain high-frequency traders can take securities at old, stale prices — just before updated prices reach the exchanges — and then turn around and trade those securities at the newly updated national best bid or offer. That practice is called "latency arbitrage."

The high-frequency traders that engage in such latency arbitrage are extreme short-term investors. That's because they seek to end each trading day with the same investments that they had at the beginning of the day. *See* Concept Release on Equity Market Structure, Exchange Act Release No. 34-61358, 75 Fed. Reg. 3,594, 3,606 (Jan. 21, 2010) ("characteristics often attributed to proprietary firms engaged in" high-frequency trading include "ending the trading day in as close

to a flat position as possible"). Indeed, they immediately seek to either (a) sell what they've just bought or (b) buy back what they've just sold. For example, according to the Intervenor:

A stock price may be in the process of changing from \$10.00 to \$10.01 across different exchanges. A high-speed trader might swoop in and buy at \$10.00 from an investor that cannot update its quote fast enough, and then sell at \$10.01 – the price the investor could have received microseconds later if the arbitrageur had not intervened. That penny that would have gone to the investor goes instead to the arbitrageur.

Intervenor's Brief 5-6 (cleaned up).

For ease, we will refer to such extreme short-term investors simply as "short-term investors." By contrast, we will call traders that don't engage in latency arbitrage "long-term investors."

D

Investors Exchange LLC — commonly called IEX — began to operate as a securities exchange in 2016. From the beginning, IEX has sought to attract business from liquidity providers by combating latency arbitrage on its exchange.

To do that, IEX uses two tools: a thirty-eight-mile-long coil of wire called the "speedbump" and a publicly available algorithm called the "crumbling quote indicator," which predicts imminent changes to the national best bid or offer.

<sup>&</sup>lt;sup>1</sup> There are of course less extreme short-term investors who do not engage in latency arbitrage, such as day traders. We do not implicate them in our shorthand.

Here's how they work. All *orders* going to IEX must traverse the speedbump before reaching IEX. That whole trip takes about 350 microseconds (about 1/11th the blink of an eye).<sup>2</sup> But communications coming *from other exchanges* to IEX bypass the speedbump. Those communications include updates to the prices of securities on those exchanges. The upshot is that IEX gets information from other exchanges about imminent changes to the national best bid or offer for securities a bit before it receives orders from traders.

The information from other exchanges then goes into the crumbling quote indicator's algorithm to determine whether the national best bid or offer for a particular security is about to change. If the algorithm says that the national best bid or offer for a security is about to change, then the crumbling quote indicator "turns on" for that security for two milliseconds.<sup>3</sup>

When that happens, for the order type at issue in this case, IEX then updates the security's price to reflect the changing national best bid or offer. And the update happens while incoming orders from liquidity takers, including short-term investors, are stuck in the speedbump. Usually that update makes buy orders go down a penny and sell orders go up a penny.

If IEX's strategy works as intended, orders protected by it are less likely to fall prey to latency arbitrage. When the short-term investor's order reaches IEX, the order will not execute if the new market price is too low or too high to satisfy a short-term investor who is only interested in taking when providers' bids and offers are stale.

<sup>&</sup>lt;sup>2</sup> There are 1,000,000 microseconds in a second.

<sup>&</sup>lt;sup>3</sup> There are 1.000 milliseconds in a second.

For several years, IEX applied the speedbump and crumbling quote indicator only to certain non-displayed orders. But then, in 2019, IEX submitted a proposed rule change to the SEC asking to add a new "Discretionary Limit" order type that is (1) displayed and (2) subject to IEX's anti-latency-arbitrage regime described above. Investors Exchange LLC; Notice of Filing of Proposed Rule Change to Add a New Discretionary Limit Order Type, Exchange Act Release No. 34-87814, 84 Fed. Reg. 71,997 (Dec. 30, 2019).

The SEC took comments on the proposed D-Limit order for several months and ultimately approved it. Investors Exchange LLC; Order Approving a Proposed Rule Change to Add a New Discretionary Limit Order Type Called D-Limit, Exchange Act Release No. 34-89686, 85 Fed. Reg. 54,438 (Sept. 1, 2020). Citadel Securities, a high-frequency trader and objecting commenter, now petitions for review.

At issue is not whether companies like Citadel may seek advantages in the market by using advanced technology and ingenious trading strategies. No one in this case has alleged that latency arbitrage is unlawful. The issue, instead, is whether the SEC may allow IEX to innovate, with the D-Limit order, in a way that offers new opportunities to long-term investors.

II

We review the SEC's order according to the Administrative Procedure Act's "arbitrary and capricious standard." *Laccetti v. SEC*, 885 F.3d 724, 725 (D.C. Cir. 2018); *see also* 5 U.S.C. § 706(2)(A). That standard requires

that the SEC's "action be reasonable and reasonably explained." *Laccetti*, 885 F.3d at 725. The SEC's "determinations based upon highly complex and technical matters are entitled to great deference." *Domestic Securities, Inc. v. SEC*, 333 F.3d 239, 248 (D.C. Cir. 2003) (quoting *Appalachian Power Co. v. EPA*, 251 F.3d 1026, 1035 (D.C. Cir. 2001)). And its factual findings are conclusive if supported by substantial evidence. 15 U.S.C. § 78y(a)(4).

Citadel argues that the SEC lacked substantial evidence for one of its findings and that three of the SEC's decisions were arbitrary and capricious.

We disagree.

#### A

The Securities Exchange Act of 1934 states that an exchange's rules may not be "designed to permit unfair discrimination" or impose an undue burden on competition. 15 U.S.C. § 78f(b)(5), (8).

The SEC determined that because the D-Limit order benefits "all market participants" by "narrowly" targeting latency arbitrage, it does not unfairly discriminate against liquidity takers or unduly burden competition. Order Approving D-Limit, 85 Fed. Reg. at 54,451.

Citadel's first two claims concern that determination. According to Citadel, (1) the SEC lacked substantial evidence to find that the crumbling quote indicator accurately identifies latency arbitrage rather than normal trading activity, and (2) even if the crumbling quote indicator does identify latency arbitrage, the SEC's conclusion that the D-Limit order narrowly targets latency arbitrage was arbitrary and capricious.

Neither claim succeeds.

To start, substantial evidence supports the SEC's finding that the crumbling quote indicator accurately identifies latency arbitrage. The crumbling quote indicator turns on for a given security for an average 0.007% of the trading day (about 1.64 seconds). *Id.* at 54,440. But in that "very short" time, 24% of IEX's displayed liquidity is traded. *Id.* at 54,440 n.36. That disparity — 24% of displayed liquidity trading in 0.007% of the day — is substantial evidence that short-term investors engage in latency arbitrage during the same "small increments of time" that the crumbling quote indicator turns on. *Id.* at 54,442.<sup>4</sup>

That substantial evidence also resolves Citadel's arbitrary-and-capricious claim. The SEC determined that, by definition, the D-Limit order narrowly targets latency arbitrage because IEX changes a price *only* when the crumbling quote indicator turns on. *Id.* at 54,449. Considering the "great deference" that we afford the SEC when making such "determinations based upon highly complex and technical matters," we see nothing unreasonable about the SEC's conclusion. *Domestic Securities, Inc.*, 333 F.3d at 248 (quoting *Appalachian Power Co.*, 251 F.3d at 1035).

Citadel's five counter-arguments do not convince us otherwise.

<sup>&</sup>lt;sup>4</sup> Additional data from IEX similarly showed that the crumbling quote indicator "was on between 0.026% (for January 2020) and 0.125% (for March 2020) of the time during regular market hours and the percent of displayed volume that traded when the [Indicator] was on during that period ranged between 22% (for March 2020) to 24.4% (for January 2020)." *Id.* at 54,448 (cleaned up).

First, Citadel says that the correlation between the crumbling quote indicator turning on and substantial trading activity just shows flurries of trading, not latency arbitrage. It points out that normal trading activity often happens through large market sweeps (orders taking a security off all exchanges) that could turn on the crumbling quote indicator. *See* JA 372.

But trading during the two-millisecond moments that the crumbling quote indicator is on requires either incredible chance or incredible technological advantages that permit timing orders down to the microsecond. The SEC reasonably concluded that the latter explanation is correct — the crumbling quote indicator is unlikely to affect normal trading activity during the "small part of the day" that it is on because, as "dozens of commenters" stated, only a small set of highfrequency traders have the technological ability to target those precise moments. Order Approving D-Limit, 85 Fed. Reg. at 54,446. And to the extent that traders worry that a large market sweep might trigger the crumbling quote indicator, the SEC stated that those traders "can, and generally do, account for this fact" by sending orders to IEX a hair sooner than they send orders to other exchanges so that the orders hit all the exchanges in the same instant and avoid triggering the crumbling quote indicator. *Id.* at 54,441.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Citadel asserts that the SEC didn't support its conclusion that such routing practices are "commonplace." *Id.* But the SEC pointed out that accounting for the speedbump is no different than accounting for other geographical distances between exchanges, and it relied on commenters' statements that accounting for such differences is common and feasible. *Id.* Further, no commenter stated that it could not use such routing strategies. And sending orders so that they arrive at IEX at the same moment that they arrive at other exchanges would not "preference" IEX as Citadel contends because the orders would not reach IEX first; they would arrive at the same time that they arrive at other exchanges. *Id.* 

Second, Citadel argues that the crumbling quote indicator fails to accurately identify latency arbitrage because it catches the orders that Citadel makes "on behalf of retail investors" who ask Citadel to trade securities for them. *Id.* at 54,440 n.38. But the SEC pointed out that Citadel does not directly route a retail "customer's order to exchanges, but rather is, for example, buying shares for its own account and selling shares to the customer." *Id.* That means Citadel still controls the timing and routing methods of those orders. And that in turn allows those orders to employ latency arbitrage tactics as much as any other orders.

Third, Citadel asserts that IEX misclassified it as a "proprietary" trading firm, which is a firm with an incentive to use high-frequency trading technology, and that the SEC improperly relied on that misclassification to determine that the crumbling quote indicator identifies latency arbitrage.

But even if Citadel is right about its misclassification, the misclassification was not essential to the SEC's decision. The already-discussed evidence was sufficient to support the SEC's conclusions, and the SEC noted that IEX produced data that excluded trades from Citadel but still equally exhibited the D-Limit order's narrow tailoring. *See id.* We thus need not address this dispute. *See Indiana Municipal Power Agency v. FERC*, 56 F.3d 247, 256 (D.C. Cir. 1995) ("we will sustain an agency decision resting on several independent grounds if any of those grounds validly supports the result, unless there is reason to believe the combined force of the otherwise independent grounds influenced the outcome" (cleaned up)).

Fourth, Citadel tries to analogize this case to *Susquehanna International Group, LLP v. SEC*, which held that an SEC order was arbitrary and capricious because of its "unquestioning" reliance on the conclusions of the regulated

party. 866 F.3d 442, 448 (D.C. Cir. 2017). The SEC, however, did no such thing here. IEX and many commenters provided ample data showing the D-Limit order's effect. The SEC then took that data, analyzed it for itself, and reasonably concluded that the D-Limit order benefits "all market participants" by thwarting latency arbitrage. Order Approving D-Limit, 85 Fed. Reg. at 54,444.

Fifth and finally, Citadel argues that the SEC "ignored" the possibility that other exchanges will adopt D-Limit orders. The SEC explained, though, that "[t]o the extent that another exchange seeks to adopt its own . . . D-Limit order type, the Commission would . . . consider whether the new proposal is narrowly tailored to achieve its stated objectives and consistent with the Exchange Act and the rules and regulations thereunder." *Id.* at 54,446 n.114. That explanation is adequate because the SEC has "no obligation to hypothesize about future regulations." *Taxpayers of Michigan Against Casinos v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006).

For all those reasons, the SEC's determination that the D-Limit order does not violate the Exchange Act by unfairly discriminating or unduly burdening competition was reasonable and supported by substantial evidence.

В

Before the proceedings in this case, the SEC rejected a proposal by Cboe EDGA Exchange, Inc., which had sought to impose an all-day, four-millisecond delay on incoming communications from liquidity takers, but not to similarly delay incoming messages from liquidity providers. That would have given liquidity providers a window to update their bids and offers while liquidity takers' orders were still traversing Cboe's speedbump. In this case, commenters suggested to the

SEC that its rejection of Cboe's proposal should govern its decision on IEX's D-Limit order proposal. The SEC, however, concluded that its past rejection of Cboe's proposal did not control its decision on IEX's D-Limit order because the two proposals differed substantially. Order Approving D-Limit, 85 Fed. Reg. at 54,450.

We have held that "when departing from precedents or practices, an agency must offer a reason to distinguish them or explain its apparent rejection of their approach." *Physicians for Social Responsibility v. Wheeler*, 956 F.3d 634, 644 (D.C. Cir. 2020) (cleaned up).

That's what happened here. The SEC distinguished its Cboe decision by explaining that Cboe had not produced evidence of latency arbitrage on its exchange. Order Approving D-Limit, 85 Fed. Reg. at 54,450. In contrast, IEX produced that evidence. As set forth above, 24% of displayed liquidity on IEX trades in 0.007% of the trading day. *Id.* at 54,440 n.36.

Further, the SEC noted that Cboe's proposed delay (1) was four milliseconds long; (2) applied asymmetrically to liquidity providers and takers; and (3) allowed liquidity providers to manually reprice their bids and offers during the entire trading day. *Id.* at 54,449-50. IEX's delay, by contrast, (1) is 350 microseconds long, which is approximately 1/11th the length of Cboe's delay; (2) applies to incoming communications from both liquidity providers and takers; and (3) permits D-Limit orders to automatically reprice, which occurs during just 0.007% of the trading day. *Id.* at 54,438, 54,440.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Citadel says that IEX's proposal itself applies asymmetrically to liquidity providers and takers. But even if Citadel is correct, the

Those differences show that IEX's delay targets latency arbitrage more narrowly than did Cboe's proposal. And it was reasonable for the SEC to conclude that the differences show that IEX's proposal does not unfairly discriminate in the way that Cboe's did. Instead, IEX's proposal benefits "all market participants." *Id.* at 54,449.<sup>7</sup>

The SEC thus did not arbitrarily change course from its Cboe decision.

C

As stated, for a bid or offer to qualify as a protected quotation under Regulation NMS, it must be "automated." 17 C.F.R. § 242.600(b)(70). And to be automated, it must execute "[i]mmediately and automatically." *Id.* § 242.600(b)(6).

other differences between IEX's and Cboe's proposals are enough to distinguish them from each other.

<sup>&</sup>lt;sup>7</sup> Citadel says that the SEC has contradicted its statement in the Cboe decision that "a market participant's ability to . . . alter its trading strategies in response to" a proposed speedbump "does not, by itself, demonstrate that the proposal would not permit unfair discrimination." Cboe EDGA Exchange, Inc.; Order Disapproving Proposed Rule Change to Introduce a Liquidity Provider Protection Delay Mechanism on EDGA, Exchange Act. Release No. 34-88261, 85 Fed. Reg. 11426, 11,435 (Feb. 27, 2020). Here, though, the SEC did not determine that traders' abilities to route orders so as not to turn on IEX's crumbling quote indicator was "by itself" sufficient to assuage discrimination concerns. Traders' abilities to use smart routing strategies was just one factor, along with the SEC's determination that the crumbling quote indicator narrowly targets latency arbitrage.

The SEC determined that D-Limit orders can qualify as protected quotations because they execute immediately and automatically. Order Approving D-Limit, 85 Fed. Reg. at 54,447. Citadel argues that this conclusion was arbitrary and capricious.

## We again disagree.

To begin, the SEC concluded that every part of a D-Limit order's operation is automatic, and Citadel offers no serious reason to question the reasonableness of that conclusion. IEX's process involves no manual discretion. Instead, during the 0.007% of the day that the crumbling quote indicator is on, D-Limit orders re-price according to a publicly available formula and then execute if able. *Id.* at 54,445.

Citadel's immediacy argument is more plausible but ultimately unpersuasive. In 2016, the SEC interpreted Regulation NMS's immediacy requirement to allow for "an intentional access delay that is de minimis — i.e., a delay so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations." Commission Interpretation Regarding Automated Quotations Under Regulation NMS, Exchange Act Release No. 34-78102, 81 Fed. Reg. 40,785, 40,792 (June 23, 2016). The SEC then applied that interpretation here to determine that the D-Limit order executes immediately. Order Approving D-Limit, 85 Fed. Reg. at 54,447.

In both normal and legal parlance, the word "immediate" means "[o]ccurring without delay." *Immediate*, Black's Law Dictionary (8th ed. 2004). But as the SEC reasonably found, an order can be executed "immediately" even if it is subject to a de minimis delay. *Cf. Wisconsin Department of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 231 (1992) ("the

venerable maxim de minimis non curat lex ('the law cares not for trifles') is part of the established background of legal principles against which all enactments are adopted, and which all enactments (absent contrary indication) are deemed to accept"). Something is "de minimis" if it is "[t]rifling" or "so insignificant that a court may overlook it in deciding an issue or case." De minimis, Black's Law Dictionary (8th ed. 2004). To spin off an example put forth by Citadel's counsel at oral argument, imagine a mother tells her daughter, Annie, to clean her room "immediately." If Annie picks up a book and reads it before cleaning her room, then she disobeys her mother's command. But if Annie instead just blinks her eyes once more than necessary before starting to clean, she does not violate that command because her delay is de minimis. conclusion that mere de minimis delays do not cause an order to violate Regulation NMS's immediacy requirement was therefore reasonable.

Now, what's trifling or insignificant in one context might be major in another, especially when talking about something like a delay. For instance, a one-second delay during a cruise across the Atlantic may be de minimis, but a one-second delay during a 100-yard dash is enormous. *Compare* 16 U.S.C. § 1854(a)(5) ("For purposes of this subsection and subsection (b), the term 'immediately' means on or before the 5th day after the day on which a Council transmits to the Secretary a fishery management plan"), with 7 C.F.R. § 65.180 ("Imported for immediate slaughter means . . . consignment directly from the port of entry to a recognized slaughtering establishment and slaughtered within 2 weeks from the date of entry.").

In approving IEX's D-Limit order type — displayed orders subject to the speedbump and the crumbling quote indicator — the SEC reasonably applied its established interpretation of Regulation NMS. It found that D-Limit orders

execute "immediately" because they are subject to only a de minimis delay that does "not frustrate the purposes of Rule 611 by impairing fair and efficient access to IEX's quotation[s]." Order Approving D-Limit, 85 Fed. Reg. at 54,441, 54,447. Given the record before us, we see no reason to disrupt the SEC's decision.

Consider first the length of the delay: a mere 350 microseconds — or approximately eleven times as fast as Annie's blink. Consider next that a D-Limit order's delay is similar to the delay that traders' communications already experience when traveling between various other exchanges across the country. In essence, IEX just operates as though it's thirty-eight miles farther from the traders than it actually is. *Id.* at 54,441. Finally, as the SEC pointed out, IEX "is not introducing any new delay or modifying its speed bump in connection with D-Limit orders." Id. at 54,447. D-Limit orders will take no longer to execute than other orders that execute "immediately" on IEX despite having to traverse the speedbump, which predates the advent of IEX's D-Limit order. Taking those considerations together, we conclude that the SEC's determination that the D-limit orders are subject to nothing more than a de minimis delay was not arbitrary and capricious.

In response, Citadel makes three points.

First, Citadel argues that even if D-Limit orders should ultimately qualify as protected quotations, the SEC failed to adequately explain its decision. We agree that the SEC was curt with its explanation in a section labeled "Automated Quotes and Rule 611." *Id.* But that section refers to Section III.A of the same order, in which the SEC fully explained that D-Limit orders execute immediately and automatically. The SEC also pointed back to the SEC's 2016 interpretive rule,

permitting exchanges to impose a de minimis delay on incoming communications. Because of those cross references, the SEC adequately explained its decision.

Second, Citadel argues that because the delay that IEX imposes on D-Limit orders is intentional, D-Limit orders do not execute immediately, no matter how small the delay is. But "immediately" describes a matter of time, not intent. An exchange without *any* intent to delay orders could nonetheless fail to offer immediate order execution through something like inadvertent computer glitches. (Likewise, Annie could get sick and fail to immediately clean her room; no matter how excusable or unintentional that delay may have been, she didn't clean the room immediately.) And on the flip side, an exchange with *every* intent of delaying communications to its exchange still offers immediate execution if the delay it imposes is so small that it fails to impede fair and efficient market access (much like Annie's eye blink did not delay her cleaning, no matter how intentional the blink may have been).

Third, Citadel argues that the delay for the D-Limit is not de minimis because it has a substantial effect on the market — it thwarts 24% of trades for displayed liquidity (as the SEC stated over and over again). But those affected trades aren't a normal part of the market. The SEC reasonably determined that those trades, by and large, involve latency arbitrage tactics that actually harm the market. Order Approving D-Limit, 85 Fed. Reg. at 54,451. Under that view, they are less like an actual trade than a surcharge imposed on market participants by short-term investors. So regardless of how many trades the D-Limit order may affect, the SEC still reasonably concluded that it will not hinder fair and efficient market access. Instead, it will help the market by combating latency arbitrage.

\* \* \*

Because substantial evidence supported the SEC's findings and because the SEC's conclusions were reasonable and reasonably explained, we deny Citadel's petition for review.

So ordered.