September 12, 2022

Vanessa Countryman, Secretary
Securities and Exchange Commission
100 F Street NE
Washington DC

Re: Release No. 34-95546, File No. SR-CboeBZX-2022-044, Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Introduce a New Data Product to be Known as the Short Volume Report; Release No. 34-95548, File No. SR-CboeBYX-2022-019, Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Introduce a New Data Product to be Known as the Short Volume Report; Release No. 34-95552, File No. SR-CboeEDGA-2022-011, Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Introduce a New Data Product to be Known as the Short Volume Report; Release No. 34-95551, File No. SR-CboeEDGX-2022-036, Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Introduce a New Data Product to be Known as the Short Volume Report (collectively, "Filings")

Dear Ms. Countryman:

Thank you for the chance to comment on the Filings.

Happy rule filings are all alike; every unhappy rule filing is unhappy in its own way. We've had some unhappy rule filings from Cboe BYX, Cboe BZX, Cboe EDGA, and Cboe EDGX (collectively, "Cboe Equities") as they've tried to sell regulatory data to high frequency trading firms. The data should be confidential and used only for regulatory purposes, but Cboe Equities has been trying to sell it since last year.

These exchanges originally filed in June 2021 to do just that with a set of intraday data feeds. The data feeds would have summarized trading activity by sale type, capacity, and other identifying fields every ten minutes during the trading day (Releases 34-92147, 34-92148, 34-92149, 34-92151, and my related comment, collectively "Unhappy 1").[1] I wrote a comment letter saying why I believed the SEC should turn them down.

To start, the rule filings were poorly drafted and confusing, and I believed they were an exchange subsidy targeted to benefit professional traders. Cboe Equities called these professionals "active equities trading firms" and said the data feeds would help these firms develop trading models. The data would give them "comprehensive insight" into trading on the exchanges. I noted that all that, of course, would help them make more money. All that money, of course, would come from whoever they traded against, including retail and institutional investors. Cboe Equities would have pocketed at least some of that value if the feeds brought more business to Cboe Equities and, of course, from whatever fees it charged for them.

Much more important, I noted that sale type and capacity were long-standing regulatory constructs required by federal regulations and intended solely to protect listed companies and investors from market abuses - they were never intended to help professionals make more money when they traded against those investors. I believed this data should stay confidential just as it had been, with very few carefully crafted exceptions, for decades. Selling the data in this way was, simply enough, shocking.

And so I described the proposals as a "brazen attempt to sell regulatory data" and wondered whether they were in plain defiance of Cboe's historic 2013 settlement with the SEC (Release 34-69726). In that settlement the SEC said the company at the time had "failed to fulfill its fundamental responsibilities as an SRO and exchange" and that its failures "cut across all aspects of its regulatory, business and exchange operations." The SEC also fined the company millions of dollars, imposed a variety of conditions and undertakings, and instructed the company to keep regulatory data confidential and separate from

[1] For example see https://www.sec.gov
/rules/sro/cboebyx/cboebyxarchive/cboebyxarchive2021.htm#SR-CboeBYX-2021-013.

commercial interests. After I submitted my comment about the intraday feeds, Cboe Equities promptly withdrew its proposals, which I saw as an excited utterance conceding my objections to them.

I've met many officials at many exchanges over the years, from salespeople to operations desk personnel to product managers to market structure gurus, economists, technologists, exchange executives, regulatory executives, directors, and more. Never, not once, in any setting, has any one of them ever said to me "You know what we need to do to protect investors and the public interest? We need to broadcast regulatory data to high frequency trading firms." But that's what Cboe Equities wanted to do, and the exchanges all said "to protect investors and the public interest" was a reason why. Where did this shameful idea come from?

We'll likely never know. We do know that Cboe Equities filed another set of proposals in December 2021, this time for an end-of-day short sale data feed (Releases 34-93688, 34-93689, 34-93694, 34-93696, and related comments, collectively "Unhappy 2").[2] These proposals were also poorly drafted and confusing. They included what I thought were undefined idiosyncratic terms and made at least one materially inaccurate claim about a New York Stock Exchange product. That claim was particularly baffling because Cboe Equities cited it as an important precedent for its proposals, yet apparently didn't bother to check its facts. The SEC initiated proceedings (Releases 34-94367, 34-94373, 34-94369, and 34-94372). Next, Cboe Equities filed amendments (Releases 34-94782, 34-94783, 34-94787, 34-94788, and related comments, collectively "Unhappy Amendments").[3] These amendments also made at least one materially inaccurate claim, this time about core Securities Industry Processor ("SIP") products Cboe Equities cited as an important precedent. That claim was even more baffling because Cboe Equities provides data to, helps operate, and makes millions from the very same SIPs and the very same products. Time passed. Cboe Equities withdrew. More time passed. In what might or might not be a coda to all this Cboe Equities submitted the instant Filings, a collection of "me too" effective on filing data feeds Cboe Equities says are little or no different from what other exchanges already provide.

You can be forgiven if you come away from all this wondering what kind of dysfunctional festival Cboe Equities entertains in its offices. You can be forgiven if you wonder about controls at Cboe Equities or what on earth its regulatory oversight committee does. I wondered about all that after Cboe EDGA filed for a discriminatory speed bump on its exchange in 2019, a feature I estimated could be a billion dollar subsidy for high frequency traders. The exchange justified the speed bump because, as I argued at the time, Cboe EDGA seemed to believe its market makers were trying to cancel orders they knew had already traded (see Releases 34-86168 and 34-87096 and related comments; see also Release 34-88261, the SEC's disapproval order). That was a paradox. It was also a tell. It told me Cboe EDGA needed to put its big boy pants on and write better rule filings.

Website data

In what is now close to a year and a half of filings, withdrawals, new filings, and new withdrawals, we're still left with an open matter from the defunct Unhappy Amendments. Cboe Equities revealed in the amendments that it already publishes short sale regulatory data on its website, every day after the close, showing in detail each and every short and short exempt trade on Cboe Equities for the day just ended, and available for free. Despite publishing this data for years, perhaps since 2015 or even earlier, as far as I can tell Cboe Equities never before filed to announce these data feeds and never issued notices about them ("Double Secret Feeds"). As of today Cboe Equities still publishes this data every trade day. So far as I know no other U.S. exchange has ever done it.

The Filings here include a footnote that "short sale information that is available free of charge on the Cboe website will continue to be publicly available upon approval of this proposal," which could suggest the SEC's Division of Trading and Markets is fine with Cboe Equities distributing the Double Secret Feeds

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[2] For example see https://www.sec.gov/rules/sro/cboebyx/cboebyxarchive/cboebyxarchive2021.htm#SR-CboeBYX-2021-028.

[3] For example see https://www.sec.gov/rules/sro/cboebyx/2022/34-94787.pdf.

every day and without it otherwise filing for approval. But under what authority have these exchanges distributed this data for years? If the SEC is turning a blind eye to it, it's a shameful fact the SEC apparently expects the public to just suck up and digest.

It's shameful because I can't imagine any reason to publish this highly detailed data every day except to help high frequency and other professional traders make more money at the public's expense. In the past, the SEC wasn't able to imagine it either. In 2014 the SEC's Division of Economic and Risk Analysis (DERA) issued a report on short sale disclosures.[4] The report was mandated by Congress and specifically addressed whether short sale trade-by-trade data should be disclosed on a more timely basis than it was at the time. DERA ultimately concluded that disclosing trade-by-trade short sale data only at the end of the month, which is what it understood was current practice in 2014, shouldn't change. DERA had several concerns about more timely disclosure, in particular, real-time disclosure. These concerns easily apply to the end-of-day trade-by-trade data Cboe Equities publishes on its website.

Would the data help retail investors? DERA wrote "Retail investors, in particular, would be even less likely than other market participants to directly analyze" trade-by-trade data. How about issuers? DERA "believes, along with most of the issuers with which it met, that issuers would be unlikely" to use trade-by-trade data and would instead rely on regulators to process it. Academics? DERA wrote that researchers will be just fine with data delivered on a "reasonable delay." Institutional investors? "Many market participants, with the possible exception of HFTs and other entities with sufficient resources to devote to the analysis of the data, would be unable to directly analyze these large data sets in a meaningful way." So who benefits from all this data? DERA wrote "Large professional market participants, such as HFTs or algorithmic traders, might learn relatively quickly how to best interpret the information from [the data]. Their trading would therefore likely correctly interpret the information." How would they benefit? "Professional traders, particularly HFTs or other algorithmic traders, might seek to profit by developing trading strategies based on signals" from it. DERA speculated that could improve price efficiency but could also degrade it, and worried whether the data "could increase the effectiveness of short selling manipulation techniques because it could render coordination easier and manipulative short selling strategies more profitable."

Cboe Equities has been admirably frank about who might benefit from this kind of data, writing in Unhappy 1 that it would help market participants, what Cboe Equities said were active equity trading firms, "make better trading decisions throughout the day" and "create and test trading models" and get "comprehensive insight into trading" on the exchanges. Cboe Equities wrote in Unhappy 2 that even the summary end-of-day short sale data it proposed there would "promote better informed trading" and "identify the source of selling pressure and whether it is long or short." We're still waiting for Cboe Equities to credibly explain exactly how any of this benefits retail participants like Mrs. Betty Johanssen of Red Lake, Minnesota, or public companies, or institutional investors, or market quality.

More specifically, Cboe Equities should tell us what it expects active equity trading firms to do if they discover "the source of selling pressure and whether it is long or short" and how this insight will protect investors and the public interest. We can speculate about it while we wait. If they're high frequency market makers, depending on their trading models and what they learn from the data, these active equity trading firms might be much quicker to fade their bids, post wider spreads, and post thinner quotes. If they're directional high frequency or algorithmic traders, depending on their trading models, they might be much quicker to pile on, accelerating volatility, as they try to time go-along selling and reversals. Disclosing more timely information about short sales might not only exacerbate price declines, then, but as pointed out long ago in the SEC's 2009 roundtable on short selling, it could also result in the "technical driving up of share prices through short squeezes."[5] Rest assured all these firms will have no objective other than their own profits. There's no reason to fault them for that here, they have no responsibility except their own lawfully won profits driving them. Cboe Equities has many other responsibilities, and

[4] "Short Sale Position and Transaction Reporting," Division of Economic and Risk Analysis, June 5, 2014 ("DERA Report").
[5] "Securities Lending and Short Sale Roundtable," September 30, 2009.

pumping "active equities trading firm" profits to the detriment of market quality, price continuity, public companies, and investors is not one of them.

In that 2009 roundtable, which discussed at length short sale disclosure, the Chair of the SEC said the SEC would examine "the issue of short selling regulation and ensure that any future policies in this area are the result of a deliberate and thoughtful process." So far as I can tell there hasn't been any deliberate or thoughtful process at all about what Cboe Equities is doing on its website. It's not clear Cboe Equities legal and regulatory officials or the SEC even knew about that data until recently.[6] The SEC should not let a deliberate and thoughtful process it once promised the country shrivel into a footnote.

Material operations

Material features of exchange operations require 19b filings. The Double Secret Feeds are obviously material. If filings exist, I can't find them and Cboe Equities hasn't cited them despite their compelling relevance to Unhappy 1, Unhappy 2, and the Unhappy Amendments. At the very least the products Cboe Equities has proposed since December 2021 can be quickly derived from the Double Secret Feeds. I have to imagine that instead of withdrawing these proposals Cboe Equities could have gone along happily with them if the SEC had reviewed and approved the Double Secret Feeds in the first place. And so it's a mystery why, on the one hand, Cboe Equities has repeatedly filed 19b-4s to sell summary extracts of this data, but on the other it has apparently never bothered to file for publishing the data itself.

Let's try to solve the mystery. Maybe it's because Cboe Equities wanted to charge for the extracts but gives the Double Secret Feeds away. Even though the Double Secret Feeds contain regulatory data required by Reg SHO, entrusted to Cboe Equities only to meet its responsibilities under the Exchange Act, can exchanges give it away whenever they want to? Is regulatory data material to exchange operations only when it has a price tag? That would be a remarkable outcome.

Of course, there are lots of ways to profit from data besides price tags. DERA wrote in its report that "the Division believes that the [trade] data is precise enough to be informative." Delivered at end-of-day, though, is the data informative for the next day's trading? The SEC once thought so, which is why in 2009 when the SEC asked exchanges to disclose short sale trades it ensured the data was as much as a month old before it was published. When the SEC had the industry publish short sale trade data during the Reg SHO Pilot in 2005, everyone believed the data was so sensitive it should be as much as two months old before it was disclosed. Cboe Equities also clearly believes the data is informative for the next day's trading. It would never have imagined it could sell summary extracts from the data if it wasn't. It even says so, believing the extracts it has proposed would "promote better informed trading."

Since the data can be informative for the next day's trading, the Double Secret Feeds are then surely an inducement to trade on Cboe Equities. Data is a currency. The Double Secret Feeds are a kind of payment for order flow or soft dollar arrangement, using regulatory information as currency, though the conflict of interest in this version of these arrangements is within the four walls of an exchange. The government vigorously enforces short sale marking regulations to create the data. The regulatory side of an exchange uses the data to fulfill its duties at the government's direction. The commercial side of an exchange knows the data's value to its largest customers.

We can only imagine whether and how Cboe Equities manages this conflict. But we know when you're a buyer on Cboe Equities, before the next day's trading you can scoop up the Double Secret Feeds and find out if your sellers were long or short, and if short you can likely infer whether a seller was informed or uninformed. When you're a seller on Cboe Equities you can find out the same sort of details about anyone selling ahead of, after, or alongside you. If you're an opportunistic trader you can analyze the Double Secret Feeds looking for anomalies and tee up strategies to take advantage of them on the same exchanges where you found those anomalies. So no matter what kind of "large professional market participant" you might be, the Double Secret Feeds are a good reason to do business with Cboe Equities. That inducement sure sounds like a material aspect of its operations.

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[6] See letter from R.T. Leuchtkafer to Vanessa Countryman, Secretary, SEC, May 19, 2022.

If Cboe Equities and the SEC now believe this data exhausts its privilege and regulatory character at the end of a trading day, or if they believe the Double Secret Feeds have any meaningful purposes other than to attract high frequency trading firms to Cboe Equities, they should explain all this so the public knows the game. Cboe Equities should have to explain it in a filing and the SEC should explain it in its approval. In the meantime, the SEC should stop these feeds.

Rigged

It can't be said enough. Short sale indicators are confidential regulatory data. The SEC requires firms to create the data, and exchanges to collect it, only to protect the public from potentially manipulative or abusive short selling. After studying the data, in 2014 DERA concluded that the data is informative - in other words, the data can predict price movements. DERA also concluded that trade-by-trade data was useless to public companies, most institutional investors, and to retail investors like Mrs. Betty Johanssen, but that it might be very useful to large professional market participants like high frequency trading firms. DERA wrote that "Professional traders, particularly HFTs or other algorithmic traders, might seek to profit by developing trading strategies based on signals" from it, and worried whether the data "could increase the effectiveness of short selling manipulation techniques because it could render coordination easier and manipulative short selling strategies more profitable." DERA also wrote short sale indicators "are used for regulatory purposes," in case there was any doubt.

In the last 20 years the SEC has allowed disclosure of detailed short sale trade data just twice that I know of, and both times the SEC and the industry believed it was sensitive enough it could be disclosed only after delays of as much as two months and with compelling public interests in mind - first for the Reg SHO Pilot and then in the immediate aftermath of the 2008 financial crisis. But today we see an exchange group with a miserable history of regulatory failures and favoritism[7] publishing the data every day. I can't imagine why but to induce high frequency trading firms to bring their business to its markets.

When Michael Lewis published "Flash Boys," his book about the industry, he famously said he believed the stock market was rigged. During a CNBC panel that year Brad Katsuyama, CEO of IEX and one of Lewis's protagonists, told the then president of the company that owned the EDGA, EDGX, BYX, and BZX exchanges at the time, "I believe the markets are rigged. And I also think that you're part of the rigging." Lewis himself would later write in an afterword to the paperback edition of "Flash Boys" that "[T]he exchanges have a clear responsibility to protect investors - to handle investor stock market orders in the best possible way, and to create a fair marketplace. They've been paid to compromise investors' interests, while pretending to guard those interests."

I can't think of a better example than all this.

Sincerely,

R. T. Leuchtkafer

[7] See Securities and Exchange Commission, Administrative Proceeding File No. 3-16332, In the Matter of EDGA Exchange, Inc. and EDGX Exchange, Inc., Order Instituting Administrative and Cease-and-Desist Proceedings Pursuant to Sections 19(h) and 21C of the Securities Exchange Act of 1934, Making Findings, and Imposing Remedial Sanctions and a Cease-and-Desist Order, January 12, 2015 and "SEC Charges CBOE for Regulatory Failures," Press Release, Securities and Exchange Commission, June 11, 2013; see also Release 34-69726, the SEC's 2013 settlement with CBOE.