

June 25, 2021

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

Re: Release No. 34-92147, File No. SR-CboeEDGX-2021-027, Notice of Filing of a Proposed Rule Change to Introduce a New Data Product to be Known as Short Sale Volume Data; Release No. 34-92148, File No. SR-CboeBZX-2021-042, Notice of Filing of a Proposed Rule Change to Introduce a New Data Product to be Known as Short Sale Volume Data; Release No. 34-92149, File No. SR-CboeBYX-2021-013; Notice of Filing of a Proposed Rule Change to Introduce a New Data Product to be Known as Short Sale Volume Data; Release No. 34-92151, File No. SR-CboeEDGA-2021-013, Notice of Filing of a Proposed Rule Change to Introduce a New Data Product to be Known as Short Sale Volume Data; collectively ("Filings");

Dear Ms. Countryman:

Thank you for the chance to comment on the Filings. As far as I can tell, it's déjà vu all over again with Cboe. After CboeEDGA's 2019 filing for a discriminatory speed bump flopped (see Release 34-86168 and related comments), where even a proponent of the measure later criticized Cboe's lack of diligence, here we are with more lousy rule filings and more lousy subsidies for professional traders, this time in the form of a data feed. I believe the data feed described in the Filings will subsidize professional traders by facilitating information leakage. More troubling, despite long-standing Commission prohibitions on the commercialization of regulatory data and a Commission order to Cboe in 2013 to keep regulatory data confidential (see Release 34-69726), the Filings are a brazen attempt to sell regulatory data throughout the trading day.

Leakage

Let's take a look at the feed's details. The Filings claim the proposal is "similar to products" offered by NYSE and Nasdaq, and that's true if your idea of "similar" includes "completely different." For starters, while the NYSE and Nasdaq feeds are delivered at end of day, Cboe proposes to also broadcast that data in 10 minute slices throughout the day, so anyone who purchases the product can attribute incremental changes in activity to a specific timeframe while there's still time to act on that knowledge. For many stocks throughout the trading day, as I understand the Filings, that incremental activity could amount to one, two, or at most a small handful of trades, offering unprecedented visibility into trading activity in the relevant period. Combining this data with other sources of data, such as either consolidated quote and trade data or Cboe's proprietary order book data, I expect it's trivial to figure out whether a particular trade was against a displayed or undisplayed order type and know whether those orders were long or short sales and what type of participant submitted them. And then armed with that

insight into a particular trade you can go looking for apparently related trades on other markets and divine even more information.

The leakage is aggravated by the categorical variables Cboe will include on its feed, including type of sale, capacity, and a retail indicator. Cboe should specify exactly how many unique combinations of these three categories there are and should be explicit about whether each unique combination will be tracked and reported over a day's trading. Intuitively, these categories substantially increase the likelihood that for many stocks - most stocks - throughout the day there will be at most one or two trades per period per category. Shouldn't Cboe produce an analysis of this? It says it already has this data going back to 2017 so an analysis should be trivial. Stock by stock, how many categories in this feed would show just one trade in any 10 minute slice? Or two? Or none at all?

Here's a simple example. Suppose MMM traded seven times for 5,000 shares in a 10 minute period. Of those 5,000 shares two trades were long sales and five were short or short exempt. Of the shorts, one was a principal short for 500 shares, one was an agency short for 375 shares, one was a retail agency short for 200 shares, one was a principal short exempt for 700 shares, and one was a riskless principal short for 1,500 shares. If these categories are reported separately, despite Cboe's representation that all this is aggregated data, each individual short trade in the period will be easily discoverable from the so-called aggregated data feed, and from there it isn't hard at all to cross-reference those trades with other data feeds from Cboe and external markets.

As well, the Filings are confusing on the question of whether long sales are included in the data feed. On the one hand, it promises "Short Sale Volume Data" and the phrase "Short Sale Volume" is repeated throughout. On the other hand, when the Filings detail the data fields included in the feed, it explicitly notes "sell" (a long sale) as a value for the field "type of sale." So, which is it? Will long sales be included and separately split out by capacity and retail flag? If they are, the information leaked in this simple example is even more valuable.

The Filings are also confusing on whether the feed will operate during the pre-opening and after hours trading sessions. On the one hand, it says the session field could contain values for "Pre-Opening Session, Regular Trading Hours, or After Hours Trading Session." On the other it says "subscribers to the intraday product will receive the first calculation of intraday data by approximately 9:45 a.m. ET, which represents data captured from 9:30 a.m. to 9:40 a.m." Will it operate during the pre-opening and after hours sessions or not? Basic stuff.

Cboe writes that it "anticipates a wide variety of market participants" will purchase the data and in particular "active equity trading firms and academic institutions" might be interested, which is a bit like saying a wide variety of market participants from serial killers to Girl Scouts might be interested. We'll stipulate the Girl Scouts might be interested in it for a market structure merit badge, but serial killers have altogether different thirsts. In other words, I have no doubt active equity trading firms are interested in this data, will be delighted to receive it throughout the

trading day, and will pay whatever it takes to get it. About academic institutions though, unless, say, James Angel at Georgetown has opened up a high frequency trading desk, my guess is he'd be perfectly happy taking this data a day, several days, weeks, or even months after the fact, assuming Cboe makes the delayed data affordable enough (why don't we know what Cboe plans to charge?). Pointing to Girl Scouts as a reason to outfit serial killers is a novel argument, to say the least.

I'm also beginning to learn that whenever Cboe writes that its business ideas promote a "wide range" or a "wide variety" of benefits, hang on to your wallet. I'm no market structure snowflake, but after its discriminatory speed bump filing, which Cboe asserted without evidence would benefit a "wide range" of orders, these kinds of statements are triggers. To its credit, Cboe writes that "information regarding Short Sale Volume may allow a market participant to identify the source of selling pressure and whether it is long or short" and "it may provide more visibility into increasing and decreasing retail interest in a specific security" (unsaid is the inverse, whether that interest is professional or institutional), but Cboe presents those thoughts, incredibly, as benefits that it, as an SRO with vast regulatory powers and confidentiality duties, will provide for a fee. If this kind of information leakage is something the SEC wants to empower, let's not stop there. Why not let Cboe sell everything? I'd particularly like to know when an institution posts an aggressively priced, undisclosed sell order in a thinly traded stock. Whoops, never mind, with this new feed I can probably guess that on my own. Thanks, Cboe!

A final point here, which may or may not be a Cboe editing error. Cboe writes that the data feed will include date, session, symbol, trade count, buy and sell volume, type of sale, capacity, and a retail order indicator. Most of these fields are well understood, but I'm curious about "buy and sell volume." Is that simply "total volume"? Or something else? More generally, when an exchange proposes a new data feed, why aren't they required to post a definitive specification for it alongside their rule filing? The exact definition of data fields and all valid values matter enormously. And why aren't those fields - and the proposed intraday frequency - included in the rule text itself? If Cboe later decides to add fields to this feed or change its frequency, will it even have to submit a rule filing?

Regulatory Data

Short sale indicators on orders are a regulatory construct. They have no commercial meaning and no commercial utility in equity exchange matching engines except to enforce Reg SHO price restrictions. A legacy of the old short sale tick test, which was enforced throughout the trading day, they were carried forward after the general tick test was retired, and then solely for use during the infrequent times when Reg SHO price restrictions apply.

Capacity indicators on orders are also a regulatory construct. For the most part they too have no commercial meaning and no commercial utility in equity exchange matching engines. They are a legacy of the long defunct specialist markets, when, in the simplest case, agency orders were

given priority at a price over principal orders, to compensate investors for their time, place, and information disadvantages to professional traders.

Both of these fields carry useful short-term information, however, if broadcast during the trading day to "active equity trading firms." Cboe knows that and even says so when it notes its feed would be of interest to those firms. I'm left wondering then why Cboe believes it can commercialize and monetize this regulatory data. First, the Commission has been quite clear that exchanges can only use regulatory data for regulatory purposes (see for example Release 34-53128). And the Commission was also quite clear in its 2013 settlement with Cboe that it must keep regulatory data confidential and independent from the commercial interests of its participants (see Release 34-69726, p. 23). These were presented as broad responsibilities. If the Commission approves the Filings it would be a major policy change, a change deserving of a much more exhaustive review and comment process than we'll have over a rule filing. It would also mark the first time the Commission allowed regulatory data, data originally implemented to protect listed companies and investors, to be sold to "active equity trading firms," where that data could be quickly and easily used against listed companies and investors every day.

OCIE

What on earth is going on at Cboe? Taken together, the Filings and the 2019 discriminatory speed bump mess suggest to me that Cboe is keenly interested in offering implicit subsidies to professional traders, but they also suggest to me Cboe has some notable and fundamental problems to solve. Like the 2019 proposal, this proposal is confusing if not self-contradicting, and it's not at all obvious to me Cboe understands its implications. To me, the 2019 proposal suggested Cboe didn't understand basic features of the National Market System, and here the Filings suggest Cboe lacks even basic drafting skills. Much more concerning, though, I believe the Filings are an attempt to sell regulatory data to anyone who will buy it. After all this, it's clear to me the Commission needs to unleash OCIE to explore the product development and rule filing functions at Cboe. In the meantime, please say no to the Filings.

Sincerely,

R. T. Leuchtkafer