

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-101999; File No. SR-CboeBYX-2024-049)

December 19, 2024

Self-Regulatory Organizations; Cboe BYX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend its Fees Schedule Related to Physical Port Fees

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on December 18, 2024, Cboe BYX Exchange, Inc. (the “Exchange” or “BYX”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

Cboe BYX Exchange, Inc. (the “Exchange” or “BYX Equities”) proposes to amend its Fees Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange’s website (http://markets.cboe.com/us/equities/regulation/rule_filings/BYX/), at the Exchange’s Office of the Secretary, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend its fee schedule relating to physical connectivity fees.³

By way of background, a physical port is utilized by a Member or non-Member to connect to the Exchange at the data centers where the Exchange’s servers are located. The Exchange currently assesses the following physical connectivity fees for Members and non-Members on a monthly basis: \$2,500 per physical port for a 1 gigabit (“Gb”) circuit and \$7,500 per physical port for a 10 Gb circuit. The Exchange proposes to increase the monthly fee for 10 Gb physical ports from \$7,500 to \$8,500 per port. The Exchange notes the proposed fee change better enables it to continue to maintain and improve its market technology and services and also notes that the proposed fee amount, even as amended, continues to be in line with, or even lower than, amounts assessed by other exchanges for similar connections.⁴ The Exchange also notes

³ The Exchange initially filed the proposed fee changes on July 3, 2023 (SR-CboeBYX-2023-010). On September 1, 2023, the Exchange withdrew that filing and submitted SR-CboeBYX-2023-013. On September 29, 2023, the Securities and Exchange Commission issued a Suspension of and Order Instituting Proceedings to Determine whether to Approve or Disapprove a Proposed Rule Change to Amend its Fees Schedule Related to Physical Port Fees (the “OIP”) in anticipation of a possible U.S. government shutdown. On September 29, 2023, the Exchange filed the proposed fee change (SR-CboeBYX-2023-014). On October 13, 2023, the Exchange withdrew that filing and submitted SR-CboeBYX-2023-015. On December 12, 2023, Exchange filed the proposed fee change (SR-CboeBYX-2023-018). On December 12, 2023, the Exchange withdrew that filing and submitted SR-CboeBYX-2023-019. On February 9, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-006. On April 9, 2024, the Exchange withdrew that filing and submitted SR-Cboe-BYX-2024-012. On June 7, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-021. On August 29, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-032. On October 25, 2024, the Exchange withdrew that filing and submitted SR-CboeBYX-2024-039. On December 18, 2024, the Exchange withdrew that filing and submitted this filing.

⁴ See e.g., The Nasdaq Stock Market LLC (“Nasdaq”), General 8, Connectivity to the Exchange. Nasdaq and its affiliated exchanges charge a monthly fee of \$15,000 for each 10Gb Ultra fiber connection to the respective exchange, which is analogous to the Exchange’s 10Gb physical port. See also New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Chicago Inc., NYSE National, Inc. Connectivity Fee Schedule, which provides that 10 Gb LX LCN Circuits (which are analogous to the

that a single 10 Gb physical port can be used to access the Systems of the following affiliate exchanges: the Cboe BZX Exchange, Inc. (options and equities), Cboe EDGX Exchange, Inc. (options and equities platforms), Cboe EDGA Exchange, Inc., and Cboe C2 Exchange, Inc., (“Affiliate Exchanges”).⁵ Notably, only one monthly fee currently (and will continue) to apply per 10 Gb physical port regardless of how many affiliated exchanges are accessed through that one port.⁶

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the “Act”) and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.⁷ Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)⁸ requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)⁹ requirement that the rules of an exchange not be designed to

Exchange’s 10 Gb physical port) are assessed \$22,000 per month, per port.

⁵ The Affiliate Exchanges are also submitting contemporaneous identical rule filings.

⁶ The Exchange notes that conversely, other exchange groups charge separate port fees for access to separate, but affiliated, exchanges. See e.g., Securities and Exchange Release No. 99822 (March 21, 2024), 89 FR 21337 (March 27, 2024) (SR-MIAX-2024-016).

⁷ 15 U.S.C. 78f(b).

⁸ 15 U.S.C. 78f(b)(5).

⁹ Id.

permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange also believes the proposed rule change is consistent with Section 6(b)(4)¹⁰ of the Act, which requires that Exchange rules provide for the equitable allocation of reasonable dues, fees, and other charges among its Members and other persons using its facilities. This belief is based on various factors as described below.

First, the Exchange believes its proposal is reasonable as it reflects a moderate increase in physical connectivity fees for 10 Gb physical ports and its offering, even as amended, continues to be more affordable as compared to analogous physical connectivity offerings at competitor exchanges.¹¹

The Exchange also believes the current fee does not properly reflect the quality of the service and product, as fees for 10 Gb physical ports have been static in nominal terms since 2018, and therefore falling in real terms due to inflation. As a general matter, the Producer Price Index (“PPI”) is a family of indexes that measures the average change over time in selling prices received by domestic producers of goods and services. PPI measures price change from the perspective of the seller. This contrasts with other metrics, such as the Consumer Price Index (CPI), that measure price change from the purchaser's perspective.¹² About 10,000 PPIs for individual products and groups of products are tracked and released each month.¹³ PPIs are available for the output of nearly all industries in the goods-producing sectors of the U.S.

¹⁰ 15 U.S.C. 78f(b)(4).

¹¹ See e.g., The Nasdaq Stock Market LLC (“Nasdaq”), General 8, Connectivity to the Exchange. Nasdaq and its affiliated exchanges charge a monthly fee of \$15,000 for each 10Gbps Ultra fiber connection to the respective exchange, which is analogous to the Exchange’s 10Gbps physical port. See also New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Chicago Inc., NYSE National, Inc. Connectivity Fee Schedule, which provides that 10 Gbps LX LCN Circuits (which are analogous to the Exchange’s 10 Gbps physical port) are assessed \$22,000 per month, per port.

¹² See <https://www.bls.gov/ppi/overview.htm>.

¹³ Id.

economy—mining, manufacturing, agriculture, fishing, and forestry—as well as natural gas, electricity, and construction, among others. The PPI program covers approximately 69 percent of the service sector's output, as measured by revenue reported in the 2017 Economic Census.

For purposes of this proposal, the relevant industry-specific PPI is the Data Processing, hosting and related services (“Data PPI”) and more particularly the more granular service line Data Processing, Hosting and Related Services: Hosting, Active Server Pages (ASP), and Other Information Technology (IT) Infrastructure Provisioning Services.¹⁴

The Data PPI was introduced in January 2002 by the Bureau of Labor Statistics (“BLS”) as part of an ongoing effort to expand Producer Price Index coverage of the services sector of the U.S. economy and is identified as NAICS - 518210 in the North American Industry Classification System (“NAICS”).¹⁵ According to the BLS “[t]he primary output of NAICS 518210 is the provision of electronic data processing services. In the broadest sense, computer services companies help their customers efficiently use technology. The processing services market consists of vendors who use their own computer systems—often utilizing proprietary software— to process customers’ transactions and data. Price movements for the NAICS 518210 index are based on changes in the revenue received by companies that provide data processing services and price movements for the service line NAICS 518210 index are based on changes in the revenue received by companies that provide, among other things, IT infrastructure

¹⁴ Provisioning is the process of preparing, assigning, and activating IT infrastructure components, such as servers, storage, and network connectivity, according to user requirements. It is a critical part of IT operations, as it ensures that computing resources are available when needed and that they are set up and connected to work correctly.

¹⁵ See <https://www.bls.gov/ppi/overview.htm>. Among the industry-specific PPIs is for North American Industry Classification System (“NAICS”) Code 518210: “Data Processing and Related Services,” NAICS index codes categorize products and services that are common to particular industries. According to BLS, these codes “provide comparability with a wide assortment of industry-based data for other economic programs, including productivity, production, employment, wages, and earnings.”

provisioning services. Each month, companies provide net transaction prices for a specified service. The transaction is an actual contract selected by probability, where the price-determining characteristics are held constant while the service is repriced. The prices used in index calculation are the actual prices billed for the selected service contract.”¹⁶

The service (product) lines for which price indexes are available under the Data PPI are:

(1) business process management services (2) data management and storage information transformation and other services and (3) hosting ASP and other IT infrastructure provisioning services. The most apt of these industry and product specific categorizations for purposes of this present proposal to modify fees for the 10 Gb physical port fee measures inflation for the provision of data processing, hosting and related services as well as other information technology infrastructure provisioning services which BLS identifies as identified as NAICS - 5182105.¹⁷

The Exchange believes that this measure of inflation is particularly appropriate because the Exchange’s connectivity services involve hosting and providing connections to its customers' telecommunications and information technology equipment, as well as preparing, assigning, and activating IT infrastructure components, such as servers, storage, and network connectivity. The Exchange also uses its “proprietary software,” *i.e.*, its own proprietary matching engine software, to receive orders on the Exchange's proprietary trading platform as well as to collect, organize, store and report customers' transactions. In other words, the Exchange is in the business of data processing, hosting, ASP, and providing other IT infrastructure provisioning services.

The Exchange further believes the Data PPI is an appropriate measure for purposes of the proposed rule change on the basis that it is a stable metric with limited volatility, unlike other

¹⁶ See <https://www.bls.gov/ppi/factsheets/producer-price-index-for-the-data-processing-and-related-services-industry-naics-518210.htm>.

¹⁷ See <https://data.bls.gov/timeseries/PCU5182105182105>.

consumer-side inflation metrics. In fact, the Data PPI has not experienced a greater than 2.16% increase for any one calendar year period since Data PPI was introduced into the PPI in January 2002. For example, the average calendar year change from January 2002 to December 2023 was .62%, with a cumulative increase of 15.67% over this 21-year period. The Exchange believes the Data PPI is considerably less volatile than other inflation metrics such as CPI, which has had individual calendar-year increases of more than 6.5%, and a cumulative increase of over 73% over the same period.¹⁸

As noted above, the current 10 Gb physical port fee remained unchanged for six years, particularly since June 2018.¹⁹ Since its last increase over 6 years ago however, there has been notable inflation, including under the industry- and product-specific PPI, which as described above is a tailored measure of inflation. Particularly, the Hosting, ASP and other IT Infrastructure Provisioning Services inflation measure had a starting value of 102.2 in June 2018 (the month the Exchange started assessing the current fee) and an ending value of 115.66 in November 2024, representing an 13% increase.²⁰ This indicates that companies who are also in the hosting ASP and other IT infrastructure provisioning services have generally increased prices for a specified service covered under NAICS 5182105 by an average of 13% during this period.

The Exchange also believes that it is reasonable to increase its fees to compensate for inflation because, over time, inflation has degraded the value of each dollar that the Exchange collects in fees, such that the real revenue collected today is considerably less than that same revenue collected in 2018. The impact of this inflationary effect is also independent of any

¹⁸ See <https://www.usinflationcalculator.com/inflation/consumer-price-index-and-annual-percent-changes-from-1913-to-2008/>.

¹⁹ See Securities and Exchange Release No. 83441 (June 14, 2018), 83 FR 28684 (June 20, 2018) (SR-CboeBYX-2018-006).

²⁰ See <https://data.bls.gov/timeseries/PCU5182105182105>.

change in the Exchange's costs in providing its goods and services. The Exchange therefore believes that it is reasonable for it to offset, in part, this erosion in the value of the revenues it collects. Additionally, the Exchange historically does not increase fees every year notwithstanding inflation. Other exchanges have also filed for increases in certain fees, based in part on comparisons to inflation.²¹ Accordingly, based on the above-described percentage change based on an industry- and product-specific inflationary measure, and in conjunction with the rationale further described above and below, the Exchange believes the proposed fee increase is reasonable.

Next, the Exchange believes significant investments into, and enhanced performance of, the Exchange, in the years following the last 10 Gb physical port fee increase support the reasonableness of the proposed fee increase. These investments enhanced the quality of its services, as measured by, among other things, increased throughput and faster processing speeds. Customers have therefore greatly benefitted from these investments, while the Exchange's ability to recoup its investments has been hampered.

For example, the Exchange and its affiliated exchanges recently launched a multi-year initiative to improve Cboe Exchange Platform performance and capacity requirements to increase competitiveness, support growth and advance a consistent world class platform. The goal of the project, among other things, is to provide faster and more consistent order handling and matching performance for options, while ensuring quicker processing time and supporting increasing volumes and capacity needs. For example, the Exchange recently performed switch hardware upgrades. Particularly, the Exchange replaced existing customer access switches with

²¹ See, e.g., Securities Exchange Act Release Nos. 34-100994 (September 10, 2024), 89 FR 75612 (September 16, 2024) (SR-NYSEARCA-2024-79).

newer models, which the Exchange believes resulted in increased determinism. The recent switch upgrades also increased the Exchange's capacity to accommodate more physical ports by nearly 50%. Network bandwidth was also increased nearly two-fold as a result of the upgrades, which among other things, can lead to reduce message queuing. The Exchange also believes these newer models result in less natural variance in the processing of messages. The Exchange notes that it incurred costs associated with purchasing and upgrading to these newer models, of which the Exchange has not otherwise passed through or offset.

As of April 1, 2024, market participants also having the option of connecting to a new data center (i.e., Secaucus NY6 Data Center ("NY6")), in addition to the current data centers at NY4 and NY5. The Exchange made NY6 available in response to customer requests in connection with their need for additional space and capacity. In order to make this space available, the Exchange expended significant resources to prepare this space, and will also incur ongoing costs with respect to maintaining this offering, including costs related to power, space, fiber, cabinets, panels, labor and maintenance of racks. The Exchange also incurred a large cost with respect to ensuring NY6 would be latency equalized, as it is for NY4 and NY5.

The Exchange also has made various other improvements since the current physical port rates were adopted in 2018. For example, the Exchange has updated its customer portal to provide more transparency with respect to firms' respective connectivity subscriptions, enabling them to better monitor, evaluate and adjust their connections based on their evolving business needs. The Exchange also performs proactive audits on a weekly basis to ensure that all customer cross connects continue to fall within allowable tolerances for Latency Equalized connections. Accordingly, the Exchange expended, and will continue to expend, resources to innovate and modernize technology so that it may benefit its Members and continue to compete

among other equities markets. The ability to continue to innovate with technology and offer new products to market participants allows the Exchange to remain competitive in the equities space which currently has 16 equities markets and potential new entrants. If the Exchange were not able to assess incrementally higher fees for its connectivity, it would effectively impact how the Exchange manages its technology and hamper the Exchange's ability to continue to invest in and fund access services in a manner that allows it to meet existing and anticipated access demands of market participants. Disapproval of fee changes such as the proposal herein, could also have the adverse effect of discouraging an exchange from improving its operations and implementing innovative technology to the benefit of market participants if it believes the Commission would later prevent that exchange from recouping costs and monetizing its operational enhancements, thus adversely impacting competition as well as the interests of market participants and investors.

Finally, the proposed fee is also the same as is concurrently being proposed for its Affiliate Exchanges. Further, Members are able to utilize a single port to connect to all of its Affiliate Exchanges and will only be charged one single fee (i.e., a market participant will only be assessed the proposed \$8,500 even if it uses that physical port to connect to the Exchange and another (or even all 6) of its Affiliate Exchanges. Particularly, the Exchange believes the proposed monthly per port fee is reasonable, equitable and not unfairly discriminatory since as the Exchange has determined to not charge multiple fees for the same port. Indeed, the Exchange notes that several ports are in fact purchased and utilized across one or more of the Exchange's affiliated Exchanges (and charged only once).

The Exchange also believes that the proposed fee change is not unfairly discriminatory because it would be assessed uniformly across all market participants that purchase the physical

ports. The Exchange believes increasing the fee for 10 Gb physical ports and charging a higher fee as compared to the 1 Gb physical port is equitable as the 1 Gb physical port is 1/10th the size of the 10 Gb physical port and therefore does not offer access to many of the products and services offered by the Exchange (e.g., ability to receive certain market data products). Thus, the value of the 1 Gb alternative is lower than the value of the 10 Gb alternative, when measured based on the type of Exchange access it offers. Moreover, market participants that purchase 10 Gb physical ports utilize the most bandwidth and therefore consume the most resources from the network. The Exchange also anticipates that firms that utilize 10 Gb ports will benefit the most from the Exchange's investment in offering NY6 as the Exchange anticipates there will be much higher quantities of 10 Gb physical ports connecting from NY6 as compared to 1 Gb ports. Indeed, the Exchange notes that 10 Gb physical ports account for approximately 90% of physical ports across the NY4, NY5, and NY6 data centers, and to date, 80% of new port connections in NY6 are 10 Gb ports. As such, the Exchange believes the proposed fee change for 10 Gb physical ports is reasonably and appropriately allocated.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposed fee change will not impact intramarket competition because it will apply to all similarly situated Members equally (i.e., all market participants that choose to purchase the 10 Gb physical port). Additionally, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that its proposed connectivity pricing is associated with relative usage of the various market participants. For example, market participants with modest capacity needs can continue to buy the less expensive 1 Gb physical port (which cost is not changing) or may choose to obtain access via a third-party re-seller. While pricing may be

increased for the larger capacity physical ports, such options provide far more capacity and are purchased by those that consume more resources from the network. Accordingly, the proposed connectivity fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation reflects the network resources consumed by the various size of market participants – lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pays the most.

The proposed fee change also does not impose a burden on competition or on other Self-Regulatory Organizations that is not necessary or appropriate. As described above, the Exchange evaluated its proposed fee change using objective and stable metric with limited volatility. Utilizing Data Processing PPI over a specified period of time is a reasonable means of recouping a portion of the Exchange’s investment in maintaining and enhancing the connectivity service identified above. The Exchange believes utilizing Data Processing PPI, a tailored measure of inflation, to increase certain connectivity fees to recoup the Exchange’s investment in maintaining and enhancing its services and products would not impose a burden on competition.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act²² and paragraph (f) of Rule 19b-4²³ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest,

²² 15 U.S.C. 78s(b)(3)(A).

²³ 17 CFR 240.19b-4(f).

for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-CboeBYX-2024-049 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to file number SR-CboeBYX-2024-049. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>).

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be

available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-CboeBYX-2024-049 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁴

Vanessa A. Countryman,
Secretary.

²⁴ 17 CFR 200.30-3(a)(12).