



**CFE Fee Schedule<sup>1</sup>**  
**Effective December 4, 2017**

1.a.	<u>Transaction Fees in Cboe Volatility Index (VX) Futures, Cboe Russell 2000 Volatility Index (VU) Futures and Cboe/CBOT 10-Year U.S. Treasury Note Volatility Index (VXTY) Futures:</u>	<u>Per Contract Side</u>
	A. CFE TPH Permit Holder <sup>2</sup>	
	1. Cboe Options trading permit holder <sup>3</sup>	\$0.90
	2. Non-Cboe Options trading permit holder	\$1.00
	B. Customer	\$1.40
	C. Day Trade <sup>4</sup>	55% of generally applicable transaction fee/No Day Trade discount for VXTY futures
	D. Block Trade <sup>5</sup> (Fee is in addition to other applicable transaction fees)	\$1.00
	E. CFE Regulatory Fee	\$0.04
1.b.	<u>Transaction Fees in S&amp;P 500 Variance Futures:</u>	
	• <u>Standard Transactions</u>	<u>By contract side per 1,000 Vega Notional</u>
	A. CFE TPH Permit Holder <sup>2</sup>	
	1. Cboe Options trading permit holder	\$4.00
	2. Non-Cboe Options trading permit holder	\$4.00
	B. Customer	\$8.00
	C. Block Trade	\$1.00
	(Fee is in addition to other applicable transaction fees. Block Trades are not permitted in stub positions in S&P 500 Variance Futures)	
	D. CFE Regulatory Fee	\$0.04
	• <u>Stub Transactions</u>	
	E. All CFE TPH Permit Holders and Customers	\$0.25 per variance unit, capped at a maximum of \$8.00 per stub transaction
	F. CFE Regulatory Fee	\$0.04 per stub transaction
1.c.	<u>Transaction Fees in Cboe Bitcoin (USD) (XBT) Futures</u>	<u>Per Contract Side</u>
	A. CFE TPH Permit Holder <sup>2</sup>	
	1. Cboe Options trading permit holder	\$0.25
	2. Non-Cboe Options trading permit holder	\$0.25
	B. Customer	\$0.50
	C. Block Trade	\$0.50
	(Fee is in addition to other applicable transaction fees)	

All CFE transaction fees in XBT Futures are waived during December 2017

CFE assesses the Transaction Fees set forth above to the Clearing Member for the execution that is identified on the trade record for the applicable transaction, regardless of whether the trade is given up to another Clearing Member for clearing and regardless of whether a different Clearing Member has been identified as the designated Clearing Member under the Integrated Billing System by the CFE TPH that executed the trade.

Transaction Fee questions may be directed to John Mavindidze at 312-786-7689 or [mavindidze@cboe.com](mailto:mavindidze@cboe.com).

**CFE Fee Schedule**  
**Effective December 4, 2017**

2.	<u>Annual Trading Permit Fees:</u> <sup>6</sup>	<u>Amount</u>
	A. Order Entry Trading Permit	\$6,000/year
	B. Quoting and Order Entry Trading Permit	\$6,000/year
3.	<u>Applications Fees:</u>	<u>Amount</u>
	A. Cboe Options trading permit holder	Waived
	B. Individual Non-Cboe Options trading permit holder <sup>7</sup>	\$500 \$1,000
	C. Organization Non-Cboe Options trading permit holder <sup>7</sup>	\$135/investigation
	D. Investigation Fee <sup>8</sup>	

Annual Trading Permit Fee and Application Fee questions may be directed to the Richard Fuller at 312-786-7835 or [fuller@cboe.com](mailto:fuller@cboe.com).

4.	<u>Market Data Connectivity Fee:</u> <sup>9, 10</sup> CFE data <sup>12</sup>	<u>Amount</u> <sup>11</sup> \$1,000/Line/month
5.	<u>Market Data Fees:</u>	<u>Amount</u>
	A. Usage Fees <sup>13</sup>	
	1. Market Data Recipient Fee <sup>14</sup>	\$2,000/year
	2. Market Data Redistribution Fee <sup>15</sup>	\$2,500/year
	3. TV Display Market Data Recipient Fee <sup>16</sup>	\$1,200/year
	B. Device/Authorized User Fees <sup>17, 18, 19, 20</sup> CFE Enhanced Market Data Fees <sup>21, 22, 23</sup>	
	1. Professional Subscribers	
	• Surface Quote	\$ 7.50/Device/Authorized User/month
	• Book Depth <sup>24</sup> (including surface quote)	\$15/Device/Authorized User/month
	2. Non-Professional Subscribers	
	• Surface Quote	\$ 1.50/Device/Authorized User/month
	• Book Depth <sup>24</sup> (including surface quote)	\$ 3.00/Device/Authorized User/month
	• Non-Professional Enterprise Rate <sup>25</sup>	\$5,000/month
	3. TV Display Feed <sup>26</sup>	\$300/Broadcast Feed/month
	4. News Service Data <sup>27</sup>	\$100/month
	C. Bulk Data Feed Fees <sup>28</sup>	
	• Per Subscriber Bulk Data Feed Rate	\$25/Data Feed/month
	• Unlimited Bulk Data Feed Rate	\$9,000/Unlimited Data Feeds/month
	D. Service Facilitator Fee <sup>29</sup>	\$2,000/year
	E. Spread Bet Contract and Contract for Difference License Fees <sup>30</sup>	
	1. Proprietary Platform License Fee	\$2,500/Product/calendar quarter
	2. White Label Service Platform License Fee <sup>31</sup>	\$1,125/Product/White Label Service Customer/calendar quarter

Data Feed Connectivity Fee and Market Data Fee questions may be directed to John Tornatore at 312-786-7715 or [tornatore@cboe.com](mailto:tornatore@cboe.com)

**CFE Fee Schedule**  
**Effective December 4, 2017**

6.	<u>CFE CBOE System Connectivity Fees:</u>	<u>Amount</u>
	A. Network Access Port <sup>32</sup>	
	• 1 gigabit per second	\$500/month
	• 10 gigabits per second	\$1,000/month
	B. Network Access Port (Disaster Recovery)	
	• 1 gigabit per second	\$250/month
	• 10 gigabits per second	\$250/month
	C. CMI Login <sup>33</sup>	\$ 600/Login/month
	D. FIX Login <sup>33</sup>	\$ 600/Login/month
7.	<u>Co-Location Fee:</u>	<u>Amount</u>
	Co-location of Equipment Fee (per “U” – 1.75 inches) <sup>34</sup>	\$50/per “U”/month
8.	<u>CFE Foreign Communications Hub Fees:</u> <sup>35</sup>	<u>Amount</u>
	A. Direct Cross-Connection	\$350/month
	B. VPN Cross-Connection	\$150/month
	C. Unicast CFE Trading Access Port	\$100/month
	D. Multicast CFE Market Data Port	\$100/month

CFE Cboe System Connectivity Fee and Co-Location Fee questions may be directed to Pete Smith at 312-786-7681 or [colobilling@cboe.com](mailto:colobilling@cboe.com)

9.	<u>Exchange Data Reports:</u>	<u>Amount</u>
	A. C Level Reports <sup>36</sup>	\$0.00 to develop and/or generate \$0.00 for daily, weekly, or monthly subscription
	B. B Level Reports <sup>37, 38</sup>	\$0.00 to develop and/or generate \$100/month for monthly subscription and \$200/month for daily or weekly subscription
	C. A Level Reports <sup>38, 39</sup>	\$100 for first 5 man-hours and \$100/hour for each additional man-hour to develop and/or generate \$100/month for monthly subscription and \$200/month for daily or weekly subscription
10.	<u>Historical CFE Market Data:</u> <sup>40</sup>	<u>Amount</u>
	A. Open High Low Close Reports <sup>41</sup>	\$5/report/month of data included in report
	B. Spot Value Reports <sup>41</sup>	\$10/report/month of data included in report
	C. Tick Data Reports <sup>41</sup>	\$50/report/month of data included in report
	B. Book Depth Reports <sup>42</sup>	\$200/report/month of data included in report
	C. Data Access through Analytical Software Platform <sup>43</sup>	\$10/hour
	D. Historical Data Redistribution Fee <sup>44</sup>	60% of redistribution revenue received

Questions regarding Exchange Data Reports and Historical CFE Market Data Reports may be directed to Alicia Goldberg at 312-786-7585 or [goldberg@cboe.com](mailto:goldberg@cboe.com)

11.	<u>Integrated Billing System:</u>
	Every Trading Privilege Holder must designate a Clearing Member for the payment by means of

**CFE Fee Schedule**  
**Effective December 4, 2017**

the integrated billing system (“IBS”) of the Trading Privilege Holder's Exchange invoices (other than for Transaction Fees) and vendor invoices for Exchange-related services designated by the Exchange. The designated Clearing Member shall pay to the Exchange on a timely basis any amount that is not disputed pursuant to IBS procedures by the Trading Privilege Holder that is directly involved. Such payments shall be collected by the Exchange against the designated Clearing Member's account at the Clearing Corporation. Exchange Transaction Fees are also assessed pursuant to the IBS to the Clearing Member for the execution that is identified on the trade record for the applicable transaction. The Clearing Corporation shall have no liability in connection with forwarding to the Exchange payments drafted pursuant to the IBS.

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<sup>1</sup> Any potential billing errors relating to fees assessed by CFE must be brought to the attention of CFE's Accounting Department within 90 days from the invoice date. All fees assessed shall be deemed final and non-refundable after 90 days from the invoice date if notice of a potential billing error is not provided within that time frame. The Exchange is not precluded from assessing fees more than 90 days after they were incurred if those fees were required to be paid pursuant to the CFE Fee Schedule in effect at the time the fees were incurred.

<sup>2</sup> A Trading Privilege Holder (“TPH”) is only eligible to receive a CFE TPH Permit Holder rate for transactions resulting from the execution of orders and quotes that are submitted through that TPH's own login(s) to CFE's trading system or that TPH's own login(s) to CFE's trading system that are established through an Independent Software Vendor. Otherwise, the TPH's transactions are subject to the Customer rate.

<sup>3</sup> This rate is also assessed to any CFE TPH Permit holder that is not a Cboe Options trading permit holder but is majority owned by a Cboe Options trading permit holder.

<sup>4</sup> In order for the Day Trade fee to be applicable with respect to transactions by or on behalf of an account of an ultimate account holder for a particular trading month in a CFE product eligible for the Day Trade fee, the ultimate account holder's account must meet the applicable monthly trading volume threshold below in that trading month:

<u>Contract</u>	<u>Monthly Trading Volume Threshold</u>
VX futures	20,000 contracts in VX futures
VU futures	10,000 contracts in VU futures

For those transactions in a product above in excess of the monthly trading volume threshold, CFE will rebate 45% of the generally applicable transaction fees that are assessed for those contract purchases and sales by or on behalf of the ultimate account holder's account that qualify as Day Trades. Transactions in S&P 500 Variance futures and VXTY futures do not qualify as Day Trades. The rebate shall occur at the end of the applicable trading month for those Day Trades that qualify for the rebate during the applicable trading month.

A Day Trade consists of two or more transactions on CFE on the same trading day in which a market participant buys and sells, or sells and buys, a particular number of contracts in a particular CFE product for a particular contract month. For example, if a market participant bought 10 December VX futures contracts and sold 10 December VX futures contracts on the same trading day, those transactions would constitute a Day Trade and would result in a rebate equal to 45% of the generally applicable transaction fee for all 20 contracts. Similarly, if a market participant sold 10 March VX futures contracts and bought 15 March VX futures contracts on the same trading day, those transactions would constitute a Day Trade with respect to the 10 contracts sold and with respect to 10 of the 15 contracts bought. In this example, the rebate would be equal to 45% of the generally applicable transaction fee for 20 of the 25 contracts.

Determination of monthly trading volume and Day Trade fee rebates are made with respect to transactions by or on behalf of the account of an ultimate account holder and transactions by or on behalf of different ultimate account holders or different accounts of the same ultimate account holder may not be aggregated for purposes of meeting the monthly trading volume threshold or receiving Day Trade fee rebates. Day Trade fee rebates are made to the Clearing

**CFE Fee Schedule**  
**Effective December 4, 2017**

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Member that is originally assessed the generally applicable transaction fees for the Day Trade transactions at the time they occur through the payment of the rebates to that Clearing Member.

In order to be eligible for the Day Trade fee, market participants are required to provide a written notification to CFE in a form and manner prescribed by CFE with the following information: (i) a request to have the Day Trade fee apply to transactions by or on their behalf, (ii) the CFE product(s) for which Day Trade fee rebates are requested, and (iii) the account(s) in which Day Trades will occur. Other than as provided in the following paragraph, the application of the Day Trade fee to a market participant for a product or account begins at the start of the next trading month following receipt of this notification by CFE. Market participants shall also provide any supplemental documentation requested by CFE to substantiate that contract purchases and sales qualify as Day Trades in order for Day Trade fee rebates to apply to those transactions. Failure to promptly provide notice of any changes to information provided to CFE for purposes of receiving Day Trade fee rebates, including account number changes and additions, and supplemental documentation requested by CFE may result in ineligibility for the applicable rebates.

In the event that a market participant's account is transferred from a Clearing Member to an affiliated Clearing Member or from a Clearing Member to an unaffiliated Clearing Member in connection with a transaction or agreement between the Clearing Members involving the transfer of accounts between the Clearing Members, the following shall be applicable: The account at the new Clearing Member will be treated as the same account as the account at the original Clearing Member for purposes of the Day Trade fee during the trading month in which the transfer occurs, provided that the market participant provides a written notification to CFE in a form and manner prescribed by CFE of the change in account prior to the end of that trading month.

<sup>5</sup> Block Trade fees for Trade at Settlement ("TAS") transactions executed as Block Trades are capped at \$500.00 per trading day for each TPH.

<sup>6</sup> The annual Trading Permit fees are assessed at the beginning of each calendar year. If a Trading Permit is obtained during a calendar year, the annual Trading Permit fee will be assessed at the prorated amount of \$500 per month for all months remaining in the calendar year and will be assessed beginning with the month in which the Trading Permit is obtained. The annual Trading Permit fees are nonrefundable, including in the event that a Trading Privilege Holder relinquishes a Trading Permit during a calendar year. If a Trading Privilege Holder relinquishes a Trading Permit during a calendar year and reinstates that Trading Permit within 30 days following the date of its relinquishment, the Trading Privilege Holder will not be required to pay an additional pro-rated annual Trading Permit fee for that Trading Permit for that calendar year. A Pool Manager may obtain a single Trading Permit for the Pool Manager and all of the Pools approved under Rule 305A for which it acts as Pool Manager. If there is more than one Pool Manager for a Pool or Pools, the Pool Managers for the Pool(s) may obtain a single Trading Permit for the Pool Managers and all of the Pools approved under Rule 305A for which they act as Pool Manager. A "Person" is a firm, corporation, limited liability company, partnership, trust or other form of entity or association, as well as an individual natural person.

<sup>7</sup> The Non-Cboe Options Trading Permit Holder application fee is not applicable if a former Trading Privilege Holder applies for reinstatement as a Trading Privilege Holder within 30 days of termination as a Trading Privilege Holder.

<sup>8</sup> This fee is assessed for each investigation that is conducted of any Trading Privilege Holder applicant; any Responsible Trader, executive officer, or authorized signatory of an applicant; and any Responsible Trader, executive officer, or authorized signatory added by an existing Trading Privilege Holder.

<sup>9</sup> Billed monthly. This fee is payable by all Trading Privilege Holders, Authorized Traders and Vendors (including Vendors that distribute only historical data) and other parties that receive CFE data through a direct connection to CFE or through a connection to CFE provided by an approved extranet service provider. A "Vendor" is a Person that distributes CFE market data externally. External distribution means transmitting data other than for internal use by (i) a party to a CFE market data agreement, (ii) that party's Affiliates, or (iii) other Persons authorized by the CFE market data agreement to use the CFE market data on behalf of that party. An approved extranet service provider is an extranet service provider that has the applicable market data agreement in place with the CFE. The Market Data Connectivity

**CFE Fee Schedule**  
**Effective December 4, 2017**

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Fee is not applicable to the receipt of CFE data through a Cboe Command Trader Graphical User Interface (GUI) terminal located on the Cboe Options trading floor.

<sup>10</sup> If a connection is through an approved extranet service provider, the provider assesses a per MB charge that is billed directly by the provider and therefore is not reflected in this Fee Schedule.

<sup>11</sup> If any monthly or quarterly fee under the CFE Fee Schedule is incurred during a month or quarter, the fee for the entire month or quarter will be billed and will not be prorated.

<sup>12</sup> If a Trading Privilege Holder, Authorized Trader, Vendor or other party receives CFE market data as well as index data (MDI) from CFE affiliate Cboe Data Shop, LLC, the fee to receive that data is \$2,000 per line per month.

<sup>13</sup> If a Usage Fee becomes applicable to a recipient of CFE market data during a calendar year, the Usage Fee will be assessed at a prorated amount for all months remaining in the calendar year as of the beginning of the month in which the Usage Fee becomes applicable. The Usage Fees are non-refundable, including in the event that a CFE market data recipient is no longer subject to the applicable Usage Fee at a later point during the calendar year.

<sup>14</sup> Billed annually. This fee is payable by a recipient that is not a Trading Privilege Holder and that receives a CFE market data feed directly from CFE for the recipient's own internal use and the internal use of its Affiliates.

<sup>15</sup> Billed annually. This fee is payable by all Vendors whether they receive a CFE market data feed directly from CFE or from another CFE Vendor. This fee covers redistribution of market data by a Vendor and its Affiliates that are authorized under a single CFE market data agreement. This fee is waived during 2016 and 2017 for any Vendor that has its principal place of business in the "Asia-Pacific Region," first began or begins to receive CFE Enhanced Market Data during the time period from January 2012 through December 2017, and did not previously receive CFE market data. (The term "Vendor" does not include an Independent Software Vendor that distributes CFE market data only to Trading Privilege Holders that have been identified by the Independent Software Vendor to CFE as receiving CFE market data from that Independent Software Vendor (a "Non-Vendor ISV") or an approved extranet service provider. The term "Asia-Pacific Region" means the following countries: Australia, People's Republic of China (including Hong Kong), Republic of China, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Pakistan, Philippines, Russia, Singapore, Thailand and Vietnam.)

<sup>16</sup> Billed annually. This fee is payable by a recipient that directly or indirectly receives from CFE a real-time or delayed CFE market data feed for display by television broadcast. The TV Display Market Data Recipient Fee is waived for entities that pay a Market Data Recipient Fee or Market Data Redistribution Fee for the same time period.

<sup>17</sup> Billed monthly. These fees are payable by each Vendor (whether receiving CFE market data directly from CFE or from another CFE Vendor) and each other Person receiving CFE market data directly from CFE, except that these fees are not payable by Non-Vendor ISVs and approved extranet service providers. These fees are based either on the number of Devices or the number of Authorized Users to which the recipient externally and/or internally distributes CFE market data, except that the Non-Professional Enterprise Rate allows for distribution to an unlimited number of Non-professional Subscribers as further described in note 25. Vendors that externally or internally distribute only delayed data are not obligated to pay these fees, and other Persons that internally distribute only delayed data are also not obligated to pay these fees. The terms "Device" and "Authorized User" are defined by the applicable CFE market data agreement and CFE market data policies.

<sup>18</sup> Device/Authorized User fees are not applicable with respect to the use of CFE market data solely for: (i) business continuity/disaster recovery purposes; (ii) network quality control and monitoring purposes; (iii) Vendor activities to facilitate redistribution of CFE market data to Subscribers (including, without limiting the generality of the foregoing, use for product development purposes and product demonstration purposes); (iv) activities of a print news publisher relating to publication of CFE market data in print news media; and (v) academic research and educational instruction purposes, other than educational instruction regarding the practical aspects of trading or preparation for futures or securities industry examinations. For Devices/Authorized Users to be eligible for any of these fee waivers, the Vendor or other Person that would otherwise be required to pay fees with respect to the Devices/Authorized Users must include

**CFE Fee Schedule**  
**Effective December 4, 2017**

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them in its regular reporting to CFE, identify them as eligible for the applicable waiver, and provide other information sufficient to enable CFE to verify that they are eligible for the waiver.

<sup>19</sup> On a one-time basis for each of its Subscribers, a Vendor may make available real-time CFE market data to each such Subscriber for a trial period of 60 days without incurring any Device/Authorized User Fees, and without being subject to any reporting requirements, in connection with doing so. A Vendor is not required to have a Subscriber Agreement in place with a Subscriber for CFE market data in order to provide the Subscriber with real-time CFE market data during the 60 day trial period referenced above.

<sup>20</sup> The reporting to CFE of Devices/Authorized Users for CFE market data is required to include in the count any Non-Display Applications. A “Non-Display Application” is an application used by a Subscriber that (i) is capable of accessing CFE market data, (ii) does not display the data in a form for direct use by a human being, and (iii) is used for purposes of generating orders and/or quotations on an automated basis. The term includes any application that is used for “black box” trading, automated trading, algorithmic trading, and/or program trading.

<sup>21</sup> CFE Enhanced Market Data is a market data service that includes surface quotes, contingency quantity for surface quotes, surface spread information, daily settlement values, end of day summary information, and index values underlying products traded on CFE (*e.g.*, Cboe Volatility Index (VIX) values). CFE Enhanced Market Data also includes the option to receive book depth information, including for spreads.

<sup>22</sup> During 2017 these fees are waived for CFE Enhanced Market Data that is distributed to any Person (including any Vendor) that has its principal place of business in the “Asia-Pacific Region” (as defined in note 15), first began or begins to receive CFE Enhanced Market Data during the time period from 2015 through 2017, and did not previously receive CFE market data. For Devices/Authorized Users to be eligible for this fee waiver, the Vendor or other Person that would otherwise be required to pay fees with respect to the Devices/Authorized Users must include them in its regular reporting to CFE, identify them as eligible for the waiver, and provide other information sufficient to enable CFE to verify that they are eligible for the waiver.

<sup>23</sup> The terms “Professional” and “Non-professional” are defined by the applicable CFE market data agreement and CFE market data policies.

<sup>24</sup> Book Depth provides the five price increments closest to the surface quote on each side of the market and includes this information for spreads.

<sup>25</sup> If a Vendor elects in a form and manner prescribed by CFE to be subject to the Non-Professional Enterprise Rate, the Non-Professional Enterprise Rate will be applicable for an unlimited number of Non-professional Subscribers instead of the Non-professional Subscriber Device/Authorized User rates. Vendor elections to be subject to the Non-Professional Enterprise Rate shall begin to apply in the month following the month in which CFE receives notice of the election. As is the case with Non-professional Subscriber Device/Authorized User rates, Vendors that elect to be subject to the Non-Professional Enterprise Rate are required to report Non-professional Subscriber Devices/Authorized Users on a monthly basis.

<sup>26</sup> Billed per broadcast feed. A broadcast feed is news programming that is produced for television viewing. The same or substantially the same broadcast feed (*i.e.*, the same or substantially similar programming content) is considered to be a single broadcast feed (for purposes of calculating fees) regardless of whether it is distributed via multiple technologies (cable, satellite, on-air, etc.) or made available on multiple television channels. For example, a national news program that is displayed daily on a number of on-air, satellite, or cable channels is a single broadcast feed; a news program that is separately produced and does not incorporate substantial portions of the national news program is a separate broadcast feed.

<sup>27</sup> The News Service Data fee is payable by a news media company for the company and its affiliates to receive real-time market data designated by CFE, and on a display-only basis to display it on one or more websites and transmit it to authorized devices of subscribers. The real time market data that may be displayed on websites and transmitted to

**CFE Fee Schedule**  
**Effective December 4, 2017**

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authorized devices of subscribers includes Cboe Volatility Index values and last sale information for either the front month or front week VX futures contract.

<sup>28</sup> A Vendor or other party that provides production or disaster recovery bulk data feeds is responsible for reporting and paying the Bulk Data Feed Fees to CFE. The Per Subscriber Bulk Data Feed Rate applies unless the Vendor has elected to pay the Unlimited Bulk Data Feed Rate. A bulk data feed is a stream of current data transmitted to a third party's computer system where the third party controls access or entitlement. Bulk Data Feed Fees are in addition to Device/Authorized User Fees and other fees applicable to Vendor-controlled data distribution. As further described in the CFE market data agreement and Policies, all Vendors must report Device/Authorized User information to CFE monthly. A list of data feed recipients must also be provided to CFE monthly unless a Vendor has elected to pay the Unlimited Bulk Data Feed Rate, in which case the Vendor is permitted to report data feed recipients bi-annually during February and August of each year.

<sup>29</sup> The Service Facilitator Fee is payable by a Vendor for each third-party service company that aids the Vendor in the sales, administration, and/or redistribution of CFE market data through the Vendor's market data service and whose services involve interaction with Subscribers and prospective Subscribers of the Vendor. The Service Facilitator Fee does not apply to a third-party service company that pays a CFE Market Data Usage Fee under Section 5A of this Fee Schedule. If the Service Facilitator Fee becomes applicable during a calendar year, the Service Facilitator Fee will be assessed at a prorated amount for all months remaining in the calendar year as of the beginning of the month in which the Service Facilitator Fee becomes applicable. The Service Facilitator Fee is non-refundable, including in the event that a Vendor terminates a Service Facilitator at a later point during the calendar year.

<sup>30</sup> Spread Bet Contract and Contract for Difference (CFD) License Fees are payable by Customers in foreign jurisdictions that obtain a license from CFE to use CFE market data to determine bid and ask values for Spread Bet Contracts and/or CFDs offered on electronic trading platforms (each a "Platform") in accordance with applicable law. For purposes of these fees, a "Product" is a Spread Bet Contract or CFD based on CFE market data offered on a Customer's proprietary Platform or White Label Service Platform (as defined in note 31). Each Spread Bet Contract or CFD listed on each Platform is a separate Product for the purpose of calculation of these fees, except that all Spread Bet Contracts or CFDs, as the case may be, on a given Platform that are based on CFE futures or options contracts on the same underlying asset or value (regardless of expiration date) are considered to be the same Product for this purpose. CFE market data is only licensed for Spread Bet Contracts and CFDs offered on proprietary Platforms and White Label Service Platforms, and the applicable license fee is determined accordingly.

The Products are not sponsored, endorsed, sold, or promoted by CFE or any of its affiliates or third party data or index licensors (together, "CFE Parties"). The CFE Parties are not responsible for and do not participate in the offering, issuance, or sale of the Products and have no obligation or liability in connection with the administration, marketing, or trading of the Products.

<sup>31</sup> The White Label Service Platform License Fee is assessed to a Customer for each of its White Label Service Platforms, per Product offered on each such White Label Service Platform. "White Label Service Platform" means a third party Platform that incorporates a generic online service that is built, owned, and operated by a the Customer. At a minimum, Customer's generic online service may consist solely of bid and ask quotations determined by the Customer.

<sup>32</sup> The Network Access Port fees are assessed for each port that provides direct access to CFE's trading system at its primary location or a foreign communications hub made available by or on behalf of CFE (subject to the fee waiver below), and the Network Access Port fee (Disaster Recovery) is assessed for each port that provides direct access to CFE's trading system at its disaster recovery site. A Network Access Port to CFE's trading system at its primary location may be either a 1 gigabit per second port or a 10 gigabit per second port and a different fee is applicable to each. A Network Access Port to CFE's trading system at its disaster recovery site may be either a 1 gigabit per second port or a 10 gigabits per second port and the same fee is applicable to each.



**CFE Fee Schedule**  
**Effective December 4, 2017**

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Separate Network Access Port fees are assessed for unicast (orders, quotes, and related messages) and multicast (market data) lines. Any party that directly connects to CFE for unicast traffic is required to have redundant unicast lines to CFE (and an associated Network Access Port for each unicast line), and any party that directly connects to CFE for multicast traffic is required to have redundant multicast lines to CFE (and an associated Network Access Port for each multicast line).

Network Access Ports may not be used to access CFE and other exchanges affiliated with CFE through the same port at CFE's primary location. Network Access Ports may be used to access CFE and other exchanges affiliated with CFE through the same port at CFE's disaster recovery site and at a foreign communications hub made available by or on behalf of CFE (at such time that access to other exchanges affiliated with CFE is available at any such foreign communications hub). Accordingly, a single Network Access Port Fee and a single Network Access Port fee (Disaster Recovery), as applicable, is assessed if one or more other exchanges affiliated with CFE are accessed through the same port that provides access to CFE at CFE's disaster recovery site or at a foreign communications hub and no additional Network Access Port fee or Network Access Port fee (Disaster Recovery) is assessed for that port.

<sup>33</sup> CMI Login and FIX Login Fees are assessed for each login that is activated and used at least once to access CFE's trading system (whether or not any trades are effectuated through that login) during a monthly billing cycle. No additional CMI Login or FIX Login Fee is assessed for a replacement login received in connection with establishing an acronym group or moving a login into an acronym group.

<sup>34</sup> The Co-Location Fee is applicable to co-location in Cboe's building and is charged in increments of 4 "U" (7 inches), which means that the minimum monthly Co-Location Fee is \$200.

<sup>35</sup> CFE Foreign Hub Fees are assessed for CFE trading access and access to CFE market data through a foreign communication hub made available by or on behalf of CFE. These fees are payable by any party with this access, including Trading Privilege Holders, Vendors, Independent Software Vendors, and extranet service providers. If a Trading Privilege Holder, Vendor, Independent Software Vendor, or other party has this access through an extranet service provider during a particular month, these fees for that month will be assessed to the Trading Privilege Holder, Vendor, Independent Software Vendor, or other party and not to the extranet service provider. These fees are billed monthly and do not include any cross-connection fees assessed by a party's host provider for a physical connection. There is also a separate \$100 port fee to receive MDI data from MDX through one of these foreign communication hubs.

<sup>36</sup> C Level Exchange Data Reports are standard reports regularly generated and run by the Exchange and made available on a daily, weekly, or monthly basis that do not require historical data generation, customization beyond a standard format (PDF, HTML, etc.) or distribution frequency (daily, weekly, monthly, etc.), or specialized development.

<sup>37</sup> B Level Exchange Data Reports are initial report requests (or enhancements to existing subscriptions) that require less than one man-hour to develop and/or generate.

<sup>38</sup> Fees will be estimated in advance, and estimates will be provided to the requester. If the estimate changes once creation of the report begins, a revised estimate will be provided to the requester.

<sup>39</sup> A Level Exchange Data Reports are initial report requests (or enhancements to existing subscriptions) that require one or more man-hours to develop and/or generate.

<sup>40</sup> CFE may provide limited amounts of CFE historical market data free of charge in connection with its promotional activities, such as direct mail campaigns, conferences, and activities intended to reach prospective market participants. A promotional historical market data set will be determined by CFE and will not include data for any CFE product that covers a time period greater than 4 months. CFE will make available its current promotional historical market data set at no charge upon request for that data set.

**CFE Fee Schedule**  
**Effective December 4, 2017**

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<sup>41</sup> Historical CFE Market Data Reports are non-customized Reports that include historical CFE market data. The Report fees for Open High Low Close, VX Spot (Index) Values, Book Depth, and VX Tick Data. Tick Data includes historical trade and surface quote data. These Reports are made available by Cboe LiveVol, LLC. See Cboe LiveVol Data Shop website at <https://datashop.cboe.com> for further information regarding the available Reports.

<sup>42</sup> Historical CFE Market Data Book Depth Reports are non-customized Reports that include historical trade and Book Depth (including surface quote) data. The Reports include this data for all CFE products and are made available by Cboe LiveVol, LLC.

<sup>43</sup> This fee is applicable to historical CFE market data made available by BMLL Technologies Limited (“BMLL”) through a BMLL online platform that includes analytical tools which may be utilized to analyze the data. BMLL acts as licensing agent for this data and collection agent for this fee. The hourly fee applies with respect to any hour or fraction of an hour during which a user of the BMLL platform performs analytical functions on or otherwise accesses CFE market data. This fee is not applicable to use of the BMLL platform during pre-production testing. BMLL may assess other charges for use of its platform that are not reflected in this Fee Schedule. CFE has no obligation or liability in connection with use of, or receipt of historical CFE market data through, the BMLL platform. See <http://www.bmlitech.com/> for further information regarding access to historical CFE market data through the BMLL platform.

<sup>44</sup> This fee is applicable to any Vendor that distributes historical CFE market data to unaffiliated third parties.