



CFE Fee Schedule^{1, 2}
Effective December 1, 2018

1.a.	<u>CFE TPH Permit Holder Transaction Fees in Cboe Volatility Index (Standard) (VX) Futures³:</u>	<u>Per Contract Side</u>
	A. CFE TPH Permit Holder	\$1.10
	B. Block Trade ⁴ (Fee is in addition to other applicable transaction fees)	\$1.00
	C. CFE Regulatory Fee	\$0.04

1.b.	<u>CFE TPH Permit Holder Transaction Fees in Weekly (Non-Standard) Cboe Volatility Index (VX) Futures⁵:</u>	<u>Per Contract Side</u>
	A. CFE TPH Permit Holder	
	1. Taker Fee ⁸	\$1.10
	2. Maker Fee ⁹	\$0.00
	B. Block Trade ⁴ (Fee is in addition to other applicable transaction fees)	\$1.00
	C. CFE Regulatory Fee	\$0.04

1.c. CFE TPH Permit Holder Rebates in Cboe Volatility Index (Standard) (VX) Futures and Weekly (Non-Standard) Cboe Volatility Index (VX) Futures⁶:

<u>Tier</u>	<u>Percentage of VX TPH Volume for Applicable Month</u>	<u>Rebate Per Contract Side</u>
1	≥ 0.25%	\$0.08 Rebate
2	≥ 0.50%	\$0.13 Rebate
3	≥ 1.00%	\$0.22 Rebate
4	≥ 2.00%	\$0.29 Rebate
5	≥ 5.00%	\$0.33 Rebate
6	≥ 10.00%	\$0.37 Rebate
7	≥ 20.00%	\$0.42 Rebate

<u>Tier</u>	<u>Average Daily VX TPH Volume for Applicable Month</u>	<u>Rebate Per Contract Side</u>
1	≥ 500	\$0.03 Rebate
2	≥ 1,000	\$0.06 Rebate
3	≥ 2,000	\$0.09 Rebate
4	≥ 5,000	\$0.12 Rebate
5	≥ 10,000	\$0.14 Rebate
6	≥ 25,000	\$0.16 Rebate
7	≥ 50,000	\$0.18 Rebate
8	≥ 100,000	\$0.20 Rebate

CFE Fee Schedule
Effective December 1, 2018

1.d. Customer Transaction Fees in Cboe Volatility Index (VX) Futures:

Per Contract Side

A. Customer

\$1.47

(This rate may be reduced for customers enrolled in the Frequent Trader Program by rebates based upon a customer's Percentage of VX Customer Volume and Average Daily Customer Volume associated with the customer's FTID as specified below)⁷

<u>Tier</u>	<u>Percentage of VX Customer Volume Associated with Customer's FTID for Applicable Month</u>	<u>Rebate Per Contract Side</u>
1	≥ 0.75%	\$0.03 Rebate
2	≥ 1.00%	\$0.06 Rebate
3	≥ 1.50%	\$0.11 Rebate
4	≥ 2.50%	\$0.14 Rebate
5	≥ 5.00%	\$0.18 Rebate

<u>Tier</u>	<u>Average Daily VX Customer Volume Associated with Customer's FTID for Applicable Month</u>	<u>Rebate Per Contract Side</u>
1	≥ 1,000	\$0.02 Rebate
2	≥ 2,000	\$0.04 Rebate
3	≥ 8,000	\$0.08 Rebate

B. Block Trade⁴

\$1.00

(Fee is in addition to other applicable transaction fees)

C. CFE Regulatory Fee

\$0.04

1.e. Transaction Fees in Cboe Russell 2000 Volatility Index (VU) Futures and Cboe/CBOT 10-Year U.S. Treasury Note Volatility Index (VXTY) Futures:

Per Contract Side

A. CFE TPH Permit Holder

\$1.10

B. Customer

\$1.40

C. Block Trade

\$1.00

(Fee is in addition to other applicable transaction fees)

D. CFE Regulatory Fee

\$0.04

1.f. Transaction Fees in S&P 500 Variance (VA) Futures:

By contract side per 1,000 Vega Notional

• Standard Transactions

A. CFE TPH 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

CFE Fee Schedule
Effective December 1, 2018

• <u>Stub Transactions</u>	
E. 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.g. <u>Transaction Fees in Cboe Bitcoin (USD) (XBT) Futures:</u>	<u>Per Contract Side</u>
A. CFE TPH Permit Holder	
1. Taker Fee ⁸	\$0.25
2. Maker Fee ⁹	\$0.00
3. Market Turner Credit ¹⁰	\$0.15 Credit
B. Customer	
1. Taker Fee ⁸	\$1.00
2. Maker Fee ⁹	\$0.80
3. Market Turner Fee ¹⁰	\$0.65
C. Block Trade	\$0.50
(Fee is in addition to other applicable transaction fees)	
1.h. <u>Transaction Fees in Cboe[®] iBoxx[®] iShares[®] Bond (CB) Index Futures*:</u>	<u>Per Contract Side</u>
A. CFE TPH Permit Holder	\$0.30
B. Customer	\$1.00
C. Block Trade	\$1.00
(Fee is in addition to other applicable transaction fees)	
D. CFE Regulatory Fee	\$0.04
*iBoxx [®] is a service mark IHS Markit Limited.	
iShares [®] is a registered trademark of BlackRock Fund Advisors and its affiliates.	

CFE assesses the Transaction Fees set forth above to the Clearing Member associated with the EFID 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.

2. <u>Trading Permit Fees:</u> ¹¹	<u>Amount</u> ¹²
A. Clearing Member	\$100/month
B. Proprietary Trading/Pool Manager/ Pooled Investment Vehicle	\$600/month
C. Retail Brokerage/Executing Brokerage	\$700/month
3. <u>Applications Fees:</u>	<u>Amount</u>
A. Individual ¹³	\$500
B. Organization ¹³	\$1,000
C. Investigation Fee ¹⁴	\$135/Investigation
4. <u>Direct Data Access Fee:</u> ¹⁵	<u>Amount</u>
CFE Data	\$2,000/Direct Source/month

CFE Fee Schedule
Effective December 1, 2018

5.	<u>Market Data Distribution Fees:</u>	<u>Amount</u>
	A. Internal Distribution ¹⁶	\$175/month
	B. External Distribution (includes Bulk Data, TV Display, News Service, and other external distribution) ¹⁷	\$225/month
	C. External Distribution – TV Display Only ¹⁸	\$100/month
6.	<u>Bulk Data Feed Distribution Fees:</u> ¹⁹	<u>Amount</u>
	A. Per Subscriber	\$50/Data Feed/Distributor/month
	B. Unlimited Subscribers	\$15,000/Unlimited Data Feeds/month
7.	<u>Device/Authorized User Fees:</u> ^{20, 21}	<u>Amount</u>
	A. CFE Surface Quote (TOP) ²²	
	1. Professional User/Device	\$ 8.00/Device/Authorized User/month
	2. Non-Professional User/Device	\$ 1.50/Device/Authorized User/month
	B. CFE Book Depth (PITCH) ²³	
	1. Professional User/Device	\$16.00/Device/Authorized User/month
	2. Non-Professional User/Device	\$ 3.00/Device/Authorized User/month
	C. Non-Professional User/Device Enterprise ²⁴	\$5,000/month
	D. TV Display Feed ²⁵	\$300/Broadcast Feed/month
	E. News Service Data ²⁶	\$100/month
	F. Service Facilitator Recipient ²⁷	\$175/month
8.	<u>Physical Port Fees:</u> ²⁸	<u>Amount</u>
	A. 1 Gb Network Access Port	\$1,500/Physical Port/month
	B. 10 Gb Network Access Port	\$2,500/Physical Port/month
9.	<u>Disaster Recovery Physical Port Fees:</u> ²⁹	<u>Amount</u>
	A. Access to CFE Only	
	1. 1 Gb Network Access Port	\$250/Physical Port/month
	2. 10 Gb Network Access Port	\$250/Physical Port/month
	B. Access to CFE and Affiliated Exchanges	
	1. 1 Gb Network Access Port	\$2,000/Physical Port/month
	2. 10 Gb Network Access Port	\$6,000/Physical Port/month
10.	<u>Logical Port Fees:</u>	<u>Amount</u>
	A. Order Entry Logical Ports	
	1. First Port	\$400/Port/month
	2. Ports 2-4	\$800/Port/month
	3. Ports 5-25	\$1,200/Port/month
	4. Ports 26 and above	\$0/Port/month
	B. Execution Drop Port	\$400/Port/month
	C. Order Drop Port	\$600/Port/month
	D. Purge Port	\$600/Port/month
	E. Spin Server Port	\$0/Port/month
	F. Gap Request (GRP) Port	\$0/Port/month
11.	<u>Co-Location Fee:</u>	<u>Amount</u>
	Co-location of Equipment Fee (per “U” – 1.75 inches) (400 S. LaSalle St.) ³⁰	\$50/per “U”/month

CFE Fee Schedule
Effective December 1, 2018

12.	<u>Other Market Data Services:</u> ³¹ A. C Level Reports ³² B. B Level Reports ^{33, 34} C. A Level Reports ^{34, 35}	<u>Amount</u> \$0.00 to develop and/or generate \$0.00 for daily, weekly, or monthly subscription \$0.00 to develop and/or generate \$100/month for monthly subscription and \$200/month for daily or weekly subscription \$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
-----	--	--

13. Integrated Billing System:
Every Trading Privilege Holder must designate a Clearing Member for the payment by means of the integrated billing system (“IBS”) of the Trading Privilege Holder’s Exchange fees designated by the Exchange (other than for Transaction Fees) and vendor fees 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.

¹ CFE fees are invoiced at the beginning of each month for the previous month of service.

² 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. Notwithstanding the foregoing, the Exchange will not provide any refund with respect to transaction fees that are billed at a higher rate because an incorrect Customer Type Indicator (“CTI”) code was included in an order or transaction report submission. 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.

³ Fees in Section 1.a. are applicable to VX futures contracts with a VX or VXT ticker symbol (“Standard VX Futures”). CFE TPH Permit Holder fees in Section 1.a. are subject to the rebate schedule in Section 1.c.

⁴ Block Trade fees for Trade at Settlement (“TAS”) transactions in VX futures executed as Block Trades are capped at \$500.00 per trading day for each TPH.

⁵ Fees in Section 1.b. are applicable to Weekly (Non-Standard) VX futures contracts with a VX or VXT ticker symbol followed by a number denoting the specific week of the calendar year in which the contract expires (“Weekly VX Futures”). CFE TPH Permit Holder fees in Section 1.b. are subject to the rebate schedule in Section 1.c.

⁶ Transaction fees for Trading Privilege Holder (“TPH”) transactions in VX futures that qualify as VX TPH Volume are subject to two rebate schedules. For this purpose, VX TPH Volume includes all TPH transaction volume in VX futures for which the applicable CTI code is 1, 2, or 3, including Trade at Settlement (“TAS”) transactions in VX futures with one of those CTI codes and Block Trades and Exchange of Contract for Related Position transactions in VX futures with one of those CTI codes. VX TPH Volume includes TPH transaction volume both in Standard VX Futures and in Weekly VX Futures. There are two potential types of rebates for VX TPH Volume. A TPH may receive both rebates, one of the two rebates, or neither of the two rebates for a particular calendar month depending on whether the TPH qualifies for neither, one, or both of the rebates for that calendar month. A TPH may qualify for the first rebate based upon VX TPH Volume of

CFE Fee Schedule
Effective December 1, 2018

the TPH during the applicable calendar month as a percentage of the total VX TPH Volume of all TPHs during the applicable calendar month. A TPH may qualify for the second rebate based upon the average daily VX TPH Volume of the TPH during the applicable calendar month. The amount of each rebate is based upon the tier level of the VX TPH Volume and the tier level of the average daily VX TPH Volume of the TPH for the applicable calendar month. Only the highest tier level within each rebate schedule for which a TPH qualifies for the applicable calendar month is applied for that calendar month. If a TPH qualifies for one or both types of rebates for a calendar month, the amount of the TPH's VX TPH Volume during the calendar month is multiplied by the sum of any applicable rebate(s) from the two rebate schedules to arrive at a total TPH VX transaction fee rebate amount for the calendar month for that TPH.

⁷ Customers may enroll in the Frequent Trader Program and receive a Frequent Trader ID ("FTID"). A customer may request more than one FTID but may not aggregate VX Customer Volume associated with multiple FTIDs for purposes of the rebate schedules under the Frequent Trader Program. Enrollment in the Frequent Trader Program takes effect starting with the business day on which the enrollment is completed if the enrollment is completed by 3:15 p.m. Chicago time on that business day. If the enrollment is completed after 3:15 p.m. Chicago time on a business day or is completed on a non-business day, the enrollment takes effect starting with the next business day. Enrollment includes providing both any enrollment information and any related consents in a form and manner prescribed by the Exchange.

A TPH acting as agent for a customer may include the customer's FTID in order, Block Trade, and Exchange of Contract for Related Position transaction submissions to the Exchange on behalf of the customer in a form and manner prescribed by the Exchange. Each customer enrolled in the Frequent Trader Program is responsible for requesting that any TPH acting as agent for the customer include the customer's FTID in order, Block Trade, and Exchange of Contract for Related Position transaction submissions to the Exchange on behalf of the customer. A TPH is not required to include a customer's FTID in these submissions on behalf of the customer but may choose to do so voluntarily. The same FTID may be used on the Exchange and for activity on Exchange affiliates that offer a Frequent Trader Program. The FTID utilized for a customer in an order, Block Trade, or Exchange of Contract for Related Position transaction submission must match exactly an FTID provided to that customer in order for the customer to receive credit for any VX Customer Volume associated with that submission. The Exchange will not accept any corrections to add FTID information for an order, Block Trade, or Exchange of Contract for Related Position transaction submission or to modify FTID information included in such a submission after the original submission is received by the Exchange.

Transaction fees for VX Customer Volume associated with a customer's FTID during the time period in which the customer is enrolled in the Frequent Trader Program are subject to two rebate schedules. For this purpose, VX Customer Volume includes all customer transaction volume in VX futures with CTI Code 4, including TAS transactions in VX futures with CTI Code 4 and Block Trades and Exchange of Contract for Related Position transactions in VX futures with CTI Code 4. VX Customer Volume includes customer transaction volume both in Standard VX Futures and in Weekly VX Futures. There are two potential types of rebates for VX Customer Volume. A customer's VX Customer Volume associated with an FTID may receive both rebates, one of the two rebates, or neither of the two rebates for a particular calendar month depending on whether the customer qualifies for neither, one, or both of the rebates for that calendar month for that FTID. A customer may qualify for the first rebate based upon VX Customer Volume associated with the customer's FTID during the applicable calendar month as a percentage of the total VX Customer Volume of all customers during the applicable calendar month. A customer may qualify for the second rebate based upon the average daily VX Customer Volume associated with the customer's FTID during the applicable calendar month. The amount of each rebate is based upon the tier level of the VX Customer Volume associated with the FTID and the tier level of the average daily VX Customer Volume associated with the FTID for the applicable calendar month. Only the highest tier level within each rebate schedule for which a customer qualifies for the applicable calendar month for an FTID is applied for that FTID for that calendar month. If a customer qualifies for one or both types of rebates for a calendar month for an FTID, the amount of the customer's VX Customer Volume associated with the customer's FTID during the calendar month is multiplied by the sum of any applicable rebate(s) from the two rebate schedules to arrive at a total customer VX transaction fee rebate amount for the calendar month for the customer's VX Customer Volume associated with the customer's FTID.

The Exchange will disburse a customer's VX transaction fee rebate amount for a calendar month to the Clearing Member(s) associated with the EFID(s) for the transactions executed with the customer's FTID (regardless of whether a trade is given up to another Clearing Member for clearing). If EFIDs for more than one Clearing Member are associated with the applicable transactions, the Exchange will disburse the customer's VX transaction fee rebate for the calendar month in

CFE Fee Schedule Effective December 1, 2018

portions to these Clearing Members. Specifically, each of these Clearing Members will receive the portion of the customer's VX transaction fee rebate attributable to the transactions associated with that Clearing Member's EFID(s) that were executed with the customer's FTID during the calendar month.

The Exchange will not publish a list or details of the customers that have an FTID. The Exchange and its affiliates may utilize for business and marketing purposes the information received by the Exchange relating to customers and their activity on the Exchange as a result of their participation in the Frequent Trader Program. Any use of this information and the treatment of this information shall be consistent with the [Cboe Privacy Notice and Policy](#).

⁸ A taker fee applies if a participant's simple order trades against a resting simple order. In the case of a Spread Order, (i) a taker fee applies if a participant's Spread Order in XBT futures trades against a resting Spread Order in XBT futures; (ii) a taker fee is the default transaction fee that applies if a participant's Spread Order with Weekly VX futures legs trades against another Spread Order with Weekly VX futures legs; and (iii) a taker fee is the default transaction fee that applies if a participant's Spread Order in VX futures or XBT futures trades against any simple orders regardless of whether or not the simple orders were resting. A taker fee is also the default transaction fee that applies with respect to (i) any order executed as part of a single price opening during a CFE System opening process conducted at any time during a Business Day, (ii) any Block Trade, and (iii) any Exchange of Contract for Related Position transaction.

⁹ A maker fee applies if a participant's simple order resting in the order book is traded against by another simple order. In the case of a Spread Order, a maker fee applies if a participant's Spread Order in XBT futures resting in the order book is traded against by another Spread Order in XBT futures. Additionally, a maker fee does not apply if the taker fee or market turner credit or fee is applicable.

¹⁰ A market turner credit or fee applies if a participant's simple order that is resting in the order book was first in time at the best price and is traded against by another order. A simple order is evaluated for market turner status upon receipt of the order by the CFE System and upon any modification to the order that causes the CFE System to re-evaluate the priority of the order (such as an increase to the quantity of the order or a change to the price of the order). If at the time of this evaluation the price of the order is better than the best price of any other orders resting in the order book on the same side of the market, the order will receive or retain market turner status. Once an order has received market turner status, that status will remain with the order for the life of the order (as long as the order is not modified in a manner that causes the CFE System to re-evaluate its priority, at which point its market turner status would be re-evaluated as well). Thus, for example, if a simple order receives market turner status at its price level and the order is not modified, the order would retain market turner status at that price level if the prevailing price on that side of the market became better than the price of the order and then moved back to the price level of the order. However, the market turner credit or fee does not apply to any Spread Orders or if the taker fee is applicable.

¹¹ A TPH shall be entitled to obtain a single Trading Permit. 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. The monthly fee for a Trading Permit is based on the capacity or capacities of the TPH on CFE. There are three categories of capacities specified in the CFE Fee Schedule. If a TPH has capacities in multiple categories, the TPH is assessed the monthly Trading Permit fee for each category. If a TPH has capacities in the same category, the monthly Trading Permit fee for that category covers all capacities in that category and the TPH is not assessed an additional monthly Trading Permit fee for that category.

¹² A monthly or quarterly fee under the CFE Fee Schedule will be prorated for the initial month or quarter in which it is applicable, with the exception of Device/Authorized User fees which are not prorated for any month in which they are applicable. A monthly or quarterly fee under the CFE Fee Schedule is not prorated for the final month or quarter in which it is applicable (unless that final month or quarter is the same as the initial month or quarter in which the fee is applicable).

¹³ A 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.

CFE Fee Schedule
Effective December 1, 2018

¹⁴ This fee is assessed for each investigation that is conducted of any Trading Privilege Holder applicant; any executive officer, authorized signatory, or administrator of an applicant; and any executive officer, authorized signatory, or administrator added by an existing Trading Privilege Holder.

¹⁵ This fee is payable by all Trading Privilege Holders 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. This fee is not payable by a party acting solely as an approved extranet service provider. This fee is charged for each direct data feed source. A direct data feed source can be either CFE physical ports or an approved extranet service provider. For example, if a party receives CFE market data directly over four physical ports where CFE is the source and separately from two physical ports provided by an approved extranet service provider, this fee is assessed twice for the applicable month for those two sources.

¹⁶ 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 or through an approved extranet service provider for the recipient's own internal use and the internal use of its affiliates.

¹⁷ This fee is payable by all Distributors whether they receive a CFE market data feed directly from CFE or from another CFE Distributor. This fee covers redistribution of real-time or delayed market data by a Distributor and its affiliates that are authorized under a single CFE market data agreement. This fee also covers any internal use that is covered by the Internal Distribution fee, and Distributors that pay the External Distribution fee are not required to pay the Internal Distribution fee for that internal use. This fee is waived through December 2018 for any Distributor that has its principal place of business in a country in the Asia-Pacific Region as designated by CFE, first began or begins to receive CFE market data during the time period from January 2012 through December 2018, and did not previously receive CFE market data. (The term "Distributor" 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-Distributor ISV") or an approved extranet service provider.)

This fee is waived for Distributors in the CFE Non-Professional Market Data Fee Waiver Program for European and Middle Eastern Retail Firms in accordance with the following provisions of the Program. A Distributor must satisfy the following requirements in order to participate in the Program: (i) the Distributor has its principal place of business in a country in Europe or the Middle East, as designated by CFE; (ii) at least 70% of the Distributor's market data subscribers are domiciled in countries in Europe and the Middle East, as designated by CFE; (iii) the Distributor has directly signed a market data agreement with CFE; and (iv) the Distributor has signed up for the Program in a form and manner prescribed by CFE. This fee is waived for the first six months after a Distributor that satisfies the above requirements signs up for the Program. The Distributor is eligible to continue to receive the waiver of this fee under the Program for any future month if the number of contracts traded on CFE during that month which are attributable to the Distributor, in a form and manner designated by CFE, exceeds 5,000 contracts. The Program will be in effect through December 2018.

¹⁸ 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 External Distribution – TV Display Only Fee is waived for parties that pay an Internal Distribution Fee or External Distribution Fee for the same time period.

¹⁹ A Distributor or other party that provides production or disaster recovery bulk data feeds is responsible for reporting and paying the Bulk Data Feed Distribution fees to CFE. The Per Subscriber rate applies unless the Distributor has elected to pay the Unlimited Subscriber 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 Distribution fees are in addition to Device/Authorized User Fees and other fees applicable to Distributor-controlled data distribution.

²⁰ These fees are payable by each Distributor (whether receiving CFE market data directly from CFE or from another CFE Distributor) and each other Person receiving CFE market data directly from CFE, except that these fees are not payable by Non-Distributor 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 User/Device Enterprise rate allows for distribution to an unlimited number of Non-Professional Users as further described in note 24. Distributors that externally or internally distribute only delayed data are not obligated to pay

CFE Fee Schedule
Effective December 1, 2018

these fees, and other Persons that internally distribute only delayed data are not obligated to pay these fees. These fees are not assessed for particular data uses as may be designated by CFE.

²¹ Device/Authorized User fees are waived through December 2018 for CFE Surface Quote (TOP) and CFE Book Depth (PITCH) data that is distributed to any Person (including any Distributor) that has its principal place of business in the “Asia-Pacific Region” as designated by CFE, first began or begins to receive CFE market data during the time period from 2015 through December 2018, and did not previously receive CFE market data. For Devices/Authorized Users to be eligible for this fee waiver, the Distributor 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.

Non-Professional User/Device fees are waived for Distributors in the CFE Non-Professional Market Data Fee Waiver Program for European and Middle Eastern Retail Firms (as described in note 17) for the first six months after a Distributor that satisfies the qualification requirements for the Program signs up for the Program. The Distributor is eligible to continue to receive the waiver of Non-Professional User/Device fees under the Program for any future month if the number of contracts traded on CFE during that month which are attributable to the Distributor, in a form and manner designated by CFE, exceeds 5,000 contracts. The Program will be in effect through December 2018.

²² CFE Surface Quote (TOP) includes top of book quotations, last sale execution information, and other CFE market data in a form and manner made available by CFE.

²³ CFE Book Depth (PITCH) includes depth of book quotations, last sale execution information, and other CFE market data in a form and manner made available by CFE.

²⁴ If a Distributor elects in a form and manner prescribed by CFE to be subject to the Non-Professional User/Device Enterprise rate, the Non-Professional User/Device Enterprise rate will be applicable for an unlimited number of Non-Professional Users instead of the Non-Professional User Device/Authorized User rates.

²⁵ 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.

²⁶ 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.

²⁷ The Service Facilitator Recipient fee is payable by a Distributor with respect to each of its Service Facilitators. The Service Facilitator fee does not apply to a third-party service company that pays a CFE Market Data Distribution fee under Section 5A, 5B, or 5C of this Fee Schedule.

²⁸ A physical port may be either a 1 gigabit per second port or a 10 gigabit per second port. Any party that directly connects to CFE is required to have a redundant physical port. These physical ports may not be used to access other exchanges affiliated with CFE through the same physical port.

²⁹ The Disaster Recovery Physical Port fees are applicable to physical ports at CFE’s disaster recovery site at 400 South LaSalle Street in Chicago and at the Cboe point of presence at 350 East Cermak Road in Chicago. These physical ports may be either a 1 gigabit per second port or a 10 gigabit per second port. These physical ports may be used to access either CFE’s disaster recovery systems only or to access CFE’s disaster recovery systems and the disaster recovery systems of the other exchanges affiliated with CFE. The Disaster Recovery Physical Port fees vary based on the type of port and the level of access.

CFE Fee Schedule
Effective December 1, 2018

³⁰ The Co-Location Fee is applicable to co-location at 400 South LaSalle Street in Chicago and is charged in increments of 4 “U” (7 inches), which means that the minimum monthly Co-Location Fee is \$200.

³¹ See the DataShop website at <https://datashop.cboe.com> for information regarding historical CFE market data made available by Cboe LiveVol, LLC and associated fees. See the Cboe website at <https://cboe.com/index/licensing-data/licensing> for information regarding derived data licensing.

³² 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.

³³ 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.

³⁴ 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.

³⁵ 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.

The iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index and the iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index (the “Indexes”) referenced herein are the property of Markit Indices Limited (“Index Sponsor”) and have been licensed for use in connection with Cboe[®] iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index Futures and Cboe[®] iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index Futures. Each party to a Cboe[®] iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index Futures or Cboe[®] iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index Futures transaction acknowledges and agrees that the transaction is not sponsored, endorsed or promoted by the Index Sponsor. The Index Sponsor makes no representation whatsoever, whether express or implied, and hereby expressly disclaims all warranties (including, without limitation, those of merchantability or fitness for a particular purpose or use), with respect to the Indexes or any data included therein or relating thereto, and in particular disclaims any warranty either as to the quality, accuracy and/or completeness of the Indexes or any data included therein, the results obtained from the use of the Indexes and/or the composition of the Indexes at any particular time on any particular date or otherwise and/or the creditworthiness of any entity, or the likelihood of the occurrence of a credit event or similar event (however defined) with respect to an obligation, in the Indexes at any particular time on any particular date or otherwise. The Index Sponsor shall not be liable (whether in negligence or otherwise) to the parties or any other person for any error in the Indexes, and the Index Sponsor is under no obligation to advise the parties or any person of any error therein.

The Index Sponsor makes no representation whatsoever, whether express or implied, as to the advisability of purchasing or selling Cboe[®] iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index Futures or Cboe[®] iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index Futures, the ability of the Indexes to track relevant markets’ performances, or otherwise relating to the Indexes or any transaction or product with respect thereto, or of assuming any risks in connection therewith. The Index Sponsor has no obligation to take the needs of any party into consideration in determining, composing or calculating the Indexes. No party purchasing or selling Cboe[®] iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index Futures or Cboe[®] iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index Futures, nor the Index Sponsor, shall have any liability to any party for any act or failure to act by the Index Sponsor in connection with the determination, adjustment, calculation or maintenance of the Indexes.

iBoxx[®] is a service mark of IHS Markit Limited.

The iBoxx[®] iShares[®] \$ High Yield Corporate Bond Index and the iBoxx[®] iShares[®] \$ Investment Grade Corporate Bond Index (the “Indexes”) and futures contracts on the Indexes (“Contracts”) are not sponsored by, or sold by BlackRock, Inc. or any of its affiliates (collectively, “BlackRock”). BlackRock makes no representation or warranty, express or implied to any person regarding the advisability of investing in securities, generally, or in the Contracts in particular. Nor does BlackRock

CFE Fee Schedule
Effective December 1, 2018

make any representation or warranty as to the ability of the Indexes to track the performance of the fixed income securities market, generally, or the performance of HYG, LQD or any subset of fixed income securities.

BlackRock has not calculated, composed or determined the constituents or weightings of the fixed income securities that comprise the Indexes (“Underlying Data”). BlackRock is not responsible for and has not participated in the determination of the prices and amounts of the Contracts, or the timing of the issuance or sale of such Contracts or in the determination or calculation of the equation by which the Contracts are to be converted into cash (if applicable). BlackRock has no obligation or liability in connection with the administration or trading of the Contracts. BlackRock does not guarantee the accuracy or the completeness of the Underlying Data and any data included therein and BlackRock shall have no liability for any errors, omissions or interruptions related thereto.

BlackRock makes no warranty, express or implied, as to results to be obtained by Markit or its affiliates, the parties to the Contracts or any other person with respect to the use of the Underlying Data or any data included therein. BlackRock makes no express or implied warranties and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the Underlying Data or any data included therein. Without limiting any of the foregoing, in no event shall BlackRock have any liability for any special, punitive, direct, indirect or consequential damages (including lost profits) resulting from the use of the Underlying Data or any data included therein, even if notified of the possibility of such damages.

iShares® is a registered trade mark of BlackRock Fund Advisors and its affiliates.