



Cboe Exchange, Inc.  
Fees Schedule - December 2, 2019

Options Transaction Fees (1)(3)(4)(7)(15)(33)(39)

Rate Table - All Products Excluding Underlying Symbol List A (34)(13)			Options Transaction Fees (1)(3)(4)(7)(15)(33)(39)									
Capacity	Products	Capacity Code	Transaction Fee Per Contract				AIM Agency/Primary (19)	AIM Contra (18)	AIM Response (20)			
			Manual		Electronic				Penny Classes	Non-Penny Classes	Penny Classes	Non-Penny Classes
Customer (2)(8)(9)	Equity Options	C	{CK} \$0.00				{CK} \$0.00					
	ETF and ETN Options		{CK} \$0.00	{CE} \$0.00 if adding liquidity {CA} \$0.18 if original order size is ≥100 contracts and removing liquidity {CD} \$0.00 if original order size is <100 contracts and removing liquidity								
	XSP		{CC} \$0.04									
	MXEA		{CM} \$0.25									{YB} \$0.07
	MXEF		{CN} \$0.25 (This fee is waived through December 31, 2019)									
	All Other Index Products		{CB} \$0.18									{YB} \$0.07
Clearing Trading Permit Holder Proprietary (11)(16)	Equity, ETF, and ETN Options and All Other Index Products	F L	{FA} \$0.20 - See Clearing Trading Permit Holder Fee Cap	{FB} \$0.43	{FC} \$0.70	{FD} \$0.20 - See Clearing Trading Permit Holder Fee Cap	{YB} \$0.07	{NB} \$0.50	{NC} \$1.05			
	Sector Indexes (47)		{FI} \$0.25									
	Facilitation (11)		{FF} \$0.00	{FI} \$0.25								
Cboe Options Market-Maker/DPM/LMM (10)	XSP	M	{MX} \$0.23				{YB} \$0.07					
	Equity, ETF, and ETN Options, Sector Indexes (47) and All Other Index Products		{MA} \$0.23 - See Liquidity Provider Sliding Scale and Liquidity Provider Sliding Scale Adjustment Table									
Broker-Dealer (16) Non-Trading Permit Holder Market Maker (16) Professional /Joint Back-Office	Equity, ETF, and ETN Options and All Other Index Products	B N U J	{BA} \$0.25 {WA} \$0.12 "U" Capacity Code Only	{BB} \$0.47	{BC} \$0.75	{BD} \$0.20	{YB} \$0.07	{NB} \$0.50	{NC} \$1.05			
	Sector Indexes (47)		{BE} \$0.40									
Complex Surcharge (35)	Equity, ETF, and ETN Options and All Other Index Products	F J L M B N U	\$0.12									
Surcharge Fee (14) Index License - DJX, MXEA and MXEF and Sector Indexes			\$0.10 (This surcharge is waived, through December 31, 2019, for Sector Indexes (47))									
FLEX Surcharge Fee (17) - DJX, MXEA, MXEF and XSP Only			CF J L M B N U				\$0.10 (capped at \$250 per trade)					
Exotic Surcharge (42)			C				\$0.25 (\$0.03 for XSP Only)					

Rate Table - Underlying Symbol List A (34) (Also applies to GTH)(37)			Options Transaction Fees (1)(3)(4)(7)(15)(33)(39)					
Capacity	Products	Capacity Code	Transaction Fee Per Contract by Premium Price			VIX Only SPX (incl SPXw) in GTH Only		
			\$0.00 - \$0.10	\$0.11 - \$0.99	\$1.00+	AIM Agency/Primary (19)	AIM Contra (18)	
Customer (2)	OEX and XEO	C	{CO} \$0.40					
	OEX Weeklys, XEO Weeklys (47)		{CP} \$0.30					
	RUT, RLG, RLV, RUI and UKXM (40)		{CR} \$0.18/ {WR} \$0.00 RLG, RLV, RUI, UKXM only					
	SPX (incl SPXW)		{CS} \$0.35	{CT} \$0.44	{CX} \$0.45			See Rates to Left
Clearing Trading Permit Holder Proprietary (11)(12)(16)(40)	VIX	F L	{CV} \$0.10					
	Underlying Symbol List A (34)		{CW} \$0.25					
Cboe Options Market-Maker/ DPM/LMM (10)(42)(43)	SPX (incl SPXW)(41)	M	{FH} \$0.25 - See Cboe Options Clearing Trading Permit Holder Proprietary Products Sliding Scales/ {WR} \$0.00 RLG, RLV, RUI, UKXM Only					
	RUT		{FK} \$0.25 - See Cboe Options Clearing Trading Permit Holder VIX Sliding Scale					
	RLG, RLV, RUI, UKXM, OEX and XEO (40)		{MS} \$0.28 - See SPX Liquidity Provider Sliding Scale/ {SC} \$0.00					
	VIX (43)(45)		{MT} \$0.30					
Joint Back-Office (45) Broker-Dealer (16)(45) Non-Trading Permit Holder Market Maker (16)(45) Professional (45)	OEX, XEO, SPX (incl SPXW) and VIX	B N U J	{MR} \$0.20/ {WR} \$0.00 RLG, RLV, RUI, UKXM only					
	RUT, RLG, RLV, RUI and UKXM (40)		{MV} \$0.05	{MW} \$0.23				See Rates to Left
Surcharge Fee (14) (Also applies to GTH)(37)	RUT	F J L M B N U	{BR} \$0.40					
	SPX (incl SPXW) (41)		\$0.45					
	OEX, RLG, RLV, RUI, UKXM, XEO and VIX (40)		\$0.16/ {SC} \$0.00					
FLEX Surcharge Fee (17)(40)			CF J L M B N U				\$0.10 (capped at \$250 per trade)	
Exotic Surcharge (42)			C				\$0.25	
Execution Surcharge (21) (Also applies to GTH)(37)	SPX Only (15)	C F J L B N U	\$0.21					
	SPXW (electronic only)		\$0.10					
Customer Priority Surcharge (31) (Also applies to GTH)(37)	VIX (Maker non-turner)	C	\$0.00				\$0.20	

Cboe Exchange, Inc.  
Fees Schedule - December 2, 2019

SPX Liquidity Provider Sliding Scale (41)(33)					
Capacity	Tier	Volume Thresholds	Capacity Code	Transaction Fee Per Contract	Notes
Cboe Options Market-Maker/LMM	1	0.00% - 1.00%	M	\$0.28	Volume thresholds are based on total Market-Maker volume in SPX and SPXW.
	2	Above 1.00% - 4.00%		\$0.26	
	3	Above 4.00% - 9.00%		\$0.24	
	4	Above 9.00% - 15.00%		\$0.22	
	5	Above 15.00%		\$0.20	

Liquidity Provider Sliding Scale (6)(10)(33)					
Capacity	Tier	Volume Thresholds	Capacity Code	Transaction Fee Per Contract	Notes
Cboe Options Market-Maker/DPM/LMM	1	0.00% - 0.05%	M	\$0.23	Volume thresholds are based on total national Market-Maker volume in all underlying symbols excluding Underlying Symbol List A (34) and XSP during the calendar month. Applies in all underlying symbols excluding Underlying Symbol List A (34) and XSP.
	2	Above 0.05% - 0.80%		\$0.17	
	3	Above 0.80% - 1.50%		\$0.10	
	4	Above 1.50% - 2.25%		\$0.05	
	5	Above 2.25%		\$0.03	

Liquidity Provider Sliding Scale Adjustment Table (6)(44)(33)							
Capacity	Performance Tier	Make Rate (% Based on Prior Month)	Capacity Code	Maker Rebate		Taker Fee	
				Penny Classes	Non-Penny Classes	Penny Classes	Non-Penny Classes
Cboe Options Market-Maker/DPM/LMM	1	0% - 50%	M	\$0.00	\$0.00	\$0.05	\$0.10
	2	Above 50% - 60%		\$0.00	\$0.00	\$0.04	\$0.07
	3	Above 60% - 75%		(\$0.01)	\$0.00	\$0.03	\$0.05
	4	Above 75% - 90%		(\$0.02)	\$0.00	\$0.00	\$0.04
	5	Above 90%		(\$0.03)	\$0.00	\$0.00	\$0.00

Volume Incentive Program (VIP)(6)(23)(36)(33)							
Capacity	Tier	Percentage Thresholds of National Customer Volume in All Underlying Symbols Excluding Underlying Symbol List A (34), Sector Indexes (47), DJX, MXEA, MXEF and XSP (Monthly)	Capacity Code	Per Contract Credit			
				Simple		Complex	
				Non-AIM	AIM	Non-AIM	AIM
Customer/Broker-Dealer/Professional/Joint Back-Office	1	0% - 0.75%	C B J U	\$0.00	\$0.00	\$0.00	\$0.00
	2	Above 0.75% - 2.00%		\$0.10	\$0.09	\$0.21	\$0.19
	3	Above 2.00% - 3.00%		\$0.12	\$0.10	\$0.24	\$0.22
	4	Above 3.00% - 4.00%		\$0.15	\$0.13	\$0.25	\$0.23
	5	Above 4.00%		\$0.15	\$0.14	\$0.25	\$0.24

**Notes**

Volume for capacity B, J and U will count towards tier qualification only. Credits on orders executed electronically in AIM will be capped at 1,000 contracts per order for simple executions and 1,000 contracts per leg for complex executions. Credits on orders executed electronically in SUM will be capped at 1,000 contracts per auction quantity. All contracts executed in AIM and all contracts executed in SUM will continue to be counted towards the percentage thresholds even if they exceed the 1,000 contract cap for VIP credits. Additionally, multiple simple orders from the same affiliated TPH(s) in the same series on the same side of the market that are executed in AIM or SUM within a 3 second period will be aggregated for purposes of determining the order quantity subject to the cap. For this aggregation, activity in AIM and SUM will be aggregated separately. The AIM aggregation timer will begin with an order entered into AIM and continue for 3 seconds, aggregating any other orders entered into AIM in the same series on the same side of the market by the same affiliated TPH. The SUM aggregation timer will begin at the start of a SUM auction and continue for 3 seconds, aggregating any other orders executed in SUM in the same series on the same side of the market for the same affiliated TPH. Any portion of the original order quantity that is executed outside of SUM will not be part of the aggregation or counted towards the 1,000 contract threshold. A TPH will only receive the Complex credit rates for Complex volume if at least 38% of that TPH's qualifying VIP volume in the previous month was comprised of Simple volume. If not, then the TPH's Customer (C) Complex volume will receive credits at the applicable Simple credit rate only.

Break-Up Credits				
Capacity	Products	Capacity Code	Per Contract Credit	
			Penny Classes	Non-Penny Classes
Customer	All Underlying Symbols Excluding Underlying Symbol List A (34), Sector Indexes (47), DJX, MXEA, MXEF and XSP	C	\$0.25	\$0.60

Break Up Credits apply to orders executed in AIM, SAM, FLEX AIM, and FLEX SAM. The Exchange will apply a Break-Up Credit to Customer Agency orders only when the Agency Order trades with a noncustomer, non-Market-Maker AIM Response (20).

Affiliate Volume Plan (AVP)(6)(23)(24)(33)					
Capacity	Capacity Code	VIP Tier Reached	MM Affiliate Access Credit	Liquidity Provider Sliding Scale Credit	Notes
Cboe Options Market-Maker/DPM/LMM (10)	M	1	0%	0%	If a Market-Maker affiliate ("affiliate" defined as having at least 75% common ownership between the two entities as reflected on each entity's Form BD, Schedule A)("Affiliate OFP") or Appointed OFP receives a credit under the Exchange's Volume Incentive Program ("VIP"), the Market-Maker will receive an access credit on their BOE Bulk Ports corresponding to the VIP tier reached. The Market-Maker will also receive a transaction fee credit on their sliding scale Market-Maker transaction fees, not including any additional surcharges or fees assessed as part of the Liquidity Provider Sliding Scale Adjustment Table.
		2	0%	10%	
		3	0%	15%	
		4	15%	30%	
		5	25%	35%	

Marketing Fee			
Capacity	Product Line	Capacity Code	Collection Per Contract
Cboe Options Market-Maker/DPM/LMM	Penny Pilot Classes	M	\$0.25
	All Other Classes		\$0.70

**Notes**  
The marketing fee will be assessed on transactions of Market-Makers (including DPMs and LMMs), resulting from customer orders at the per contract rate provided above on all classes of equity options, options on ETFs, options on ETNs and index options; except that the marketing fee shall not apply to Sector Indexes (47), DJX, MXEA, MXEF, XSP or Underlying Symbol List A (34). The fee will not apply to: Market-Maker-to-Market-Maker transactions including transactions resulting from orders from non-Trading Permit Holder market-makers; transactions resulting from penny cabinet trades and sub-penny cabinet trades; transactions in Flexible Exchange Options; transactions executed as a qualified contingent cross ("QCC") under Rule 6.53(u); and transactions in the Penny Pilot classes resulting from orders executed through the Step Up Mechanism under Rule 5.35. A DPM under Cboe Options Rule 8.80, a "Preferred Market-Maker" under Cboe Options Rule 8.13 or a "Lead Market-Maker" under Cboe Options Rule 8.15 (collectively "Preferred Market-Maker") will be given access to the marketing fee funds generated from a Preferred order. The total balance of the undispersed marketing fees for the Preferred Market-Maker/DPM pool cannot exceed \$250,000. Each month, undisbursed marketing fees in excess of \$250,000 will be reimbursed to the Market-Makers that contributed to the pool based upon a one month look back and their pro-rata portion of the entire amount of marketing fee collected during that month.

Cboe Options Clearing Trading Permit Holder Proprietary Products Sliding Scale (11)(33)(Also applies to GTH)(37)							
Capacity	Tier	Proprietary Product Volume Thresholds	Capacity Code	Transaction Fee Per Contract	Notes		
Clearing Trading Permit Holder Proprietary	≥ 25,000 ADV ≤ 69,999 ADV in all underlying symbols excluding Underlying Symbol List A (34)		F L		Clearing Trading Permit Holder Proprietary transaction fees and transaction fees for Non-Trading Permit Holder Affiliates (as defined in footnote 11) in Underlying Symbol List A (34) excluding VIX will be eligible for reduced rates using the Proprietary Products Sliding Scale. For each Clearing Trading Permit Holder, Cboe Options will assess the transaction fees calculated for all activity in Underlying Symbol List A (34) excluding VIX during a calendar month, provided a Clearing Trading Permit Holder reaches certain ADV thresholds in all underlying symbols, excluding 1) Underlying Symbol List A (34) or 2) any contracts for which a strategy cap has been applied (as defined in Footnote 13). Percentages are calculated by accounting for all volume in the respective products executed with an "F" or "L" Capacity Code, with volume in GTH aggregated with RTH volume for the same calendar month included for purposes of calculating the proprietary product volume thresholds and the reduced transaction fees per contract.		
	B3	0.00% - 6.50%				\$0.22	
	B2	6.51% - 8.50%				\$0.18	
	B1	Above 8.50%				\$0.05	
	≥ 70,000 ADV in all underlying symbols excluding Underlying Symbol List A (34)						
	A2	0.00% - 6.50%				\$0.18	
	A1	Above 6.50%				\$0.04	

Cboe Options Clearing Trading Permit Holder VIX Sliding Scale (11)(33)(Also applies to GTH)(37)						
Capacity	Tier	VIX Volume Thresholds	Capacity Code	Transaction Fee Per Contract	Notes	
Clearing Trading Permit Holder Proprietary	1	0.00% - 1.00%	F L		Clearing Trading Permit Holder Proprietary transaction fees and transaction fees for Non-Trading Permit Holder Affiliates (as defined in footnote 11) in VIX will be eligible for reduced rates using the VIX Sliding Scale. Percentages are calculated by accounting for all volume in VIX executed with an "F" or "L" Capacity Code, with volume in GTH aggregated with RTH volume for the same calendar month included for purposes of calculating the VIX volume thresholds and the reduced transaction fees per contract.	
	2	1.01% - 5.50%				\$0.25
	3	5.51% - 8.00%				\$0.15
	4	Above 8.00%				\$0.05

Cboe Exchange, Inc.  
Fees Schedule - December 2, 2019

Clearing Trading Permit Holder Fee Cap (11)(22)							
Capacity	Execution Type	Capacity Code	(F) Fee Per Contract	Does Volume Count Toward \$75,000 Fee Cap?	Count Toward Proprietary Product Sliding Scale?	(C) Volume of Paired Order Count for VIP?	Notes
Clearing Trading Permit Holder Proprietary	Electronic Penny (non-AIM)	F L	\$0.43	No	Yes	N/A	Clearing Trading Permit Holder Fee Cap Includes transaction fees assessed as part of a strategy cap (see Footnote 13). However, a Clearing Trading Permit Holder that has reached the Clearing Trading Permit Holder Fee Cap in a given month would no longer be eligible for Strategy Rebates as defined in Footnote 13.
	Electronic Non-Penny (non-AIM)		\$0.70	No	Yes	N/A	
	Open Outcry		\$0.20	Yes	Yes	No	
	QCC		\$0.17	Yes	Yes	No	
	FLEX		\$0.25	Yes	Yes	Yes	
	AIM Primary Order		\$0.20	Yes	Yes	Yes	
	AIM Facilitation Contra Order		\$0.07	Yes	Yes	Yes	
	AIM Solicitation Contra Order		\$0.07	Yes	Yes	Yes	
	Open Outcry Facilitation		\$0.00	No	Yes	No	
Open Outcry Solicitation	\$0.20	Yes	Yes	Yes	No		

Select Customer Options Reduction ("SCORE") Program (6)(48)(33)					
Capacity	Tier	Percentage of All Customer Retail Volume in Qualifying Classes	Capacity Code	Discount Per Retail Contract	Notes
	Retail Volume Percentage in Qualifying Classes between 20.00% and 69.99%				
	Qualifying Tier B				
Customer	B3	0.00% - 5.00%	C	\$0.00	The SCORE Program is for Retail, Non-FLEX Customer ("C" capacity code) volume in the following options classes: SPX (including SPXW), VIX, RUT, MXEA, MXEF & XSP ("Qualifying Classes"). The SCORE program is available to any Trading Permit Holder ("TPH") Originating Clearing Firm or non-TPH Originating Clearing Firm. For this program, an "Originating Clearing Firm", will be defined as either (a) the executing clearing OCC number on any transaction which does not also include a Clearing Member Trading Agreement ("CMTA") OCC clearing number or (b) the CMTA in the case of any transaction which does include a CMTA OCC clearing number. In order to participate, an Originating Firm must complete the SCORE Registration Form by the second to last business day of the month preceding the month in which their participation in the SCORE program will commence. The Exchange will aggregate an Originating Firm's volume with volume of their OCC clearing affiliates if such affiliates are reported to the Exchange via the SCORE Registration Form and there is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A. "Originating Firm" will refer to both an Originating Clearing Firm and any applicable affiliates.
	B2	Above 5.00% - 26.00%		\$0.04	
	B1	Above 26.00%		\$0.08	
	Retail Volume Percentage in Qualifying Classes at or above 70.00%				
	Qualifying Tier A				
	A5	0.00% - 5.00%		\$0.00	
	A4	Above 5.00% - 37.00%		\$0.08	
	A3	Above 37.00% - 41.00%		\$0.17	
	A2	Above 41.00% - 47.00%		\$0.21	
A1	Above 47.00%	\$0.25			

QCC Rate Table (13)					
Capacity	Capacity Code	Transaction Fee Per Contract	Per Contract Credit	Notes	
Customer	C	{QC} \$0.00	\$0.10	Credits will be delivered to the TPH Firm that enters the order into Cboe Command but will only be paid on the initiating side of the QCC transaction. Credits will be capped at \$350,000 per month, per TPH. Credits of affiliated TPHs (TPHs with at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A) will be aggregated for purposes of determining whether a TPH has met the QCC credit cap. Credits will not be paid on Customer (C) to Customer (C) executions.  A QCC transaction is comprised of an 'initiating order' to buy (sell) at least 1,000 contracts, coupled with a contra-side order or orders totaling an equal number of contracts. For complex QCC transactions, the 1,000 contracts minimum is applied per leg.	
Clearing Trading Permit Holder Proprietary (11)(12)(16)	F L	{QN} \$0.17			
Cboe Options Market-Maker/DPM/LMM	M				
Broker-Dealer (16)	B				
Non-Trading Permit Holder Market Maker (16)	N				
Professional/Joint Back-Office	U J				

Customer Large Trade Discount (27)(Also applies to GTH)(37)				
Regular customer transaction fees will only be charged up to the listed quantity of contracts per order.				
Capacity	Products	Capacity Code	Transaction Fees	Notes
Customer	VIX	C	Charge only first 15,000	
	SPX (includes SPXW) and XSP		Charge only first 20,000	
	Other Index Options		Charge only first 5,000	
	ETF and ETN Options		Charge only first 3,000	

Large Trade Discount (Also applies to GTH)(37)(45)				
Regular transaction fees will only be charged up to the listed quantity of contracts per order.				
Capacity	Products	Capacity Code	Transaction Fees	Notes
Cboe Options Market-Maker/ DPM/ LMM Broker-Dealer (16) Non-Trading Permit Holder Market Maker (16) Professional /Joint Back-Office	VIX	M B N U J	Charge only 175,000	

Cboe Exchange, Inc.  
Fees Schedule - December 2, 2019

Electronic Trading Permit Fees		
Type of Permit	Cost Per Month	Notes
Market-Maker Electronic Access Permit	\$5,000	Entitles the holder to act as a Market-Maker in RTH and GTH.
Order Flow Provider Electronic Access Permit	\$3,000	Entitles the holder to access to the Exchange electronically, including those that act as a Clearing TPH, and submit orders to the Exchange in RTH and GTH. <a href="#">To act as a Clearing TPH in GTH, Clearing TPH must be registered with OCC for GTH session.</a>
Clearing Firm Permit	\$2,000	Entitles the holder to act as solely as a Clearing TPH in RTH and GTH. <a href="#">To act as a Clearing TPH in GTH, Clearing TPH must be registered with OCC for GTH session.</a>

Access fees are non-refundable and are assessed through the integrated billing system during the first week of the following month. If a Trading Permit is issued during a calendar month after the first trading day of the month, the access fee for the Trading Permit for that calendar month is prorated based on the remaining trading days in the calendar month. Trading Permits will be renewed automatically for the next month unless the Trading Permit Holder submits written notification to the Membership Services Department by 4 p.m. CT on the second-to-last business day of the prior month to cancel the Trading Permit effective at or prior to the end of the applicable month. Trading Permit Holders will only be assessed a single monthly fee for each type of electronic Trading Permit it holds.

Market-Maker EAP Appointments Sliding Scale			
	Quantity	Monthly Fee (per permit)	Notes
Appointment Units	1	\$0	Appointment units are set forth in Exchange Rule 5.50(g). Appointment Units for each assigned class will be aggregated for each Market-Maker and Market-Maker affiliate. If the sum of appointments is a fractional amount, the total will be rounded up to the next highest whole Appointment Unit. Total quantity is determined by the highest quantity used at any point during the month.
	2	\$6,000	
	3 to 5	\$4,000	
	> 5	\$3,100	

Market-Maker Tier Appointment Fees			
Symbol	Criteria	Monthly Fees (per unit)	Notes
SPX	MM Floor Permit executes any contracts in SPX/SPXW	\$3,000 per MM Floor Permit	The Market-Maker EAP SPX Tier Appointment fee will be assessed to any Market-Maker EAP that executes at least 1,000 contracts in SPX/SPXW, excluding contracts executed during opening rotation on the final settlement date of VIX options and futures which have the expiration that is used in the VIX settlement calculation
	Market-Maker EAP executes at least 1,000 contracts in SPX/SPXW	\$3,000 per TPH	
VIX	MM Floor Permit executes at least 1,000 contracts in VIX	\$2,000 per MM Floor Permit	
	Market-Maker EAP executes at least 1,000 contracts in VIX	\$2,000 per TPH	
RUT	MM Floor Permit executes at least 1,000 contracts in RUT	\$1,000 per MM Floor Permit	
	Market-Maker EAP executes at least 1,000 contracts in RUT	\$1,000 per TPH	

Floor Broker Trading Surcharge			
Symbol	Criteria	Monthly Fees (per unit)	Notes
SPX	FB Trading Permit Holder executes >20,000 contracts in SPX/SPXW	\$3,000 per TPH	If and to the extent that a Trading Permit Holder or TPH organization has more than one Floor Broker Trading Permit that is utilized to execute SPX options transactions, the SPX executions of that Trading Permit Holder or TPH organization shall be aggregated for purposes of determining this additional monthly fee and the Trading Permit Holder or TPH organization shall be charged a single \$3,000 fee for the combined SPX executions through those Floor Broker Trading permits if the executions exceed 20,000 contracts per month. The SPX Surcharge will not be assessed to a Floor Broker Trading Permit Holder who (i) only executes SPX (including SPXW) options transactions as part of multi-class broad-based index spread transactions, and (ii) submits the SPX Tier Appointment Fee Exclusion for Multi-Class Broad-Based Index Spread Transactions Form within three business days of execution of the applicable spread transaction(s).
VIX	FB Trading Permit Holder executes >20,000 contracts in VIX	\$2,000 per TPH	If and to the extent that a Trading Permit Holder or TPH organization has more than one Floor Broker Trading Permit that is utilized to execute VIX options transactions, the VIX executions of that Trading Permit Holder or TPH organization shall be aggregated for purposes of determining this additional monthly fee and the Trading Permit Holder or TPH organization shall be charged a single \$2,000 fee for the combined VIX executions through those Floor Broker Trading Permits if the executions exceed 20,000 contracts per month.

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Market-Maker Access Credit (44)			
	Liquidity Provider Sliding Scale Adjustment Performance Tier	% Credit on Monthly Bulk Port Fees	Notes
MM Access Credit	1	0%	The Performance Tier earned by a Market-Maker under the Liquidity Provider Sliding Scale Adjustment Table will determine the percentage credit applied to a Market-Maker's monthly Bulk Port fees.
	2	0%	
	3	0%	
	4	40%	
	5	40%	

Floor Trading Permit Sliding Scales			
Type of Permit	Permit Quantity	Monthly Fee (per permit)	Notes
Market-Maker Floor Permit	1	\$6,000	Entitles the holder to act as a Market-Maker on the floor of the exchange.
	2 to 5	\$4,500	
	6 to 10	\$3,500	
	> 10	\$2,000	
Floor Broker Permit	1	\$7,500	Entitles the holder to act as a Floor Broker on the floor of the exchange.
	2 to 3	\$5,700	
	4 to 5	\$4,500	
	> 5	\$3,200	

Access fees are non-refundable and are assessed through the integrated billing system during the first week of the following month. If a Trading Permit is issued during a calendar month after the first trading day of the month, the access fee for the Trading Permit for that calendar month is prorated based on the remaining trading days in the calendar month. Trading Permits will be renewed automatically for the next month unless the Trading Permit Holder submits written notification to the Membership Services Department by 4 p.m. CT on the second-to-last business day of the prior month to cancel the Trading Permit effective at or prior to the end of the applicable month. Floor Trading Permit Fees are charged based on the maximum number of Floor Permit fees held during the month.

Floor Broker ADV Discount			
Tier	ADV	Floor Broker Permit Rebate	Notes
1	0 to 99,999	0%	Floor Broker Trading Permit fees will be eligible for rebates based on the average customer ("C") open-outcry contracts executed per day over the course of a calendar month in all underlying symbols. The Floor Broker ADV Discount will be available for all Floor Broker Trading Permits held by affiliated Trading Permit Holders and TPH organizations.
2	100,000 to 174,999	15%	
3	> 174,999	25%	

Floor Brokerage Fees (1)(5)(15)		
Description	Fee Per Contract	
OEX, XEO, RUT, RLG, RLV, RUI, UKXM and SPX Index	Non-Crossed Orders	\$0.04
Options (40)	Crossed Orders	\$0.02
VIX	Non-Crossed Orders	\$0.03
	Crossed Orders	\$0.015

Floor Brokerage Fees Discount Scale			
Tier	Total Monthly Floor Broker Contracts Traded in Qualifying Classes	% Discount on Qualifying Brokerage Fees	Notes
1	0 - 250,000	0%	This discount is based on total monthly floor broker volume in OEX, XEO, RUT, SPX, SPXw, VIX and volatility index options. Once a volume threshold is attained during the month, the corresponding discount percentage will apply to all qualifying contracts.
2	250,001 - 1,500,000	3%	
3	1,500,001 - 5,000,000	4%	
4	5,000,001 - 7,500,000	5%	
5	Above 7,500,000	6%	

**GTH Executing Agent Subsidy Program**

A designated GTH executing agent will be eligible to receive a \$5,000 monthly subsidy if it executes at least 1,000 contracts on behalf of customers (including public and broker-dealer customers) during GTH in a calendar month. To become a designated GTH executing agent, a TPH must submit a form to the Exchange no later than 3:00 p.m. on the second to last business day of a calendar month to be designated an GTH executing agent under the program, and thus eligible for the subsidy, beginning the following calendar month. The TPH must include on or with the form information demonstrating it maintains an GTH executing agent operation: (1) physically staffed throughout each entire GTH trading session and (2) willing to accept and execute orders on behalf of customers, including customers for which the agent does not hold accounts. The designation will be effective the first business day of the following calendar month, subject to the Exchange's confirmation the TPH's GTH executing agent operations satisfies these two conditions, and will remain in effect until the Exchange receives an email from the TPH terminating its designation or the Exchange determines the TPH's GTH executing agent operation no longer satisfies these two conditions. Within two business days following the end of a calendar month, in order to receive the subsidy for that month, the designated GTH executing agent must submit to the Exchange (in a form and manner determined by the Exchange) documentation and other evidence it executed at least 1,000 contracts on behalf of customers during GTH that month.

Sponsored User Fees		
Type	Fee	Notes
Registration Fee	\$2,500 (one time)	This fee is a one-time fee payable by a TPH organization for the registration of each of its Sponsored Users. The Sponsored User Program is governed by Cboe Options Rule 6.20A.

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Sales Value Fee	
Description	Notes
<b>Sales Value Fee</b>	The Sales Value Fee ("Fee") is assessed by Cboe Options to each Trading Permit Holder for sales of securities in the following circumstances: (i) when a sale in option securities occurs with respect to which Cboe Options is obligated to pay a fee to the SEC under Section 31 of the Exchange Act and (ii) when a sell order in option securities is routed for execution at a market other than on Cboe Options, resulting in a covered sale on that market and an obligation of the routing broker providing Routing Services for Cboe Options, as described in Cboe Options Rule 6.14B, to pay the related sales fee of that market. To the extent there may be any excess monies collected under this Section 6, the Exchange may retain those monies to help fund its general operating expenses. The Exchange may reimburse its routing broker for all Section 31-related fees incurred by the routing broker in connection with the Routing Services it provides. The sales transactions to which the Fee applies are sales of options (other than options on a security index) and sales of securities resulting from the exercise of physical-delivery options traded on Cboe Options. The Fee is collected either indirectly from Trading Permit Holders through their clearing firms by OCC on behalf of Cboe Options with respect to options sales and options exercises or directly from Trading Permit Holders with respect to on-floor position transfers between unaffiliated Trading Permit Holders. The amount of the Fee is calculated as described below.
<b>Calculation of Fee for Options Sales and Options Exercises</b>	The Sales Value Fee is equal to (i) the Section 31 fee rate multiplied by (ii) the Trading Permit Holder's aggregate dollar amount of covered sales resulting from options transactions occurring on the Exchange during any computational period.
<b>Calculation of Fee for Non-Options Sales</b>	The Sales Value Fee is calculated using the same formula as the formula above for options transactions, except as applied only to the Trading Permit Holder's covered sales other than those resulting from options transactions.

Facility Fees (per month)(28)			
A copy of the Cboe Options Trading Floor Booth Policy is located at <a href="http://www.Cboe.org">www.Cboe.org</a> .			
Booths	Fee Per Month		
<b>Standard Booth Rental Fee</b>	Perimeter	\$195	
	OEX	\$550	
	Dow Jones/MNX/VIX	\$550	
<b>Non-Standard Booth Rental Fee</b>	<b>Base Booth Rental Fee</b>	<b>Square Footage Fee (up to 1,000 sq. ft.)</b>	<b>Notes</b>
	\$1,250	\$1.70 (per sq. ft.)	A Trading Permit Holder ("TPH") organization will pay non-standard booth rental fees on a monthly basis for use of a non-standard booth. The fee a TPH organization will pay is the base booth rental fee plus the square footage fee, determined based on the size of the booth. Non-standard booths must be leased for a term of one year. A TPH organization that terminates its lease prior to its expiration date will, on the effective date of such termination, pay to the Exchange an amount equal to twenty five percent (25%) of the balance of the monthly charges remaining in the lease term. Early termination penalties will not be assessed for early termination of leases entered into prior to August 1, 2016 that are terminated by mutual agreement of the TPH organization and the Exchange.
<b>Booth Pass-Through Fee</b>	A TPH Organization shall be responsible for all costs associated with any modifications and alterations to any trading floor booths leased by the TPH Organization and shall reimburse Cboe Options for all costs incurred by Cboe Options in connection therewith.		

<b>Arbitrage Phone Positions</b>		\$550			
<b>Forms and Forms Storage (50)</b>	<b>HP Laser Printer Paper</b>	\$5.00 per packet of 500 sheets			
	<b>Zebra Printer Paper</b>	\$19.50 per roll			
	<b>Zebra Printer Ink</b>	\$19.50 per roll			
	<b>Forms Storage</b>	\$11			
<b>Access Badges</b>		<b>Fee</b>			
<b>Badge Type</b>	<b>Floor Manager</b>	\$130			
	<b>Clerks</b>	\$70			
<b>Communications</b>		<b>Monthly Fee</b>	<b>Installation</b>	<b>Relocation</b>	<b>Removal</b>
<b>Exchangefone</b>	<b>Exchangefone</b>		\$935	\$129	\$100
	<b>Maintenance</b>	\$57			
	<b>With Recorded Coupler Between Booths</b>			\$126	
<b>Single Line</b>	<b>Within Booth</b>			\$25	
	<b>Maintenance</b>	\$11.50			
<b>Wireless Phone Rentals (plus usage fee)</b>	<b>Monthly Fee</b>	\$110			
	<b>Replacement/Repairs</b>	cost			
<b>Lines</b>		<b>Monthly Fee</b>	<b>Installation</b>	<b>Relocation</b>	<b>Removal</b>
<b>Intra-Floor</b>		\$57.75			
<b>Voice Circuits</b>		\$16	\$52.50		\$36.75
<b>Appearances</b>	<b>New Circuits - First</b>		\$120		\$50
	<b>New Circuits - @ Additional</b>		\$18		\$18
	<b>Existing Line Appearance - First</b>		\$50	\$50	\$25
	<b>Existing Line Appearance - @ Additional</b>		\$18	\$18	\$18
<b>Data Circuits at Local Carrier (entrance)</b>		\$16	\$52.50		\$36.75
<b>Data Circuits at In-House Frame</b>	<b>Lines Between Local Carrier and Communications Center (CC)</b>	\$12.75	\$550		
	<b>Lines Direct From Local Carrier to Trading Floor</b>	\$12.75	\$725	\$625	
	<b>Lines Between CC and Trading Floor</b>	\$12.75	\$725	\$625	
<b>Vendor Services</b>		<b>Monthly Fee</b>	<b>Installation</b>	<b>Relocation</b>	<b>Removal</b>
<b>Shelf for Equipment</b>		\$100			
<b>Data Circuits from Local Carrier to Equipment Shelf</b>		\$50			
<b>Lines from Equipment to Floor</b>		\$50			
<b>Technical Support Outside Normal Hours (\$100/hour, 4 hr. min.)</b>					

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Facility Fees (per month)(28) (continued)				
Miscellaneous	Monthly Fee	Installation	Relocation	Removal
Handsets		\$79		
Headset Jack		\$131	\$58	\$28
Recorder Coupler		\$150 new/\$50 existing	\$25	\$25
IPC (vendor) Time & Material (per hour)		cost		
IPC (vendor) Time & Material Overtime (per hour)		cost		
After Hours Technician Service (per hour, 4 hr. min.)		\$100		
Market-Maker Handheld Terminal Tethering Services		\$450	\$200	
Market-Maker Handheld Terminal Tethering Services For Indexes		\$900	\$200	
Trading Floor Terminal Rentals	Monthly Fee	Notes		
Thomson/Other (Basic Service)	\$425			
PULSe On-Floor Workstation		See PULSe Workstation fees below.		
Satellite TV	\$50			
PAR Workstation	\$125			
Cboe Options Trading Floor Terminal	\$250	Installation \$175, Relocation \$225, Removal \$125		
PAR Workstation Replacement Fees	Fee	Notes		
Replacement Tablet	\$1,300 each	Fees are assessed only on items that are (1) lost or (2) damaged from non-normal wear and tear.		
Replacement Stylus Pens	\$100 each			
Replacement Chargers	\$75 each			
Replacement Ethernet Adapters and Protective Cases	\$50 each			
Co-Location	Monthly Fee	Notes		
Co-Location of Equipment Fee (per "U" - 1.75 inches)	\$50	Fees are charged in increments of 4 "U" (7 inches)		
Co-Location of Equipment Fee (per "U" - 1.75 inches)/Sponsored User	\$100			
PULSe Workstation	Monthly Fee	Notes		
Workstation (Also applies to GTH)(37)	\$400/month (per TPH login ID for the first 15 login IDs)	The fee is waived for the first month for the first new user of a TPH.		
	\$100/month (per each additional TPH login ID)			
	\$400/month (per non-TPH login ID)	The fee is waived for the first month for the first new user of a non-TPH. If two or more TPHs make a PULSe login ID available to the same non-broker-dealer customer or to the same non-TPH broker dealer, the non-TPH login ID fee payable by each TPH will be reduced to \$250 per month per login ID.		
Equity Order Reports	\$250/month			
PULSe-to-PULSe Routing	\$50/month (per receiving TPH)			
Away-Market Routing	\$0.02 (per executed contract or share equivalent)			
Drop Copy (received by TPH customer)	\$425/month (per sending TPH)	This fee is payable by a TPH customer receiving drop copies and is \$425/month for each TPH broker that sends the TPH customer drop copies via a PULSe workstation.		
Drop Copy (received by non-TPH customer)	\$0.02/contract (capped at \$400/month per receiving non-TPH)	This fee is payable by a TPH broker sending drop copies and is capped at \$400/month for each non-TPH customer to which the TPH broker sends drop copies via a PULSe workstation.		
Non-PULSe-to-PULSe Routing (sent by TPH customers)	\$500/month (per receiving TPH)	This fee is payable by a TPH customer using a non-PULSe order management system to send orders electronically to a TPH broker's PULSe workstation and is \$500/month for each TPH broker with a PULSe workstation to which the TPH customer sends orders. TPH customers who request non-PULSe-to-PULSe order routing will also receive drop copies from its TPH brokers and must pay the monthly drop copy fee in addition to the in-bound addition fee.		
FIX Integration Drop Copy Start-Up	\$500 (per sending TPH or receiving non-TPH, as applicable)	This fee is payable by the TPH responsible for the drop copy fee. If payable by a TPH customer, the fee is \$500 for each TPH broker to which the TPH customer requests to connect for receipt of drop copies. If payable by a TPH broker, the fee is \$500 for each TPH customer that requesting to connect to the TPH broker for receipt of drop copies.		
FIX Integration Drop Copy Cancel	\$500 (per sending TPH or receiving non-TPH, as applicable)	This fee is payable by the TPH responsible for the drop copy fee. If payable by a TPH customer, the fee is \$500 for each TPH broker for which the TPH customer requests to cancel the drop copy functionality. If payable by a TPH broker, the fee is \$500 for each TPH customer of the TPH broker that requests to cancel the drop copy functionality.		
Routing Intermediary Certification	\$5,000			

Livevol Fees						
Open-Close Data						
Data Products	Download per Cboe Security		Download** all Cboe Securities (Equities, Indexes and ETFs)		Download Daily Updates all Cboe Securities (Equities, Indexes & ETFs)	Notes
	One Month	Ten or More Years	One-Four Years (price per year)	Five or More Years (price per year)	Monthly	
Open Close	\$4.50	\$270.00	\$7,200.00*	\$3,600.00*	\$600.00	*Academic discount applies. Qualifying Academic Purchasers will be charged \$1,500 per year. **File sizes larger than 500GB will be shipped to purchaser on a hard drive.

Trade Processing Services (Also applies to GTH)(37)		
Description	Fee	Notes
Matched Data	\$0.0025 per contract side	For billing purposes, fees will be rounded to the nearest \$0.01 using standard rounding rules on a monthly basis.

Cboe Exchange, Inc.  
Fees Schedule - December 2, 2019

Trading Permit Holder Application Fees		
Description	Fee	Notes
Individual (Trading Permit Holder/Nominee)	\$3,000	Application fees related to a TPH organization's structural change are capped at \$10,000 (e.g. change from a limited partnership to a limited liability corporation). The Trading Permit Transfer Fee is capped at \$2,000 for a Trading Permit transfer request covering multiple Trading Permits.
Non-Trading Permit Holder Customer Business	\$3,000	
Order Service Firm	\$1,650	
Associated Person	\$500	
TPH Organization Application	\$5,000	
Renewal/Change of Status	\$500	
Subject to Statutory Disqualification	\$5,000	
Rule 19h- 1 Change in Status	\$1,650	
Inactive Nominee Status (Parking Space)	\$300	
Inactive Nominee Status Change (Trading Permit Swap)	\$100	
Fingerprint Processing Fee	\$60	
Trading Permit Transfer Fee	\$500	
TPH Organization Renewal Fee	\$2,500	

Routing Fees			
Capacity	Transaction Fee Per Contract	Description	Notes
Customer	{RD} \$0.33	Routed to AMEX, BOX, BX, EDGX, MERC, MIAX, PHLX, ≥ 100 contracts, ETF	Multiple orders from the same executing firm for itself or for a CMTA or correspondent firm in the same series on the same side of the market that are received within 500 milliseconds will be aggregated for purposes of determining the order quantity. Cboe Options will not pass through or otherwise charge customer orders (of any size) routed to other exchanges that were originally transmitted to the Exchange from the trading floor through an Exchange-sponsored terminal (e.g. a PULSe Workstation).
	{RE} \$0.15	Routed to AMEX, BOX, BX, EDGX, MERC, MIAX, PHLX, < 100 contracts ETF, Equity	
	{RF} \$0.83	Routed to ARCA, BZX, C2, ISE, GMNI, EMLD, PERL, NOMX, ≥ 100 contracts ETF, Penny	
	{RG} \$1.18	Routed to ARCA, BZX, C2, ISE, GMNI, EMLD, PERL, NOMX, ≥ 100 contracts ETF, Non-Penny	
	{RH} \$0.65	Routed to ARCA, BZX, C2, ISE, GMNI, EMLD, PERL, NOMX, <100 contracts ETF, Equity, Penny	
	{RI} \$1.00	Routed to ARCA, BZX, C2, ISE, GMNI, EMLD, PERL, NOMX, <100 contracts ETF, Equity, Non-Penny	
Non-Customer	{RJ} \$1.17	Routed, Penny	
	{RK} \$1.45	Routed, Non-Penny	

Stock Portion of Stock-Option Strategy Orders			
Description	Fee	Frequency	Notes
Stock Portion of Stock-Option Strategy Orders	{EQ} \$0.0010	per share	The Exchange shall assess a fee of \$0.0010 per share for the stock portion, which Cboe Options must route to an outside venue, of stock-option orders executed via the Complex Order Auction ("COA"), the Complex Order Book ("COB"), AIM, SAM, and the splitting mechanism which is used for certain market orders pursuant to Interpretation .06(d) of Rule 6.53C. This fee applies in addition to the fees assessed by the outside venue to which the stock portion of the order is routed if an exchange destination is specified on the original order (with such fees to be passed on to the market participant). A maximum of \$50.00 per execution will be assessed under this fee.

Regulatory Fees		
Description	Fee	Notes
Options Regulatory Fee ("ORF") (Also applies to GTH)(37)(46)	\$0.0045 per contract	The ORF is assessed by Cboe Options to each Trading Permit Holder for options transactions cleared by the Trading Permit Holder that are cleared by The Options Clearing Corporation (OCC) in the customer range, regardless of the exchange on which the transaction occurs. Cboe Options uses reports from OCC when assessing and collecting the ORF. The fee is collected by OCC on behalf of Cboe Options from the Clearing Trading Permit Holder (CTPH) or non-CTPH that ultimately clears the transaction. With respect to linkage transactions, Cboe Options reimburses its routing broker providing Routing Services pursuant to Cboe Options Rule 6.14B for options regulatory fees it incurs in connection with the Routing Services it provides.
DPM's and Firm Designated Examining Authority Fee (Also applies to GTH)(37)	\$0.60 per \$1,000 of gross revenue	Subject to a monthly minimum fee of \$1,500 for clearing firms and \$400 for non-clearing firms – As reported on quarterly FOCUS Report, Form X-17A-5. Excludes commodity commission revenue.

The following fees will be collected and retained by FINRA via the Web CRD <sup>SM</sup> registration system for the registration of associated persons of Exchange Trading Permit Holder and TPH organizations that are not also FINRA members.			
Web CRD <sup>SM</sup> Fees	General Registration Fees		Notes
	Description	Fee	
	FINRA Non-Member Processing Fee	\$100	For all Initial, Transfer, Relicense, Dual registration Form U-4 filings. This fee will also be generated upon refiling to Web CRDSM of Cboe Options – only registered individuals.
	FINRA Disclosure Processing Fee (U-4, U-5, Form BD & amendments)	\$110	For all registration, transfer, or termination filings with new or amended disclosure information or that require certification as well as any amendment to disclosure information.
	FINRA Annual System Processing Fee Assessed only during Renewals	\$45	
	Fingerprint Processing Fees		Notes
		Fee Per Card	
		Paper	Electronic
	Initial Submission	\$44.50	\$29.50
	Second Submission	\$30.00	\$15.00
	Third Submission	\$44.50	\$29.50
	Other	\$30.00	
	Submitted by Trading Permit Holders or TPH organizations on behalf of their associated persons who have had their prints processed through a self-regulatory organization ("SRO") other than FINRA.		
	Continuing Education Fees		Notes
	All Registration	\$55	
	Qualification Examination Waiver Request Fee	\$200 per exam waiver request	
	This fee is assessed to a Trading Permit Holder for each waiver request of a non-FINRA examination submitted by the Trading Permit Holder.		

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Regulatory Fees		
Description	Fee	Notes
Communication Review Fee	Regular Review	1) for printed material reviewed, \$150 per submission, plus \$25 for each page reviewed in excess of 5 pages; and 2) for video and audio media reviewed, \$150 per submission, plus \$25 per minute for each minute of tape reviewed in excess of 5 minutes.
	Expedited Review	1) for printed material reviewed, \$1,000 per submission, plus \$50 for each page reviewed in excess of 5 pages; and 2) for video and audio media reviewed, \$1,000 per submission, plus \$50 per minute for each minute of tape reviewed in excess of 5 minutes. Expedited review will be completed within five business days, not including the date the item is received by the Exchange, unless a shorter or longer period is agreed to by the Exchange. The Exchange may, in its sole discretion, refuse requests for expedited review.

Miscellaneous			
Description	Fee	Frequency	Notes
Trading Floor Printer Maintenance	\$75	Monthly	
Late Payment Penalty	prime rate	Monthly	Assessed to balances over 30 days old, per month, compounded
Market Maker Failure to Change Appointment or Failure to Meet In-Person Trading Requirements	\$250	Quarterly	Allowed 1 warning letter before fee
DPM requests for post modifications/equipment	Cboe Options costs passed-through		
Crowd Space Dispute Resolution Hearing Fee	\$1,000	per hearing, per Trading Permit Holder	Fee is \$1,000 per hearing for each party to the dispute and will escalate under certain circumstances pursuant to Cboe Options Rule 24.21(e). After the hearing is held and all rights of appeal are exhausted, the prevailing party in dispute shall obtain a refund of the Hearing Fee from the Exchange.
Catastrophic Error Review Fee	\$5,000		Assessed only if, after a request for review with the Exchange of a potential Catastrophic Error, an Official determines that a Catastrophic Error has not occurred.

Exchange Data Reports			
Report Type	Description	Fee	Notes
C Level	Standard reports regularly generated and run by the Exchange and made available on a daily, weekly or monthly basis (for example, Monthly LP Scorecard, Daily Firm Report, etc.) 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.	\$0.00	
B Level	Initial report requests (or enhancements to existing subscriptions) that require less than one (1) man-hour to develop and/or generate.	\$0.00	Fees will be estimated in advance and such 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. Subscriptions to such reports will be provided at a cost of \$100 per month for monthly reports and \$200 per month for daily or weekly reports.
A Level	Initial report requests (or enhancements to existing subscriptions) that require one (1) or more man-hours to develop and/or generate.	\$100 for first 5 man-hours, \$100 per hour for each additional man-hour	

Physical Connectivity Fees		
Service	Monthly Fees (per port)	Notes
1 Gb Physical Port	\$1,500	Effective October 7, 2019, TPHs and non-TPHs may elect to connect to Cboe Options' trading system via new Physical Ports. Physical Port fees will be prorated based on the remaining trading days in the calendar month.
10 Gb Physical Port	\$7,000	
1 Gb Network Access	\$1,500	Through January 31, 2020, TPHs and non-TPHs will continue to have the ability to connect to Cboe Options' trading system via the current Network Access Ports. Fees for one Network Access Port used only to access PULSE will be waived per TPH or non-TPH.
10 Gb Network Access	\$7,000	
1 Gb Physical Port (Disaster Recovery)	\$2,000	Disaster Recovery Physical Ports may be used to connect to the Disaster Recovery Systems of C2, Cboe BZX, Cboe BYX, Cboe EDGX, Cboe EDGA and CFE. Market participants will only be assessed a single fee for any Disaster Recovery Physical Port that accesses these exchanges. If a market participant maintains two Disaster Recovery Physical Ports of the same size in order to receive unicast and multicast connectivity, that market participant will only be assessed a single fee (e.g., if a TPH uses one 1 Gb Disaster Recovery Physical Port to receive only unicast traffic and one 1 Gb Disaster Recovery Physical Port to receive only multicast traffic, the TPH will be charged \$2,000 per month)
10 Gb Physical Port (Disaster Recovery)	\$6,000	

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Logical Connectivity Fees			
Service	Quantity	Monthly Fees (per port)	Notes
BOE/FIX Logical Ports	1 to 5	\$750	Each BOE or FIX Logical Port will incur the logical port fee indicated when used to enter up to 70,000 orders per trading day per logical port as measured on average in a single month. Each incremental usage of up to 70,000 per day per logical port will incur an additional logical port fee of \$800 per month. Incremental usage will be determined on a monthly basis based on the average orders per day entered in a single month across all subscribed BOE and FIX Logical Ports. Fees for one FIX Logical Port used to access PULSe and one FIX Logical Port connection used to access Cboe Silexx (for FLEX trading purposes) will be waived per TPH.
	> 5	\$800	
BOE Bulk Logical Ports	1 to 5	\$1,500	Each BOE Bulk Logical Port will incur the logical port fee indicated when used to enter up to 30,000,000 orders per trading day per logical port as measured on average in a single month. Each incremental usage of up to 30,000,000 orders per day per BOE Bulk Logical Port will incur an additional logical port fee of \$3,000 per month. Incremental usage will be determined on a monthly basis based on the average orders per day entered in a single month across all subscribed BOE Bulk Logical Ports.
	6 to 30	\$2,500	
	> 30	\$3,000	
Drop Logical Ports		\$750	
Purge Ports		\$850	
GRP Ports		\$750/primary (A or C Feed)	
Multicast PITCH/Top Spin Server Ports		\$750/set of primary (A or C Feed)	
New requests will be prorated for the first month of service. Cancellation requests are billed in full month increments as firms are required to pay for the service for the remainder of the month, unless the session is terminated within the first month of service.			

Trading Permit Holder Transaction Fee Policies and Rebate Programs (Also applies to GTH)(37)	
Description	Notes
<b>Trading Permit Holder Transaction Fees - Index Options</b>	All Trading Permit Holders are eligible to pay no higher than Clearing Trading Permit Holder proprietary transaction fees, unless an individual Trading Permit Holder is a nominee for a TPH organization and is not an employee of the TPH organization. An exception to the above is allowed if preponderance of a Clearing Trading Permit Holder's business is for customer activity rather than its own firm proprietary account. Trading Permit Holders who are eligible for Clearing Trading Permit Holder proprietary rates but were charged customer rates (e.g. non-OCC members) must submit a rebate request no later than 60 days after the month-end to which the trade relates.
<b>Trading Permit Holder Transaction Fees - Equity and Index Options</b>	Transaction fees are charged to the executing firm designated in Cboe Options trade match records. With regard to CMTA firm proprietary activity, the Exchange and the OCC permit the "F" capacity code to designate firm proprietary activity. However, index customer transaction fees are assessed for index orders if the CMTA firm is not an Exchange Trading Permit Holder. In equities and QQQ options, the broker-dealer rate will be assessed.
<b>Error Account Transactions</b>	Error account transactions are eligible to receive market maker transaction fee rates. Clearing Trading Permit Holders and floor brokers are advised that the Exchange and the Options Clearing Corporation allow error account transactions to clear as market maker transactions, subject to applicable margin requirements. If a hardship exists in clearing the errors as market maker transactions, a rebate to market maker rates may be obtained by submitting a rebate request.

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

Order Router Subsidy Program (6)(29)			
Description	Capacity Code	Subsidy Per Contract	Notes
ORS Program	C	\$0.00	Cboe Options may enter into subsidy arrangements with Trading Permit Holders ("TPHs") or broker-dealers that are not Cboe Options Trading Permit Holders ("Non-Cboe Options TPHs") that provide certain routing functionalities to other Cboe Options TPHs, Non-Cboe Options TPHs and/or use such functionalities themselves. Participating TPHs or participating Non-Cboe Options TPHs will receive a payment from Cboe Options for every executed contract (excluding those executed in AIM or as a QCC) for orders routed to Cboe Options through that participating Cboe Options TPH or Non-Cboe Options TPH's system to subsidize their costs associated with providing order routing functionalities.
	F J L M B N U	\$0.07	
	F J L M B N U	\$0.07	ORS/CORS participants whose total aggregate non-customer ORS and CORS volume is greater than 0.25% of the total national volume (excluding volume in options classes included in Underlying Symbol List A, Sector Indexes (47), DJX, MXEA, MXEF or XSP) will receive an additional payment for all executed contracts exceeding that threshold during a calendar month.

Complex Order Router Subsidy Program (6)(30)			
Description	Capacity Code	Subsidy Per Contract	Notes
CORS Program	C	\$0.00	Cboe Options may enter into subsidy arrangements with Trading Permit Holders ("TPHs") or broker-dealers that are not Cboe Options Trading Permit Holders ("Non-Cboe Options TPHs") that provide certain complex order routing functionalities to other Cboe Options TPHs, Non-Cboe Options TPHs and/or use such functionalities themselves. Participating TPHs or participating Non-Cboe Options TPHs will receive a payment from Cboe Options for every executed contract (excluding those executed in AIM or as a QCC) for complex orders routed to Cboe Options through that participating Cboe Options TPH or Non-Cboe Options TPH's system to subsidize their costs associated with providing order routing functionalities.
	F J L M B N U	\$0.07	
	F J L M B N U	\$0.07	ORS/CORS participants whose total aggregate non-customer ORS and CORS volume is greater than 0.25% of the total national volume (excluding volume in options classes included in Underlying Symbol List A, Sector Indexes (47), DJX, MXEA, MXEF or XSP) will receive an additional payment for all executed contracts exceeding that threshold during a calendar month.

Frequent Trader Program								
Capacity	Capacity Code	Tier	VIX		SPX / SPXW		RUT	
			Monthly VIX Contracts Traded	VIX Fee Rebate	Monthly SPX/SPXW Contracts Traded	SPX/SPXW Fee Rebate	Monthly RUT Contracts Traded	RUT Fee Rebate
Customer/ Professional Customer	C U	1	10,000 - 99,999	5%	10,000 - 49,999	3%	10,000 - 24,999	10%
		2	100,000 - 299,999	15%	50,000 - 99,999	6%	25,000 - 49,999	15%
		3	300,000 and above	25%	100,000 and above	9%	50,000 and above	25%

**Notes**

Customers ("C" capacity code) and Professional Customers ("U" capacity code) (collectively "customers") can obtain a unique identification number ("Frequent Trader ID" or "FTID") which can be appended by executing agents to orders submitted to Cboe Options during both RTH and GTH for both manual and electronic execution. A "customer" for this purpose is a non-Trading Permit Holder, non-broker-dealer. A customer may obtain an FTID by registering for the program at the Frequent Trader Program website. Each customer is responsible for requesting that its executing agent(s) appends the customer's unique FTID to the customer's order(s). Executing agents however, will not be required by the Exchange to append FTIDs to orders, but may choose to do so voluntarily. The volume associated with each FTID will be aggregated to qualify for the tiers and fee rebates of customer transaction fees shown in the table. The highest achieved threshold rebate rate will apply from the first executed contract. The rebates will be based on the actual amount of fees assessed in accordance with the Fees Schedule (e.g., if a customer submits a VIX order for 30,000 contracts, that customer would be assessed fees for only the first 15,000 contracts under the Customer Large Trade Discount Program. Therefore, the customer's rebate would be based on the amount of the fees assessed for 15,000 contracts, not on the value of the total 30,000 contracts executed). The Exchange will disperse a customer's rebates pursuant to the customer's instructions, which may include receiving the rebates as a direct payment or via a distribution to one or more of its Clearing Trading Permit Holders. For trades for which volume should have been allocated to one or more FTIDs than were entered on the trade at the time of execution, an executing TPH may add or modify FTID information on post-trade records using the Clearing Editor for changes on the trade date or electronically submit such FTID information to the Exchange in a form and manner prescribed by the Exchange no later 4:29 pm CT, or by such time that the Exchange submits its final trade submission to the Options Clearing Corporation ("OCC") if later than 4:29 pm CT, on the trade date. FTIDs may not be added to orders that were executed prior to the customer registering for the Frequent Trader Program.

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

MSCI LMM Incentive Program										
Capacity	Capacity Code	Premium Level	Expiring		Near Term		Mid Term		Long Term	
			7 days or less		8 days to 60 days		61 days to 270 days		271 days or Greater	
			Width	Size	Width	Size	Width	Size	Width	Size
LMM	M	\$0.00 - \$5.00	\$3.00	5	\$1.50	20	\$2.50	15	\$5.00	10
		\$5.01 - \$15.00	\$6.00	3	\$3.00	15	\$5.00	10	\$10.00	7
		\$15.01 - \$50.00	\$15.00	2	\$7.50	10	\$10.00	7	\$20.00	5
		\$50.01 - \$100.00	\$25.00	1	\$15.00	7	\$20.00	5	\$30.00	3
		\$100.01 - \$200.00	\$40.00	1	\$25.00	3	\$35.00	3	\$48.00	2
		Greater than \$200.00	\$60.00	1	\$40.00	1	\$50.00	1	\$72.00	1

For MXEA and MXEF, if the appointed LMM provides continuous electronic quotes during Regular Trading Hours that meet or exceed the above heightened quoting standards in at least 90% of the MXEA and MXEF series 80% of the time in a given month, the LMM will receive a payment for that month in the amount of \$40,000 per class for the month of February 2019, and \$20,000 per class, per month thereafter. The Exchange may consider other exceptions to this quoting standard based on demonstrated legal or regulatory requirements or other mitigating circumstances. This program will be in place through December 31, 2019.

GTH VIX LMM Incentive Program			
Capacity	Capacity Code	Premium Level	Maximum Allowable Width
LMM	M	\$0.00 - \$100.00	\$10.00
		\$100.01 - \$200.00	\$16.00
		Greater than \$200.00	\$24.00

For VIX if the appointed LMM provides continuous electronic quotes during Global Trading Hours that meet or exceed the above heightened quoting standards in at least 99% of the VIX series 90% of the time in a given month, the LMM will receive a rebate for that month in the amount of a pro-rata share of a compensation pool for VIX equal to \$20,000 times the number of LMMs in that class (or pro-rated amount if an appointment begins after the first trading day of the month or ends prior to the last trading day of the month) for that month. For example, if two LMMs are appointed in VIX, a compensation pool will be established each month for VIX totaling \$40,000. If for example, each LMM meets the heightened continuous quoting standard in VIX during a month, each will receive \$20,000. If only one LMM meets the heightened continuous quoting standard in VIX during a month, that LMM would receive \$40,000 and the other one would receive nothing. The Exchange may consider other exceptions to this quoting standard based on demonstrated legal or regulatory requirements or other mitigating circumstances. For November 2019, the heightened quoting standard will only apply for the period of November 18 - November 30.

GTH SPX/SPXW LMM Incentive Program										
Capacity	Capacity Code	Premium Level	Expiring		Near Term		Mid Term		Long Term	
			7 days or less		8 days to 60 days		61 days to 270 days		271 days or Greater	
			Width	Size	Width	Size	Width	Size	Width	Size
LMM	M	\$0.00 - \$5.00	\$0.50	10	\$0.40	25	\$0.60	15	\$1.00	10
		\$5.01 - \$15.00	\$2.00	7	\$1.60	18	\$2.40	11	\$4.00	7
		\$15.01 - \$50.00	\$5.00	5	\$4.00	13	\$6.00	8	\$10.00	5
		\$50.01 - \$100.00	\$10.00	3	\$8.00	8	\$12.00	5	\$20.00	3
		\$100.01 - \$200.00	\$20.00	2	\$16.00	5	\$24.00	3	\$40.00	2
		Greater than \$200.01	\$30.00	1	\$24.00	3	\$36.00	1	\$60.00	1

For SPX and SPXW if the appointed LMM provides continuous electronic quotes during Global Trading Hours that meet or exceed the above heightened quoting standards in at least 99% of each of the SPX and SPXW series 90% of the time in a given month, the LMM will receive a rebate for that month in the amount of a pro-rata share of a compensation pool for SPX and a compensation pool for SPXW equal to \$15,000 times the number of LMMs in that class (or pro-rated amount if an appointment begins after the first trading day of the month or ends prior to the last trading day of the month) for that month. For example, if two LMMs are appointed in SPX a compensation pool will be established each month for (i) SPX totaling \$30,000 and (ii) SPXW totaling \$30,000. If for example, each LMM meets the heightened continuous quoting standard in SPX and SPXW during a month, each will receive \$30,000. If only one LMM meets the heightened continuous quoting standard in SPX and SPXW during a month, that LMM would receive \$60,000 and the other one would receive nothing. The Exchange may consider other exceptions to this quoting standard based on demonstrated legal or regulatory requirements or other mitigating circumstances. For October 2019, the heightened quoting standard will only apply for the period of October 7 - October 31.

**Cboe Exchange, Inc.**  
**Fees Schedule - December 2, 2019**

**Footnotes:**

Footnote Number	Description
1	Per contract side, including FLEX.
2	Please see Customer Large Trade Discounts table and footnote 27 for details of Customer Large Trade Discounts.
3	Trading Permit Holder transaction fee policies and rebate programs are described in the Trading Permit Holder Transaction Fee Policies and Rebate Programs table.
4	Transaction fees are charged to the Cboe Options executing firm on the input record.
5	Floor brokerage fees are charged to the executing broker. To be eligible for the discounted "crossed" rate, the executing broker acronym and executing firm number must be the same on both the buy and sell side of an order.
6	In the event of a Cboe Options System outage or other interruption of electronic trading on Cboe Options that lasts longer than 60 minutes, the Exchange will adjust the national volume in all underlying symbols excluding Underlying Symbol List A (34), Sector Indexes (47), MXEA, MXEF, DJX and XSP for the entire trading day.
7	Any potential billing errors relating to fees assessed by Cboe Options must be brought to the attention of Cboe Options's Accounting Department within three months from the invoice date. All fees assessed shall be deemed final and non-refundable after three months from the invoice date. The Exchange is not precluded from assessing fees more than three months after they were incurred if those fees were required to be paid pursuant to the Cboe Options Fee Schedule in effect at the time the fees were incurred.
8	The Exchange will waive the transaction fee for public customer ("C" capacity code) orders in all ETF and ETN options that are executed in open outcry or in the Automated Improvement Mechanism or as a QCC or as a FLEX Options transaction.
9	Notwithstanding Footnote 8 above, transaction fees are waived for customer orders providing liquidity and orders removing liquidity that are of 99 contracts or less in ETF and ETN options. Transaction fees will be assessed on customer orders that remove liquidity and that are of 100 contracts or more. Multiple orders from the same executing firm for itself or for a CMTA or correspondent firm in the same series on the same side of the market that are received by the Exchange within 500 milliseconds will be aggregated for purposes of determining the order quantity. The Exchange will charge any leg of a complex order in ETF and ETN options that is removing liquidity and equals or exceeds 100 contracts, even if the leg is only partially executed below the 100 contract threshold. The Taker fee applies to electronic volume only, but is not applied to the following: (i) trades on the open and (ii) QCC orders. The Taker fees would apply to the following volume: (i) volume resulting from a customer's orders and/or quotes removing other market participants' resting orders and/or quotes and (ii) volume resulting from a customer's primary orders in (i) unpaired auctions (i.e., Step Up Mechanism ("SUM") and (ii) Complex Order Auction (COA)). The Maker fee waiver would apply to the following volume: (i) volume resulting from executions against a customer's resting orders and/or quotes and (ii) volume resulting from a customer's responses to auctions (i.e., SUM and COA responses).
10	The Liquidity Provider Sliding Scale applies to Liquidity Provider (Cboe Options Market-Maker, DPM and LMM) transaction fees in all products except Underlying Symbol List A (34) excluding XSP. A Liquidity Provider's standard per contract transaction fee shall be reduced to the fees shown on the sliding scale as the Liquidity Provider reaches the volume thresholds shown on the sliding scale in a month. The Exchange will aggregate the trading activity of separate Liquidity Provider firms for purposes of the sliding scale if there is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A. A Liquidity Provider shall be required to prepay, by January 10th, \$2,400,000 in order to be eligible for the fees applicable to tiers 3 - 5 of the sliding scale for the entire year. A Liquidity Provider can elect to prepay \$200,000 per month to be eligible for the fees applicable to tiers 3 - 5 of the sliding scale for the remainder of the year at any time during the year, but such prepayment (and eligibility) will only be applied prospectively for the remainder of the year. A TPH that chooses, for example, in June 2014 to prepay for the remainder of the year would pay \$1,200,000 for the months of July-December. All prepay arrangements must be paid before the first calendar month in which they are to begin. Contract volume resulting from any of the strategies defined in Footnote 13 will apply towards reaching the sliding scale volume thresholds.
11	The Clearing Trading Permit Holder Fee Cap in all products except Underlying Symbol List A (34) (the "Fee Cap") and Sector Indexes (47), the Cboe Options Proprietary Products Sliding Scale for Clearing Trading Permit Holder Proprietary Orders (the "Proprietary Products Sliding Scale") and the Clearing Trading Permit Holder Proprietary VIX Sliding Scale (the "VIX Sliding Scale") apply to (i) Clearing Trading Permit Holder proprietary orders ("F" capacity code), and (ii) orders of Non-Trading Permit Holder Affiliates of a Clearing Trading Permit Holder. A "Non-Trading Permit Holder Affiliate" for this purpose is a 100% wholly-owned affiliate or subsidiary of a Clearing Trading Permit Holder that is registered as a United States or foreign broker-dealer and that is not a Cboe Options Trading Permit Holder. Only proprietary orders of the Non-Trading Permit Holder Affiliate that clear through a Cboe Options-registered OCC clearing number(s) will be included in calculating the Fee Cap, Proprietary Products Sliding Scale and VIX Sliding Scale. Such orders must be marked with a code approved by the Exchange identifying the orders as eligible for the Fee Cap, Proprietary Products Sliding Scale and VIX Sliding Scale (i.e., "L" capacity code). The Exchange will aggregate the fees and trading activity of separate Clearing Trading Permit Holders for the purposes of the Fee Cap, Proprietary Products Sliding Scale and VIX Sliding Scale if there is at least 75% common ownership between the Clearing Trading Permit Holders as reflected on each Clearing Trading Permit Holder's Form BD, Schedule A. A Clearing Trading Permit Holder's fees and contracts executed pursuant to a CMTA agreement (i.e., executed by another clearing firm and then transferred to the Clearing Trading Permit Holder's account at the OCC) are aggregated with the Clearing Trading Permit Holder's non-CMTA fees and contracts for purposes of the Fee Cap, Proprietary Products Sliding Scale and VIX Sliding Scale. The actual transaction fees resulting from any of the strategies defined in Footnote 13, after relevant caps are applied, will apply towards reaching the Fee Cap. However, contract volume from any such strategies for which the strategy cap is applied will not apply towards reaching the multi-list qualifying tiers for the Proprietary Products Sliding Scale. For facilitation orders (other than Sector Indexes (47) and Underlying Symbol List A (34)) executed in open outcry, Cboe Options will assess no Clearing Trading Permit Holder Proprietary transaction fees. For facilitation orders for Sector Indexes (47) executed in open outcry, Cboe Options will assess no Clearing Trading Permit Holder Proprietary transaction fees through December 31, 2019. "Facilitation orders" for this purpose to be defined as any order in which a Clearing Trading Permit Holder (F) capacity code or Non-Trading Permit Holder Affiliate ("L" capacity code) is contra to any other origin code, provided the same executing broker and clearing firm are on both sides of the transaction for open outcry.
<b>RESERVED</b>	
13	Market-maker, Clearing Trading Permit Holder, JBO participant, broker-dealer and non-Trading Permit Holder market-maker transaction fees are capped at \$1,000 for all (i) merger strategies and (ii) short stock interest strategies and at \$700 for all reversals, conversions and jelly roll strategies executed on the same trading day in the same option class for options on equities, ETFs and ETNs. Such transaction fees for these strategies are further capped at \$25,000 per month per initiating Trading Permit Holder or TPH organization (excluding Clearing Trading Permit Holders). These surcharge fees will not be included in the calculation of the \$1,000 per day per class fee cap or the \$25,000 per month fee cap for merger and short stock interest strategies. A "merger strategy" is defined as transactions done to achieve a merger arbitrage involving the purchase, sale and exercise of options of the same class and expiration date, each executed prior to the date on which shareholders of record are required to elect their respective form of consideration, i.e., cash or stock. A "short stock interest strategy" is defined as transactions done to achieve a short stock interest arbitrage involving the purchase, sale and exercise of in-the-money options of the same class. A "reversal strategy" is established by combining a short security position with a short put and a long call position that shares the same strike and expiration. A "conversion strategy" is established by combining a long position in the underlying security with a long put and a short call position that shares the same strike and expiration. A "jelly roll strategy" is created by entering into two separate positions simultaneously. One position involves buying a put and selling a call with the same strike price and expiration. The second position involves selling a put and buying a call, with the same strike price, but with a different expiration from the first position. Strategies tied to OCC orders will not be eligible to receive a strategy rebate.
14	The Surcharge Fees apply to all non-public customer transactions (i.e. Cboe Options and non-Trading Permit Holder market-maker, Clearing Trading Permit Holder, JBO participant, and broker-dealer), including professionals.
15	If Cboe Options exclusively listed options are traded at Cboe Options's facility on a Back-up Exchange pursuant to Cboe Options Rule 6.16, the Back-up Exchange has agreed to apply the per contract and per contract side fees in this fee schedule to such transactions. If any other Cboe Options listed options are traded on the Back-up Exchange (such as Cboe Options singly listed options that are listed by the Back-up Exchange) pursuant to Cboe Options Rule 6.16, the fee schedule of the Back-up Exchange shall apply to such trades. If the exclusively listed options of a Disabled Exchange are traded on the Disabled Exchange's facility at Cboe Options pursuant to Cboe Options Rule 6.16, Cboe Options will apply the per contract and per contract side fees in the fee schedule of the Disabled Exchange to such transactions. If any other options classes of the Disabled Exchange are traded on Cboe Options (such as singly listed options of the Disabled Exchange) pursuant to Cboe Options Rule 6.16, the fees set forth in the Cboe Options fee schedule shall apply to such trades.
16	Broker-Dealer transaction fees apply to broker-dealer orders (orders with "B" capacity code), non-Trading Permit Holder market-maker orders (orders with "N" capacity code) and certain orders with "F" or "L" capacity codes (i.e., orders from OCC numbers that are not from Cboe Options Trading Permit Holders or are not registered with the Exchange).
17	The FLEX Surcharge Fee applies to all orders (all capacity codes) executed electronically. The FLEX Surcharge Fee will only be charged up to the first 2,500 contracts per trade.
18	The AIM Contra Execution Fee applies to all orders (excluding facilitation orders, per footnote 11) in all products, except Sector Indexes (47) and Underlying Symbol List A (34), executed in the Automated Improvement Mechanism ("AIM"), Solicitation Auction Mechanism ("SAM"), FLEX AIM and FLEX SAM auctions, that were initially entered as the contra party to an Agency/Primary Order. Applicable standard transaction fees will apply to AIM, SAM, FLEX AIM and FLEX SAM executions in Sector Indexes (47) and Underlying Symbol List A (34).
19	The AIM Agency/Primary Fee applies to all broker-dealer, non-Trading Permit Holder market-maker, JBO participant and professional orders in all products, except VIX, executed in AIM, SAM FLEX AIM and FLEX SAM auctions, that were initially entered as an Agency/Primary Order. This fee will apply to such executions instead of the applicable standard transaction fee except in VIX where standard transaction fees will apply.

**Footnotes (Continued):**

Footnote Number	Description
20	The AIM Responder Fee applies to all Clearing Trading Permit Holder, non-Trading Permit Holder Affiliate, broker-dealer, non-Trading Permit Holder market-maker, JBO participant and professional orders in all products, except Sector Indexes (47) and Underlying Symbol List A (34), executed in AIM, SAM, FLEX AIM, and FLEX SAM auctions, that were initially entered as an AIM Response.
21	All electronic executions in SPX and SPXW shall be assessed the SPX and SPXW Execution Surcharge, respectively, except that this fee shall not apply to: (i) orders in SPX or SPXW options in the SPX electronic book for those SPX or SPXW options that are executed during opening rotation on the final settlement date of VIX options and futures which have the expiration that are used in the VIX settlement calculation and (ii) orders executed by a floor broker using a PAR terminal. See also footnote 15.
22	For all non-facilitation business executed in AIM or open outcry, or as a QCC or FLEX transaction, transaction fees for Clearing Trading Permit Holder Proprietary and/or their Non-Trading Permit Holder Affiliates (as defined in footnote 11) in all products except Sector Indexes (47) and Underlying Symbol List A (34), in the aggregate, are capped at \$75,000 per month per Clearing Trading Permit Holder. As Cboe Options assesses no Clearing Trading Permit Holder Proprietary transaction fees for facilitation orders (other than Underlying Symbol List A(34)) (as described in footnote 11), such trades will not count towards the cap. Surcharge fees do not count towards the cap.
23	A Market-Maker may designate an Order Flow Provider ("OFP") as its "Appointed OFP" and an OFP may designate a Market-Maker to be its "Appointed Market-Maker" for purposes of qualifying for credits under AVP. In order to effectuate the appointment, the parties would need to submit the Appointed Affiliate Form to the Exchange by 3:00 p.m. CST on the first business day of the month in order to be eligible to qualify for credits under AVP for that month. The Exchange will recognize only one such designation for each party once every calendar month, which designation will automatically renew each month until or unless the Exchange receives an email from either party indicating that the appointment has been terminated. A Market-Maker that has both an Affiliate OFP and Appointed OFP will only qualify based upon the volume of its Appointed OFP. The volume of an OFP that has both an Affiliate Market-Maker and Appointed Market-Maker will only count towards qualifying the Appointed Market-Maker.
RESERVED	
RESERVED	
RESERVED	
27	A customer large trade discount program in the form of a cap on customer ("C" capacity code) transaction fees is in effect for the options set forth in the Customer Large Trade Discount table. Floor brokerage fees are not subject to the cap on fees. Qualification of an order for the fee cap is based on the trade date and order ID on each order. For complex orders, the total contracts of an order (all legs by underlying symbol) are counted for purposes of calculating the fee cap. To qualify for the discount, the entire order quantity must be tied to a single order ID (unless the order is a complex order with a number of legs that exceeds system limitations) either within the Cboe Command system or PULSe or in the front end system used to enter and/or transmit the order (provided the Exchange is granted access to effectively audit such front end system) (the order must be entered in its entirety on one system so that the Exchange can clearly identify the total size of the order).
28	Monthly fees are assessed and applied in their entirety and are not prorated.
29	Any Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer would be permitted to avail itself of this arrangement, provided that its order routing functionality incorporates certain features and satisfies Cboe Options that it appears to be robust and reliable. To qualify for the subsidy arrangement, a Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer's order routing functionality has to: (i) enable the electronic routing of orders to all of the U.S. options exchanges, including Cboe Options; (ii) provide current consolidated market data from the U.S. options exchanges; and (iii) be capable of interfacing with Cboe Options's API to access current Cboe Options trade engine functionality. The routing system also needs to cause Cboe Options to be the default destination exchange for individually executed marketable non-customer orders if Cboe Options is at the national best bid or offer ("NBBO"), regardless of size or time, but allow any user to manually override Cboe Options as the default destination on an order-by-order basis. The order routing functionality is required to incorporate a function allowing orders at a specified price to be sent to multiple exchanges with a single click (a "sweep function") and the sweep function would need to be configured to cause an order to be sent to Cboe Options for up to the full size quoted by Cboe Options if Cboe Options is at the NBBO. Participating Cboe Options Trading Permit Holders and Non-Cboe Options Trading Permit Holders are solely responsible for implementing and operating its system. Cboe Options does not make payments under the program with respect to executed contracts in options classes included in Underlying Symbols List A (34), Sector Indexes (47), DJX, MXEA, MXEF or XSP or with respect to complex orders or spread orders. The Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer has to agree that they are not entitled to receive any other revenue for the use of its system, specifically with respect to orders routed to Cboe Options. Participating Cboe Options Trading Permit Holders and Non-Cboe Options Trading Permit Holders are not precluded, however, from receiving payment for order flow if they choose to do so. Nothing about the subsidy arrangement relieves any Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer that is using an order routing functionality whose provider is participating in the ORS Program from complying with its best execution obligations. Specifically, just as with any customer order and any other routing functionality, both a Cboe Options Trading Permit Holder and a non-Cboe Options Trading Permit Holder broker-dealer have an obligation to consider the availability of price improvement at various markets and whether routing a customer order through a functionality that incorporates the features described above would allow for access to such opportunities if readily available. Any user, whether or not a Cboe Options Trading Permit Holder, needs to conduct best execution evaluations on a regular basis, at a minimum quarterly, that include its use of any router incorporating the features described above.
30	Any Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer is permitted to avail itself of this arrangement, provided that its complex order routing functionality incorporates certain features and satisfies Cboe Options that it appears to be robust and reliable. To qualify for the subsidy arrangement, a Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer's order routing functionality has to: (i) be capable of interfacing with Cboe Options's API to access current Cboe Options trade engine functionality; (ii) cause Cboe Options to be the default destination exchange for non-customer complex orders, but allow any user to manually override Cboe Options as the default destination on an order-by-order basis; and (iii) provide current consolidated market data for complex orders from the U.S. options exchanges that offer complex order execution systems. In the event that a U.S. options exchange begins offering complex order execution systems after May 6, 2013, each participating Cboe Options Trading Permit Holder and Participating Non-Cboe Options Trading Permit Holder broker-dealer shall have forty-five (45) days from the date that system is first offered to include that exchange's market data for complex orders into the consolidated market data for complex orders provided by its order routing functionality. For purposes of the CORS Program, a "complex order" shall have the definition set forth in the first sentence of Cboe Options Rule 6.53C(a)(1). Each Participating Cboe Options Trading Permit Holder and Non-Cboe Options Trading Permit Holder is solely responsible for implementing and operating its system. Cboe Options does not make payments under the program with respect to executed contracts in options classes included in Underlying Symbols List A (34), Sector Indexes (47), DJX, MXEA, MXEF or XSP. The Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer has to agree that it is not entitled to receive any other revenue for the use of its system, specifically with respect to complex orders routed to Cboe Options. Participating Cboe Options Trading Permit Holders and Non-Cboe Options Trading Permit Holders are not precluded, however, from receiving payment for order flow if they choose to do so. Nothing about the subsidy arrangement relieves any Cboe Options Trading Permit Holder or Non-Cboe Options Trading Permit Holder broker-dealer that is using an order routing functionality whose provider is participating in the CORS Program from complying with its best execution obligations. Specifically, just as with any customer order and any other routing functionality, both a Cboe Options Trading Permit Holder and a non-Cboe Options Trading Permit Holder broker-dealer have an obligation to consider the availability of price improvement at various markets and whether routing a customer order through a functionality that incorporates the features described above would allow for access to such opportunities if readily available. Any user, whether or not a Cboe Options Trading Permit Holder, needs to conduct best execution evaluations on a regular basis, at a minimum quarterly, that include its use of any router incorporating the features described above.
31	The priority surcharge is assessed on customer (C) contracts executed in VIX. This surcharge applies to all customer contracts executed electronically that are Maker and not Market Turner. The priority surcharge is waived for all complex orders in VIX.
RESERVED	
33	For the month of October 2019, adjustments to transaction fees, such as sliding scales and incentive programs, will be calculated separately for the period of October 1, 2019 through October 4, 2019 and for the period of October 7, 2019 through October 31, 2019 for the following programs: Liquidity Provider Sliding Scale, Liquidity Provider Sliding Scale Adjustment Table, SPX Liquidity Provider Sliding Scale, Volume Incentive Program, Affiliate Volume Plan, Clearing Trading Permit Holder Proprietary Products Sliding Scale, Clearing Trading Permit Holder VIX Sliding Scale, and the Select Customer Options Reduction ("SCORE") Program.
34	Underlying Symbol List A: OEX, XEO, RUT, RLG, RLV, RUI, UKXM, SPX (includes SPXw) and VIX.
35	Per contract per side surcharge for noncustomer complex order executions that remove liquidity from the COB and auction responses in the Complex Order Auction ("COA") and the Automated Improvement Mechanism ("AIM") in all classes except Sector Indexes (47) and Underlying Symbol List A. The surcharge will not be assessed, however, on noncustomer complex order executions originating from a Floor Broker PAR, electronic executions against single leg markets, for stock-option order executions, or for noncustomer, non-Market-Maker AIM Responses (20). Auction responses in COA and AIM for noncustomer complex orders in Penny classes will be subject to a cap of \$0.50 per contract, which includes the applicable transaction fee, Complex Surcharge and Marketing Fee (if applicable).

**Footnotes (Continued):**

Footnote Number	Description
36	The Exchange shall credit each Trading Permit Holder the per contract amount resulting from each public customer ("C" capacity code) order transmitted by that Trading Permit Holder which is executed electronically on the Exchange in all underlying symbols excluding Underlying Symbol List A (34), Sector Indexes (47), DJX, MXEA, MXEF, XSP, QCC trades, public customer to public customer electronic complex order executions, and executions related to contracts that are routed to one or more exchanges in connection with the Options Order Protection and Locked/Crossed Market Plan referenced in Rule 6.80, provided the Trading Permit Holder meets certain percentage thresholds in a month as described in the Volume Incentive Program (VIP) table. This payment will be calculated from the first executed contract at the applicable threshold per contract credit. The percentage thresholds are calculated based on the percentage of national customer volume in all underlying symbols excluding Underlying Symbol List A (34), Sector Indexes (47), MXEA, MXEF, DJX and XSP entered and executed over the course of the month. Volume will be recorded for all include origins noted below and credits for customer contracts only will be delivered to the TPH Firm that enters the order into Cboe Command. The Exchange will aggregate the contracts resulting from customer, broker-dealer ("B" capacity code), joint back-office ("J" capacity code) and professional customer ("U" capacity code) orders transmitted and executed electronically on the Exchange from affiliated Trading Permit Holders for purposes of the thresholds described in the VIP table, provided there is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A. Additionally, the Exchange will aggregate all the contracts contained in any complex order (e.g., a 10 lot butterfly spread will count as 40 contracts). In the event of a Cboe Options System outage or other interruption of electronic trading on Cboe Options, the Exchange will adjust the national customer volume in all underlying symbols excluding Underlying Symbol List A (34), Sector Indexes (47), MXEA, MXEF, DJX and XSP for the entire trading day. A Trading Permit Holder may request to receive its credit under the VIP as a separate direct payment.
37	Global Trading Hours ("GTH") is a separate trading session from Regular Trading Hours ("RTH") for VIX, SPX and SPXW. GTH commences at 2:00AM CST and terminates at 8:15AM CST, and is conducted on an all-electronic trading model with no open outcry capability.
RESERVED	
39	Each Trading Permit Holder is responsible for notifying the Exchange of all of its affiliates and is required to inform the Exchange immediately of any event that causes an entity to cease to be an affiliate in a form and manner to be determined by the Exchange. An "affiliate" is defined as having at least 75% common ownership between two entities as reflected on each entity's Form BD, Schedule A.
40	All transaction fees for RLG, RLV, RUI and UKXM are waived through December 31, 2019.
41	The Exchange shall rebate transaction fees, including the Index License Surcharge, for SPX and SPXW transactions if the transaction: (i) involves a complex order with at least five (5) different series in S&P 500 Index (SPX) options, SPX Weeklys (SPXW) options, (ii) is a closing-only transaction or, if the transaction involves a Firm order (capacity code "F"), is an opening transaction executed to facilitate a compression of option positions for a market-maker or joint-back office ("JBO") account executed as a cross pursuant to and in accordance with Cboe Options Rule 6.74(b) or (d); (iii) is a position with a required capital charge equal to the minimum capital charge under Option Clearing Corporation's ("OCC") rules RBH Calculator or is a position comprised of option series with a delta of ten (10) or less and (iv) is entered on any of the final three (3) trading days of any calendar month. The Exchange shall rebate transaction fees, including the Index License Surcharge, for closing transactions involving SPX and SPXW compression-list positions executed in a compression forum (pursuant to Rule 6.56).
RESERVED	
43	The DPM appointed for an entire month in UKXM will receive a payment of \$5,000 per month through December 31, 2019.
44	The Make Rate is derived from a Liquidity Provider's ("LP") electronic volume the previous month in all symbols excluding Underlying Symbol List A and XSP using the following formula: (i) the LP's total electronic automatic execution ("auto-ex") Maker volume (i.e., volume resulting from that LP's resting quotes or single sided quotes/orders that were executed by an incoming order or quote) divided by (ii) the LP's total auto-ex volume (i.e., volume that resulted from the LP's resting quotes/orders and volume that resulted from that LP's quotes/orders that removed liquidity). Trades on the open and complex orders will be excluded from the Make Rate calculation. The Exchange will aggregate the trading activity of separate Liquidity Provider firms for purposes of the adjustment table if there is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A. The Taker fees and Maker rebate apply to a LP's electronic volume only, but are not applied to the following: (i) trades on the open, (ii) QCC orders, (iii) complex orders, and (iv) original paired orders executed via an auction mechanism. The Taker fees would apply to the following volume: (i) volume resulting from a LP's orders and/or quotes removing other market participants' resting orders and/or quotes and (ii) volume resulting from a LP's primary orders in unpaired auctions (i.e., Step Up Mechanism ("SUM")). Transactions in Penny classes would be subject to a cap of \$0.50 per contract, which includes the LP Sliding Scale transaction fee, Adjustment Table fee and Marketing Fee. The Maker rebate would apply to the following volume: (i) volume resulting from executions against a LP's resting orders and/or quotes and (ii) volume resulting from a LP's responses to auctions (i.e., Automated Improvement Mechanism ("AIM") and Step Up Mechanism ("SUM") responses).
45	A large trade discount program in the form of a cap on Market-Maker, Broker-Dealer, Non-Trading Permit Holder Market-Maker, Professional and Joint Back-Office ("M", "B", "N", "U" and "J" capacity code) transaction fees is in effect for the options set forth in the Large Trade Discount table. Floor brokerage fees are not subject to the cap on fees. Qualification of an order for the fee cap is based on the trade date and order ID on each order. For complex orders, the total contracts of an order (all legs by underlying symbol) are counted for purposes of calculating the fee cap. To qualify for the discount, the entire order quantity must be tied to a single order ID (unless the order is a complex order with a number of legs that exceeds system limitations) either within the Cboe Command system or PULSe or in the front end system used to enter and/or transmit the order (provided the Exchange is granted access to effectively audit such front end system) (the order must be entered in its entirety on one system so that the Exchange can clearly identify the total size of the order).
46	Pursuant to Cboe Options Rule 15.1, solely for purposes of ORF billing, Trading Permit Holders must provide the Exchange with a complete list of its OCC clearing numbers and keep such information up to date with the Exchange.
47	Sector Index underlying symbols: IXB, SIXC, IXE, IXI, IXM, IXR, IXRE, IXT, IXU, IXV AND IXY. Corresponding option symbols: SIXB, SIXC, SIXE, SIXI, SIXM, SIXR, SIXRE, SIXT, SIXU, SIXV AND SIXY.
48	For purposes of this Program, "Retail" volume will be defined as Customer orders ("C" capacity code) for which the original order size (in the case of a simple order) or largest leg size (in the case of a complex order) is 100 contracts or less). Additionally "Qualifying Classes" will be defined as SPX (including SPXW), VIX, RUT, MXEA, MXEF & XSP. To determine an Originating Firm's Qualifying Tier, the Originating Firm's total Retail volume in the Qualifying Classes will be divided by the Originating Firm's total Customer volume, Retail and non-Retail, in the Qualifying Classes. If an Originating Firm's Retail volume is between 20.00% and 69.99%, the Originating Firm will qualify for Tier B discounts. If an Originating Firm's Retail volume is at or above 70.00%, the Originating Firm will qualify for Tier A discounts. The Qualifying Tier that is applied in a given month is based on an Originating Firm's Retail volume in the prior month. For the Discount Tier, an Originating Firm's Retail volume in the Qualifying Classes will be divided by total Retail volume in the Qualifying Classes executed on the Exchange. The Clearing Trading Permit Holder that is billed for an Originating Firm's transactions under this program will receive the applicable discounts. If there is more than one Clearing Trading Permit Holder that is billed for an Originating Firm's transactions under this program, then the discounts will be applied on a pro rata basis.
RESERVED	
50	Fees for HP Laser Print Paper, Zebra Printer Paper and Zebra Printer Ink are waived for the period of October 7 - October 31, 2019.