

Cboe Options Exchange 24x5 Trading Frequently Asked Questions

Last Updated: 11/24/23

GENERAL QUESTIONS

Terms and definitions

> Trade Date: Date trade clears OCC

> Business Date: Date Choe Options is accepting order flow

> Calendar Date: Actual calendar date

What are the trading hours for the Curb and GTH trading sessions?

➤ The Cboe Options Exchange (C1) standard trading session follows the tables below, with the first GTH session starting on Sunday and the last Curb session ending on Friday each week. The examples represent Standard US Hours and US Centric Holiday Hours and are used as examples only. Official exchange communication is issued ahead of each holiday with specific details and timing of each session.

Standard Hours (ET)		
Session	Start Time	End Time
GTH Queuing [†]	8:00 p.m.	8:15 p.m.
GTH**	8:15 p.m.	9:15 a.m.
RTH Queuing	7:30 a.m.	9:30 a.m.
RTH	9:30 a.m.	4:15 p.m.
Curb	4:15 p.m.	5:00 p.m.

Early Close Hours (ET)		
Session	Start Time	End Time
GTH Queuing [†]	8:00 p.m.	8:15 p.m.
GTH**	8:15 p.m.	9:15 a.m.
RTH Queuing	7:30 a.m.	9:30 a.m.
RTH	9:30 a.m.	1:15 p.m.
Curb	N/A	

US Holiday Hours (ET)		
Session	Start Time	End Time
GTH Queuing [†]	8:00 p.m.	8:15 p.m.
GTH**	8:15 p.m.	11:30 a.m.
RTH Queuing	N1/A	
RTH	N/A	
Curb	N/A	
GTH Queuing [†]	8:00 p.m.	8:15 p.m.
GTH**	8:15 p.m.	9:15 a.m.
RTH Queuing	7:30 a.m.	9:30 a.m.
RTH	9:30 a.m.	4:15 p.m.
Curb	4:15 p.m.	5:00 p.m.

All International Holiday Hours (ET)		
Session	Start Time	End Time
GTH Queuing [†]	N/A	
GTH		
RTH Queuing	NI/A	
RTH	N/A	
Curb	N/A	1
GTH Queuing [†]	8:00 p.m.	8:15 p.m.
GTH**	8:15 p.m.	9:15 a.m.
RTH Queuing	7:30 a.m.	9:30 a.m.
RTH	9:30 a.m.	4:15 p.m.
Curb	4:15 p.m.	5:00 p.m.

[†] SPX/VIX orders marked GTH Only and RTH Only accepted.

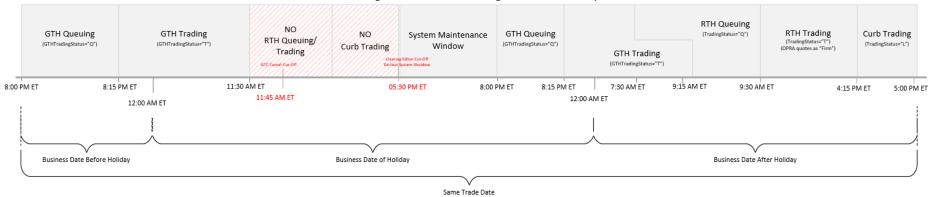
^{**}This session spans more than one calendar day.

Standard Trading Hours

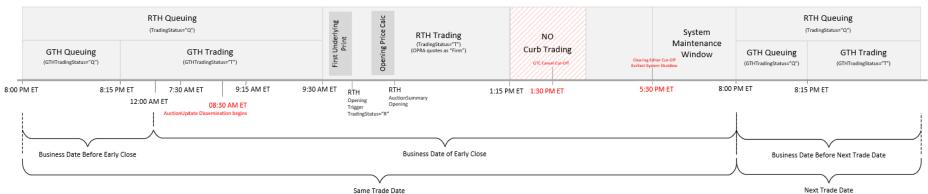


US Holiday Trading Hours

Preceding GTH Session closed during International Holidays



Early Close Hours



How are specific holiday schedules handled?

Below is an outline of each GTH, RTH, and Curb session around U.S. Holidays. These *examples* do not take into consideration an International Holiday celebrated the night/morning before the holiday is observed in the U.S. (i.e., New Year's Day, Good Friday, and Christmas). In the event an International Holiday is observed in the U.S., there will not be a GTH session on Holiday-1 from 8:15 p.m. – 11:30 a.m. ET. For a complete list of observed holidays, see the <u>U.S. Holiday Schedule</u>.

Monday Holidays - Trading Day of Tuesday across 3 Calendar Days

- GTH Trading: Sunday (Holiday-1) 8:15 p.m. Monday (Holiday) 11:30 a.m. ET
- RTH Trading: Monday (Holiday) None
- Curb Trading: Monday (Holiday) None
- GTH Trading: Monday (Holiday) 8:15 p.m. Tuesday (Holiday+1) 9:15 a.m. ET
- RTH Trading: Tuesday (Holiday+1) 9:30 a.m. 4:15 p.m. ET
- Curb Trading: Tuesday (Holiday+1) 4:15 p.m. 5:00 p.m. ET

Thanksgiving with Early Close Friday – Trading Day of Friday across 2 Calendar Days

- GTH Trading: Wednesday (Thanksgiving-1) 8:15 p.m. Thursday (Holiday) 11:30 a.m. ET
- RTH Trading Thursday (Thanksgiving) None
- Curb Trading Thursday (Thanksgiving) None
- GTH Trading: Thursday (Thanksgiving) 8:15 p.m. Friday (Thanksgiving+1) 9:15 a.m. ET
- RTH Trading: Friday (Thanksgiving+1) 9:30 a.m. 1:15 p.m. ET
- Curb Trading: Friday (Thanksgiving+1) None

Friday Holidays - Trading Day of Monday across 5 Calendar Days

- GTH Trading: Thursday (Holiday-1) 8:15 p.m. Friday (Holiday) 11:30 a.m. ET (*None if a shared International Holiday*)
- RTH Trading: Friday (Holiday) None
- Curb Trading: Friday (Holiday) None
- GTH Trading: Friday (Holiday) None
- GTH Trading: Sunday (Holiday+2) 8:15 p.m. Monday (Holiday+3) 9:15 a.m. ET
- RTH Trading: Monday (Holiday+3) 9:30 a.m. 4:15 p.m. ET
- Curb Trading: Monday (Holiday+3) 4:15 p.m. 5:00 p.m. ET

Mid-Week Holidays (example of Tuesday) – Trading Day of Wednesday across 3 Calendar Days

• GTH Trading: Monday (Holiday-1) 8:15 p.m. – Tuesday (Holiday) 11:30 a.m. ET

- RTH Trading: Tuesday (Holiday) None
- Curb Trading: Tuesday (Holiday) None
- GTH Trading: Tuesday (Holiday) 8:15 p.m. Wednesday (Holiday+1) 9:15 a.m. ET
- RTH Trading: Wednesday (Holiday+1) 9:30 a.m. 4:15 p.m. ET
- Curb Trading: Wednesday (Holiday+1) 4:15 p.m. 5:00 p.m. ET

What are the connect times for ports prior to the GTH session?

➤ The system restarts immediately after shutdown of the previous trading date. The restart process is dynamic in nature and actual system availability varies slightly from day to day. Typically, the system is fully available by 2:00 p.m. ET on Sunday and between 6:00 p.m. and 7:30 p.m. ET Monday through Thursday.

What exactly is the Curb session?

- ➤ The Curb session was introduced on April 25, 2022. The extended GTH session was introduced on November 21, 2021 (for business date November 22, 2021).
- The Curb session is limited to SPX, VIX, and XSP products only. Curb trading begins at 4:15 p.m. E.T., immediately after the close of the RTH session. Activity during the Curb session uses the same Trade Date as the preceding RTH session. The purpose of the Curb session is to maximize the overlap in time that Cboe Proprietary Options are open alongside the related futures contracts.
- There is no change to the 4:00 p.m. ET indicative marking prices or the official closing prices as a result of the addition of the Curb session.
- Any GTC orders persisting to the Curb session, including those entered using SessionEligibility of 'A', may be cancelled up until 5:15 p.m. ET.
- Clearing Edits for trades during the Curb session are available until the normal cut-off time of 5:30 p.m. ET.

How is risk functionality impacted?

- ➤ Risk controls for the RTH session are not impacted because of the additional Curb session and longer GTH session.
- ➤ Risk controls for the GTH session continue to be applied in the same manner but apply starting at 8:15 p.m. ET the prior calendar day.
- ➤ The Curb session also utilizes new Curb-only risk limits.
- Cut-off times for each session when uploading changes to the Risk Management app and Secure Web API are 7:45 p.m. ET for GTH, 9:00 a.m. ET for RTH, and 4:00 p.m. ET for Curb.
- The system reloads and resets all risk limit lockouts at approximately 2:35 a.m., 9:05 a.m., and 4:05 p.m. ET, every day, in order to apply risk settings that firms have uploaded for the next trading segment.

Additional risk functionality details are available in the <u>Risk Management specification</u>.

When does trading close for expiring AM-settled VIX and SPX options, and PM-settled SPXW and XSP options, on their respective expiration days?

- Trading for expiring AM settled VIX and SPX options ceases at the conclusion of the Curb session on the trading day prior to the expiration day. For example, trading in VIX December 2021 options concludes at the end the Curb session on Tuesday, December 21, 2021, which is the trading day prior to expiration on Wednesday, December 22, 2021. Therefore, expiring series do not trade during the GTH session occurring on their expiration days.
- > Trading for expiring PM settled SPXW and XSP options ceases at 4:00 p.m. ET on their expiration day.

On VIX settlement days, are the SPX/SPXW option series used to determine the settlement value for the VIX index at the open of RTH available for trading during GTH?

Yes. All SPX/SPXW option series used to determine the VIX settlement value at the open of RTH and normally available for trading during RTH are available during GTH immediately preceding the RTH session during which the VIX settlement value is determined.

How do orders persist between GTH, RTH, and Curb sessions?

- ➤ Orders entered using *SessionEligibility* of 'R' only participate in the RTH session and are not eligible for the GTH or Curb sessions.
- > Orders entered using SessionEligibility of 'A' participate in GTH, RTH, and Curb sessions.
- Orders entered using SessionEligibility of 'B' participate in RTH and Curb sessions.
- > Resting orders on the book at the conclusion of the GTH session will persist to the RTH session.
- Resting orders on the book at the conclusion of the RTH session marked with SessionEligibility = 'A' will persist to the Curb session.
- All Day orders resting on the book at the conclusion of the Curb session will be canceled.

What are the eligibility requirements to participate in the GTH and Curb sessions?

➤ TPH requirements to participate in the GTH session did not change from existing requirements for GTH participation. There are no special requirements to participate in the Curb session. The Cboe Membership Services team (membershipservices@cboe.com) can work with TPHs to create GTH eligible EFIDs.

Are there changes to market maker quoting obligations during Curb or GTH?

➤ GTH and Curb Market Makers are subject to all obligations under Rules 5.51 and 5.52, including the continuous electronic quoting obligation in 5.52(d). Market Maker GTH and Curb quoting is combined with RTH quoting to determine compliance with the continuous quoting obligation. Heightened LMM obligations in Rule 5.55 do not apply during GTH and Curb sessions.

When are new series added to the system for trading?

- New series in SPX and VIX added by the Cboe Operations Support Center (OSC) for trading on the **next trading date** are not immediately available for trading at the start of GTH at 8:00 p.m.
- New series in SPX, VIX, and XSP are added to the system and made available for trading between 2:00 a.m. and 3:00 a.m. ET.

How does 24x5 trading impact consolidated audit trail ("CAT") requirements?

- There are no changes to CAT reporting obligations as a result of the extended GTH and Curb sessions.
- For CAT, reports for events occurring during a particular trading day must be reported by 8:00 a.m. ET the following trading day or they will be marked late by CAT. Note that "trading day" for CAT reporting purposes is not the same as "Trade Date" (as defined above) for Cboe Options Curb/GTH purposes. For CAT, a "Trading Day" is defined as beginning immediately after 4:15:00 p.m. and no fractions of a second ET on one trade date and ending at exactly 4:15:00 p.m. and no fractions of a second ET on the next trade date. (See CAT NMS Plan FAQs B27 and C1.)
 - For example, a CAT Order Route Event (e.g., a MOOR) occurring at 8:30 p.m. ET on a Monday must be reported to CAT by 8:00 a.m. ET on Wednesday. A MOOR occurring at 8:30 p.m. ET on a Sunday must be reported to CAT by 8:00 a.m. ET on Tuesday, since Sunday is not a trading day.

Do the extended trading hours impact Floor related activities?

- > With the implementation of the extended GTH Trading Session, Floor Nominee Activation requests must be submitted to Cboe Membership Services no later than 2:00 p.m. ET the day prior to the effective date. Nominee activation requests submitted after 2:00 p.m. ET are not guaranteed to be processed for the next trading day.
- ➤ Floor Market Makers requiring MMTN set-up must submit a Web Portal Port Modification Request Form no later than 4:30 p.m. ET the day prior to the effective date. Email confirmation will be provided by the Trade Desk once completed. (Please reach out if confirmation of completion is not received by 5:00 p.m. ET.) MMTN set-up requests submitted after 4:30 p.m. ET are not guaranteed for the following floor trading session.

Who can I contact with questions?

- > For questions related to the Cboe Options markets, contact the Cboe Trade Desk.
 - o Cboe US Trade Desk: <u>tradedesk@cboe.com</u> or +1.913.815.7001
- > To request a group Technical Review for your firm, please contact your Director of Sales or Relationship Manager.
- > For questions regarding connectivity, contact the Cboe NOC.
 - o Cboe US NOC: <u>noc@cboe.com</u> or +1.913.815.7005

CLEARING QUESTIONS

What are the reported trade dates for executions during the GTH and Curb sessions?

- Executions occurring during GTH after 8:15 p.m. ET but before midnight are reported with a trade date equal to the next business day. Trades occurring after midnight for GTH, RTH, and Curb are reported with a trade date of the current business day's date.
- ➤ US holidays may impact the trade date of the GTH session. For example, in the event of no Friday RTH session due to a US holiday, both the GTH session on the preceding Thursday evening and the GTH session on the following Sunday will have a trade date of Monday.

How do the Curb and extended GTH session impact the availability of the Clearing Editor tool?

- All clearing edits are still expected to be completed by 5:30 p.m. ET with an optional extension upon request to the Cboe Trade Desk or OSC.
- ➤ The new 24x5 trading model requires a 7:00 p.m. ET hard cutoff deadline for all optional extensions with no ability for Cboe to extend past this time.
- > The Clearing Editor only accommodates edits for trades for the current Trade Date per the schedule noted above.

Are OCC real-time DDS trade reports available during GTH?

> Yes, OCC member firms receiving DDS trade reports will also receive GTH session messages.

Is GTH session trading activity included in the corresponding day's OCC margin calculations, spread process, and options limit reporting?

- Yes, trading activity in the GTH and Curb sessions (regardless of the calendar date) is included in OCC's margining and spread processing and options limit reporting for the effective Trade Date, together with trading activity in the RTH session.
- Large Options Position Report (LOPR) and spread reporting only includes positions created for the current business date in the RTH or Curb sessions.
- > Positions sent in the GTH session could be included in reporting for the next business date.

TECHNOLOGY QUESTIONS

What are the FIX or BOE changes? FIX/BOE Protocol Updates

Order Entry

- The system uses SessionEligibility (FIX Tag 22017) to distinguish which sessions an order or quote may trade. SessionEligibility = 'A' includes the Curb trading session on Quote Update message and all other messages where it is an optional field. SessionEligibility = 'B' indicates orders are eligible for the RTH and Curb sessions.
- While not *required* to be sent by the member, *TradeDate* (FIX Tag 75) is sent on Execution Reports back to the Member. A *TradeDate* occurring after 8:15 p.m. ET and before midnight will denote the trade date as occurring on the next business day since that is the date such trades will process for clearance by the OCC.
- Market orders and stop/stop limit orders are not supported during GTH or Curb sessions.

Cancellation of Orders

Cancel Order messages for GTC orders in SPX and VIX series are permitted up until 15 minutes after the 5:00 p.m. ET close of the Curb session, or up to 15 minutes after the 4:15 p.m. ET close of the RTH session when there is no Curb session. On US holidays, Cancel Order messages for GTC orders are permitted for 15 minutes after the first GTH session ends at 11:30 a.m. ET.

Carried Orders

➤ The "Multi-Segment Holiday Day Order Handling" port attribute enables Members to designate if Day orders are cancelled or preserved across holiday trading segments comprising a single trade date. This port attribute does not apply to quotes. Quotes are cancelled at the conclusion of the first GTH session.

Reset Risk

- If a risk limit is tripped or manually locked out at the end of the RTH session, the trip/lockout persists into the Curb session.
- The system reloads and resets all risk limit lockouts at approximately 2:35 a.m., 9:05 a.m., and 4:05 p.m. ET, every day, in order to apply risk settings that firms have uploaded for the next trading segment.

FLEX Order Handling (FIX only)

FLEX Order Types

- > FLEX orders are allowed in all non-RTH sessions, with the exceptions of FLEX-% and FLEX-DAC orders which **are only allowed during the RTH** session.
- > FLEX symbol creation is enabled for the Curb trading session, but symbol creation is disabled during the GTH session.

CERTIFICATION AND TESTING QUESTIONS

Is there a formal Certification process required before participating in the Curb or earlier GTH sessions?

No formal certification process is required to participate in the extended GTH or Curb sessions. However, there are GTH trading eligibility requirements that must be discussed with Cboe Membership Services (membershipservices@cboe.com).

What are the hours of the C1 Certification environment?

➤ The C1 certification environment matches the schedule for the C1 production environment found here. The Curb session and the expanded GTH session are both enabled in the C1 certification environment.

What Production testing opportunities are provided?

- Cboe supports live Sunday through Friday production testing with designated test symbols.
- ➤ The following test classes are configured to mimic the behavior of proprietary VIX and SPX index options products. Only series in these classes with an expiration of 2099-01-01 with strike prices of \$5.00, \$10.00, \$15.00, \$20.00, and \$25.00 are supported during testing.

Test Class	Expiration	Behaves Like
ZBZX	2099-01-01	VIX
ZTST	2099-01-01	SPX
ZTEST	2099-01-01	SPXW

The list of supported test symbols that may be used for extended GTH session testing can be accessed here by clicking "All Series (CSV)".

Where can I find the technical specification for Cboe order entry protocols?

> The most recent specifications can be found on the <u>US Options Technical Specifications page</u>.

MARKET DATA QUESTIONS

What changes were made to the Cboe market data protocols in support of 24x5 trading?

- The Time Reference message has been added to the Multicast PITCH, Multicast TOP, Complex Multicast PITCH, Complex Multicast TOP, Auction, Complex Auction Multicast, Opening Process, and FLEX feeds.
- ➤ On the existing Time message, the *Epoch Time* field has been added to the Multicast PITCH, Multicast TOP, Complex Multicast PITCH, Complex Multicast TOP, Auction, Complex Auction Multicast, Opening Process, and FLEX feeds.
- ➤ On the existing Trading Status message, *Trading Status* = 'L' has been added to represent the opening of the Curb session. This applies to the Multicast PITCH, Multicast TOP, Complex Multicast PITCH, Complex Multicast TOP, and FLEX feeds.
- > Trade Condition = 'v' has been added to the Cboe Options Multicast PITCH, TOP and FLEX feeds to represent extended hours trades.
- > Cboe uses existing logic for the *Trade Condition* field via the Cboe Options Multicast PITCH, TOP and FLEX feeds for the GTH session.

Is GTH and Curb market data available through OPRA?

- OPRA uses separate extended session lines to disseminate GTH data.
- ➤ OPRA uses the regular session lines to disseminate Curb data using Session Indicator = '0' and Message Type = 'v' between 4:15 p.m. ET and 5:00 p.m. ET. Curb trades do not update Open, High, Low, Closing and Last Sale prices.
- Additional information from OPRA can be found here.

Are there changes to the OPRA Session Indicator for the GTH session?

For GTH OPRA data, session indicator values from 1 to 5 indicate the day of the week associated with the trading date of the transaction.

Trade Day	Session Indicator or Value
Monday	1
Tuesday	2
Wednesday	3
Thursday	4
Friday	5

- The session indicator accounts for holiday schedules. For example, if a U.S. Holiday falls on a Friday, both the GTH session starting on the preceding Thursday evening and the GTH session starting on the following Sunday will have the session indicator set to '1', indicating messages from both sessions belong to the trade date of the next Monday.
- The session indicator value during RTH and Curb sessions coming over the Regular Hours OPRA Output lines is always '0'.
- ➤ The session indicators are enabled in the C1 certification environment.
- Additional information pertaining to session indicators can be found in the OPRA Binary Data
 Recipient Interface Specification.

REGULATORY QUESTIONS

Executions on Cboe Options occurring during the GTH session after 8:15 p.m. ET but before midnight are reported for clearing the next business day. Trades occurring after midnight during the GTH session, during the RTH session, and during the Curb session are reported to clearing with a trade date equal to the current business day. What date should be reported in the "TRADE DATE" field (Field Position 35) for trades executed after 8:15 p.m. ET but before midnight for Electronic Blue Sheet ("EBS") data files since these executions will clear with a trade date equal to the next business day?

- The "TRADE DATE" field in EBS submissions needs to be dated with the actual calendar date of the transaction, which for executions occurring after 8:15 p.m. ET but before midnight is not the same as the trade date or business date corresponding to the GTH session.
- ➤ For example, a trade occurring during the GTH session at 8:30 p.m. on Thursday, May 5, 2022, must be submitted for EBS reporting purposes with a TRADE DATE of 220505, despite the GTH session having a trade date and business date of Friday, May 6, 2022. Similarly, a trade occurring during the GTH session at 8:30 p.m. on Sunday, May 8, 2022, should be submitted for EBS reporting purposes with a TRADE DATE of 220508, despite that GTH session having a trade date and business date of Monday, May 9, 2022.

Are the Cboe Options registration requirements (e.g., General Securities Representative (GS), Securities Trader (TD), Securities Trader Principal (TP), etc.) for TPH associated persons engaged in the securities business of the TPH related to the Curb session and/or GTH session the same as those for TPH associated persons related to the RTH session?

Yes, registration requirements for the Curb and GTH sessions match those for the RTH session.

Do Cboe Options Rules require a registered principal to supervise a TPH's Curb and GTH activity in real-time during the Curb and GTH sessions?

Cboe Options Rules do not specifically require real-time supervision by a registered principal. Under Cboe Options Rule 8.16, Supervision, each TPH and associated person of a TPH shall be under supervision and control of an appropriately qualified supervisor, which does not necessarily require physical supervision. Rule 8.16 also requires each TPH to establish, maintain, and enforce written supervisory procedures ("WSPs"), and a system for applying such

procedures, to supervise the types of business in which the TPH engages and supervise the activities of all associated persons. The WSPs and the system for applying such procedures must be reasonably designed to prevent and detect violations of applicable securities laws and regulations, and applicable Cboe Options Rules.

What constitutes reasonable supervisory controls for participation in the Curb and/or GTH sessions pursuant to Cboe Options Rule 8.16, Supervision?

Cboe Options Rule 8.16 requires TPHs to have written supervisory procedures and a system for applying such procedures tailored to the types of business in which the TPH engages and reasonably designed to prevent and detect violations of applicable securities laws and regulations, and applicable Cboe Options Rules. The Cboe Options Rules are not prescriptive in defining appropriate or reasonable procedures and controls for the purposes of satisfying a TPH requirements under Rule 8.16. However, reasonable controls or supervisory parameters may include, but not be limited to, hard limits or blocks on individual orders and aggregate activity, as well as soft blocks with reasonable procedures for human intervention. Further, reasonable written supervisory procedures generally must include, among other things, steps the TPH may take to develop parameters and controls, including a process for documenting how a TPH documents the rational for such parameters and controls, as well as a process for monitoring of the performance and reasonability of such controls.

Is the Regulatory Interpretations email/telephone line staffed during GTH?

Regulatory Interpretations email and telephone lines are generally staffed between 9:30 a.m. and 5:30 p.m. ET each business day. Calls received outside those hours will go to voicemail and will be acknowledged the following business day. As such, TPHs should not use Regulatory Interpretations for GTH matters requiring immediate response or action. All time sensitive GTH matters should to be directed to the Cboe Trade Desk at the email/phone listed here.