

Mass Quote Protections

Mass Quote Protections (MQPs) are a post-trade evaluation function designed to auto-cancel a customer's resting quotes and force a Mass Quote submission time-out within a Group Code or across related Group Codes. This function is specific to CME Globex options on futures, applies only to quote trades (not order trades), and is subject to business rules specific to each option asset class. Please contact the CME Group asset class option business line manager for more information.

A customer's MQP evaluation occurs when a Mass Quote entry is traded. All quotes traded during the one-second evaluation window are tallied and compared against its MQP threshold value. If a traded quote causes its MQP tally to trigger its threshold value, then MQP functionality will execute as follows:

1. CME Globex auto-cancels the customer's resting quotes.
2. CME Globex rejects the customer's submitted Mass Quote messages. Subsequent submitted Mass Quote messages will be processed after the customer sends a Mass Quote message with a "reset" instruction.



See [Triangulation](#) for information on Mass Quote Protections for Triangulation.

Contents

- [Video Overview](#)
- [Time Interval](#)
- [MQP Types](#)
- [Mass Quote Message Reset](#)
- [MQP Trigger and Reset](#)
- [Product Lines](#)

Video Overview

Watch this video for an overview of Mass Quote protections and levels at which MQPs can be set.



Time Interval

All MQP thresholds are subject to an exchange-defined time interval during which MQPs are counted and enforced.

- The timer is triggered by an initial Mass Quote fill; If a breach occurs during the time interval, all remaining quotes are cancelled.
- If no thresholds are triggered during the time interval, MQP tallies are reset after the interval.

Example

- Customer sets Traded Quantity threshold to 1000 for the Eurodollar Options Group Code.
- Exchange sets time interval to 1 second.
- In first 500 milliseconds, customer quote is filled for 500. Traded Quantity threshold = 500.
- No further fills occur within the 1 second interval.
- At start of next 1 second interval, Traded Quantity tally reset to 1000.

MQP Types

The table below summarizes the CME Globex MQP types. Permission to use MQPs is coordinated through GAM and implemented through [CME Account Manager](#).

Contact your [Global Account Manager](#) for setup and further information.

A resting quote that trades and an aggressing (arriving) quote that trades will both cause the customer's MQP(s) to tally.

- If a resting quote causes the customer's MQP tally to trigger their MQP threshold value, then the customer's resting quotes will be cancelled.
- If an aggressing quote causes the customer's MQP tally to trigger their MQP threshold value, then the customer's resting quotes including the remaining unprocessed quotes in the inbound Mass Quote message will be cancelled.

 The table's "reference value" is an operational, shorthand term and *not* a CME Globex message value.

MQP Types (reference value)	Definition
New Quote Fill (X)	<p>Tallies when a quote's bid or ask initially trades.</p> <p>Example</p> <p>A bid-side quote initially trades as a partial fill and the X MQP tallies to +1. The remaining (resting) bid-side quote subsequently trades again but the X MQP tally remains at +1. The ask-side quote for the same strike initially trades and the X MQP tallies to +2.</p> <p>The initial trade always tallies as a value of +1 regardless of whether it is a bid-side or ask-side quote.</p> <p>Note:</p> <p>If an instrument is re-quoted following a fill, either by quote modification or new quote submission, the X tally will increment again upon execution.</p> <p>Triangulation Note:</p> <p>The X tally cannot exceed its threshold value in premium-quoted only markets. The X tally can exceed its threshold by a value of "1" in Triangulation markets in scenarios where the client has resting quotes in both the premium-quoted and vol-quoted instruments and, in turn, both instruments are part of the same Triangulation futures match event.</p>
Execution (Y)	<p>Tallies each time a quote's bid or ask trades.</p> <ul style="list-style-type: none"> • For a resting quote - Execution (Y) is incremented by one for trades with a single aggressor, regardless of partial fills • For an aggressing quote - Execution (Y) is incremented by one for the entire event that this quote traded as aggressor, regardless of partial fills <p> For triangulation implied trades that occur in the futures order book, the number of executions increments only once per aggressor order. See Triangulation for examples.</p> <p>Example: An incoming sell order is matched with implied buy orders in the order book</p> <p>A bid-side quote initially trades as a partial fill and the Y MQP tallies to +1. The remaining (resting) bid-side quote subsequently trades again and the Y MQP remains at +1. (The count is not incremented since the same aggressor is trading with implied orders.)</p> <ol style="list-style-type: none"> 1. A quote trade always tallies as a value of +1 regardless of whether the quote's bid or ask trades. 2. The Y tally cannot exceed its threshold value in FIFO matching algorithm markets. The Y tally can exceed its threshold in Pro-Rata type matching algorithm markets because CME Globex generates a partial fill execution for each Pro-Rata round within a match event.

<p>Traded Quantity (Z)</p>	<p>Traded quantity-based MQP. Tallies the number of lots traded.</p> <p>Example</p> <p>A resting 20-lot bid-side quote fully trades so the Z MQP tallies to +20.</p> <ol style="list-style-type: none"> 1. The traded quantity for a bid-side quote and an ask-side quote always tallies as a positive integer. 2. Spreads tally according to the spread's traded lot-size (e.g., 10-lot straddle quote trade tallies as +10). 3. The assigned futures portion of a premium-quoted covered trade or a vol-quoted trade is not factored into the Traded Quantity MQP tally. 4. The Z tally can exceed the threshold value by a quote side's total quantity minus a 1-lot. For example: <ol style="list-style-type: none"> a. MQP Z threshold value = 100 b. MQP Z tally = 99 c. Resting 10-lot bid-side quote is filled d. MQP Z tallies to 109 and MQP functionality is triggered
<p>Buy/Sell (Sides)</p>	<p>Traded quantity-based MQP. Tallies a net traded quantity from each trade.</p> <p>Example</p> <p>A resting 20-lot ask fully trades and the Sides MQP tallies to -20; a resting 15-lot bid fully trades and the Sides MQP tallies to -5.</p> <ol style="list-style-type: none"> 1. A spread trade nets the option leg quantities before being applied to the MQP tally (e.g. Vertical 5-lot buy or sell trade tallies as "0"; Straddle 5-lot buy trade tallies as "+10"). 2. The Sides threshold value is entered as a positive integer but is evaluated at the positive and negative integer equivalents (e.g. a threshold value of "100" equates to +100 Buy and -100 Sell). 3. The Sides tally can exceed the threshold value by a quote side's total quantity minus (or plus) a 1-lot. For example: <ol style="list-style-type: none"> a. MQP Sides threshold value = 1000 b. MQP Sides tally = 999 c. Resting 10-lot bid quote is filled d. MQP Sides tallies to 1009 and MQP functionality is triggered
<p>Delta (D)</p>	<p>Traded delta-based MQP.</p> <ul style="list-style-type: none"> • The delta protection is a counter that tallies the net delta (equivalent futures) from each trade within the set time interval, e.g. 1 second. Positive deltas (Long Call, Short Put) increment the counter and Negative Deltas (Short Call, Long Put) decrement the counter. • The D threshold value is set by customers in absolute terms. The value is entered as a positive integer but is evaluated at the positive and negative integer equivalents (e.g. a delta threshold value set at '5' equates to +5 or -5). • Deltas are netted for option spread trades (e.g. an option spread trade with leg deltas of +0.30 and -0.40 nets to -0.10). • The D tally can exceed the threshold value by a resting quote's total delta minus (or plus) 1 delta. <p>Example</p> <p>A 20-lot call bid-quote with a +0.15 delta fully trades. The D MQP tallies to <u>+3</u> (or +20 lot * +0.15 delta).</p> <p>Volatility Quoted Options Specifics:</p> <ul style="list-style-type: none"> • For triangulation implied trades that occur in the futures order book, the PQO delta MQP is incremented but the VQO delta MQP is not incremented. • Premium-quoted instrument delta values are dynamically calculated throughout the trading day and are not necessarily reflective of the actual delta when the trade occurs. Vol-quoted instrument delta values are determined when the trade occurs. • The assigned futures for a premium-quoted covered trade or a vol-quoted trade are factored into the D MQP tally.

MQP Enforcement Levels

MQP threshold values can be established at either/both of the Group Code and Aggregate Product Line levels. Product Line is an on/off enforcement that associates related Group Codes.

MQP Level	Description
<p>Group Code</p>	<p>A <i>technical</i> grouping of instruments, reflected in MDP 3.0 tag 1151-SecurityGroup and iLink tag 55-Symbol.</p> <p>Example: Eurodollar quarterly and serial options are within the same Group Code (MDP 3.0 tag 1151-SecurityGroup and iLink tag 55-Symbol=ZE).</p> <p>If a Group Code's MQP tally triggers the customer's threshold value then the customer's resting quotes for that Group Code are auto-cancelled by CME Globex.</p> <p>CME Group requires that a customer utilizes at least one MQP type at the Group Code level. The customer's Clearing Firm Admin sets the threshold value for each MQP type that they want their customer to utilize.</p>

Product Line	<p>A set of related Group Codes as configured by the GCC.</p> <p>Example: Product Line "Eurodollar" equates to the option Group Codes for Eurodollar Serial/Quarterly, Mid-Curves, Weekly Mid-Curves and related spreads.</p> <p>(MDP 3.0 tag 1151-SecurityGroup and iLink tag 55-Symbol = ZE, E0, E2, E3, E4, E5, U\$)</p>	<p>If Product Line is activated by the Clearing Firm Admin and a Group Code's MQP tally triggers its threshold value then the customer's resting quotes for the Product Line are auto-cancelled by CME Globex.</p> <p>Product Line is an on/off feature that a customer's Clearing Firm Admin has the choice to utilize.</p>
Aggregate Product Line	<p>Aggregate Product Line functionality additively tallies all instrument quote trade results within a Product Line</p> <p>Example: An Aggregate Product Line MQP threshold value is set at the Product Line "Eurodollar". This MQP tallies the option quote trade results for all instruments within the Eurodollar Serial/Quarterly, Mid-Curves, Weekly Mid-Curves and related spreads.</p>	<p>Aggregate Product Line MQPs utilize threshold values which are separate/apart from those set at the Group Code level.</p> <p>All MQP types are available at the Aggregate Product Line level. Aggregate Product Line is a feature that a customer's Clearing Firm Admin has the choice to utilize.</p> <p>If an Aggregate Product Line MQP tally triggers its threshold value then the customer's resting quotes for the Product Line are auto-cancelled by CME Globex.</p>

If a customer uses the same MQP type at both the Group Code and Aggregate Product Line levels then the most restrictive MQP threshold value across those levels will trigger MQP functionality.

Example: Customer establishes the following MQP configurations.

MQP Levels	
Group Code = ZE	Traded Quantity (Z) Threshold Value = 5
Product Line "Eurodollar" is enabled (includes ZE, E0, E2, E3, E4, E5, U\$)	
Aggregate Product Line = "Eurodollar"	Traded Quantity (Z) Threshold Value = 3

A 3-lot quote trade occurs within Group Code ZE and tallies against the Traded Quantity MQP for both the Group Code and Aggregate Product Line.

- The Traded Quantity Z tally of 3 does not trigger the Group Code's threshold value of 5
- The Traded Quantity Z tally of 3 triggers the Aggregate Product Line's threshold value of 3 which, in turn, causes CME Globex to cancel all of the customer's quotes for the Product Line "Eurodollar", and to reject all new Mass Quotes for the Product Line instruments until a reset instruction is sent.

Mass Quote Message Reset

CME Globex evaluates customer MQP(s) during one-second intervals which are native to each customer. A customer's initial quote trade both begins their one-second interval and tallies their MQP(s). Once the one-second interval has been initiated then the customer has no means to prematurely end its full one-second duration or reset their MQP tally to zero unless MQP functionality is triggered by a threshold breach.

If a customer's quote trade(s) have not triggered their MQP during a one-second interval, then their MQP tally(s) will be reset by CME Globex at the end of the one-second interval.

If a customer's quote trade(s) tally and trigger their MQP threshold during a one-second interval, then they **must** submit a Mass Quote message (tag 35-MsgType=i) with tag 9773-MMPProtectionReset = Y.

Failure to send the reset tag will cause their Mass Quote messages to be rejected. The Mass Quote message reset tag both resets the customer's MQP tally(s) to zero and allows their subsequently submitted Mass Quote messages to be processed.



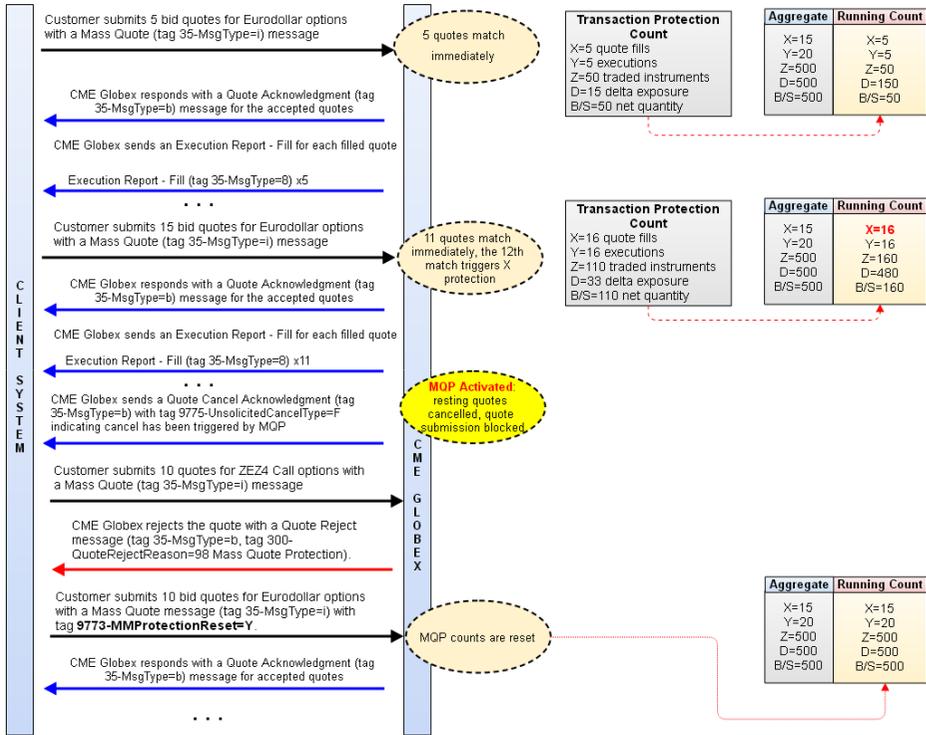
A single Mass Quote message reset applies to all Group Codes for which the MQP was triggered. For instance, if the customer is enabled to submit quotes for all Group Codes within the Eurodollar Product Line then sending a single Mass Quote message with a reset instruction will then allow them to quote all Group Codes within that Product Line.

MQP Trigger and Reset

This diagram shows a scenario in which MQP is triggered, all resting quotes are canceled, and subsequent Mass Quotes are rejected pending submission of the MQP Reset. Upon reset, quotes are accepted again.



Assume this scenario occurs during a single Time Interval.



Product Lines

The assigned group values per product line are sent in tag 1151-SecurityGroup of the [market data Security Definition](#) message.

Product Lines are configurable by the GCC only. [Contact the GCC](#) with any questions regarding product line configuration.