NASDAQ Futures Pre-Trade Risk Management

NASDAQ Futures (NQF) offers dynamic Pre-Trade Risk Management utilizing user defined risk settings and parameters based on the notional contract value.

Key Attributes

- Member controlled Pre-Trade Risk Management settings
- Dynamic, System Enforced, Pre-Trade Risk Management calculations including:
  - Maximum Order/Quote Size
  - Maximum Executed Exposure Value
  - Maximum Open Exposure
  - Maximum Total Executed Value
  - Maximum Total Open Value
  - Market Order Valuation
  - GTC Order Carry Over Valuation
- Settings defined at a Group, Firm, or Trader ID level
- Automated Warnings as activity reaches 70% / 80% / 90% of any Pre-trade risk Management Parameter
- System Cut-Off if Risk Parameters reach 100%

Parameter Specifications

- **Maximum Order/Quote Size** – Maximum allowable order or quote size, based on volume, which may be sent to NQF for a given Group, Firm or Trader ID. Each bid and offer of a quote is considered independent of one another.
- **Maximum Executed Exposure Value** – Maximum allowable exposure value calculated as the absolute value of Executed Long Value less Executed Short Value for a given Group, Firm or Trader ID. There is no offset of calls versus puts.
- **Maximum Open Exposure –** Maximum allowable exposure calculated as the sum of the absolute value of the difference of Open Long Value less Open Short Value and the absolute value of the difference of Executed Long Value less Executed Short Value, i.e.

  Absolute Value (Open Long Value–Open Short Value) + Absolute Value (Executed Long Value–Executed Short Value)

  There is no offset of calls versus puts. If a quote/order is received which would cause the Maximum Open Exposure to hit the cut-off limit, the incoming quote/order will be rejected and no cut-off will be triggered (resting orders/quotes would not be cancelled).

- **Maximum Total Executed Value** – Maximum executed value calculated as the sum of Executed Long Value and Executed Short Value for a given Group, Firm or Trader ID.
- **Maximum Total Open Value** – Maximum open value calculated as the sum of Executed Long Value, Executed Short Value, Open Long Value, and Open Short Value for a given Group, Firm or Trader ID. If a quote/order is received which would cause the Maximum Total Open Value to hit the cut-off limit, the incoming quote/order will be rejected and no cut-off will be triggered (resting orders/quotes would not be cancelled).
- **Market Order Valuation** – Dynamic valuation of market orders based on the price at which the orders are posted on the book for a given Group, Firm or Trader ID. Any time a market order is re-priced, this valuation will be performed.

- **GTC Order Carry Over –** Parameter checks are performed each day when GTC Orders are introduced to the system from the prior day. GTC Orders can result in Pre-Trade Risk Warnings and Cut-Offs.

Threshold Warnings and Cut-Off

Warning messages will be disseminated over FIX, Specialized Quote Feed (SQF), and CTI when activity reaches 70%, 80%, and 90% of any Pre-Trade Risk Management Parameter. If the thresholds for Maximum Executed Value, Maximum Total Executed value, or Maximum Total Open Value hit 100%, all open quotes and order for the associated Group, Firm, or Trader ID will be purged. If the Maximum Open Exposure or Maximum Total Open Value hit 100%, open quotes and orders will remain in the system and no new quotes or orders will be accepted unless such acceptance would result in a reduction of the Maximum Open Exposure.

Except as noted above for Maximum Open Exposure, if Pre-Trade Risk Parameters reach 100%, all open orders/quotes are cancelled and no new quotes or orders will be accepted from the associated Group, Firm, or Trader ID, , until Risk Parameters have been adjusted or the Exchange has been notified to allow additional activity. At no point will Risk Parameters be reset. The system will continue calculating Risk Parameter levels from where a Cut-Off was triggered.

Example #1: 10-OZ Gold Futures Priced at $1,341 per OZ

Assume Participant defined Pre-Trade Risk Parameters:

Maximum Order/Quote Size	1,500 Contracts
Maximum Executed Exposure Value	$20,000,000
Maximum Open Exposure	$30,000,000
Maximum Total Executed Value	$25,000,000
Maximum Total Open Value	$50,000,000

Scenario #1: Assume an Order to buy 1,000 contracts is submitted and executed.

Maximum Order/Quote Size is not triggered since the order size is less than the 1,500 contract Parameter setting

Executed Exposure Value = (1,000 contracts * $1,341.00 * 10 OZ per contract) = $13,410,000, equates to 67.05% of Max allowance ($13,410,000/$20,000,000)

Open Exposure = 0 contracts open – |(1,000 contracts executed *$1,341.00 * 10 OZ per contract)| = $13,410,00, equates to 44.7% of Max allowance ($13,410,000/$30,000,000)

Total Executed Value = (1,000 contracts *$1,341.00 * 10 OZ per contract) = $13,410,000, equates to 53.64% of Max allowance ($13,410,000/$25,000,000)

Total Open Value = (1,000 contracts executed *$1,341.00 * 10 OZ per contract) + 0 contracts open = $13,410,000, equates to 26.82% of Max allowance ($13,410,000/$50,000,000)

Scenario #2: Assume Participant already bought 1000 contracts (at $1,341) and submits a bid of 500 contracts

Maximum Order/Quote Size is not triggered since the order size is less than the 1,500 contract Parameter setting

Executed Exposure Value = 1,000 contracts * $1,341.00 * 10 OZ per contract = $13,410,000, equates to 67.05% of Max allowance ($13,410,000/$20,000,000)

Open Exposure = ||(500 contracts open*$1,341.00 * 10 OZ per contract)| + |(1,000 contracts executed *$1,341.00 * 10 OZ per contract)|| = $6,705,000 + $13,410,000 = $20,115,000 equates to 67.05% of Max allowance ($20,115,000/$30,000,000)

Total Executed Value = 1,000 contracts *$1,341.00 * 10 OZ per contract = $13,410,000, equates to 53.64% of Max allowance ($13,410,000/$25,000,000)

Total Open Value = (1,000 contracts executed *$1,341*10 OZ per contract) + (500 contracts open*$1,341.00 * 10 OZ per contract) = $20,115,000, equates to 40.23% of Max allowance ($20,115,000/$50,000,000)

Example #2: U.S. 30-YR Single Treasury Futures Priced at 92.00 ($1,000,000 face value)

Assume Participant defined Pre-Trade Risk Parameters:

Maximum Order/Quote Size	1,500 Contracts
Maximum Executed Exposure Value	$1,500,000,000
Maximum Open Exposure	$2,000,000,000
Maximum Total Executed Value	$2,000,000,000
Maximum Total Open Value	$3,000,000,000

Scenario #1: Assume Participant submits an order to buy 500 June contracts and has already executed the following today:

- **Bought 1,000 June contracts**
- **Sold 500 September contracts**

Maximum Order/Quote Size is not triggered since the order size is less than the 1,500 contract Parameter setting

Executed Exposure Value = |(1,000 June contracts *.92 *$1,000,000 face value)- (500 September contracts * .92 *$1,000,000 face value)| = $460,000,000, equates to 30.67% of Max allowance ($460,000,000/$1,500,000,000)

Open Exposure = |(500 contracts open *.92*$1,000,000 face value)| + |(1,000 long contracts executed *.92*$1,000,000 face value)-(500 short contracts executed *.92*$1,000,000 face value)| = $920,000,000 equates to 46% of Max allowance ($920,000,000/$2,000,000,000)

Total Executed Value = (1,000 June contracts * .92 *$1,000,000 face value) + (500 September contracts * .92 *$1,000,000 face value) = $1,380,000,000, equates to 69% of Max allowance ($1,380,000,000/$2,000,000,000)

Total Open Value = (1,000 June contracts * .92 *$1,000,000 face value) + (500 September contracts * .92 *$1,000,000 face value) + (500 June open contracts *.92*$1,000,000 face value) = $1,840,000,000, equates to 61.33% of Max allowance ($1,840,000,000/$3,000,000,000)

Scenario #2: Assume Participant submits an order to buy 1,200 more June contracts has already executed the following today:

- **Bought 1,000 June contracts**
- **Sold 500 September contracts**.

Maximum Order/Quote Size is not triggered since the order size is less than the 1,500 contract Parameter setting

Executed Exposure Value = |(1,000 June contracts *.92 *$1,000,000 face value)- (500 September contracts * .92 *$1,000,000 face value)| = $460,000,000, equates to 30.67% of Max allowance ($460,000,000/$1,500,000,000)

Open Exposure = |(1,200 contracts open *.92*$1,000,000 face value)| + |(1,000 long contracts executed *.92*$1,000,000 face value)-(500 short contracts executed *.92*$1,000,000 face value)| = $1,564,000,000equates to 78.20% of Max allowance ($1,564,000,000/$2,000,000,000) → **A Warning Message would be sent.**

Total Executed Value = (1,000 June contracts * .92 *$1,000,000 face value) + (500 September contracts * .92 *$1,000,000 face value) = $1,380,000,000, equates to 69% of Max allowance ($1,380,000,000/$2,000,000,000)

Total Open Value = (1,000 June contracts * .92 *$1,000,000 face value) + (500 September contracts * .92 *$1,000,000 face value) + (1,200 June open contracts *.92*$1,000,000 face value) = $2,484,000,000, equates to 82.8% of Max allowance ($2,484,000,000/$3,000,000,000) → **A Warning Message would be sent.**

Assume an additional order to buy 500 September contracts was submitted, the order would be rejected because it would otherwise cause the Maximum Open Exposure Risk Parameter to be triggered.

Assume an additional order to sell 500 September contracts was submitted, the order would be accepted because it would reduce the Maximum Open Exposure.

More Information

For more information, contact NASDAQ Futures Market Operations at +1 800 846 0477 (Option 2), or refer to the NASDAQ Futures web page.