FREQUENTLY ASKED QUESTIONS

NASDAQ Volatility Guard

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What is the NASDAQ Volatility Guard?

The NASDAQ Volatility Guard℠ is a trading pause and resumption process designed to restore an orderly market in a single NASDAQ-listed security.

When will NASDAQ implement the NASDAQ Volatility Guard?

NASDAQ® has received approval from the Securities and Exchange Commission (SEC) to launch the NASDAQ Volatility Guard on a six-month pilot basis to expire on September 11, 2011, in 100 NASDAQ-listed securities. The pilot program will launch on Monday, May 16, 2011.

Which securities are affected by the NASDAQ Volatility Guard?

The NASDAQ Volatility Guard will be initially implemented on a pilot basis for securities included in the NASDAQ-100 Index® as approved by the Securities and Exchange Commission (SEC). A full list of eligible securities is available on the NASDAQ OMX Trader® website.

Will NASDAQ-listed ETFs be included in the NASDAQ Volatility Guard pilot program?

NASDAQ-listed ETFs will not be included in the six-month pilot program for the NASDAQ Volatility Guard. If the NASDAQ Volatility Guard is extended to all NASDAQ-listed securities upon expiration of the pilot program, all NASDAQ-listed ETFs, including leveraged and inverse ETFs, will be included in the NASDAQ Volatility Guard.

Does the NASDAQ Volatility Guard replace the market-wide stock-by-stock circuit breakers that were implemented on June 14, 2010?

No. The NASDAQ Volatility Guard provides supplemental protection for investors and will extend to all NASDAQ-listed securities.

How is it different than the market-wide stock-by-stock circuit breakers?

The NASDAQ Volatility Guard is specific to NASDAQ-listed securities only and does not affect trading on non-NASDAQ OMX venues. Additionally, the pause in trading for the NASDAQ Volatility Guard is 60 seconds as opposed to five minutes and cannot be extended past the 60-second trading pause.

What are the advantages to the NASDAQ Volatility Guard over other supplementary protections available?

The NASDAQ Volatility Guard is less likely to interrupt the natural flow of price discovery and only triggers when there is a significant fluctuation in price. It has a structured resumption process and simple, transparent thresholds for triggering a halt. NASDAQ OMX® believes that the NASDAQ Volatility Guard functionality is the most technologically sound mechanism for that additional protection.

Will NASDAQ OMX allow the industry to test prior to implementation?

Yes, NASDAQ will offer Saturday testing for its Volatility Guard on April 9, 2011 and May 14, 2011.

How does the NASDAQ Volatility Guard work?

The NASDAQ Volatility Guard will be utilized if a trade executes on NASDAQ® at a price that is beyond the Threshold Range either above or below the Triggering Price. The NASDAQ Volatility Guard can be triggered between 9:45 a.m. and 3:35 p.m., Eastern Time (ET), subject to filing with the SEC.

Once initiated, the NASDAQ Volatility Guard will trigger a sixty-second pause in trading on NASDAQ in the affected security. During the trading pause, NASDAQ will maintain all current quotes and orders and will continue to accept quotes and orders in the security, as well as disseminate an electronic Order Imbalance Indicator every five seconds. At the conclusion of the sixty-second pause, the security will be re-opened via the NASDAQ Imbalance Cross process as set forth in NASDAQ Rule 4753. This process allows all market participants to engage in the re-open of the affected security.

How are the Triggering Price and Threshold Range defined?

The Triggering Price for each NASDAQ-listed security is the price of any execution by NASDAQ in that security within the prior 30 seconds. The Threshold Range shall be determined as follows:

Execution Price	Threshold Range Away from Triggering Price
$1.75 and under	15%
More than $1.75 and up to $25	10%
More than $25 and up to $50	5%
More than $50	3%

What last sale data will be used for the Triggering Price for NASDAQ Volatility Guard pauses?

The reference price will be determined using last sale-eligible transactions executed on the NASDAQ market center system.

What if there are no trades in the last 30 seconds?

No pause will be called if there have been no trades in the last 30 seconds.

Do open orders remain on the NASDAQ book during a pause in a NASDAQ-listed security?

Yes, all orders will remain on the book, unless cancelled by the customer.

What orders will be accepted during the NASDAQ Volatility Guard period?

The following order types will be accepted:

- Market Orders, Limit Orders and Quotes
- Time-in-Force of Day, Extended, Good-til-Cancelled (GTC) or Immediate-or-Cancel (IOC)
- Orders do not need any special auction specification

Note: On open, on close and imbalance only orders are only valid for the NASDAQ Opening and Closing Crosses. These order types are not supported for the Imbalance, IPO or Halt Cross.

How will NASDAQ disseminate NASDAQ Volatility Guard information via its proprietary data feeds?

As outlined in Data Technical News #2011-6, NASDAQ OMX will use the existing **Stock Trading Action (Type H)** message format to relay Volatility Guard status information on its proprietary data feed. The Stock Trading Action message features an Action field that reflects the current trading status for the instrument on the NASDAQ market as well as a Reason field that indicates the market event that triggered the most recent trading status change. In support of Volatility Guard, NASDAQ OMX will introduce new codes for both the Action and Reason code fields for the NASDAQ OMX proprietary data feeds only.

As previously announced, NASDAQ OMX will add two new Action codes to delineate NASDAQ market center-only trading actions from cross-market trading actions as part of the May 16th release. For Volatility Guard, the following Action codes will be supported on the NASDAQ OMX proprietary data feeds:

Action Code	Definition
V	**Market Center Trading Halt / Pause Has Been Triggered** The "V" action code will be disseminated when a market center specific trading pause is triggered on a NASDAQ OMX U.S. trading venue.
R	**Market Center Trading Halt / Pause - Quotation Only Period In Effect** The "R" action code will be disseminated to denote that NASDAQ OMX is accepting quotation / orders updates for the halt/imbalance cross process. During the quote only period, NASDAQ OMX will calculate and disseminate Net Order Imbalance Indicator values for the affected security at five-second intervals.
T	**Security Open For Trading** The "T" action code will be disseminated when the Trading Halt / Pause is lifted and normal trading can resume. (Please note that NASDAQ OMX will use the "T" action code for both market center and cross-market halts and pauses.)

In case firms rely on the Reason code for Trading Action displays, NASDAQ OMX will also add two new Reason codes on the NASDAQ OMX proprietary data feeds specifically for the Volatility Guard pauses. The new Reason code values will be:

Reason Code	Definition
V1	**Volatility Guard in Effect** NASDAQ OMX paused trading for 60-seconds under its Volatility Guard program. Note: This code should be populated in "V" action code messages if the market center specific halt / pause is related to the Volatility Guard pilot program.
V2	**Volatility Guard Pause / Quotation Only Period** Quotations are being disseminated for affected security, but trading remains paused on the NASDAQ OMX markets. Note: This code should be populated in "R" action codes if the market center specific halt / pause is related to the Volatility Guard pilot program.

Please refer to the NASDAQ OMX – U.S. Equity data feed specification documents for details on the Stock Trading Action message format.

Will NASDAQ OMX support the new Reason codes for Volatility Guard on the UTP SIP data feed products as well?

As outlined in Data Technical News #2011-6, The UTP SIP supports two different message formats for trading halts / pause:

- Cross SRO Trading Action (Category A – Type H)
- Market Center Trading Action (Category A – Type K)

Because the NASDAQ Volatility Guard pilot is limited to NASDAQ OMX markets, the UTP Plan mandates that NASDAQ must use the Market Center Trading Action (Category A – Type K) message format to relay the triggers. Please note that, at this time, the UTP SIP's Market Center Trading Action message format does not include the Reason code field.

When the NASDAQ Volatility Guard is triggered, NASDAQ will submit a Market Center Action message with an Action code of "H" and a Market Center ID of "Q" to the UTP SIP for dissemination via the UTP data feeds to denote that trading has been suspended on the primary market, NASDAQ.

Immediately following, NASDAQ will submit a Market Center Action message with an Action code of "Q" and a Market Center ID of "Q" to the UTP SIP to denote that the NASDAQ Imbalance Cross process has been initiated. During the NASDAQ Volatility Guard pause, NASDAQ will mark its market center quotations on UTP Quotation Data Feed^{SM} (UQDF^{SM}) with the "N" (Non-Firm) Quote Condition code.

Once the Imbalance Cross process is complete, NASDAQ will submit the Market Center Action message with an Action of "T" and Market Center ID of "Q" to the UTP SIP to reflect the primary market has resumed trading. NASDAQ would also refresh its quotation to remove the "N" condition code.

What are the differences between the Imbalance Cross and the Halt Cross?

The Imbalance Cross will work similarly to the Halt Cross with some important differences:

- 60 seconds instead of five minutes
- It will never extend beyond the 60-second time threshold
- The cross price is banded by the National Best Bid or Offer (NBBO) at the time of the cross
- NASDAQ will publish imbalance information based on a reference price and not just based on a true market order imbalance
- Orders priced better than the reference price (including market orders) will not be guaranteed to be filled in the Imbalance Cross

Will NASDAQ support Net Order Imbalance Indicator (NOII) messages for NASDAQ Volatility Guard pauses?

Yes. NASDAQ will calculate and disseminate NOII data via the NASDAQ TotalView-ITCH, NASDAQ TotalView-Aggregated and NOIView data feeds at five-second intervals during the Volatility Guard quote-only window. The NOII data will also be viewable via the NASDAQ Workstation and NASDAQ Data Store web-based products.

Due to the short duration of the pauses, however, NASDAQ will not disseminate messages on the NASDAQ Net Order Imbalance Snapshot (NOIS) data feed for NASDAQ Volatility Guard.

What sale condition modifiers will NASDAQ OMX use for the Imbalance Cross Trade?

NASDAQ will report the cross execution with the Level 2 Sale Condition code of "5" (Re-Opening Print) and the Level 4 Sale Condition Code of "X" (Cross Trade) on UTP Trade Data Feed[SM] (UTDF[SM]) and NASDAQ Last Sale (NLS).

Will NASDAQ route orders during a trading pause?

Yes, NASDAQ will route during a trading pause to away markets with the best price available, with the exception of NASDAQ OMX BX[SM] (BX[SM]) and NASDAQ OMX PSX[SM] (PSX[SM]).

Directed strategies will continue to route to the specified market (excluding Directed Orders to BX and PSX, which will be rejected). Orders using strategies that are not designed to re-route will route upon entry to outside destinations until there is no longer available liquidity and then will post to the NASDAQ book as aggressively as possible as part of the Imbalance Cross. Orders using proactive strategies will route out to available liquidity upon entry, then aggressively post to the NASDAQ book as part of the Imbalance Cross, and will route out again if they become marketable. Any strategies that include BX or PSX will skip those markets in the routing process.

How will NASDAQ resume trading after a Volatility Guard pause?

Once the trading pause has begun, NASDAQ will publish imbalance and price information every 5 seconds. Just as in the NASDAQ Halt Cross, the reference, near and far prices will be identical. The reference price during the Imbalance Cross will be the price at which

NASDAQ can execute the most shares within the NBBO. If there is excess liquidity on one side of the market based on the chosen reference price, NASDAQ will also publish the side and quantity of the imbalance.

At the end of the 60-second pause period, NASDAQ will execute the Imbalance Cross at the price within the NBBO where the most shares can be filled. If there is more than one price that meets the criteria, NASDAQ will use the price closest to the last trade prior to the Volatility Guard. Once the cross has occurred, NASDAQ will resume normal trading and the Volatility Guard parameters will be back in effect.

Any orders that were priced better than the reference price, but not executed, will be handled in one of two ways:

- If the order was entered using OUCH/FLITE it will be cancelled back to the customer.
- If entered using FIX, RashPort or QIX it will be re-entered into the continuous market and be subject to Reg NMS.

What happens if NASDAQ has no shares to execute after the 60-second pause?

NASDAQ will resume normal trading at the end of the 60-second pause whether the cross executes any shares or not.

Can the NASDAQ Volatility Guard be extended past a 60-second pause?

No. After 60 seconds, the security will be re-opened using the NASDAQ Imbalance Cross process.

Can another pause (for example, an S&P 500 security trades more than 10% away from the reference price) be triggered during the 60-second NASDAQ Volatility Guard pause?

Yes, the market-wide stock-by-stock circuit breaker can be triggered during a NASDAQ Volatility Guard pause. The market-wide stock-by-stock circuit breaker would always override the NASDAQ Volatility Guard pause in these situations.

What if a regulatory halt (e.g., due to material news) is triggered during a NASDAQ Volatility Guard pause?

The 60-second quote period for the NASDAQ Volatility Guard pause will be discontinued and a new regulatory halt period will begin. NOII dissemination will be discontinued and NASDAQ will send a regulatory halt message via the UTP SIP and NASDAQ proprietary data feeds.

Does this also apply to trading on BX and PSX?

Yes, BX and PSX will recognize any trading pause on NASDAQ initiated by the NASDAQ Volatility Guard. They will not resume trading until NASDAQ has re-opened the security.

How will BX and PSX disseminate Volatility Guard information via proprietary feeds?

To denote the start of the NASDAQ Volatility Guard period, BX and PSX will disseminate a Stock Trading Action message with the new Action code of "V" (Trading Halt or Pause – NASDAQ OMX markets) via the TotalView-ITCH, Best Bid and Offer (BBO) and Last Sale data feeds. Once trading has resumed on the primary market, they will disseminate a Stock Trading Action message of "T" (Trading resumed on NASDAQ).

Will The NASDAQ Options Market℠ (NOM) and NASDAQ OMX PHLX℠ (PHLX®) trade during a NASDAQ Volatility Guard pause?

Yes. Both NOM and PHLX will remain open during a NASDAQ Volatility Guard pause on NASDAQ.

Where can I find additional information?

- Refer to www.nasdaqomx.com/volatilityguard.
- Contact Transaction Services U.S. Market Sales at +1 800 846 0477.