

Legal width quotes to open a series:

The question was asked how we would price a market order on the open in a series with a .01 - 9.00 market. The point of the question was “will you open at .01?”

However this isn't how the auction itself works.

We ALWAYS require a legal width quote to open. If we grant quote width relief, the legal width trigger is relaxed to match the quote width. If we take (.01 – 9.00) as an example, and first look at the bid, under normal circumstances the legal width quote is .25, and this yields a (.01 - .26) market as legal width which would be required to open a series. 3X legal width would yield a possible (.01 - .76) market.

The low price for execution of a market order with a 9 offer for auction would have to be 8.50 if we have no quote relief, based on .50 legal width up from the bid (see table below).

To even get to a market of .01 - 9.00 that would trigger a series to open would require a market set to **36x legal width**, so the scenario is highly unlikely to occur in production.

Here is a table that shows legal width based on the option premium.

Legal Width Quotes – Based on the Bid

\$0.00 - \$1.99	25 cents
\$2.00 - \$5.00	40 cents
\$5.01 - \$10.00	50 cents
\$10.01- \$20.00	80 cents
>\$20.01	\$1.00

**For equity option series with expiration dates > 9 months away and for index option series with expiration dates > 12 months away, the legal width spread should be 3x the values in the table above.

If we use the table above, then looking at different quote width relief scenarios the auction would yield:

If we open on a legal width quote (which is always based on the bid, i.e. a bid of 1.99 or less yields a legal width of .25 if we have no width relief) then an auction band of .01 - .26 that gets a market order to sell on the auction WILL trade at a penny if we have no buy orders in the book for auction.

Similarly a 3X wide auction band of .01 - .76 WILL open at 0.01 if we have a market order to sell on auction and no buy orders

And a **36x** wide auction band of .01 - 9.01 WILL open at 0.01 if we have a market order to sell on auction and no buy orders

The basic assumption of opening at a reasonable price is that we enforce a legal width market maker quote to trigger the series to open--multiplied by quote width relief.

So, barring us granting 36x legal with quote relief, the (0.01 - 9.01) scenario really isn't going to happen.

Even on a 5x legal width opening scenario we'd be looking at 0.01 - 1.26 price range, or looking at the high side from the example, the required market maker quote to open the series would be 6.50 - 9.

Furthermore, in a no bid series (0 - .25 would be legal if no quote width relief is in place), a market order to sell will not convert to .05 or .01, but will post at the more aggressive of the offer price or last sale price and will wait for contra interest to arrive. If contra interest (a bid) arrives, the market order will be executed at the bid price of the order or quote if the offer is .25 or less for the auction, or .75 or less during sweep and core trading.

During sweep when collar logic is turned on, if the offer is greater than .75 and there is no bid, we will post the sell market order down from the offer by 1 collar value and wait for a bid that meets the requirements of collar logic.

During core trading, when collar logic is not turned on, if the series has no bid and the offer is greater than .75 we will wait for a market maker quoted bid or NBBO bid before executing the trade, to ensure the sell order receives a valid price.