## QuantMap v7 with Power Metter and Market Making Agressivity

## What is this?

In order to get a good vizualisation of the order flow, and the way that the market maker is executing market order, it seems to be essential of knowing how a contract is filled, compared to how it should be filled theorically.

 $\rightarrow$  To track that, we are going to do this next calculation:

Market Maker Agressivity = (Uptick Volume – Ask Volume) – (Downtick Volume – Bid Volume)

 $\rightarrow$  You have to know that :

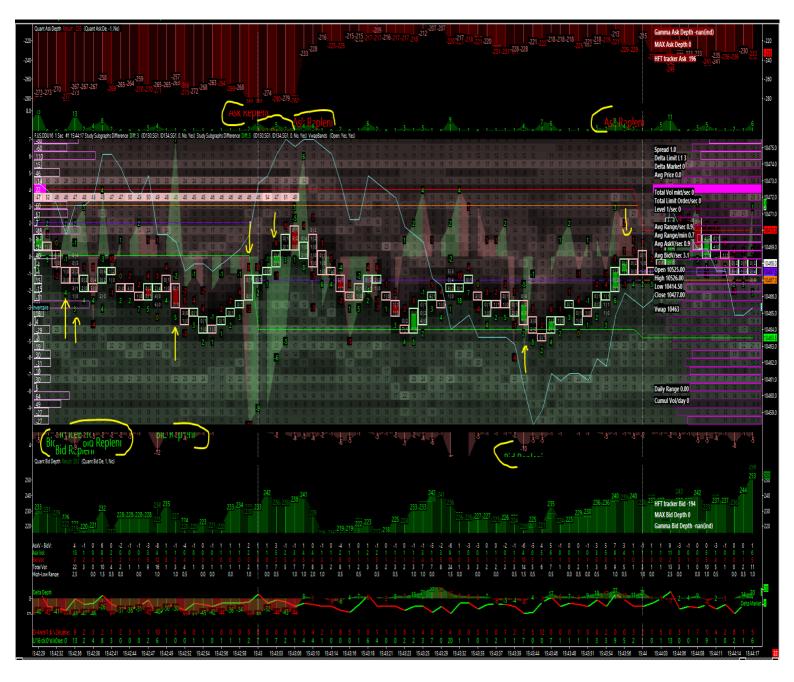
**Uptick Volume + DownTick Volume = Total Volume = Ask Volume + Bid Volume = Bought** and Sold contract filled.

Also, when MMA is a positive value, it means that there are more market order who has upticked the price compared to bought market order. So it means that Bid Volume (sold market order) have upticked the price! It's bullish signal, because, it means that sold volume are moving the price higher. It's not a logic concept, but it is the perfect illustration of market making manipulation process. In fact, it means that there is a market maker who are buying some Bid volume higher than the previous best bid price. It is the limit order displacement trought the orderbook who create this uptick of the price.

Also, when MMA is negative value, it means that there are more market order who has downticked the price compared to sold market order. So it means that Ask Volume (bought marker order) have downticked the price! It's bearish signal, because it means that bought volume are moving the price lower!

- → The most interesting thing is to identify these market making manipulation during an opposit price action. For example, imagine you have an UP bar, with negativ MMA value, you know that the price is pushed higher, but you know that the market maker is fighting that! It means that the market maker want to push the price lower!
- → It's very interesting to combine this kind of signal (divergence between price action and MMA) with other powerfull signal like bid/ask replenished for example.

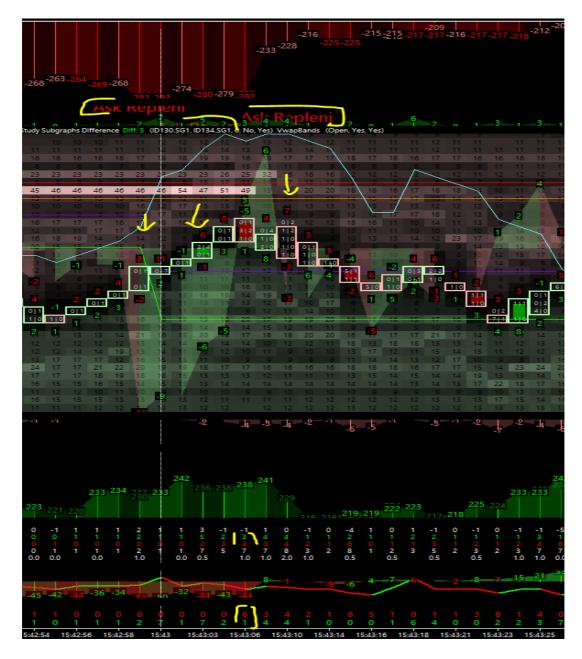
Let's see this real example on the FDAX this morning:



As you can see on this FDAX example, the Bid/ask replenished alert are working very well. Indeed, at each bottom and top of the price movment, you will get this kind of alert for identify the remove/add limit order process through the book.

As i said before, it's better, when you succeed to combine a package of many signal who are showing the same order flow analysis.

Let's see this particulary interesting bar at 15H43.05 CET:



At the bottom of the QuantMap, you can see 2 numerical value in red/green. It's the uptick volume (in green) and the downtick volume (in red) for each bar. And as you know the total of Uptick Volume and Downtick Volume is equal to the total the Ask Volume and the Bid Volume (because they are both market order)

On this particular bar, you can see: 3 Ask volume and 4 Bid Volume, but only 1 uptick volume for 6 down tick volume! The price is going higher, but the market volume is more seller, and the market maker is fighting the bought market volume.... So the price should go down. Add to this the fact that the price has mooved up before with other Ask replenished alert, and you should wait for the price lower then.

There are more downtick volume than sold market contract... it's not logical, and it's showing market making manipulation. That's one of the proof of how the market price action is often very rigged.

Finally, you see the price action who is going down after this bearish manipulation.

## What is the QuantMetter?

The QuantMetter is a very innovativ tool who can be used to read the limit order movment inside the book! The way you have to read it is even similar than the basic version of the QuantMap. You have only 3 regions on the chart. At the middle you find the price action, with the market volume inside it (footprint) and you have the heat map too above and below the price action in this same region. At the top of the chart, you will get the QuantMetter Ask depth, and at the bottom of the chart, you will get the QuantMetter Bid depth.

Warning: the QuantMetter Ask depth is different from the Quant Ask depth, and the QuantMetter Bid depth is different from the Quant Bid Depth.

The Quant depth is an aggregation of the total limit orders of the book. It is shown side by side, with one value, for each bar. One value for the ask depth, and one value for the bid depth. This value is in reality, the total depth for the bide side and the ask side that you can see mooving by the time.

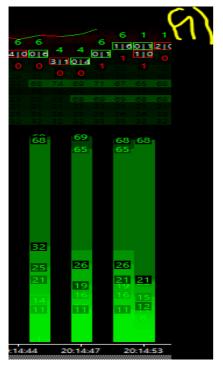
The QuantMetter depth is not an aggregation of all limit orders; it's each limit order, shown, one by one, levels by levels, for the two side of the book, and on the same quantity scale and with an advanced coloring method by the amount of the limit order.

The goal is to see and evaluation the movment of each limit order inside the book. Don't forget that limit order are mooving through the depth! They are added/removed, displaced, more and less, and more, etc. There is a real limit order ACTION; a real limit order MOVMENT.

And the advantage you will get with the QuantMetter is that the coloring method will let you know if the bigger quantity are near the price or not; and how the price is reacting when it approaches of this big limit order quantity.

If you see a big quantity of limit order with a shade red/green, it means that this big limit order is not near the price. (1)

If you see a big quantity of limit order with a fluorescent red/green, it means that this big limit order is very near the price! (2)





Let's illustrate it with some examples on FDAX and GC contract :

