

# Market Structure

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📄 Status	Feito
# Questões	

## ▼ 1. Definitions

### Color settings

Light gray candle: aka bullish candle or up candle. Candle that has close > open

Dark gray candle: aka bearish candle or down candle. Candle that has open > close

### Dictionary

**HTF:** Higher Time Frame (1 day)

**MTF:** Middle Time Frame (4 hours)

**STF:** Short Time Frame (1 hour)

**LTF:** Lower Time Frame (15 min)

## ▼ 2. Rules for Market Structure

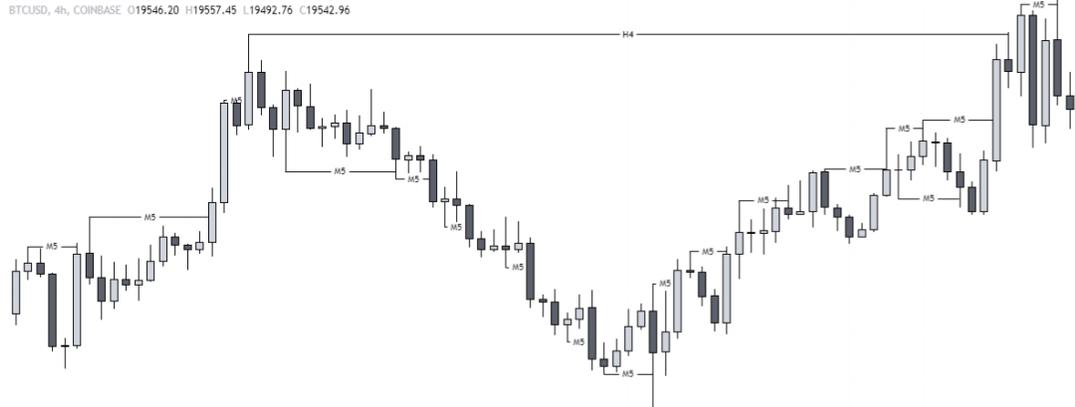
### ▼ Basic settings (*immutable*)

#### ▼ Break of Structure (BoS)

***def: candle that closed with a high above a previous defined range high, or closed with a low below a previous defined range low that has a minimum number of gaps before it***

BOS to be marked with a straight line containing respective timeframe as a text centered in the middle

Has to persist between timeframes (i.e. 4 hour candle BOS to be visible when analyzing 15 min chart)

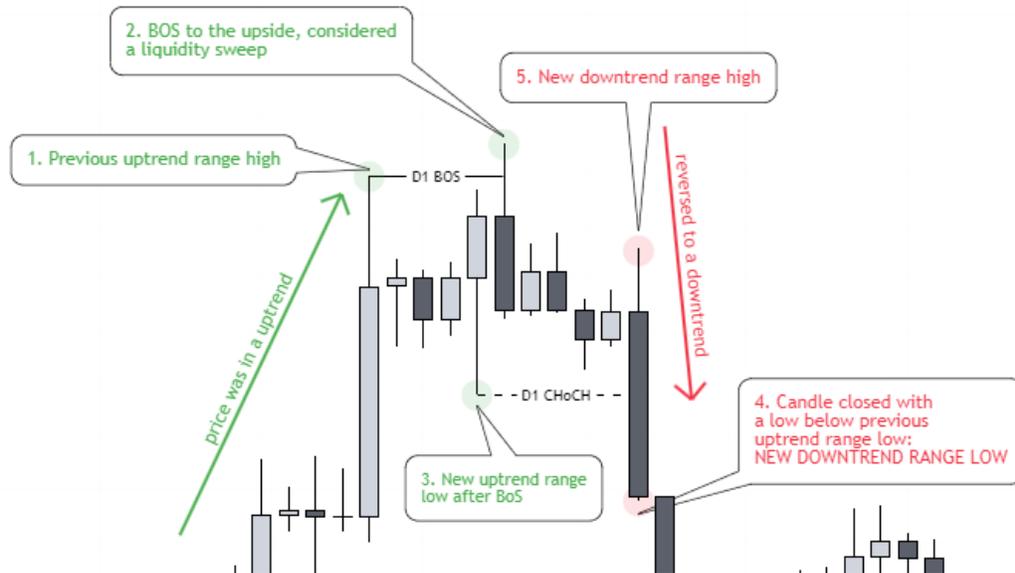


▼ **Change of Character (CHoCH)**

***def: candle that closed with a low below previous uptrend range low, or that closed with a high above previous downtrend range high, after a sweep of liquidity***

CHoCHs to be marked with a straight dashed line containing respective timeframe as a text centered in the middle

Has to persist between timeframes (i.e. 4 hour candle CHoCH to be visible when analyzing 15 min chart)

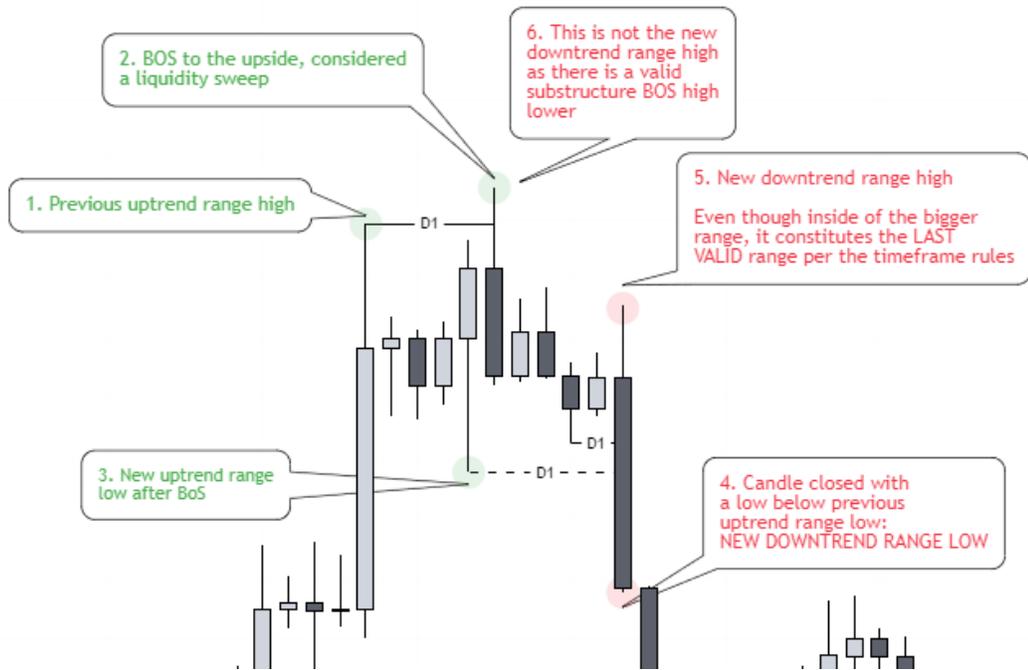


The above image included BOS and CHoCH in the respective texts only for illustration purposes.

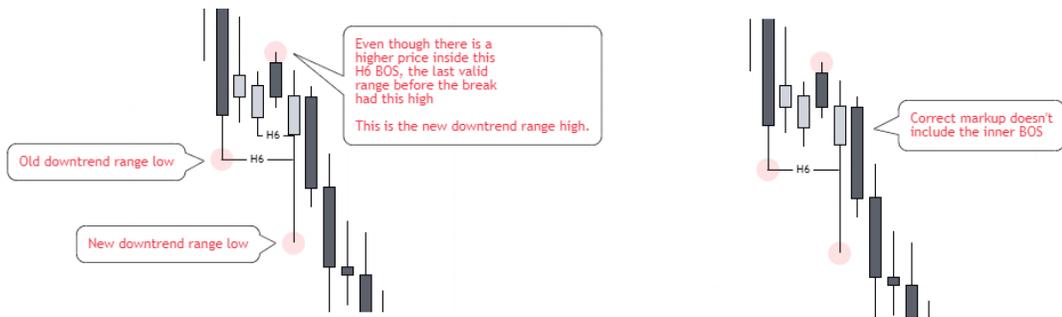
The next image shows the correct markup

### ▼ Range limits

***def: After a BoS or CHoCH, the new range high or low isn't defined as the highest/lowest price in the range, but the last highest/lowest price that constitutes a valid sub-range***



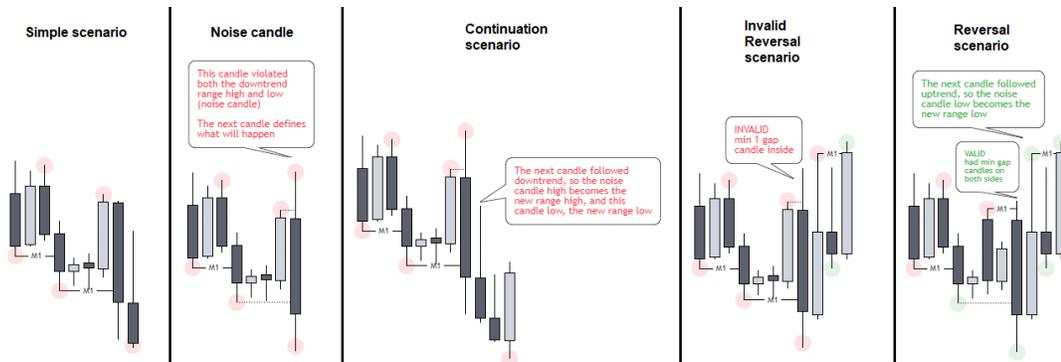
In this example, the new downtrend range high was of the same candle that caused the CHoCH, which doesn't pose any error



The last valid range doesn't need to be marked, but it is required for setting the new range limits

### ▼ Noise candles

**def: candles that wick both the high and low of the range, common during red folder news**



For continuation it simply has to follow the previous trend  
 For reversals, it has to have a valid range on both sides and be followed by a candle of the CHoCH direction

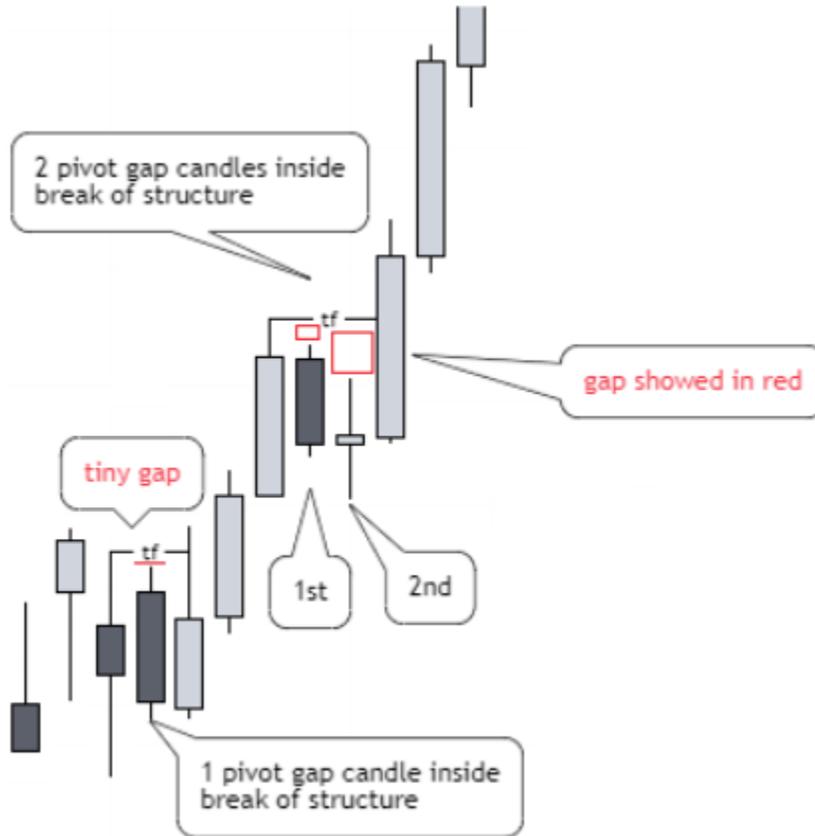
### ▼ Special settings (*user-defined*)

#### ▼ Minimum pivot gaps (*integers, min = 1, default = 1*)

**def:** *Minimum number of candle gaps required before a break of high/low. Has to be set to each time frame order of magnitude.*

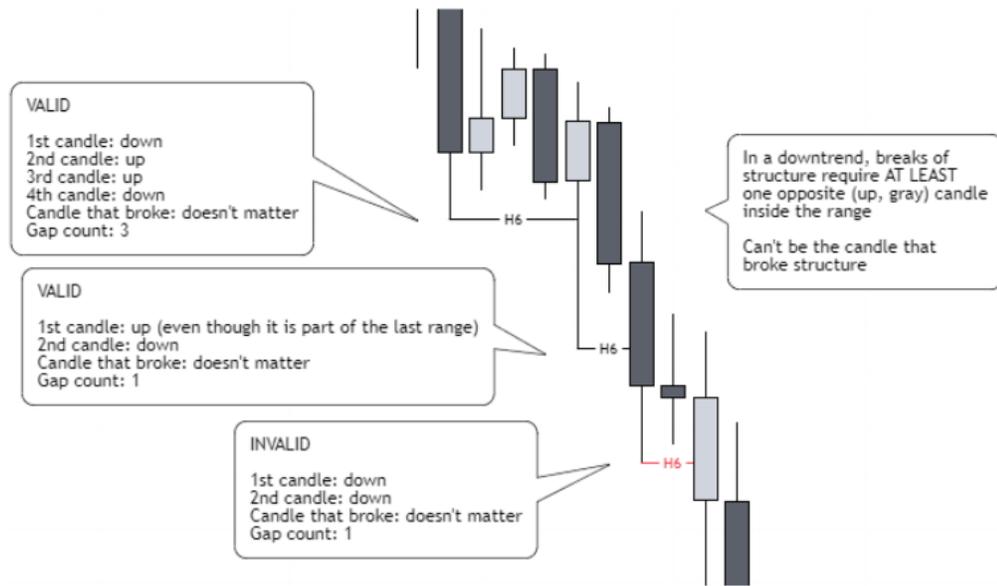


e.g. HTF and MTF 4 candles, STF and LTF 1 candle...



▼ Different color breaks (*bool, default = TRUE*)

*def: Requirement as if there needs to be opposite-colored candles for it to be considered valid BOS or CHoCH.*

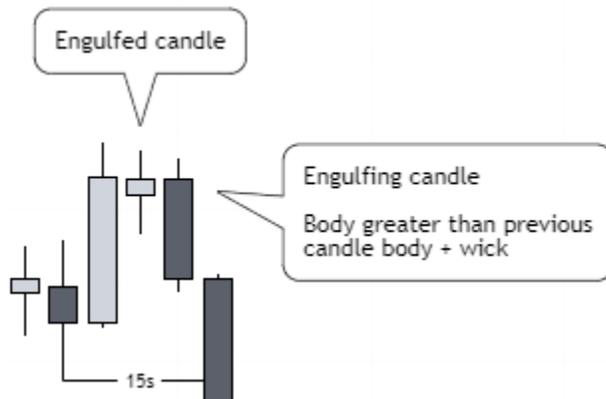


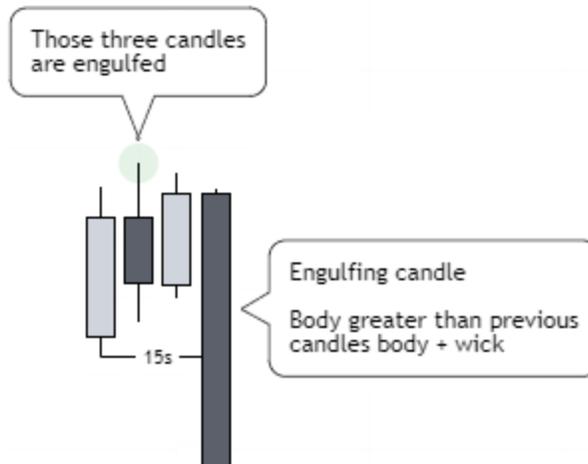
💡 The image above is an example of when the condition is set to TRUE. If the condition was set to FALSE, all breaks would've been considered valid if the min gap count was set to one, and only the first case would've been valid if it was set to three,

### ▼ 3. Orderblocks

#### ▼ Engulfing candles

*def: Candle body that is bigger than the whole previous candle (or candles)*





**Engulfing timeframe ranges (def: array of timeframes in which we look for the greatest number of candles engulfed by a single opposite candle)**

*e.g. After a H4 CHoCH, analyze H4, H5, H6, H7 until H23 for the greatest number of engulfed candles by a single engulfing move that lead to the CHoCH*



**These timeframe ranges are to be defined by the user.**

**Default:**

**HTF range: 1 day to 7 days**

**MTF range: 4 hour to 23 hours**

**STF range: 1 hour to 3 hour**

**LTF range: 15 min to 45 min**

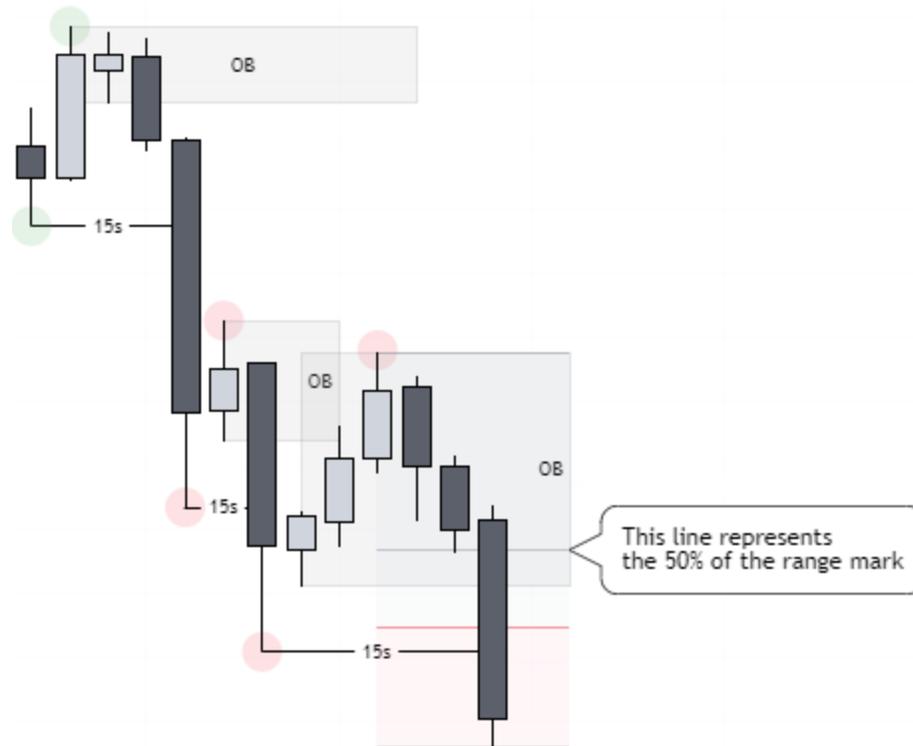
## ▼ Orderblock Type 1 (OB1)

***def: Engulfed candles before a BOS or CHoCH that doesn't exceed 50% of the range size***

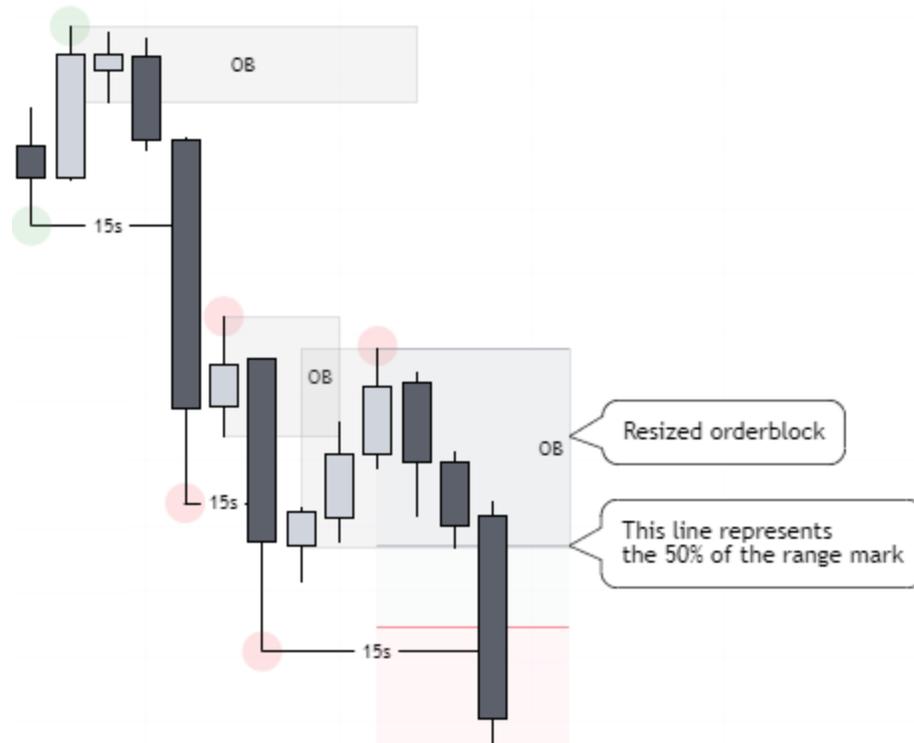


In a downtrend OB, engulfed candles must start with the first bullish/up candle.

In an uptrend OB, engulfed candles must start with the first bearish/down candle.

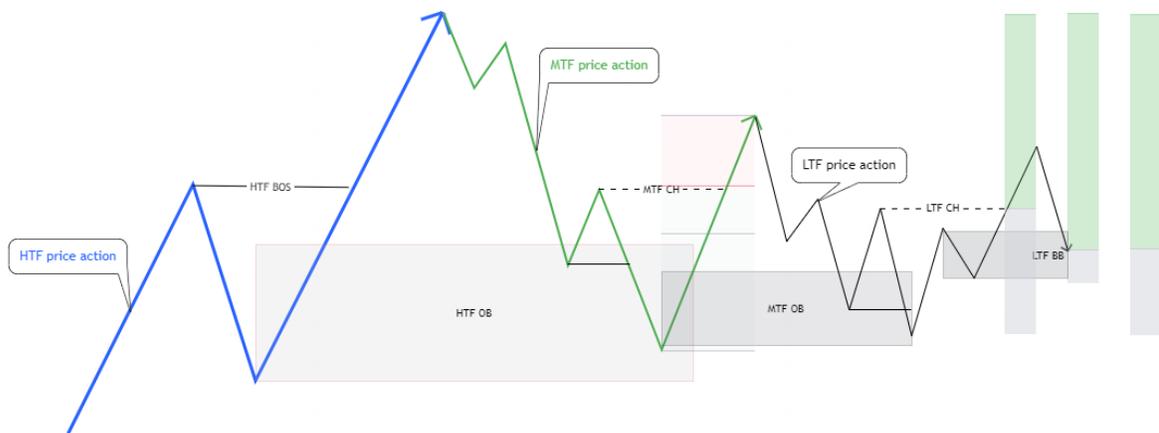
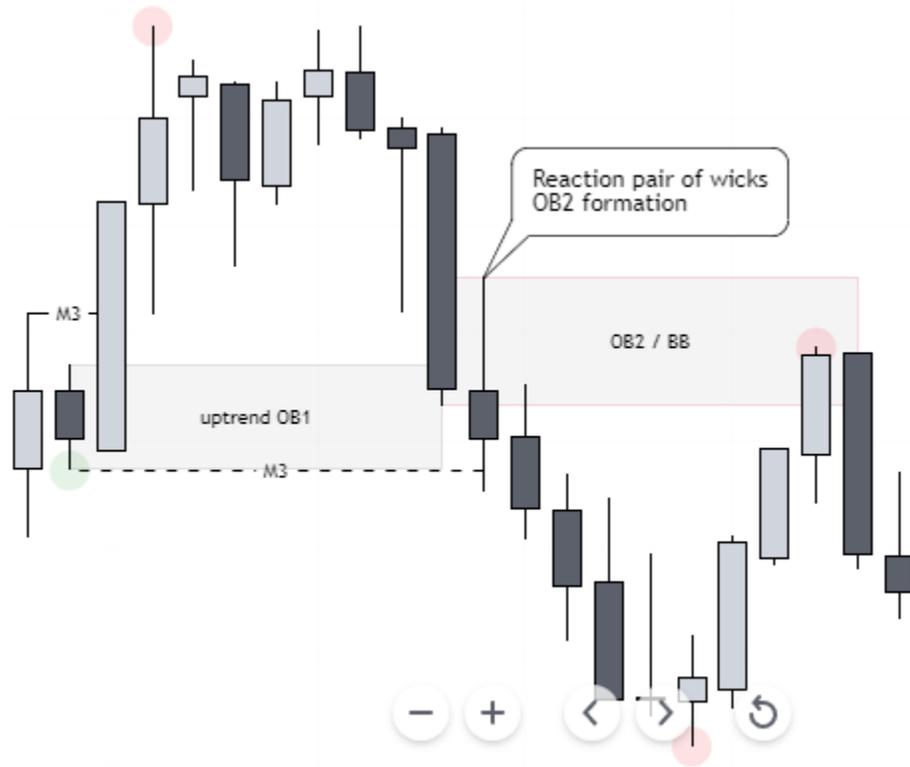


The first 2 orderblocks are well defined, but the 3rd one exceeds the range 50% mark, so it has to be resized...



▼ **Orderblock Type 2 (OB2), aka Breaker Block**

*def: Reaction pair of wicks to older (opposing trend) orderblock*



## ▼ Orderblock positioning

The first confluence for our signal is that the reversal (CHoCH) has to occur inside a higher time frame OB/BB



**Inside HTF OB:** look for STF CHoCH to create an OB

**Outside HTF OB:** look for MTF CHoCH to create an OB

**Inside MTF/STF OB:** look for LTF CHoCH and entries.

## ▼ Time frame alignment

The second confluence for our signal is alignment between 3 (three) timeframes.



e.g. inside HTF uptrend OB: look **only** for uptrend STF **and** LTF OBs

## ▼ Liquidity Inducement Rules (LIR)

After a pro-trend CHoCH, should the price violate 50% of the range (premium/discount), miss our orderblock and retrace to 90% of the range (red zone), the orderblock is invalid and we have to wait for a new different time frame CHoCH

e.g. After the (green) MTF uptrend CHoCH we should be waiting for a (black) LTF CHoCH inside the OB. If the price retraces to below 50% of the range and moves upward violating the 90% mark, never touching our orderblock, this activates the rule, our MTF OB is invalid and we have to wait for a **STF uptrend CHoCH** to create a new STF OB and the LTF CHoCH OB inside there.



The aforementioned case doesn't occur in the image provided as the price retraces back to lower than 50% of the MTF uptrend range but never violates the 90% mark (even *by a few pips*)

The user has to define a timeframe for each order of magnitude timeframe.

**MTF LIR:** delete MTF OBs and wait for a **STF** pro-move CHoCH to create STF OBs

**STF LIR:** delete STF OBs and wait for a new STF pro-move CHoCH



HTF and LTF aren't subject to the LIR.

After a MTF pro-move CHoCH inside a HTF OB, reduce orderblock size to the last untouched/unmitigated portion.

## ▼ 4. News

Option to define sessions hour range, as well as to define which the EA must be active on.



**Default (GMT - 3)**

**Asian: 19:00 - 23:00 → inactive**

**Frankfurt: 01:00 - 03:00 → inactive**

**London: 03:00 - 08:30 → active**

**NY: 08:30 - 12:00 → inactive**

It must be connected to news sources, as well as bank holidays, with the timezone adjusted to desired.

<https://www.myfxbook.com/forex-economic-calendar>

<https://www.forexfactory.com/calendar>



It must have the option to make the signal inactive from 10 minutes before until 10 minutes after red-folder news

As well as don't trade during bank holidays, NFPs