Twitter Thread by Quant Guy

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MEGA Thread on Moving Averages ■■

In this thread, we will cover a lot of ways in which moving averages can be calculated

Goal of the thread is not to find the best MA but to explain the concept behind
I am sure you will find new ones on the list!
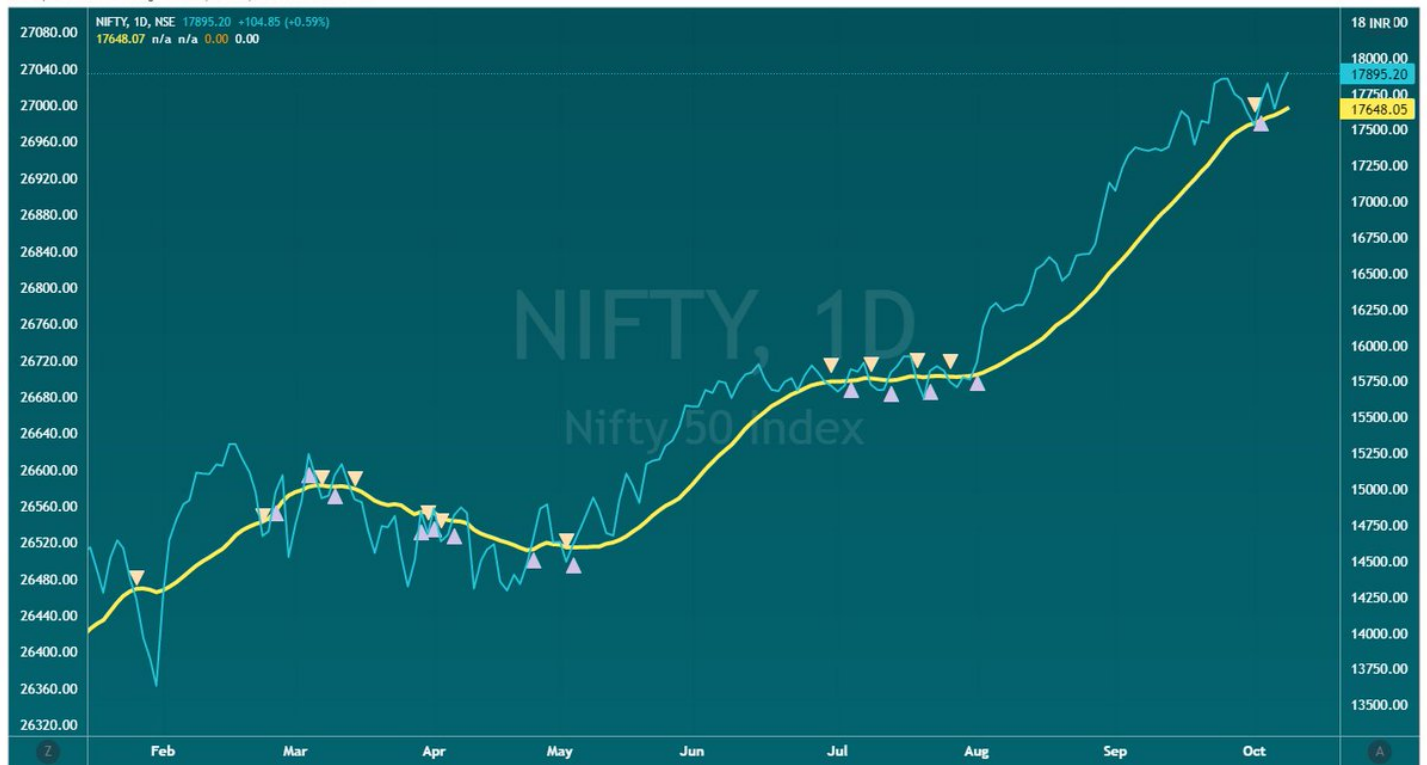
Lets start!
(1/11)

Simple Moving Average (SMA)

A SMA is a sum of past N values of PRICE divided by N

A SMA looks like below on the chart and is basis for more than 50% indicators out there (50% indicators show more or less same info as a SMA)
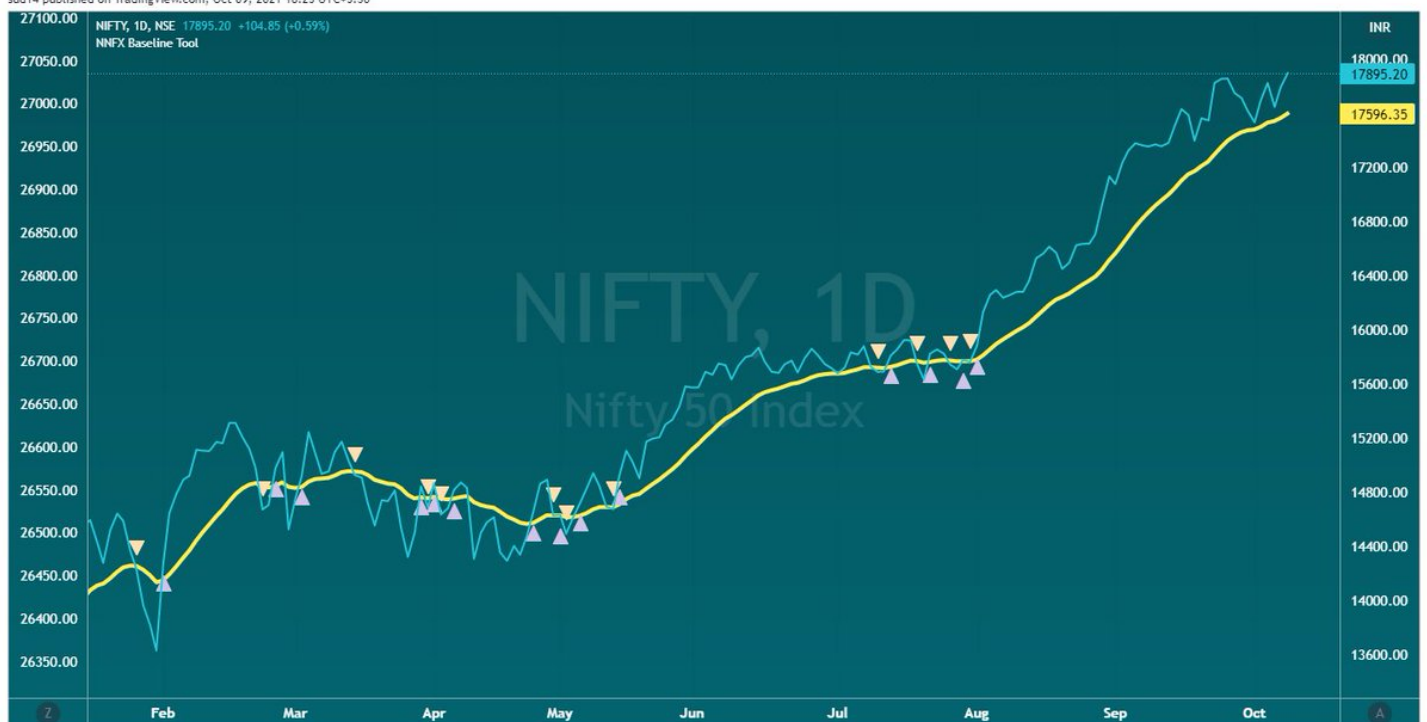
(2/11)

Exponential Moving Average (EMA)

The EMA places priority to price values that are recent. This enables it to be responsive compared to SMA.

Hints:
- Use it if you need a responsive MA
DEMA, TEMA are application of EMA over EMA to make it more responsive.
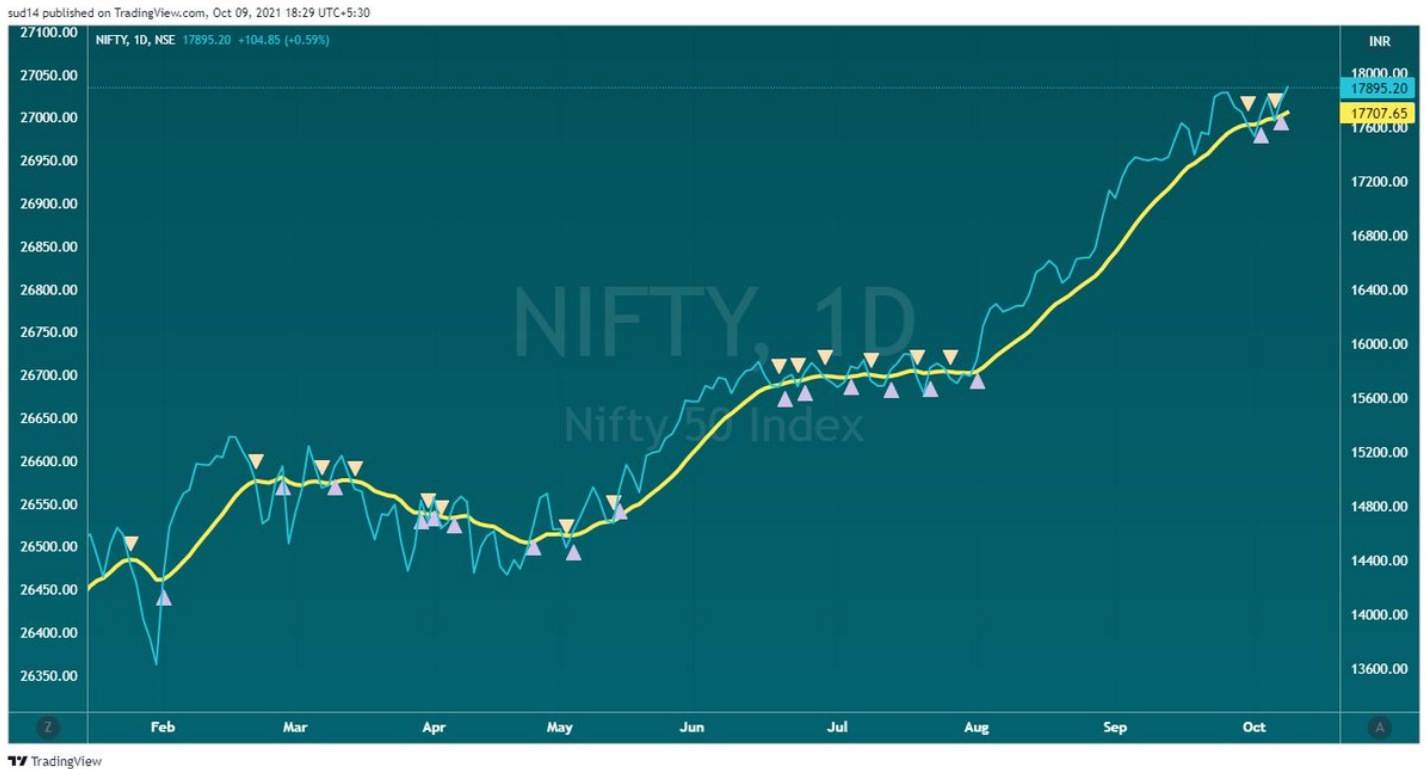(3/11)

Weighted Moving Average (EMA)

The WMA is similar to placing priority to recent price changes. Its smoother because it adds weights rather than price fraction.

Hints:
- Jitteriness of EMA can be avoided with using WMA
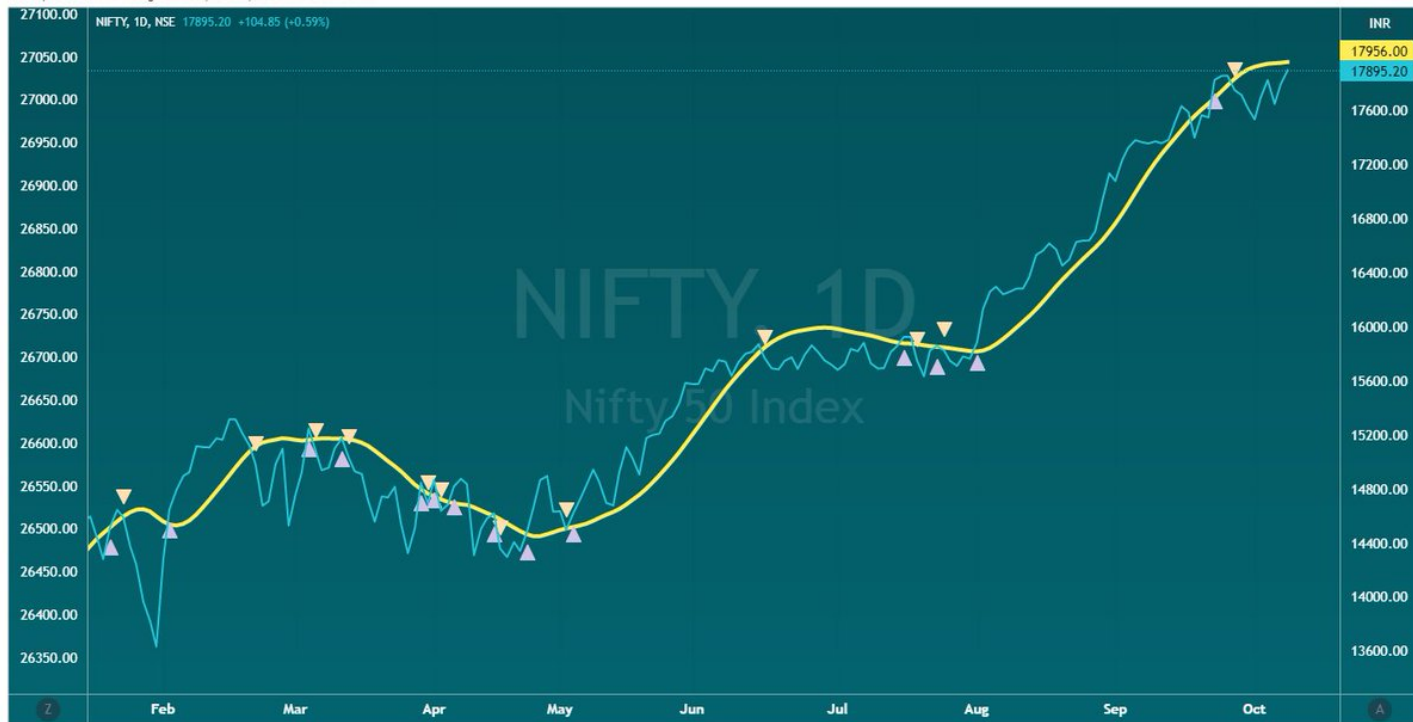- VWMA adds volume component to calculation

Hull Moving Average (HMA)

Perhaps the most elegant moving average and very smooth to look at.

HMA has reduced lag and also very responsive to price change.

Sudden price changes induce a overshoot which is rectified by the Jurik Moving Average (JMA)

Jurik Moving Average (JMA)

JMA uses advanced smoothing methods to have also no lag and virtually no overshoot.

Its proprietary and hence will not find in many charting platforms. Tradingview has it, check it out.
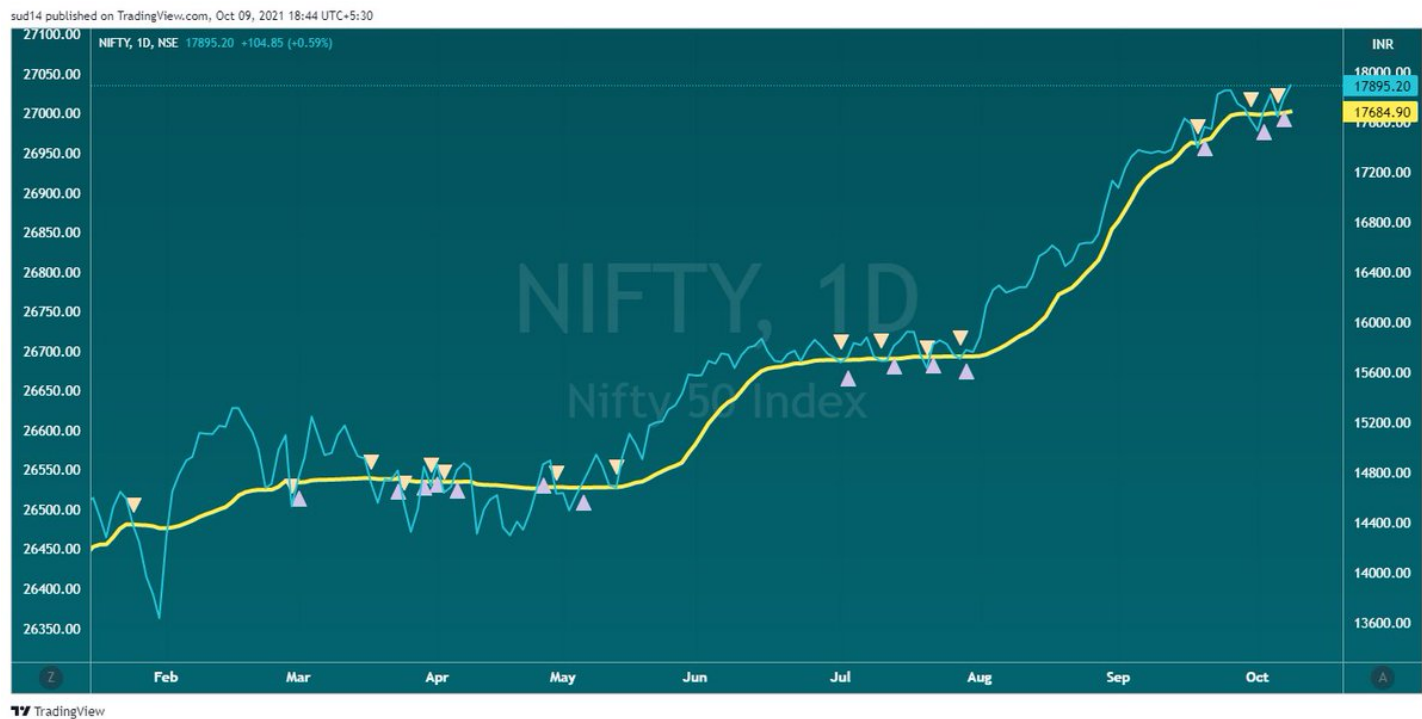
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Kaufmann Adaptive Moving Average (AMA)

This is by far the most useful MA that is designed for current markets.
Perry Kaufmann based it on his indicator (Efficiency Ratio) to detect ranging and trend markets.

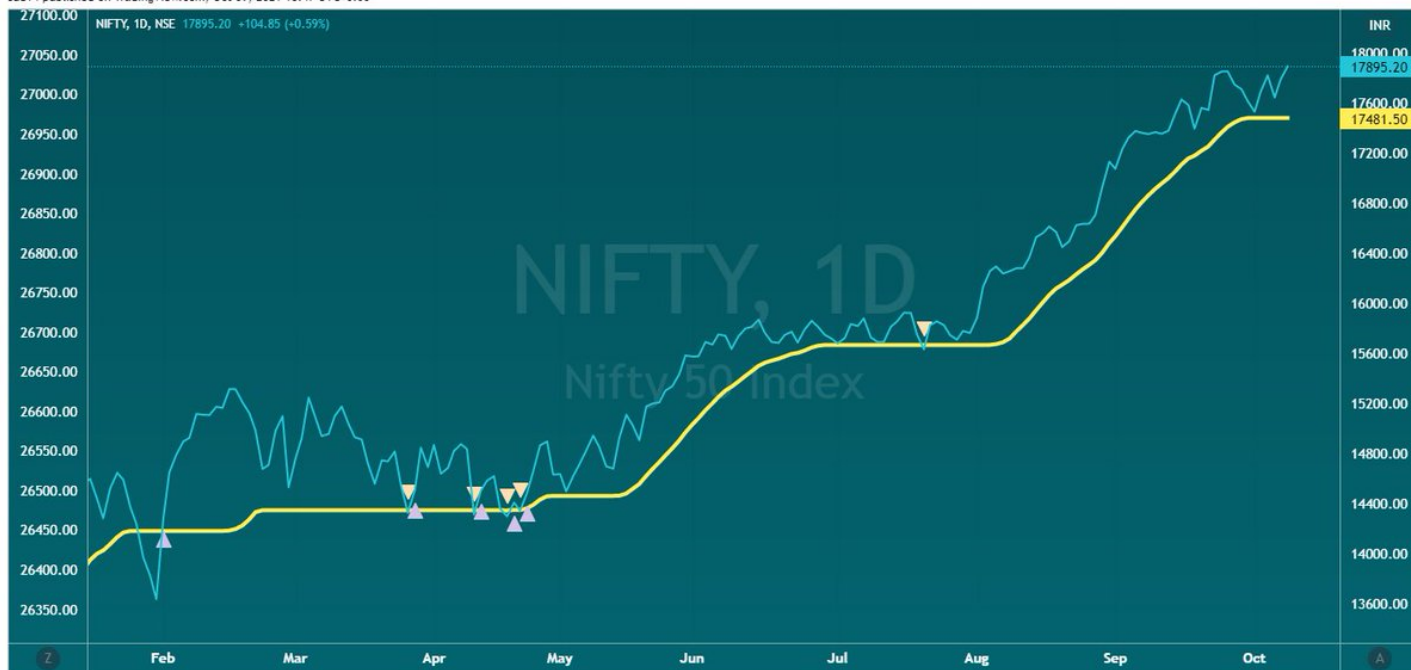The moving average goes flat in areas of ranging market.

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Variable Moving Average (VMA)

This is a MA with crystal clear representation for trending and ranging markets. The average almost goes flat in ranges.

Commonly used as baseline (trend bias)

(8/11)

KIJUN Sen

This MA is a component of the famous ICHIMOKU cloud system. It can also be used on its own as a baseline.

Its calculated by adding the highest high and the lowest low over the past 26 periods and dividing the result by 2

Kijun Sen offers good support areas

(9/11)

Least Square Moving Average (LSMA)

It calculates the least squares regression line for the older time periods, and the MA will continue moving in the direction of the trend even after trend change

Good for trading crossovers

(10/11)

How do these moving averages be used?

- As baseline (for bias)
- Feed smoothed price to indicators and reduce jitteriness
- Detect Ranging markets
- Extension of price for a MA (mean reversion)
- Dynamic Support and Resistance
- Trading crossovers

(11/11)