1 Introduction by Hanover – The programmer of the CSM

I don't fully understand money flows, but I am always looking to pair strongest vs weakest currencies on the D1/W1 TFs, as I suspect that currency strength in these longer TFs is linked strongly to macroeconomic factors. I have found that these moves generally last at least 3-4 days, and sometimes much longer, which gives a good directional bias for making intraday entries, and potentially high RR trades. I use a couple of strength meters, Recent Strength and CSM ("currency strength meter"), that I wrote myself exclusively for this purpose.

As you also point out, if AAABBB is trending up, and BBBCCC also, then AAA > BBB > CCC, which means that AAACCC will trend even more strongly, making it the logical choice for the strongest, cleanest move. This phenomenon must always be so, given that triangular equilibrium must be maintained.

The strength indicators allow me to look for currency correlations. Currently, EUR and CHF are extremely positively correlated. AUD and NZD are traditionally correlated (although events in China seem to have affected AUD over the last few months, diluting this correlation), while USD and JPY seem to move in and out of positive correlation. CAD is something of a wildcard; it occasionally sides with USD but generally floats 'somewhere in the middle'. A couple of years back, GBP and EUR were positively correlated, but this is no longer the case. Recently, GBP has been siding with USD and JPY, as very strong, while NZD (and to a lesser extent, EUR and CHF) have been weak. Recent long positions on GBPNZD have been extremely profitable. 😊

Understanding correlation is a great adjunct to any trend-following strategy. Trading strong vs weak simply tells the trader which pair to trade, and can therefore be used as an independent add-on to any strategy, without affecting the strategy itself, but further augmenting any edge that is provided by the strategy.

2 Overall theory

The overall theory is quite simple. Lets say you are an EURUSD trader. EURUSD is your daily bread and butter but you rarely watch to the left or right. You have some kind of strategy to define e.g. a breakout to either side. What you probaby have noticed is that most of the time EURUSD will not move by itself. Either a few of the major USD crosses like GBPUSD, USDCHF, AUDUSD, NZDUSD, USDCAD will join in or the minor EUR crosses like EURGBP, EURJPY, EURCHF, EURAUD, EURNZD, EURCAD will join or lead your trade.

What you also noticed is that some breakouts are smooth as butter and some are choppy as hell. Also some make an instant 50 pips while some struggle to make even 20.

Today was a good example of that. People trading only EURUSD were in rough waters. EURUSD broke to the upside but in a very choppy trade. The reason was quite simple. If you scanned through the other big majors you noticed that the big pips were actually made in USDJPY, GBPUSD and AUDUSD (in that order). Now if you took a look at the EUR minors you noticed that most or all of them were short. If you did the same for JPY, GBP, AUD minors you noticed that on every breakout of their majors they actually were long just like their major. The majors then produced a nice smooth big pip move - unlike the crappy, choppy EURUSD one. EURUSD was simply dragged along by USD selling. Not a good trade choice!

We are already at the first important point here. Each cross does not magically move by itself but represents a valuation of two sides (EURUSD -> EUR vs USD) against each other. Think of it like the scale of the lady of justice balancing the scales of truth and fairness. If the left side is light and the right side is heavy the scale will go down heavy to the right side. It will go down heavy to the left side the other way round. But there is also the case where both sides are equally heavy (or as you might have heard if both sides e.g. eur - usd are equally ugly sisters). Then the overall scale does not move or just chopps around.

Bottom line:

Trading a single cross might not be the most clever / profitable way of trading. There might be the same trade in another major around the corner with much more + more

#3 How the CSM Calculates Relative Strength

The original formula worked only on the D1 TF, and the currently forming candle. It checked where price currently was, in terms of the candle high and low, expressed as a percentage. For example, if price was currently at the high, the value returned was 100%; at the low, 0%; three quarters of the way up the candle, 75%; and so forth.

Then it converted this into a value between 0 and 9, thus:
Above 97%, value = 9
Between 90% and 97%, value = 8
Between 75% and 90%, value = 7
Between 60% and 75%, value = 6
Between 50% and 60%, value = 5
Between 40% and 50%, value = 4
Between 25% and 40%, value = 3
Between 10% and 25%, value = 2
Between 3% and 10%, value = 1
Less than 3%, value = 0

It processed all of the candles for each currency pair. Let's say the pair currently being processed is USDCHF, and price is currently 64% of the way up the candle. Then it would assign a value of 6 for USD, and **9 minus** 6 = 3 for CHF. Then it would repeat the same for all currency pairs (as specified in *CurrencyPairs*), average the results for each currency (not pair), and plot the values.

CSM extends this concept in three different ways:

1. You can specify *NumberOfCandles*. If set to 1, then this would work as

the Giraia indy did, i.e. operate on the currently forming candle. If set to 2, it includes both the currently forming candle, and also the one immediately to the left; and so on. It uses the highest and lowest points across the 2 candle interval as 100% and 0%, respectively. Hence the value reflects where price currently is, relative to the highest and lowest point of the last n candles, where n is the *NumberOfCandles* setting.

2. The above assumes that *ApplySmoothing* = false. Setting this to true means that the entire process will be repeated, over the last *NumberOfCandles* candles, and the result averaged. For example, suppose *NumberOfCandles* is set to 4. Then if *ApplySmoothing* = true, the entire calculation (as explained previously) is run for each of *NumberOfCandles* = 1, 2, 3 and 4, and the four results averaged. This effectively means that, if *ApplySmoothing* = true, there is a higher weighting applied to the most recent candles. If set to false, it is simply where price is, relative to the high and low of the last n candles.

3. Instead of being restricted to the D1 TF, separate plots may be generated depending on the user's choice of *TimeFrames*. Each TF is calculated completely independently of the others.