

## Cycles – How do they work?

*A powerful technique to identify trends*

Regular readers of my reports will probably recognize that I use cycle analysis when trying to work out which direction a currency pair will be moving and when this direction is likely to reverse.

So what do these look like and how do they work?

The following chart shows the cycles I have been using to identify the major cycle low in Dollar-Yen back in August, from which time I have been bullish over the rest of this year.



You can easily see how the blue, red and pink cycle lows all match a major price low and generally generate a significant rally. Having said that, this isn't true in one instance and that is at the blue cycle low in 2002. The reason is that both red and pink cycles were declining and out weighing the upward influence of the less powerful blue cycle.

Indeed, this is one of the features of cycles that can be used to judge the power of a move. Let's look at this a little closer.

Cycles should hold to four basic characteristics:

- Synchronization
- Harmonization
- Proportionality
- Summation

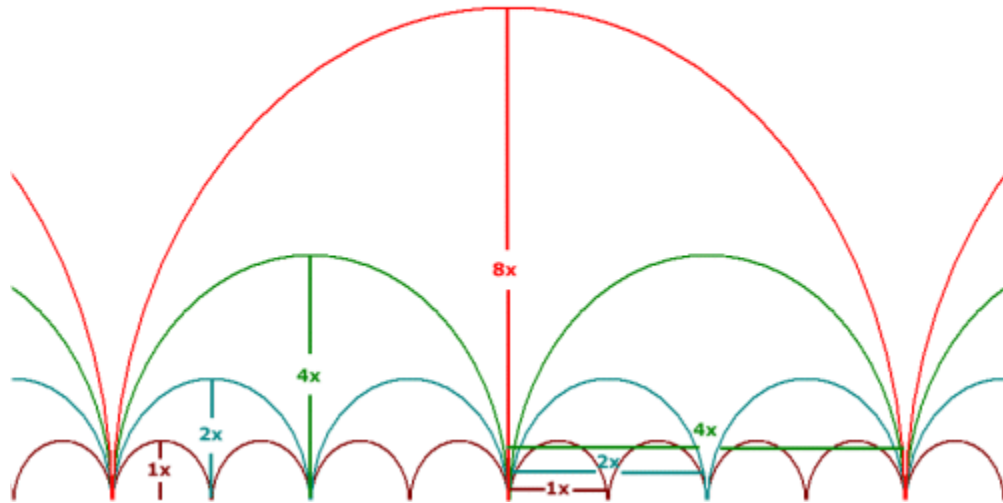
Synchronicity is the characteristic that dictates that all cycles should find lows as approximately the same time.

Harmonization is the characteristic that dictates that cycles tend to have a relationship of half the frequency of the next larger cycle.

Proportionality is the characteristic that dictates that the "force" or "power" of a cycle is double that of the next smaller cycle.

Summation is the characteristic that dictates that the net impact of the cycles can be determined by adding the individual power of each cycle at any particular time.

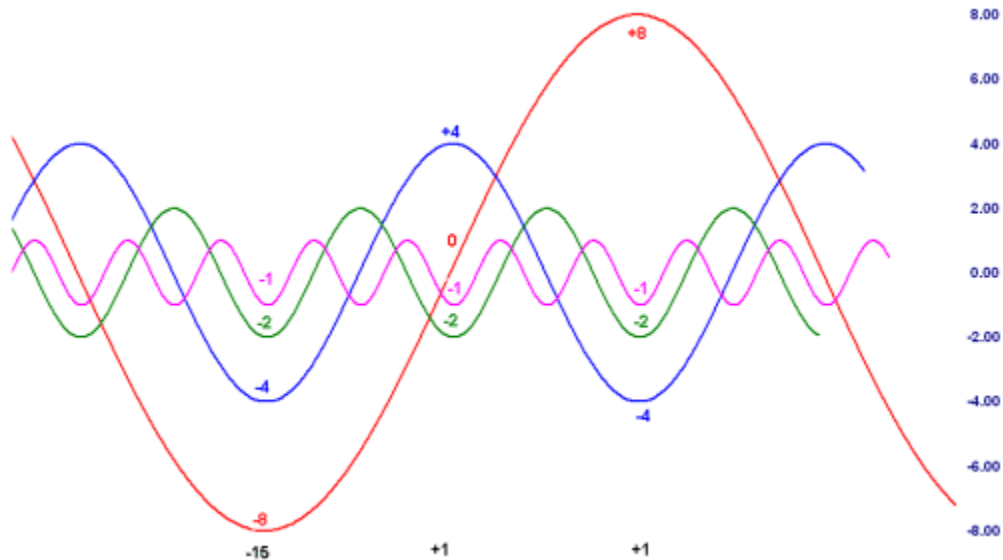
The following chart provides a graphical interpretation of synchronicity and proportionality:



Here it can be seen that two smaller cycles will fit into the next larger cycle and as such there will be a pattern of cycle lows where different cycles all find lows at the same time.

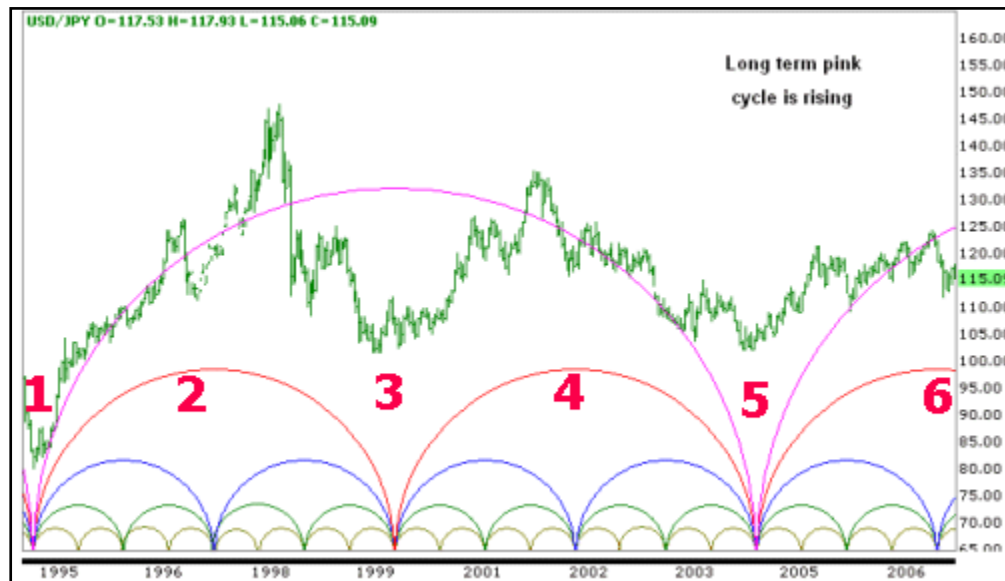
Also if the amplitude (height) of one cycle is 1x then the next larger cycle will have an amplitude of 2x, the next larger of 3x. If you can imagine that 1x is a measurement of force, then each larger cycle has a force of double that of the next smaller cycle. Thus by the fourth cycle (red) the force is 8x.

The following chart explains the theory of summation a little better:



At each point I have marked the value of each individual cycle – note how they increase by 2x for each larger cycle. By taking any point it is possible to discover the net impact of all the cycles. So generally, the larger the cycle, the stronger the force will be. As such, I don't normally look at any cycles shorter than daily since intraday cycles will be overwhelmed by the weekly and monthly cycles.

So now that we have seen a basic idea of how cyclic forces work, let's look at one chart to observe the reactions. We'll make this the weekly chart of Dollar-Yen that was shown above:



I have numbered the major weekly cycle lows where we have seen convergence of at least 3 cycles which basically means at each low of the blue cycle.

1. This is the 79.70 historic low in 1995 where all five cycles found a low – and probably also the next larger cycle. (Imagine a cycle drawn from this low which rises to find a peak at point 5 and is now declining.) The decline into the cycle low was exceptionally rapid – probably the most violent move I have seen in 25 years. On one day just before the eventual low it opened at 83.67, declined to 80.18 and closed back at 84.38. Much of this occurred in approximately one hour in the morning.

This highlights the extreme power of a group of long term cycles. In approximately 3 ½ months Dollar-Yen declined from 101 down to 79.70 and then rallied back up to 101 in around 5 months. This shows that the cycles were as aggressive in the recovery as they were in the decline.

2. The correction was both quite shallow and very brief which is a factor of the combined strength of the pink and red cycles together with the next (undrawn) cycle described in point 1. This shows how the larger cycles can overwhelm the shorter cycles.
3. Following the peak at 147.63 we saw a much deeper and stronger pullback into the red cycle low. Note that this occurs at the pink cycle high but the combined downward force of the 4 smaller cycles were sufficient to pull price lower in a forceful way. We should realize at this point that since the pink cycle is still high and we are also seeing the 4 smaller cycles rise again that we should see a strong move higher. This occurred with the eventual peak occurring just before the peak of the red cycle.
4. From that peak the decline makes it lower but since the pink cycle is still quite high and the red cycle is at a peak, the decline didn't fall too far. However, with the effect of a declining

pink cycle and now a declining red cycle, the recovery from point 4 failed to make much impact.

5. Since we began to get a reversal lower without much of a recovery from point 4 and the red and pink cycles began to decline we could anticipate a sustained move lower. Here is an interesting point. By the time all 5 cycles make a low at the same time, price fails to move below the low at point 3. Why is that? Well, it would be because the next larger cycle (above the pink cycle) would then be at a cycle high so is pulling price higher and preventing a larger decline. As you should now be able to work out, the reversal higher of 5 cycles generates a strong and sustained rally that finally peaked at 124.13 earlier this year. This is interesting since the peak was seen so close to the end of the blue cycle which demonstrates the upward force of the red and pink cycles along with what is now a declining, but still high, next larger cycle.
  
6. In August we saw a cycle low of the three smaller cycles. We have a high red cycle, a rising pink cycle but a declining larger cycle. Note how the price low in August was significantly above the low at point 5 which shows the upward force of the longer cycles. By my reckoning it should provide upward strength for the coming year at least. If you consider that the pink cycle is rising and at a similar level (and therefore force) as point 4, but is seeing a declining (but still high) larger cycle we should see strength that should overcome the 124.13 high over the coming year. Whether it can make it to the 135.14 corrective high is debatable and probably unlikely but somewhere in between is a distinct possibility. However, beyond that the red cycle will decline into the end of 2009 which should see a strong decline in that year.

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