

FX VOLATILITY AND RANGE

By Daryl Guppy

The construction of candlestick charts lies at the core of the ANTSSYS suite of trading solutions. Originally developed for equity and commodity markets, the candlestick takes 4 price points in a defined period. Originally developed in Japan, they are just one part of a Japanese solution to capturing price activity in markets. Recording the open, high, low and close in a defined price period is easy. Deciding which price movements are important and which are insignificant is a different challenge all together. The Japanese came up with several solutions in Kagi, 3 line break and Renko charting. In the West, these solutions appeared as point and figure charting. I cut my trading teeth with point and figure because it provided a unique solution to the paucity of price information I had at the time when I was trading in the Australian outback with only one newspaper a week for reference. Now the same concept is applied to the FX market not because of the dearth of news, but because of the flood of news.

NY 14.00 -14.01
Asia 22.00-22.01
UK 18.00-18.01



**1 minute FX candle chart
same in all time zones**

In previous articles we looked at the problems with the construction of candlestick charts in a 24 hour market. One solution was to use only intraday charts. Our preference is a one minute chart, but this has its own problems. At times the one minute chart is too noisy, capturing all sorts of unimportant trading. At other times it is useless as it does nothing for extended periods in slow trading.

We need something that more accurately reflects the activity of the market and the price activity of the market. The chart display can act as a filter to remove the unimportant price movements in the same way as a kagi, 3 line break or renko chart. It's not a verisimilitude of traded price but a record of price activity. We still

use the basic components of the candle chart, but incorporate different features of price activity. To understand why we do this we need to start at the beginning of the problem so readers can have confidence that the solution provides an appropriate answer.

The FX market is a commercial market with a background of everyday transactions that rarely develop into trends. At a basic level, its Mr and Mrs Jones buying travellers cheques, or Corporation FDG settling trade invoices. Not really exciting stuff.



This chart display is a 2 minute FX chart. Over a period of 6 hours it trades between 1.595 and 1.596. That's up there with watching paint dry. Then the market is hit by a news event that plunges the market from 1.596 to 1.592.

What we want to do is extract the significant price action from the insignificant or unimportant price action. The Count back Line method was designed to do this for the task of identifying trend changes and setting stop loss and trigger entry points. We want to apply this to an entire chart display so we can eliminate the background noise and focus just on the high probability points where price activity offers better opportunity. 24 hours trading doesn't mean 24 hour activity.

VOLATILITY

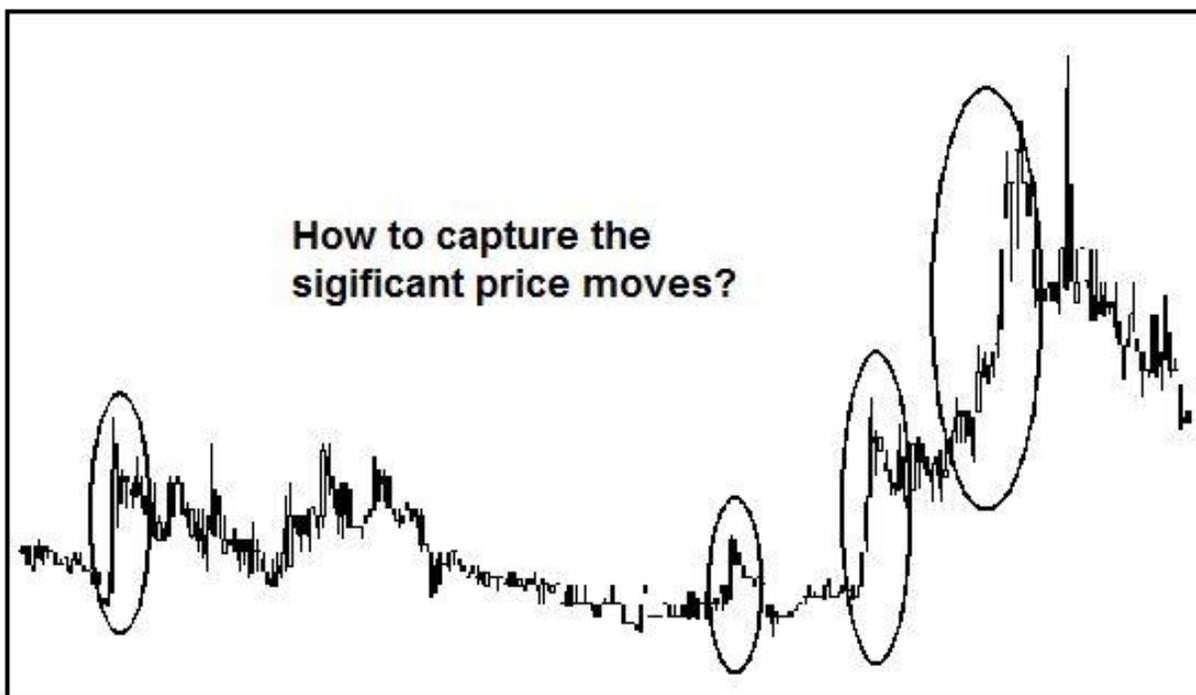
Many people believe we need volatility to trade the FX market and they look for volatility. Volatility is an inaccurate measure because it doesn't define trading behaviour. The chart shows an example of volatility. Potentially it's a great move, but it's very difficult to trade. You require a good dash for luck to trade this fast rise. This is a blip, not a trend. It's difficult to estimate how far it may go, or how it will behave. Trading this type of activity becomes a speculative gamble and this is something traders want to avoid.



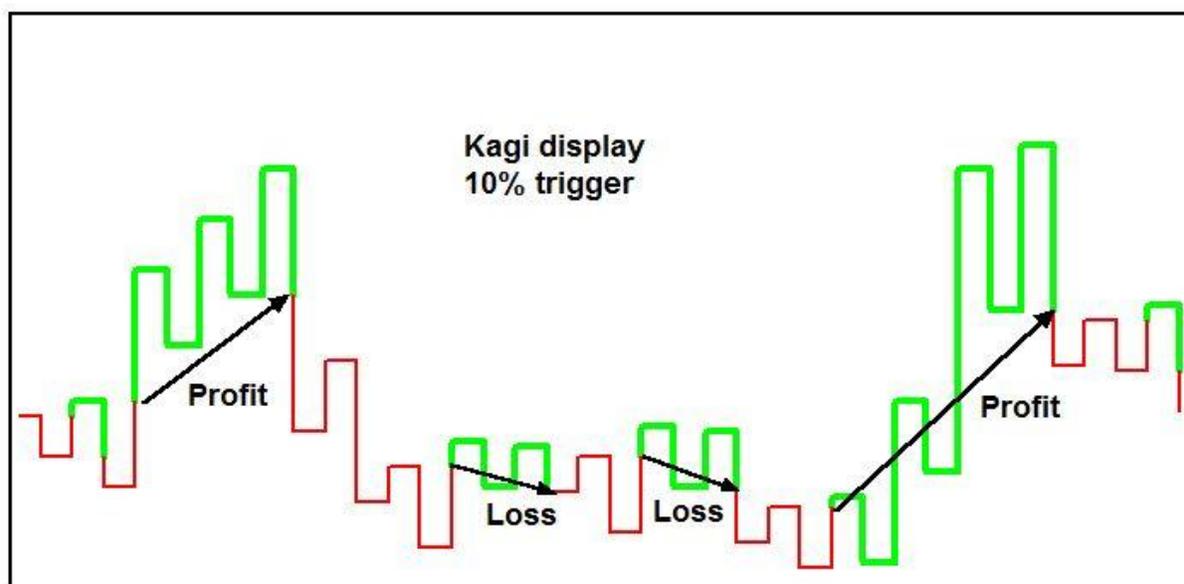
High volatility doesn't mean good trading. There is an increased risk of unexpected price move in any direction. There is increased gapping activity. This gives lower predictability and makes trading more difficult. We need to look beyond volatility to capture the more consistent behaviour of price.

RANGE AS A FILTER

We start with a standard time based chart.

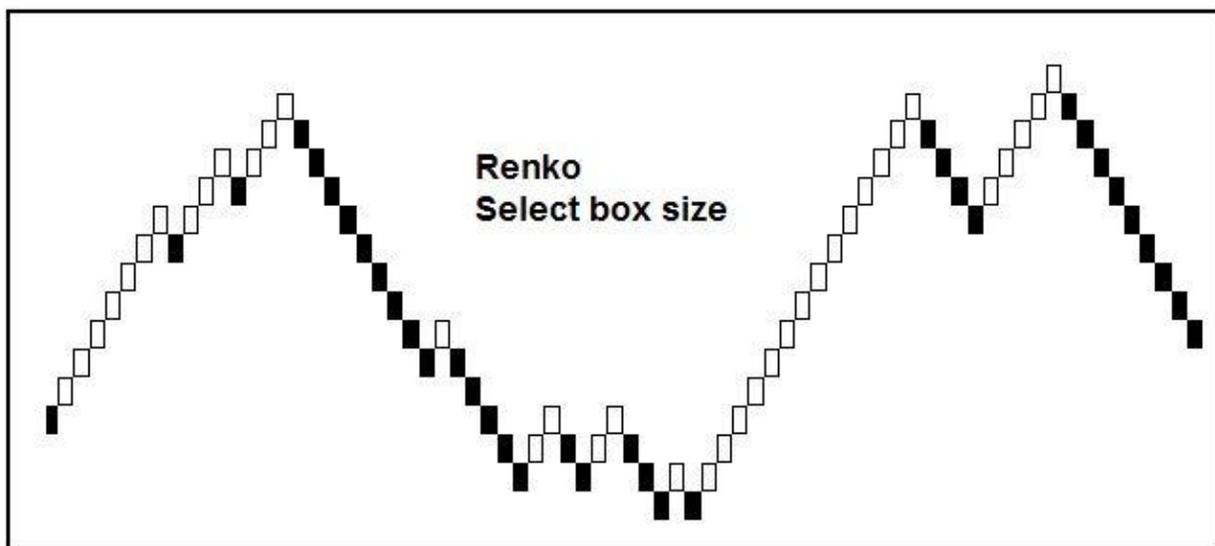


This is the same chart as a Kagi display below. Kagi charts use a series of vertical lines to illustrate general levels of supply and demand. Thick lines are drawn when the price of the underlying asset breaks above the previous high price and is interpreted as an increase in demand for the asset. Thin lines are used to represent increased supply when the price falls below the previous low. Charts are not time based.

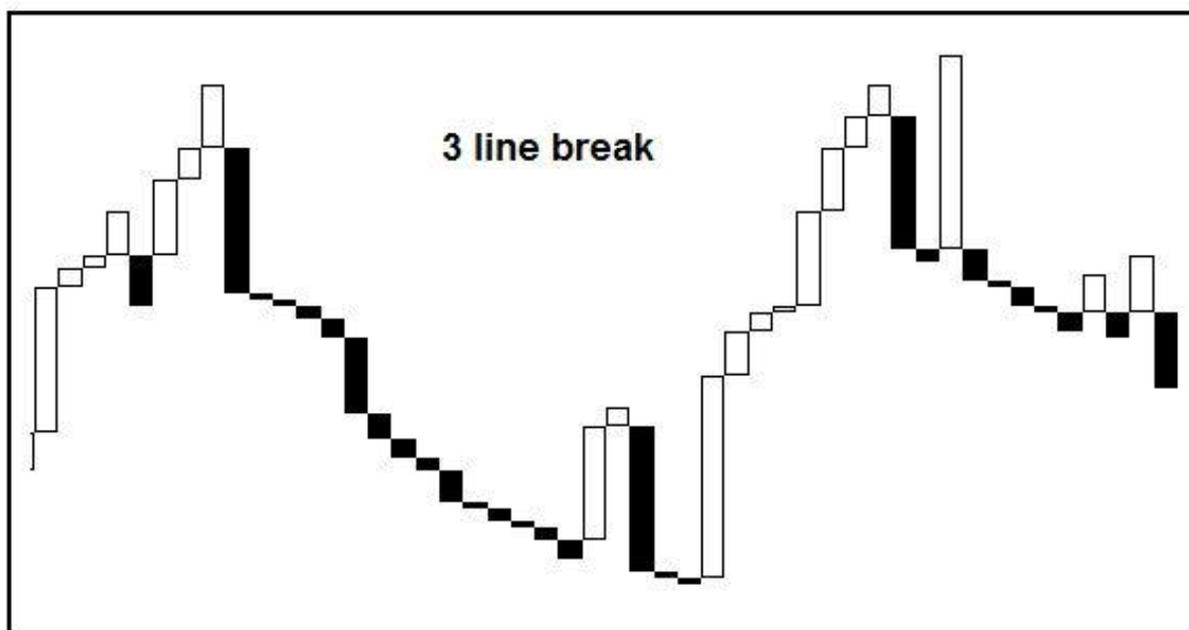


Here's the same chart as a Renko display. This chart is only concerned with price movement; time and volume are not included. A Renko chart is constructed by placing a brick in the next column once the price surpasses the top or bottom of

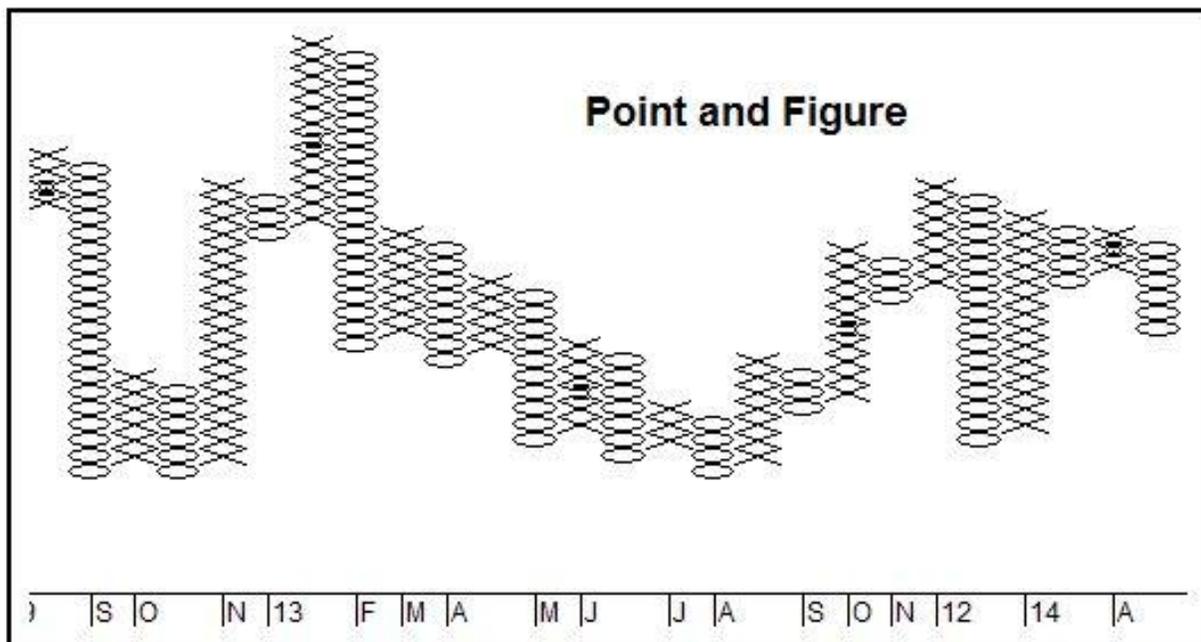
the previous brick by a predefined amount. Trading signals are generated when the direction of the trend changes and the bricks alternate colours.



Now the chart as a three line break chart. Three Line Break charts ignore time and only change when prices move a certain amount. Three Line Break charts show a series of vertical white and black lines. Prices continue in the same direction until a reversal is warranted. A reversal occurs when the closing price exceeds the high or low of the prior two lines.



Finally here's the chart as a point and figure chart. A chart that plots day-to-day price movements without taking into consideration the passage of time. This type of chart is used to filter out non-significant price movements, and enables the trader to determine critical support and resistance levels.



All of these chart display solutions are designed to remove the time element and concentrate on the significant price activity and use this as the trigger for entry and exit conditions. They provide a partial solution to the problem of working with FX charts. These charts focus on points of change. We want to focus on the range of price.

The key is price range activity and we look at how this is developed and applied in the next article.